1905. 

# EDUCATION: <br> ANNUAL EXAMINATIONS. 

[In continuation of E.-1A, 1904.]

Presented to both Houses of the General Assembly by Command of His Excellency.

## The Inspecrion-General of Schools to the Hon. the Minister of Education.

Sir, -
Education Department, Wellington, 31st August, 1905.
I have the honour to report upon the annual examinations for teachers' certificates, for Junior National Scholarships, for junior and senior free places in secondary and technical schools, and for admission to or promotion in the Civil Service. The examinations were held between the 13 th and the 22 nd days of December, 1904, and between the 5th and the 14 th days of January, 1905, at the thirteen towns which are the seats of Education Boards, and also at Kaikohe, Whangarei, Thames, Hamilton, Tauranga, Stratford, Palmerston North, Pahiatua, Otaki, Masterton, Gisborne, Westport, Ashburton, Oamaru, Lawrence, Tapanui, Naseby, Riverton, and the Chatham Islands.

The total number of candidates that entered was 2,473 , of whom 184 were absent from examination. The numbers that actually sat for the several examinations were as follows: For the Junior National Scholarship and Junior Free Place Examination, 691; for the Civil Service Junior Examination, 820 ; for the Civil Service Senior Examination, 127; for certificate examinations, 627. The number, 127, given for the Senior Examination includes 13 who are also included in the number, 820, given for the Junior Examination, and 1 who is also included in the number, 627, given for the certificate examinations.

The Junior National Scholarship Examination was used by the Wellington and Hawke's Bay Education Boards for awarding their junior scholarships, and by Victoria College for awarding the Queen's Scholarships. In December, 1905, most of the Education Boards of the colony will award their junior scholarships on the results of this examination.

The Civil Service Junior Examination was used as the examination for senior free places in secondary schools and for senior technical scholarships, and also by the Taranaki and Marlborough Education Boards for the examination of pupil-teachers. Under the recently gazetted regulations for pupil-teachers the Civil Service Junior Examination is the first of the public or general examinations to be passed by all pupil-teachers in the colony. This provision will come into force in nearly all the education districts this year (1905), and in all the districts without exception next year. It has also been adopted by nearly all the Education Boards as the test for their senior scholarships.

The expenses of the examinations amounted to $£ 2,2314 \mathrm{~s} .7 \mathrm{~d}$., and the fees paid by candidates to $£ 1,3357 \mathrm{~s}$. Printing and clerical work are not included in the account of expenses. The results $1-\mathrm{E} .1_{\mathrm{A}}$.
of the Junior National Scholarship Examination were made known on the 18th January, those of the Civil Service Junior Exaraination on the 26th January, those of the Civil Service Senior Examination on the 1st February, and those of the teachers' examinations on the 24th February.

The total number of candidates that sat for the Junior National Scholarship and Junior Free Place Examination was 691, of whom 354 passed the examination. The numbers of candidates that passed in the several education districts were as follows: Auckland, 102; Taranaki, 10 ; Wanganui, 9 ; Wellington, 108; Hawke's Bay, 28; Marlborough, 8; Nelson, 12; Grey, 4 ; Westland, 3; North Canterbury, 27; South Canterbury, 2; Otago, 27; Southland, 14. The highest percentages of marks gained in the several papers were as follows: English, 92; arithmetic, 100; geography, 89; general paper, 90 ; drawing, 98 . The highest percentage gained by any one candidate on the whole examination was 91 .

Of the 820 candidates for the Civil Service Junior Examination, 573 were seeking appointment in the public service, and 241 passed the examination, 193 of them with credit. There were 247 candidates for senior free places only, of whom 125 passed the examination. These results may be considered satisfactory in view of the fact that the examination was primarily intended as a test for the admission of candidates to the Civil Service, and that the papers set were accordingly, in range and difficulty, somewbat beyond many of those who had spent only two years at a secondary school. It has been decided to make the questions in future such as shall be within the reach of boys or girls of fair ability who have had two years' secondary instruction; and it is hoped that this plan will not be found inconsistent with the other purpose of the examinationthat of the selection of suitable persons for the public service.

Of the 127 Civil Service senior candidates 65 came up to complete examinations in which they had already been partially successful. In all 29 passed the whole examination, and there were 82 whose work in certain subjects of the examination was accepted by the Department.

The numbers of candidates that entered for different stages of the teachers" certificate examinations, with their status at the time of entry, are shown in the subjoined table.

| Examinations previously passed. |  |  |  |  |  |  |  |  | ¢ ¢ H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nil | $\ldots$ |  | $\ldots$ | 107 | 34 | $\ldots$ | $\ldots$ | $\ldots$ | 141 |
| Matriculation ... | ... | 2 | ... | 122 |  | $\ldots$ |  |  | 124 |
| Partial pass for Class E ... |  | 1 | $\ldots$ | 48 |  | ... | 93 | $\ldots$ | 145 |
| Class E ... | ... | 2 |  | 32 | 2 |  | ... | $\ldots$ | 36 |
| Partial Pass for Class D ... | $\ldots$ | 4 | $\ldots$ | ... | ... | 130 | $\ldots$ |  | 134 |
| Class D ... |  | 34 |  |  | $\ldots$ | ... | $\ldots$ | 1 | 35 |
| Higher examinations ... | ... | 4 | 2 | 6 | $\ldots$ | $\ldots$ | $\ldots$ | ... | 12 |
| Total ... | $\cdots$ | 47 | 2 | 315 | 39 | 130 | 93 | 1 | 627 |

Of the whole number of 627 candidates 208 have passed-15 for Class C, 139 for Class D, and 54 for Class E ; 193 have obtained partial pass- 9 for Class C (including 1 that also passed for Class D), and 184 for Class D (including 19 that also passed for Class E); there are 22 whose work in separate subjects of the Class C examination has been accepted by the Department; one certificated teacher has passed in all six branches of drawing, and 223 candidates, besides 88 absentees, have failed to improve their status.

Appended to this report are lists of the examiners and of the successful and partially successful candidates, and a set of the examination papers.

I have, \&c.,
G. Hogben,

Inspector-General of Schools.

## LIST OF EXAMINERS.

Bakewell, Frederic H., M.A., Inspector of Schools
Benham, William B., M.A., D.Sc., Professor in the University of Otago
Blunt, Thomas G. R., M.A., Professor in Canterbury College
Brown, John, M.A., Professor in Victoria College
Browne, Montague H., Inspector of Technical Schools
Chilton, Charles, M.A., D.Sc., Professor in Canterbury College
Corfe, Charles C., M.A.
Easterfield, Thomas H., M.A., Professor in Victoria College
Evans, Rev. William A.
Gellatly, Alexander
Gilray, Thomas, M.A., Professor in the University of Otago
Gray, William, M.A., B.Sc., Inspector of Schools
Herdman-Smith, Robert (Wellington Technical School)
Hyde, Frank
Lawrell, Miss Maud E., M.A.
Levi, Phineas, M.A.
Lorimer, Miss Margaret, M.A.

McArthur, Alexander, M.A., LL.D.
Maclaurin, Richard C., M.A., LL.M., Professor in Victoria College
Marchant, Miss Maria E. A., M.A.
Marshall, Patrick, M.A., D.Sc., Professor in the University of Otago
Merton, Alfred J.
Merton, Mrs. Gertrude H.
Milne, James, M.A., Inspector of Schools
Mulgan, Edward K., M.A., Inspector of Schools
Norris, Edwin T., M.A.
Payton, E. W. (Elam School of Art)
Pope, James H. (formerly Inspector of Schools)
Richmond, Maurice W., B.Sc., LL.B., Lecturer in Victoria College
Segar, Hugh W., M.A., Professor in Auckland University College
Smith, S. Percy (formerly Surveyor-General)
Strong, Theophilus B., M.A., B.Sc., Inspector of Schools
Wall, Arnold, M.A., Professor in Canterbury College
Wilson, Kenneth, M.A.
Wood, Laurence B. (formerly Inspector of Schools).

## EXAMINATION LISTS

EXAMINATION FOR JUNIOR NATIONAL SUHOLARSHIPS AND FOR FREE PLACES IN SECONDARY SCHOOLS.

Names of the Candidates that passed the Examination, arranged in Order of Merit.

| Name of Candidate | School. | Education District. | Mks. | Name of Candidate. | School. | Education District. | Mks. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Robinson, A. H. | Te Aro | W | 682 | 48. Lawry, K. S. | Mount Cook. | Wellington | 528 |
| 2. Marsball, J. A. P. | Matawhero | Hawke's Bay | 629 | 49. Pilling, Jessie C. | Miller's Flat. . | Otago | 527 |
| 3. Watson, G. G. G. | Te Aro | Wellington. | 600 | 50. Fyfe, Laura H. | Kakanui | Otago | 526 |
| 4. Ward, Richard F. | Grafton Road | Auckland | 599 | Perry, Albert | Newtown | Wellington | 526 |
| 5. Hopkirk, S. M... | Dannevirke S. | Hawke's Bay | 598 | 52. Bell, Garnet | Belfast Main | N. Canterbury | 525 |
| 6. Mackenzie, J. M. | Grafton Road | Auckland | 595 | West, Edward S | Wellesley Strt. | Auckland .. | 525 |
| Marsack, C. C. | Grafton Road | Auckland | 595 | 54. Whyte, A. D. S. | Havelock N. | Hawke's Bay | 523 |
| 8. McFarlane, E. A. | Tapanui | Otago | 594 | 55. Jones, Major H. R. | Ashburton | N. Canterbury | 522 |
| 9. Webber, A. J. | Dannevirke S. | Hawke's Bay | 591 | 56. Smith, Arthur | S. Wellington | Wellington .. | 521 |
| 10. Bryan, A. G. T. | Westport | Nelson | 585 | 57. Foster, L. D. | Mitcheltown.. | Wellington | 520 |
| 11. Castle, Arthur P. | Petone | Wellington | 584 | Gilling, W, O. R. | Little River | N. Canterbury | 520 |
| Duff, H. M. .. | Petone | Wellington | 584 | Groves, T. G | Invercargill S. | Southland | 520 |
| Nicholls, Marjory | Terrace | Wellington .. | 584 | Norris, Nellie | Newtown | Weilington | 520 |
| 14. Hendry, Colin A. | Ashburton | N. Canterbury | 583 | Norton, Alice A. | Pahiatua | Wellington .. | 520 |
| 15. Hall, V. J. B. .. | Napier | Hawke's Bay | 575 | 62. Mills, Mary M... | Temuka | S. Canterbury | 517 |
| 16. Harding, Hilda B. | Newtown | Wellington | 571 | 63. Tolley, Henry J. | Terrace | Wellington | 516 |
| 17. Parkinson, A. | Terrace | Wellington | 570 | 64. Oalvert, Daisy | Mount Cook | Wellington | 513 |
| Wise, Harold | Terrace | Wellington | 570 | Macmorran, B. | Terrace | Wellington | 513 |
| 19. Cross, Ernest R. | Newtown | Wellington | 569 | 66. Casey, Ellen C. | Napier | Hawke's Bay | 512 |
| 20. Colquhoun, E. A. | Mount Cook. | Wellington | 566 | Pemberton, Leila | Ashhurst | Wanganui | 512 |
| Hueston, D. L... | Clyde Quay . . | Wellington | 566 | E. I. |  |  |  |
| 22. Kerr, Kate | Mount Cook. . | Wellington | 564 | 68. Nichols, R. E. | Mount Cook. | Wellington | 11 |
| 23. Airey, F. A. | Remuera | Auckland | 560 | 69. Smith, Cecil M. | Kaik | Otago | 510 |
| 24. Fogelberg, H. E. | Mount Cook | Wellington | 55 | 70. Hutchens, F. .- | Haw | Wanganai | 509 |
| Jones, W. M. | Papakura . | Auckland | 559 | Knox, R. V. A... | Newton E. | Auckland | 509 |
| 26. Grace, Alfred F. | Boys' Central | Nelson | 557 | 72. Biss, Hugh R. | Clyde Quay | Wellington | 507 |
| 27. Jory, Philip J. | Richmond | Nelson | 556 | Hardie, Herbert | Petone | Wellington | 507 |
| 28. Reyling, K. R. | Mount Cook. | Wellington | 555 | McKenzie, F. A. | Mangatainoka | Wellington | 507 |
| 29. Mason, Spence | Terrace | Wellington | 554 | 75. Crawshaw, R. G. | Ponsonby | Auckiand | 506 |
| 30. McBeath, Gordon | Caversham | Otago | 552 | 76. Gulliver, T. R. V. | Beresford St. | Auckland | 504 |
| McCormick, K. | Parnell | Auckland | 552 | Horrell, E. D. H. | Eyreton W. | N. Canterbury | 504 |
| 32. Gibson, C. E. M. | Woodville | Hawke's Bay | 549 | Redpath, George | Raukaroa | Hawke's Bay | 504 |
| 33. Paulsen, N. M.. | Dannevirke S. | Hawke's Bay | 548 | 79. Flux, Gwen .- | S. Wellington | Wellington | 503 |
| Waters, Eric | Karori | Wellington | 54 | Fordham, C. V. | Clyde Quay | Wellington | 503 |
| 35. Palmer, R. J. | Richmond Rd. | Auckland | 544 | King, Geoffrey .. | Reefton | Grey | 503 |
| 36. O'Connor, I. M. | Richmond | N. Canterbury | 542 | Moore, Rose | Blenheim | Marlborough | 503 |
| Scott, Lindsay M. | Kaikorai | Otago | 542 | 83. Haigh, Frank G. | Kaikorai | Otago | 502 |
| 38. Alloo, Arthur W. | Albany Street | Otago | 541 | Leggat, D. R. | Waihopai | Southland | 502 |
| 39. Moore, A. M. H. | Mangere | Auckland | 537 | 85. Walter, John T. | Kakanui | Otago | 500 |
| 40. Rosser, Ivy G. .. | Newton W. | Auckland | 53 | 86. Preston, A. M. | St. Albans | N. Canterbury | 498 |
| 41. Whitehead, Y. M. | Kaikorai | Otago | 533 | Waugh, W. N. . | Waihi | Auckland | 498 |
| 42. Greatbatch, E. P. | Pe | Wellington | 532 | 88. McLean, Gilbert | Albany Street | Otago | 497 |
| Hare, Ada E. H. | Newton W. | Auckland | 532 | Marshall, S. E. J. | Matawhero | Hawke's Bay | 497 |
| Taylor, D. A. | Waverley | Wanganui | 532 | 90. Jackson, A. T. . | Newmarket . | Auckland | 496 |
| 45. Binnie, Nisbet B. | Mount Cook | Wellington | 530 | 91. Penman, M. E. | Wellesley St. | Auckla | 494 |
| Tuohy, Norah | Dannevirke 8 . | Hawke's Bay | 530 | 92. Adamson, F. F. | Orepuki | Southland | 493 |
| 47. McKenzie, Nellie | Waihopai | Southland | 529 | Bingham, W. N. | Dannevirke S. | Hawke's Bay | 493 |

Examination for Junior National Scholarships and for Free Places in Secondary Schoolscontinued.

| Name of Candidate. | School. | Educat Distri | Mks. | Name of Candidat | School. | Education District. | Mks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Glen, George | Wellingt | Wellington | 493 | 177. Hale, George | er | 's Bay | 448 |
| Jones, Ernest G. | Papakura | Auckland | 493 |  | Waiokaraka | kland | 448 |
| 96. Arnott, Nellie | Petane | Hawke's Bay | 492 | Powell, Mabel | Ota | Wellington | 48 |
| Congreve, O. A | Lumsden | Southland | 492 | 180. Tate, A. R. W | Greptown | Wellington | 447 |
| Rotherham H. | Mount Eden | A | 492 | 181. Coldham, G. | Onehunga | Auckland | 6 |
| Culliford, A. F | Napier | Hawke's Bay | 488 | Harston, | Newton E. | Auckland | 446 |
| 100. Pigott, Bessie | Petone | Wellington . | 487 | Johnston, J. G | Kahuika | Otago | 446 |
| 101. Astley, G. C. A. | Avondale | Auckland | 486 | Tattle, W. L. | Clyde Qu | Wellington | 446 |
| Smith, Eva | Mount Cook | Wellington | 486 | 185. Langmuir, D. | New Plymouth | Taranaki | 445 |
| 103. Bilkey, E. E. | Buckland | Auckland | 485 | 186. Gamble, Jack | Petone | Wellington | 4 |
| Heward, G. H. | Kamo | Aucklan | 485 | Gambrill, R | Thorndon | Wellington | 44 |
| Sexton, A. C. A. | Newton W | Auckland | 485 | Merrington, A. R. | Hamilton | Aucklard | 444 |
| 106. Edwards, K. N. | Napier | Hawke's Bay | 484 | 189. Reed, Rupert W. | Palmerston N. | Wanganui | 443 |
| 107. Pointon, M. C. . | Normal | N. Canterbury | 483 | Thompson, W. P. | Havelock N. | Hawke's Bay | 443 |
| Webb, Alice H | Mount Cool | Wellington . | 483 | Woodcock, T. F. | Mount Cook | Wellington .. | 443 |
| . Burgess, W. I | Clyde Quay | Wellington | 82 |  |  |  |  |
| McCaul, Walter | Pihama | Taranaki | 482 | 192. Archibal | Hel | Auckland | 441 |
| Mockett, John J. | Amberley | N. Canterbury | 482 | Foster, | Mitch | Wellington | 41 |
| 112. Carlyle, William | Roseneath | Wellington | 481 | Hogg, John B | Gisborne | Hawke's Bay | 1 |
| Lawry, R. A. R. | W. Christchurch | N. Canterbury | 481 | 195. Blight, W. T. | Te Aroha Khandallah | Auckland Wellington | 440 |
| Smith, Lily F | Waihopai .. | Southland .. | 481 | Westerman, V.L. | W. Christ- | N. Canterbury | 440 |
| 115. Martin, Alice | Wainui | Hawke's Bay | 480 |  | church |  |  |
| 116. Smith, Grace M | Naseby | Otago | 479 | 198. Daines, Susan | Tauranga | d | 439 |
| 117. Dobbs, Elsie M | Gloucester St. | N. Canterbury | 478 | 199. Barriball, G. E. | Waitangi | Auckland | 438 |
| Evans, Elwyn | Clyde Quay | Wellington | 478 | Bishop, W. | Newton W. | Auckland | 8 |
| Lockhead, J. R. O. | Feilding | Wanganui | 478 | 201. Daniels, O. G | Onehunga | Auckland | 436 |
| Stewart, James B. | Kaikorai | Otago | 478 | Grant, Colin | Parkvale | Wellington | 6 |
| Taylor, R. B. | Clyde Quay | Wellington | 478 | Simpson, I. R | Blenheim | Marlborough | 436 |
| 122. Chapman, I. | Richmond Rd. | Auckland | 477 | 204. Dewhirst, E. .. | Stratford | Tapanaki | 435 |
| Day, Dorothy B | Grafton Road | Auckland | 477 | Main, Alexander | Whangarei | Auckland | 435 |
| Harrison, S. B. | W. Christ. ohurch | N. Canterbur | 477 | Lawson, Ruby M. | Brooklyn | Wellington | 434 |
| 25. Marshal | Waltham | N. Canterbury | 476 | Voss, Ronald J. | Taitapu |  | , |
| 126. Liardet, L. M. | Stratford | Taranaki .- | 5 | 209. Thomson, Alister | Petone | Wellington .. | 432 |
| McKay, Eisie G. | Ongaonga | Hawke's Bay | 475 | 210. Edmunds, W. G. | Ponsonby | Auckland | 431 |
| 128. Gordon, C. S. | Dalefield | Wellington | 474 | Griffiths, W. M. J. | Waitohi | Marlborough | 431 |
| Jull, Doris | Napier | Hawke's Bay | 474 | Hale, Norman C. | Remuera | Auckland | 431 |
| Stack, John D. .. | Wellesley | Auckland | 474 | 213. Brockett, A. | Mount Cook | Wellington . | 430 |
| 1. Colhoun, Mary A. Findlay, E. A. . | Ohaupo Westpor | Auckland Nelson | 473 <br> 473 | Gallaugher | Ponsonby | Auckland | 430 |
| Findlay, E. A. Rooney, T. W. | Wes | Nelso Grey | 3 | Small, Ohar | Alfredton | Wellington | 430 |
| 134. Brown, | Macandrew Rd. | Otago | 471 | 217. Campbell, J. R. S. | Parnell | Auckland | 429 |
| Wardrop, Muriel | Mount Cook | Wellington | 471 | McRae, Jobn M. | Hampstead | N. Canterbury | 429 |
| 136. Ewing, G. E. E. | Mount Cook | Wellington | 470 | 219. MoPherson, N. | Mount Cook | Wellington .. | 428 |
| 137. Crook, Harold L. | Newton W | Auckland | 469 | Orr, James | Martinborough | Wellington | 428 |
| Hind, Florence | S. Wellington | Wellington | 469 | 221. Littlejohn, E.S. | Tokomairiro. | Otago | 427 |
| Menzies, A. B. | Parnell | Auckland | 469 | Thawley, Ernest | Mount Cook. | Wellington | 427 |
| 140. Barkle, Roy C . | Little Akaloa | N. Canterbury | 467 | Wilson, Mary E. | Hokitika | Westland | 427 |
| Coombe, F. C | Waihi | Auckland .. | 467 | 4. Cooke, G. M. .- | Richmond | Nelson | 426 |
| Stainton, W. | Paikakariki | Wellington | 67 | 225. Butler, Robert J. | Orepuki | Southland | 425 |
| 143. Young, Geo | S. Wellington | Wellington | 466 | 226. Bertrand, G. F. | Urenui | Taranaki | 424 |
| 144. D'Audney, W. E | Ponsonby . . | Auckland | 465 | 227. Caldicutt, E. W. | Onehunga | Auckland | 423 |
| McKinnon, M. J. W. | Whangarei | Auckland | 465 | Mann, Heathcote | W. Christ. church | N. Canterbury | 423 |
| 6. Agnew, William |  | Southland | 464 | 兂 | Onehunga | uckland | 423 |
| Potter, John F. | Avondale | Auckland | 464 | 230. Boyle, Elsie B. | Newton E. | Auckland | 422 |
| 48. Cogar, Oharles L. | Gisborne | Hawke's Bay | 463 | Murray, H. L. | Rakaunui | Wellington | 422 |
| 149. Tully, Walter W. | Greytown | Wellington. | 462 | Phipps, D. D. | Onehunga | Auckland | 422 |
| 150. Barker, Arthur R. | Blenheim | Marlborough | 461 | Short, Aubrey .. | Terrace | Wellington | 422 |
| 151. Atkinson, Annie | Terrace | Wellington | 460 | 234. Atkinson, Percy | S. Wellington | Wellington | 421 |
| Campbell, F. $\quad$ M | Tuamarina | Marlborough | 460 | Bentley, W. P. | Brooklyn | Wellington | 421 |
| McCormiok, A. M. | Woodville | Hawke's Bay | 460 | Best, Kate R. T. | Otaki | Wellington | 421 |
| 154. Grant, Ian P. | Stratford | Taranaki | 459 | Gower, Frances | Newtown | Wellington | 421 |
| 156. Tolley, Jessie . . | Terrave | Wellington | 459 | Pearce, Myrtle.. | Kaiapoi | N. Canterbury | 421 |
| 156. Booth, Dorothy.. 157. Caradus, William | Parkvale ${ }^{\text {a }}$ | Wellington | 458 | 239. Bundy, Edna R. | Hampstead | N. Canterbury | 420 |
| 157. Caradus, William | Beresford St. | Auckland | 457 | Johnsion, G. .. | Petone | Wellington .. | 420 |
| Dement, U. I. G. Nilson, James G. | Mount Cook. . | Wellington | 457 | Le Pine, H. A... | Beresford St. | Auckland | 420 |
| Nilson, James G. Ballinger, A. W. | Richmond Rd. | Auckland | 457 | Longhurst, G. E. | Makara | Wellington | 420 |
| Ballinger, A. W. Blair, R, E. G.. | New Plymouth | Taranaki | 55 |  |  |  |  |
| Dairlyn, R. E. | Mount Cook | Wellington Southland | 454 | 243. Bennington, F. T. | Greymouth .. | Grey . | 419 |
| Eliott, Sarah J. | Lovell's Flat | Otago | 454 | 245. Bassett, C. R. G | Napier | Hawke's Bay | 419 |
| Hanger, William | St. Bathan's. | Otago | 54 | 245. Bassett, C. R | Grafton Rosd | Auckland | 418 |
| Hoare, George H. | Waltham | N. Canterbury | 454 | Small, H. E. A. | Toi Toi Valley | Nelson | 418 |
| Palmer, W. R. P. | Stratford | Taranaki | 454 | 248. Abernethy, R. C. | Springston .. | N. Canterbury | 417 |
| Turner, Lance | Terrace | Wellington | 454 | Printzen, Doris | Petone | Wellington .. | 417 |
| 168. Gradison, A. T... | Parnell | Auckland | 453 | 250. Hammond, B. L. | Boys' Central | Nelson | 416 |
| 169. Dickinson, E. M. Eves, John | Ponsonby .. | Auckland | 451 | Kennedy, Mary | Greytown | Wellington | 416 |
| Eves, John West, Annie M. | S. Wellington | Wellington | 451 | Rogers, Mary M. | Clyde | Otago | 416 |
| West, Annie M. 172. McDonald, S. G. | Ormondvilie.. | Hawke's Bay | 451 | 253. Elliott, W. A. . | Colao Bay | Southland | 415 |
| 172. McDonald, S. G. | Arthur Street | Otago | 5 | 254. Griffin, John L. | Boys' Central | Nelson | 14 |
| McElwain, M. Read, C. P. | Ponsonby | Auckland | 450 | Watt, E. M. .. | Bayfield | Auckland | 414 |
| 175. $\begin{aligned} & \text { Read, C. P. } \\ & \text { McDonald, E. M. } \\ & \text { M. }\end{aligned}$ | Te Aro | Wellington | 450 | Wright, E. . . | S. Wellington | Wellington .. | 414 |
| 175. McDonald, E. M. Marshall, W. L. | Tapanui | Otago | 449 | 257. Asher, John A. . | Napier | Hawke's Bay | 413 |
| Marshall, W. L. | Hurunui | Auckland | 449 | Baxter, W. | Ohaupo | Auckland . | 413 |

Examination for Junior National Scholarships and for Free Places in Secondary Schoolscontinued.

| Name of Candidate. | School. | Education District. | Mks. | Name of Candidate. | School. | Education District. | Mks. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Watkinson, P. .. | Mangere | Auckland | 413 | Williams, A. 工. | Remuera | Auckland | 395 |
| 260. Eilis, Vida | Kilbirnie | Wellington | 412 | 310. Andrews, R. O. | Newton E. | Auckland | 94 |
| 261. Ballantyne, J. M. | Ponsonby | Auckland | 411 | Dormor, H.I. A. | Newton E. | Auckland | 393 |
| Binstead, Elsie | Avondale | Auckland | 411 | Turner, T. Y. | Normal | Otago | 393 |
| McKinney, G. H. | Warkworth | Auckland | 411 | 313. Courtenay, T. M. | Kauotumu | Auckland | 392 |
| 264. Forsette, W. E. | Olyde Quay | Wellington | 410 | Jennings, N. W. | Motueka | Nelson | 392 |
| Mills, Alice | Hawera | Wanganui | 410 | Malcolm, Ralph | Naseby | Otago | 392 |
| Ross, Noel | Terrace | Welliogton | 410 | Stokes, Winifred | Thorndon | Wellington | 392 |
| Webb, Irene | Thorndon | Wellington | 410 | 317. Sandel, Elsa | Toi Toi Valley | Nelson | 391 |
| 268. Macindoe, G. | Invercargill S. | Southland | 409 | Stewart, S. E. .- | Avondale | Auckland | 391 |
| Raikes, Olive | Motuekr. . | Nelson | 409 | 318. Rice, Alfred .. | Gisborne | Hawke's Bay | 390 |
| 270. Chatwin, Cecely | Te Aro | Wellington | 408 | 319. Davis, Rose E. | Eskvale | N. Canterbury | 388 |
| Mushet, M. E... | Epsom | Auckland | 408 | Jermyn, A. J. .. | Richmond | Marlborough | 388 |
| Ponder, Irene M. | Normal | N. Canterbury | 408 |  | Brook |  |  |
| Snell, Edward D. | Morrinsville | Auckland | 408 | 321. Miller, Ronald | Bideford | Wellington | 387 |
| Waiker, Ruby M. | Avondale | Auckland | 408 | Weilton, W. | Greymouth | Grey | 387 |
| Yeats, Douglas | Hutt | Wellington | 408 | 323. May, Leslie | Waimate | Auckisnd | 386 |
| 276. Macdougall, W. P. | George Street | Otago | 407 | Priest, M. | Inglewood | Taranaki | 386 |
| 277. Feast, Lily . . | Clareville | Wellingto | 406 | 325. Disher, C. | Te Aro | Wellington | 385 |
| Johnson, S. G. | Mahau | Marlborough | 406 | Kelk, William W. | Kurow | Otago | 385 |
| 279. Esam, S. O. | Newmarket | Auckland | 405 | Stewart, Ethel.. | Ellerslie | Auckland | 385 |
| Moore, Robert J | Wellesley St. | Auckland | 405 | 328. Eyre, Isabella | Avondale | Auckla | 383 |
| 281. Bodkyn, E. E. | Clyde | Otago | 404 | Van Staveren, H. | Terrace | Wellington | 383 |
| Bourke, Mary | Hamua | Wellington | 404 | 330. Dalrym ole, E. | Featherston | Wellington | 382 |
| 283. Bonthron, D. | Pahia | Southland | 403 | Edge, Doris J. | Timara | S. Canterbury | 382 |
| Gill, Arthur | Newtown | Wellington | 403 | Innes, A. J. 工. . . | Henderson | Auckland | 382 |
| 5. Hanson, | Mount Eden | Auckland | 402 | Sands, Maud E. | Winton | Southland | 382 |
| McDiarmid, R.S. | Woolston | N. Canterbury | 402 | 334. Crampton, G. J. | Domett | N. Canterbury | 381 |
| 287. Brown, C. P. M. | Richmond Rd. | Auckland .. | 401 | Newell, C. R. .. | Ponsonby | Auckland .. | 381 |
| James, H, G. R. | Feilding | Wanganui | 401 | Newman, W. Is. | Wellesley St. | Auckland | 381 |
| Milligan, R. G. | Remuera | Auckland | 401 | Savage, Eva E. | Cambridge E. | Auckland | 381 |
| Spiro, Miriam | Greytown | Wellington | 401 | 338. McMillan, G. H. | Devonport .. | Auckland | 380 |
| 291. Dryden, Orlando | Karori | Wellington | 400 | Taylor, E. R. | Wellesley St. | Auckland | 380 |
| Mills, Graham A. | Thorndon | Wellingto | 400 | 340. Hinman, A. C. | Beresford St. | Auckland | 379 |
| North, Esma | Terrace | Wellingto | 400 | Nash, M. D. | Nelson St. | Auckland | 379 |
| Peet, Gladys A. | Mount Roskill | Auckland | 400 | 342. Maciay, J. R. .. | Invercargill S. | Southland | 377 |
| 295. Bird, William T. | Waitahi | Marlborough | 399 | Middlemas, N. A. | Wellesley St. | AuckIand | 377 |
| Tunbridge, P. A. | New Plymouth | Taranaki | 9 | 344. Munros, W. .. | Parnell | Auckland | 376 |
| Ward, R. R. . | Clyde Quay .. | Wellington | 399 | 345. Bourke, Eileen.. | Hamua | Wellington | 375 |
| 298. Besant, Laura | Mount Cook.. | Wellington | 398 | Lynch, John H. | Ngaruawahia | Auckland | 375 |
| Dobbs, J. H. L. | Chapel Street | Auckland | 398 | O'Donnell, E. M. | Maheno | Otago | 375 |
| Lynch, Robert I. | Westport | Nelson | 398 | C. |  |  |  |
| 301. Brockett, P. | Mount Cook | Wellington | 397 | Smith, W. F. .. | Parawai | Auckland | 375 |
| Day, Lorna E. G. | Hokitika | Westland | 397 | 349. Aitebison, C. J. | Featherston | Wellington | 374 |
| Harty, Ulrioh $K$. | Devonport | Auckland | 397 | Briggs, C. R. .. | Epsom | Auckland | 374 |
| Sinclair, B. M... | Kumara | Westland | 397 | Harrison, M. G. | Mount Eden | Auckland | 374 |
| 305. Le Petit, N. T. V. | Northcote | Auckland | 396 | Monaghan, C . | Karori . . | Wellington | 374 |
| Milroy, I. W. L. | Toi Toi Valley | Nelson - | 396 | Simpson, John. | Nelson Street | Auckland | 374 |
| 308. Neal, William C. | Marrekakaho | Hawke's Bay | $396$ | 354. Jacobsen, C. N. | Beresford St. | Auckland | 373 |
| 308. Mellish, W. G. L. | Palmerston N. | Wanganui | 395 |  |  |  |  |

CIVIL SERVICE JUNIOR EXAMINATION.
Names of the Candidates that passed the Examination, arranged in Order of Merit

E. -1 .

Civil Service Junior Examination-continued.


## SENIOR FREE PLACES IN SECONDARY SCHOOLS.

Names of the Candidates that passed the Examination, arranged in Alphabetical Order, by

Whangarei-
Easton, Mathew George.
Palmer, Thomas Grice.
Thames-
Addison, Alfred.
New Plymouth-
Avery, Frederick Sidney.
Bullard, John Noden.
Skinner, Dorothy Lillian Kate.
Smith, Harry McKenzie.
Stoddart, John Henry Nichol.
Stöhr, Leonard.
Palmerston North-
Billens, Emmie.
Chapman, Agnes Annie.
Fairbrother, Vera Muriel.
Napier-
Casey, Ellen Christine.
Dyett, Henry Lewis Percy.
George, Alice Ma,ud
Goddard, Douglas.
Hall, Ethel Margaret Baird.
Harker, Cyril Geoffrey Edmund.
King, Guy Nelson.
Love, Willie albert Hedley.
Macdonald, Charles.
Blenheim-
Barnett, John Burley.
Brydon, Margaret Isabell.
Grace, Monica Geraldine.
Horton, Decima Constance
Mogridge, Sidney James.
O'Sullivan, Agnes Elvira.
Simson, Irene Ruapehu.
Thompson, Fleetwood Bernard.
Nelson-
Akers, Karl Caro.
Allan, Edward Florian.
Bamford, Eric Ellerslie.
Bamford, Vera Isoline Overton.
Bartlett, Constance.
Cowles, Quinice Bainbridge.
Dayman, Frank Scott.
Fathers, Harold Thomas Malcolm.
Haldane, Janet Minnie.
Hammond, Kenneth Leslie.
Hill, Mabel Helen.
Hurst, Arthur Bendigo.
Ingram, Charles Gordon.
Jennings, Natalie Lardner.
Jordan, Hedley Vicars.
Kempthorne, Frederic Maurice.
Kempthorne, Hilda Anne.
Neale, Edgar Rollo.
Neve, Julius.
Palmer, Constance Minnie.
Papps, Arthur James.
Peart, Alfred Cuthbert.
Pettit, Thomas Harold.
Richards, Gertrude Amelia.
Savage, Willie Howard.
Smith, George Talbot O'Hara.
Sowerby, William.
Thomson, Ernest Harold
Vercoe, Norman Arthur.
Veysey, Roy.
Wilkingon, John Arthur.
Rangiora-
Anderson, Edward John.
Arnott, Lilian Florence.

Borthwick, Phoebe Fullerton.
Butters, William
Casserley, Thomas
Horrell, Constance Rayner.
Robinson, Robert Pursey.
Sullivan, Samuel Henry.
Turner, Lillian.
Ashburton-
White, George Harold.
Williams, Arthur Stanley:
Timaru-
Malthus, Cecil.
Dunedin-
Allnutt, Gladys Eliza.
Angell, John.
Arnold, Alice.
Bagley, Agnes Reta.
Barkman, Neil Bruce.
Barth, Irene.
Bayley, Stella Ione.
Bennett, Mariel Joyce.
Carrick, Hilda Marie.
Clayton, Helen Creta Eunice.
Clyde, Helen Diana.
Dawson, John Tewsley.
Evans, Catherine Anne.
Hancock, John.
Hastings, Angela.
Hercus, Eric Oswald.
Hey, Joseph Albert.
Johnston, William Bruce.
Lomas, Margaret Ethel Letitia.
Luke, Bertha Alice.
Macdonald, Margaret.
Maitland, Alfred William Jamos.
Marshall, James Ayson.
Mazengarb, Oswald Chettle.
Miller, James Alexander.
Passmore, John.
Paterson, Stanley Gordon.
Reid, Percy Gower.
Robertson, John Hector.
Robertson, Walter Sneddon.
Rose, William David.
Ryan, Horace Laurence.
Ryan, Ruby Louisa.
Slater, William Turner.
Spedding, Arthur Vivian.
Terry, Elizabeth Summerfield.
Trearn, Amy Evelyn.
Turner, Beatrice Emily.
Turner, James Macdougall.
Ussher, Andrew Vincent.
White, Ernest William.
White, Percy Henry.
Whyte, Frank Mitchell.
Invercargill-
Cochrane, George Douglas
Cowie, Norman Andrew McLeod.
Frayne, Leonora Jane.
Gedney, Mary Jane.
Jones, Alfred William.
McCartney, Leslie.
McKeliar, Beatrice Lily.
Mair, Hugh Lindsay Hamilton.
Morris, Cecil Grahame.
Spite, Arthur Bolton.
Waymouth, Nora Blanche.
Wylie, Thomas Wilson.

## CIVIL SERVICE SENIOR EXAMINATION.

Passed the Civil Service Senior Examination.

| Name of Candidate. |  |
| :---: | :---: |
| Alderton, George Edwin Lisle | . |
| Armit, Edward Napier . | $\cdots$ |
| Arthur, Henry .. | $\cdots$ |
| Barter, Henry .. |  |
| Bretherton, Arthur Charles | . |
| Casey, Eugene | . |
| Colquhoun, Percival Cantis | - |
| Craig, John Alexander .. | . |
| Cumming, Roy William | . |
| Dawson, Walter Irving. | . |
| Furby, Frederick Westland | . |
| Good, Edwin Dudley .. | . |
| Govan, Horace Osbourne | . |
| Griffin, Isabella Rachel. . | . |
| Hansard, George Albert | . |
| Hay, John Alexander, M.A. | . |
| Hore, Arnold | . |
| Hudson, Wellesley Burgoyne | . |
| Johnstone, Ivy Maitland | . |
| Morgan, Henry .. | . |
| Olsen, Robert Alexander |  |
| Phillips, Daniel Paul |  |
| Porteous, Robert McConnell |  |
| Rae, Robina . . . ${ }^{\text {a }}$ |  |
| Richardson, Oswald Maurice | ildford |
| Rutherford, David .. | .. |
| Sisam, Kenneth .. | $\cdots$ |
| Warren, Jessie Esther . . | . |
| White, Charles Botham | . |

## Passed in Five Subjects.

Beck, John
Churohes, Thomas Ambrose
Clapham, Frederic Hampden
Clouston, John Peter Porteous
Dale, James Murray
Finlay, George Panton . .
Forrester, James Henry
Grant, Clara Donaldson
Greenwood, Duncan Matheson
Hogben, George McLachlan
Leopard, John Henry
Macky, Kathleen
Macmorran, Robert Glen
Morris, Guy Norman
Rundle, James Edward
Schramm, Frederick William
Sharp, Henry Hay
Smith, George Grant
Tudhope, James McCurdy
Vickery, Thomas Webb..
Wildman, Susanna
Wilkie, Walter James

Examination
Centre.
Auckland.
. Wellington.

- Wellington.
. Auckland.
Wellington.
Auckland.
Wellington.
- Auckland.
. Auckland.
. Wellington.
Wellington.
Auckland.
- Christchuroh.
- Ohristchurch.

Dunedin.
. Wellington.
Wellington.
. Dunedin.
. Wellington.
New Plymouth.
Dunedin.
.. Greymouth.
. Wellington.
. Christchurch.
Wellington.
Wellington
Auckland.
New Plymouth.
Christchurch.

Wellington.
Wellington.
Wanganui.
Wellington.
Wellington.
Thames.
. Invercargill.
Auckland.
Auckland.

- Wellington.
.. Wellington.
.. Auckland.
. Wellington.
$\because$ Wellington.
. Napier.
. Hokitika.
. Invercargill.
. Wellington.
. Wellington.
. Wellington.
.. Auckland.
Wellington.

Name of Candidate
Downard, Ebenezer Thomas Owen
Fawcett, Robert Edwin
Fisher, William Harold. .
Henry, James ..
King, Walter Samuel
McGibbon, Roy Gregor .
McGregor, Ernest
McLeod, John Duncan ..
Parton, David Edwin
Paterson, Charles
Porteous, James McConnell
Rutherford, John Porteous
Seddon, Herbert Robert
White, Charles Hunter .

Examination
Centre.
Wellington.
Auckland.
Auckland.
Auckland.
Invercargill.
Wellington.
Wellington.
Gisborne.
Timaru.
Timaru.
Dunedin.
Wellington.
Wellington.
Wanganui.

Passed in Three Subjects.
Brooke, Charles Stevens
Brosnan, James Dean .. .. .. Wellington.
Burdekin, Cyril Blake .. .. .. Wellington.
Craig, William J.
Dunn, William Porter
Dunedin.
Edwards, Henry Dorrington
Dunedin.
Egglestone, William Morley
Greymouth.
Gray, Robert James
Wellington.
Gray, Robert James .. .. .. Christohurch.
Holden, Claude
Christohur
Hunter, Scott .
Auckland.
Lucas, Ella Gertrude
Blenheim.
McClune, James Robert
Macey, Leslie Lancelot..
McKinnon, John Alexander Millar, Frank Winfird ..

New

Smith, George Corser ... .. .. .. Wellington.
Taylor, Charles Edward
Thoinpson, Hugh Montgomery
Turner, Henry ..
... Walmerston.
. .. .. New Plymouth.
Williarnson, Ellen Eyre .. .. Dunedin
Passed in Two Subjects.

| Acheson, Frank Oswald Victor |  |  | Wanganui. |
| :---: | :---: | :---: | :---: |
| Bertinshaw, George James |  |  | Wellington. |
| Chapman, John Henry .. |  |  | Westport. |
| Chesterman, Herbert |  |  | Wellington. |
| Ching, Albert James | . |  | Westport. |
| Duncan, Agnes |  |  | Wellington. |
| Eastick, Gordon Ambrose |  |  | Napier. |
| Folley, Alfred Dodridge.. |  |  | Hokitika. |
| Fraser, George Victor Ross |  |  | Auckland. |
| Gapper, Gordon Saywell |  |  | Wellington. |
| Gray, William Moody |  |  | Wellington. |
| Hutton, Frank Graham |  |  | Auckland. |
| Jordan, James Garfield . . |  |  | Wellington. |
| Patrick, Ebenezer Brown | . |  | Inveraargill. |
| Pound, Thomas | . |  | Auckland. |
| Smyth, Kenneth Hugh . . | . . | $\cdots$ | Wellington. |
| Sunley, Robert Maxwell | . |  | Wellington |
| Sutherland, John Leslie |  |  | Auckland. |
| Thompson, Harold Tanton |  |  | Westport. |
| Vincent, Thomas Gaius.. |  |  | Wanganui. |
| Young, John Cawte |  |  | Gisborne. |

Young, John Cawte
Gisborne.

Boyes, John Henry
Brocket, Charles Edmund
Cooper, Eleanor Catherine
Davis, Geoffrey Harold.

## Passed in Foor Subjects.

Auckland.
.. Wanganui.
Wellington.
Blenheim.

## TEACHERS' EXAMINATION.

## I.-Passed for Class C.

Byers, Evaline Hannah Forrester
Clark, Sidney Alfred
Dunedin.
Christchurch.
Dunedin.
Hansard, George Albert
Hunt, Margaret Louisa
Macalister, May
McGregor, Isabella (ii.).
McKenzie, Helen
Murdoch, James Macqueen
Ramson, Frederick Stanley
Roberts, Florence Grace
Sim, Jane Cathcart
Sinclair, Ellen Evangeline
Walker, Clarice Agnes Redpath
Williams, Henry
Wooller, Joseph

Timaru.
Palmerston N.
Dunedin.
Dunedin.
Palmerston N.
Auckland.
Wellington.
Dunedin.
Auckland.
Dunedin.
Hokitika.
Auckland.

Passed for Class D.
Anderson, Helen Maud.
Bain, Andrew
Baker, Minnie Florence
Ball, Alice Annie

Napier.
Dunedin.
Christchurch.
Invercargill.

Balneaves, Kate
Binstead, Henry
Bissell, Edward, junior. .
Black, Elsie Violet
Blake, Bertie Newman Thornton
Blow, Harold Isbister ..
Botting, Helena Frances Jane
Brockett, Frederick Charles
Brownlee, Marian Kathleen
Burton, Percy Robert
Callam, Mabel
Cardwell, Jane
Cartwright, James
Castle, John George Thomas
Chapman, Jessie Moore
Clapperton, Catherine .
Coleman, Frances
Compton, Kate Hilda
Crawford, Hugh Wentworth
Crosby, Edward
Cullen, Arthur Richard
Curteis, William Arthur
Dalziel, Catherine Annie

Invercargill.
Auckland
Napier.
Auckland.
Wellington.
Auckland.
Auckland.
Wellington.
Napier.
Auckland.
Wellington.
Christchurch.
Napier.
Wellington.
Palmerston N.
Dunedin.
Christchurch.
Wellington.
Whangarei.
Auckland.
Napier.
Wanganui.
Christchurch.

## Teachers' Examination-continued.

Davidson, May
Dowding, Frederick Bailey
Drakley, May Elizabeth
Fairbairn, Williamina Sangster
Ferguson, Mary Isabella
Firth, Clara Jane
Fits, Arthur Benjamin
Forrester, Francis Edward Leonard
Gabites, Herbert Fletcher
Gamble, Frank William
Garland, Frank William
Garrett, Frances Jane .
Gawn, Elizabeth Clarke
Gibbs, Betsy Hedevig Agatha
Grant, Mary Alexandra
Gray, Catherine
Greenwood, Ethel
Griffin, Ethel Charlotte
Haigh, Edith
Hall, Laura Louise
Hamilton, Lucy
Harvey, Roderick MacGregor
Haydon, Thomas Bernard
Healey, Ernest James .
Heath, Andrew Walter.
Men, Elvira Isabella
Hook, Alfred Charles
Hook, Percy John
Hope, Annie
Harrell, Helen Adrienne
Hurren, Mary Pomona .
Hursthouse, Kate
Jannings, Frederick Charles
Jones, Frances Isabel
Jones, Griffith Rogers .
Jones, William Henry (ii.)
Judkins, William Edwin
Kean, Euphemia Ruby
Lassen, Mary .
Leech, Joshua Smith .
Lewis, Ruth
Liddle, Christina Watson
Lindsay, Catherine
Lindsay, Jane
Lindsay, Janet
Lowe, Constance May .
McAdam, Charles Campbell
McDonald, Elizabeth Jane Middleton
MacGibbon, Eve Isabella
MacGregor, Mabel Septima
Macindoe, Janet Grierson
Mackay, Leslie Donald
McKenzie, Ida Maude
McLeod, Catherine Elizabeth
McNeill, Elizabeth Loudon
Marriott, William George
Marryatt, Ernest
Martin, Frederick William
Maunder, Francis Bell
Meiklejohn, Lemuel Sydney Arnott
Melhop, Frank George .
Menzies, Jeannie
Metherell, Florence Rose Sophia
Meyenberg, Arthur Maurice
Moorland, Thomas Arthur
Mousley, Annie Enid
Mullins, Francis James.
Murdoch, Albert
Nelson, Albert
Norris, Bertha Decima.
Olsen, Othenius Rudolf
Paterson, Jessie Ramsay Ansell . .
Peace, Elsie Minter
Peebles, Madeline Gempton
Plank, Louis John
Prats, Lilian Nevil Clemison
Pole, Leonard Ernest
Power, Edward Arthur
Rauzi, Alice Cecilia Frances
Reay, Margaret Lucas . .
Reese, Marion (ii.)
Ritchie, Elizabeth Miller
Robertson, Isabella Mary
Rockell, Dulcia Martina
Rogers, Cornelius John
Rugsted, Lavrine Dorthea
Russell, Magdalen Laura
Salmons, Mary
2-E. IA.

Christchurch
Auckland.
Dunedin.
Invercargill.
Wanganui.
Christchurch.
Palmerston N .
Dunedin.
Palmerston N.
Wellington.
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Palmerston N
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Wellington.
Auckland.
Auckland.
Whangarei.
Palmerston N.
Invercargill.
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Timaru.
Christchurch
Hokitika
Nelson.
Palmerston N .
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New Plymouth.
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Christchurch.
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Auckland.
Napier.
Napier.
Christchurch
Timaru.
Napier.
Wanganui
Auckland.
Christchurch.
Auckland.
Invercargill.

Scott, Charles Edward
Simmons, Ethel Jane
Auckland.
.. Wanganui
Skelton, Alfred Hall
Slocombe, Mary Annie . .
Small, Gilbert Johnstone
Smart, Alice Rebecca ..
Smith, Gertrude Caroline
Smith, Louise
Sparrow, Agatha
Squire, Donald Stanley Byron
Stewart, Lily
Stewart, Mary Alexander
Sutton, Howard Harry
Sutton, James
Tomlinson, Annie Pourie
Walker, Hilda Mabel
Webster, Arthur
Williams, Florence
Wilson, James Reid
Wilson, Violet Maud
Wootten, Jessie Constance
Wright, Emily Harriot Ann
Wright, Jane . .
Passed for Class E.

Anderson, Roy
Armit, Katherine Napier
Barnhill, Margaret Lucy
Bayliss, Louisa Ethel . .
Best, Thornton Richard
Bicheno, Eva
Bins, Hannah Jane
Benin, Fannie
Bullians, Andrew
Mussel, Lilian Elizabeth
Cliffe, Albert Stephen
Comerford, Florence Louise
Combe, Jessie Williamina
Cussen, Kathleen
Elgar, Edward Fitzgerald
Edwards, Dorothy Louisa
Edwards, Ernest
Eyes, Itta Lucinda
Finch, Thomas
Gain, Annie Mary
Hardy, Helena Harriet
Hodgkinson, Jessie Louisa
Hogg, Ellen Catherine .
Huggins, Rosin Minnie
Ions, Olive Evelyn
Jacobsen, Ethel Grace
Just, Leone Marine Bertha
Keir, Jessie Ann
Kidson, George Rudal ..
Lambert, Alice Gertrude Annie
Lammas, Louisa
Lynch, Margaret Kate . .
McEwen, Malcolm Roger
McLean, Mabel
Matthews, Adalena Rita
Merlet, Isabella Annie ..
Moore, Rupert Cyril
Mousley, Edward Opotiki
Muir, Margaret Murdoch
Nicholls, Dora
Percy, Florence Marion Sina
Powell, Ada Marian
Sinclair, Jeanne Spiers ..
Snowball, Laura Ellen . .
Sound, Carrie Audley ..
Stanton, Alice Jane
Stewart, Bessie
Stone, Alfred Ernest
Thompson, Amelia
Train, Arthur Dennistoun Newton
Veitch, Anna Elizabeth
Webb, Edith Eunice
Willis, Effie
Withell, Alice Mary
Palmerston N .
Wellington.
Greymouth.
Auckland.
Westport.
New Plymouth.
Auckland.
Dunedin.
Whangarei
Christchurch.
Auckland.
Christchurch
Nelson.
Gisborne.
Wanganui.
Wellington.
Wanganui.
Christchurch.
Auckland.
Tauranga
Auckland
Nelson.
Masterton.
Dunedin.
Masterton.
Auckland.
Christchurch.
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Palmerston N.
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Palmerston N.
New Plymouth.
New Plymouth.
Christchurch
Napier.
Wellington.
Palmerston N.
Auckland.
Masterton.

- Wanganui.

Christchurch.
Napier.
Christchurch.

## II. -Obtained " Partial Pass" for Class C.

Bell, Muriel Agnes .. .. .. Christchurch
Toad, Emma Maria
Finlayson, Catherine Helen
Hindson, John Holmes . .
Auckland.
Wellington.
Hurley, Irene Norma ..

Auckland.
Dunedin.

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| II.-Obtained " Partial Pass " | for Class C. |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Bell, Muriel Agnes | . | . | . | Christchurch. |
| Coad, Emma Maria | . | . | . | Auckland. |
| Finlayson, Catherine Helen | . | . | Wellington. |  |
| Hudson, John Holmes | . | . | $\cdots$ | Auckland. |
| Hurley, Irene Norma | . | . | . | Dunedin. |

lass C.

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Masterton.

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Invercargill.
Auckland.
Christchurch.

New Plymouth.
N.

New Plymouth.

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## Teachers' Examination-continued.

Loudon, Robina ..
McGettrick, Anne Gertrude
Williams, Florence
Ziman, Rae Lena
Obtained " Partial Pass" por Class D.
Allan, Jessie
Allan, Margaret Gordon
Anderson, Bonifacius
Anderson, Roy
Armstrong, Mary Conboy
Baillie, Grace.
Barr, Muriel Lillian
Baskiville, Walter Charles Leslie
Battersby, Eleanor Beatrice
Battersby, Margaret Nicholson
Begg, Jean Emily
Bell, Alexander
Bell, Lillian Emily
Bird, Myra
Blair, Gertrude Lois
Bland, Eliza Jane
Blomquist, Henrietta Valerie
Braithwaite, Frederick Christopher
Brown, Jessie Swanerton
Brownlee, James Little
Brungot, Martina Johanna Lange
Bryce, Maggie Jean
Bullen, Frederick Richard Sherrar
Bullians, Andrew
Burnley, Alice Maud
Burns, Hilda Evelyn
Campbell, Mary Innis
Casey, Maude
Chamberlain, May Margaret Susanna
Charles, Mary Jane
Colley, Catherine Charlotte
Collins, Edith Charlotte
Cook, Ada Monica
Cooper, Muriel
Cowan, David
Cray, Agnes Eliza Deumba
Cross, Alexander James
Cunningham, Philip
Cussen, Kathleen
Dale, Anne
Dale, Margaret Frances
Dement, Ethel Maud
Dempsey, Hectorine Emma
Dempsey, Walter Seelye
Donnan, Mary Robison
Dyer, Henrietta Eva
Dyson, Priscilla
East, Alfred Francis Drake
Edwards, Dorothy Louisa
Elder, Violet
Elmslie, Barbara
Eslick, Violet Irene
Eyes, Itta Lucinda
Farnie, Violet Cheyne
Finch, Thomas
Findlay, Sylvia
Flyger, Juanita Eulalie
Foweraker, Charles Ethelbert
French, Henrietta Agnes
Fuller, Mary Maud
Goldsbury, Montague
Goldsmith, Katherine Mary
Gow, Beatrice
Grattan, Ida Vashti Crago
Green, Florence Margaret
Greer, Ellen
Gunn, Eva Hearne
Hagenson, Matilda
Hall, Eveline Maud
Hamilton, Gordon Kerr
Hill, Winifred Mary
Hitehcock, Mary Lavinia
Hodge, Millicent Mary .
Hogg, Ellen Catherine ..
Holm, Eva Mary
Holton, Clarice Margaret
Horner, Hugh Henry
Hughes, Edith Jessie
Hutton, Ella Bannatyne
Iorns, Ivy Phoebe
Iorns, Olive Evelyn
Irwin, Samuel John

Dunedin.

## Dunedin. <br> Christchurch <br> Christchurch <br> Wellington.

Dunedin.
Palmerston N .
Palmerston $\mathbf{N}$.
Masterton.
Timaru.
Auckland.
Wellington.
Auckland.
Wellington
Dunedin.
Auckland.
Auckland.
Wellington.
Dunedin.
Masterton.
Masterton.
Auckland.
Gisborne.
Auckland.
Invercargill.
Palmerston N .
Auckland.
Whangarei.
Wellington.
Napier.
Whangarei.
Greymouth.
Invercargill.
Christchurch
Auckland.
Auckland.
Wellington.
Auckland.
Napier.
Dunedin.
Timara. Wellington.
Gisborne.
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Isherwood, Grace Isabella
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Keam, Margaret Pourie
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Ker, Marion Maggie Allen
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Kidson, George Rudal
King, Eleanor May
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Lambert, Alice Gertrude Annie
Leary, Bridget
Lightbourne, Reuben Charles Derham
Long, Edgar Robert
Long, Mary Ann
Loudon, Rubina
Lyttle, David John Albert
McAllister, Christina Sinclair
McCallum, Louisa Maud
McClure, Cecil Bertram Travice
McElwee, Marion Elizabeth
McEwen, Malcolm Roger
MacKay, Annie
Mackay, Bessie
Mackay, Frieda Margaret
MacKellar, Jean Logan
McKenzie, George Simon
McLeod, Janet
Macrae, Murdoch
Mahon, Eileen Agatha.
Mandeno, Mary Ethel
Mark, Lcuis James
Marten, Margaret Lucy
Martin, Cora .
Martyn, Laura
Masefield, John
Mayo, Ernest .
Miller, Jane
Mitchell, Jessie McFarlane
Monro, Agnes Stewart . .
Moore, Rupert Cyril
Morrison, Isabella
Morton, Lucy Sandford
Mousley, Edward Opotiki
Muir, Margaret Murdoch
Nelson, Hannah Cathcart
Nicoll, Mabel Grace
Palmer, Arthur Freeman Kitchen
Peacock, John
Perrin, Gertrude Matilda
Pickett, James Andrew
Robinson, Elizabeth
Robinson, Lillie Isabel Ferguson
Rogers, Bertha Freeman
Rowe, Adrian Manfred
Sarten, Lillias Grace
Schmidt, William Henry
Shiers, Mary .
Sinclair, William Hamilton Clark
Skinner, Marion Young
Smith, William Henry .
Snowball, Laura Ellen .
Speight, Mary Violet
Stanton, Alice Jane
Stent, William Frank
Stevenson, Alithea Barbara Gertrude
Stevenson, Jeanie
Stewart, Henrietta Divenia Thomson
Stewart, Jeanie December
Sullivan, Margaret
Taylor, Robert Moncrieff
Teesdale, Jacob Tallentire
Thomas, Minnie Adeline
Thompson, Alfred William
Thompson, Myrtle Mary Elizabeth
Totman, Leonard White
Turner, Olive Alice
Ullmer, Frederica
Upton, Frederick George
Valentine, Winifred Annie
Veitch, Anna Elizabeth
Walshe, Elizabeth Margaret Gertrude
Webb, Hilda May
Webb, Mary

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## Teachers' Examination-continued.



## EXAMINATION PAPERS.

No. 1.-General Knowledge, A.-For Junior National Scholarships and Free Places in Secondary Schools.
Time allowed: One hour and a half. [Any six questions may be attempted, but not more than six.]

1. By what experiments could you prove the composition of air?
2. Describe an apparatus and a method by means of which the relative densities of two liquids (such as water and kerosene) can be determined.
3. Describe two grasses in common use in New Zealand pastures.
4. What are the chief methods of cooking meat? Write out full directions for boiling a piece of beef 5 lb . in weight. Would the same method be employed in stewing? Give reasons for your answer.
5. What is necessary for the germination of a seed ? Show the different stages in the germination of a bean.
6. Name some of the commoner orchard pests in your district. What steps would you take to keep your trees free from them?
7. Write briefly on one of the following : Petition of Right, Act of Settlement, First Reform Bill, Repeal of the Corn Laws.
8. What do you know of Captain Cook, Edward Gibbon Wakefield, Sir George Grey, John Ballance, and either Heke or Te Rauparaha?
9. Give some account of the duties or work of one of the following: The Arbitration Court, the Licensing Bench, Education Board, School Committee.
10. Explain the following terms as used in Parliament: Cabinet, Speaker, Whip, Opposition, Third Reading.
11. Explain the principle of any one of the following: A cream separator, a siphon, a windmill, a maximum thermometer, a minimum thermometer, any apparatus for taking the altitude of the sun.
12. Lights of certain colours are used at night, and flags of certain colours by day, as signals by railway guards: what are the colours, and what do they mean?

No. 2.-General Knowledge, B.-For Junior National Scholarships and Free Places in Secondary Schools.
Time allowed: One hour and a half. [Any six questions may be attempted, but not more than six.]

1. Describe two sets of experiments to show that water consists of certain gases combined in fixed proportions.
2. How would you make a Leyden jar? In what way is it charged and discharged?
3. Write out as full a description as you can of one of these flowers: Sweet-pea, violet, wallflower, buttercup, primrose.
4. What is meant by digestion? Give an account of the process of digestion.
5. Name six native and six imported birds. Compare the sparrow with the lark both as to appearance and as to habits.
6. What is an infectious disease? Mention some of the symptoms of any three infectious diseases that occur in this country. What precautions should be taken in the event of an outbreak in a household?
7. Write a short account of one of the following: (1) Seven Years' War, (2) English Revolution (3) Hundred Days, (4.) Chartist Movement.
8. Who are Emperor of India, President of the United States, Premier of the Australian Commonwealth, Minister of Education in New Zealand, Members or Member of Parliament for your electoral district (state name of district) ?
9. What do you understand by the terms "prohibition," "yellow peril," "secondary school," " first line of defence," " all-red cable"?
10. What are the duties of Mayor, Coroner, Public Trustee, Returning Officer, Government Valuer?
11. Write an account of the method of work or process employed in one of the following industries and occupations: (a) Soap-making, (b) brick-making, (c) any method of gold-mining, (d) flax-dressing, $(e)$ bread-making, $(f)$ sawmilling, $(g)$ freezing mutton, ( $h$ ) printing a newspaper.
12. Give the "rules of the road" for drivers of vehicles and for foot passengers.

No. 3.-English, A.-For Junior National Scholarships and for Free Places in Secondary Schools. Time allowed: Two hours and a half. [Candidates must attempt the first three questions.]

1. Write a letter of about twenty-five lines to a cousin of your own age in England, describing the method of Government in New Zealand; mention the constitution of and system of election to both Houses of the New Zealand Parliament.
2. Write three paragraphs on one only of the following subjects :-
(a.) Electric tramways.
(b.) A visit to a lighthouse.
(c.) Any story you have read.
3. Rewrite the following in your best handwriting ; arrange it in proper form, inserting capitals where necessary, and all punctuation marks :-

Just then one of the customers at the far side rose suddenly and made for the door it was close by him and he was out in the street in a moment but his hurry had attracted my notice and i recognised him at a glance it was the tallow faced man wanting two fingers who had come first to the admiral benbow oh i cried stop him its black dog i dont care two coppers who he is cried silver but he hasnt paid his score harry run and catch him.
4. Point out the faults you find in each of the following, and rewrite each sentence so as to avoid the faults:-
(a.) He is a man whom I should say was one of the least competent that ever was raised to that position.
(b.) Neither his father or mother are aware of his intention.
(c.) Damon was as generous, if not more generous, than his friend.
5. Explain briefly the meaning of each of the following words, making for each a sentence that will clearly show that you understand the meaning: Arbitrate, endorse, granular, international, incandescent.
6. Express the following passage in other words so as to make it clear that you understand the meaning :-

This happy breed of men, this little world,
This precious stone set in the silver sea,
Which serves it in the office of a wall,
Or as a moat defensive to a house,
Against the envy of less happier lands, This blessed plot, this realm, this England.
7. Analyse-

Such was the scorn that filled the sage's mind, Renewed at ev'ry glance on human kind. How just that scorn ere yet thy voice declare, Search every state.
8. Write the plural of staff, roof, compass, mercy, that Norman, this talisman, pendulum, stamen, corps, datum ; the possessive case singular of James, Moses, countess; the possessive case plural of child, butterfly, wife ; the feminine of abbot, wizard, sultan.
9. Write out the twenty words dictated to you by the Supervisor.

No. 4.-English, B.-For Junior National Scholarships and Free Places in Secondary Schools.
Time allowed: Two hours and a half. [Oandidates must attempt the first three questions.]

1. Write a letter of about twenty-five lines to a cousin of your own age in England describing all the different kinds of schools and colleges in New Zealand.
2. Write three paragraphs on one only of the following subjects :-
(a.) A day in the bush.
(b.) Any important industry in New Zealand.
(c.) Any one of Sir Walter Scott's novels.
3. Rewrite the following in your best handwriting; arrange it in proper form, inserting capitals where necessary, and all punctuation marks :-

Just at that moment came the first news of the attack if you please sir said joyce if i see anyone am i to fire $i$ told you so cried the captain thank you sir returned joyce with the same quiet civility nothing followed for a time but the remark had set us all on the alert straining ears and eyes the musketeers with their pieces balanced in their hands the captain out in the middle of the blockhouse with his mouth very tight and a frown on his face.
4. Point out the faults you find in the following, and rewrite each sentence so as to avoid the faults:-
(a.) Every competitor will only be allowed to get one medal.
(b.) He writes to say he hopes we will not be vexed at him not addressing the electors.
(c.) Those kind of things are no use.
5. Explain briefly the meaning of the following words, making for each a sentence that will show clearly that you understand its meaning: Repudiate, currency, hazard, juvenile, effervescent.
6. Express the following passage in other words so as to show that you understand the meaning :For there is none of you so mean and base That hath not noble lustre in your eyes. I see you stand like greyhounds in the slips, Straining upon the start. The game's afoot. Follow your spirit, and upon this charge Cry, "God for Harry, England, and Saint George ! "
7. Analyse-

As I followed the chief waiter with my eyes, I could not help thinking that the garden in which he had gradually blown to be the flower he was, was an arduous place to rise in.
8. Write the 3rd person singular of the past tense indicative active of-fly, choose, flow, grind, repay, abide, patrol, deride, benefit; the present participle active and the past participle of-die, singe, conceal, dye, appal.
9. Write out the twenty words dictated to you by the Supervisor.

No. 5-English, C. (Spelling).-For Junior National Scholarships and for Free Places in Secondary Schools.

> (For Supervisors only.)
[The attention of the Supervisor is drawn to the fact that, as the candidates are probably unacoustomed to bis voice and are writing in a room that is strange to them, there is need for more than usual oare in the reading of the words and passage set for diotation. The enunciation of every word should be complete and distinct.

The following list of words for spelling, with the explanation given of each, is first to be read aloud once; the words, without the explanations, are then to be dictated slowly to the candidates, and are afterwards to be read out again to afford opportunity for correction.]
(1.) Advantageous (productive of greater benefit). (2.) Belligerent (a power or country that is at war with another). (3.) Bisection (the cutting of a line or mathematical figure into two equal parts). (4.) Celibacy (the unmarried condition; perpetual bachelorhood). (5.) Contagious (said of a disease that passes from one patient to another). (6.) Convalescent (getting better in health after sickness). (7.) Homogeneous (of one and the same substance throughout). (8.) Irresistible (too strong to be successfully withstood). (9.) Obsolete (gone out of use or fashion). (10.) Obstacle (anything that blocks the way). (11.) Opulent (well-to-do; rich). (12.) Parallel (said of two lines that are equally distant from each other throughout their length). (13.) Prejudice (unreasoning condemnation of something not well known or understood). (14.) Sacrilege (theft of holy things or trespass in holy places). (15.) Scimitar (a curved sword sharp on the outer edge). (16.) Strategy (the art of directing the movements of armies in war). (17.) Symmetry (resemblance in size and shape between the opposite parts of a whole). (18.) Temporary (lasting or meant to last for a short time only). (19.) Tomahawk (a short-handled axe). (20.) Tyrannous (ruling oppressively or unlawiully).

## No. 6.-English, I.-For Civil Service Junior Time allowed: Three hours.

1. (a.) Say what is meant by each of the following, giving examples to illustrate your answer : Optative subjunctive, complement, demonstrative pronoun, impersonal verb, antecedent.
(b.) Mention four words each of which can be used as more than one part of speech. Give examples of such uses of each word.
2. (a.) Give the word that expresses the opposite meaning to each of the following: Transparent, agile, monotonous, affirm.
(b.) Give at least one other word similar in meaning to each of the following: Famous, anguish, wise, resentment.
(c.) Give one word to express each of the following: "Exactly suitable to the occasion," "to make what is said in one language intelligible to people that speak another," "improving in health after an illness," "inscription on a tomb."
3. Make a connected narrative by expanding the following notes, putting the conversation into dialogue form :-

Two travellers lost in a Corsican forest. The elder apprehensive of brigands, the younger careless and sanguine. They obtain a night's shelter in a farmhouse, the walls of which bristle with weapons. In the night the farmer and his wife creep into the guests' room. The elder traveller wakes to hear the words "Shall we kill one, or both ?" and the answer " Both." The farmer with a long knife cuts down a ham from a rafter. Next morning each traveller at his departure is given a cold roast chicken as provision for the day's journey.

Comment on the unworthiness of misplaced suspicion.
4. Correct or justify the following, rewriting each sentence in proper form :-
(1.) An elm was planted between each oak.
(2.) Northern India is bounded by the Himalayas, very high mountains, and which have at their base a very thick jungle.
(3.) He saw that each was sorry, and forgave both.
(4.) I am to blame, not you.
5. Analyse fully the following passage, and parse the italicised words:-
"'Tis said that to the brow of yon fair hill Two brothers clomb, and turning face from face,
Nor one look more exchanging, grief to still
Or feed, each planted on that lofty place
A chosen tree; then eager to fulfil
Their courses, like two new-born rivers, they
In opposite directions urged their way
Down from the far-seen mount."
6. Give in terse idiomatic English the sense of the following passage :-
"Yet remember all
He spoke among you, and the man who spoke ;
Who never sold the truth to serve the hour,
Nor paltered with eternal God for power ;
Who let the turbid streams of rumour flow
Thro' either babbling world of high and low ;
Whose life was work, whose language rife
With rugged maxims hewn from life;
Who never spake against a foe;

Whose eighty winters freeze with one rebuke All great self-seekers trampling on the right ; Truth-teller was our English Alfred named, Truth-lover was our English Duke; Whatever record leaps to light
He never shall be shamed.
Lo! the leader in these glorious wars
Now to glorious burial slowly borne,
Followed by the brave of other lands;
He , on whom from both her open hands
Lavish Honour showered all her stars
And affluent Fortune emptied all her horn.
Yea, let all good things await
Him who cares not to be great,
But as he saves, or serves the State.
Not once or twice, in our rough island story
The path of duty is the way to glory:
He that walks it, only thirsting
For the right, and learns to deaden
Love of self before his journey closes,
He shall find the stubborn thistles bursting
Into glossy purples which outredden
All voluptuous garden roses.'
7. Punctuate the following passage, and put capitals where required :-

As mr thomson is a married man $i$ will not say what hour had struck when we laid down the last of the following pages but $i$ will give a few words of what ensued here said mr thomson is a novel ready to your hand all you have to do is to work up the scenery develop the characters and improve the style my dear fellow said $i$ they are just the three things that i would rather die than set my hand to it shall be published as it stands but it is so bald objected mr thomson i believe there is nothing so noble as baldness replied $i$ and $i$ am sure there is nothing so interesting $i$ would have all literature bald and all authors if you like but one well well said mr thomson we shall see.

No. 7.-English, II. (Composition and Spelling).-For Civil Service Junior.
Time allowed: Two hours.

1. As a test of spelling, write the passage and words dictated by the Supervisor.
[The candidate is requested to number the words, to write them in a column, and to use a separate book for the spelling exercises. No marks will be given for a word that contains a doubtful letter. The letter " e " must be looped, the letter " i " must be dotted, and the letter " t " must be crossed.]

Give up your dictation book to the Supervisor, and take a fresh book for Question 2.
2. Write an essay on one of the following subjects, paying great attention to expression, punctuation, and neatness of form :-
(a.) Interesting physical features of New Zealand.
(b.) Favourite male and female character in history.
(c.) A walking-pienic.
(d.) A rifle volunteer corps.

No. 8.-Dictation and Spelling: (Part of the Second Paper on English)-For Civil Service Junior. (For Supervisors only.)
The attention of the Supervisor is drawn to the fact that, as the candidates are probably unaccustomed to his voice and are writing in a room that is strange to them, there is need for more than usual care in the reading of the words and passage set for dictation. The enunciation of every word should be complete and distinct.

The following passage for dictation and the list of words for spelling (with the explanation given of each) are first to be read aloud once; the passage and the words (without the explanations) are then to be dictated slowly to the candidates, and are afterwards to be read out again to afford opportunity for correction.

## List of Words for Spelling.

(1.) Counterfeit (bearing a false resemblance to something). (2.) Asthma (a disease characterized by difficulty in breathing). (3.) Ethereal (having the nature of ether). (4.) Tranquillity (calmness). (5.) Vinegar (a sour liquid). (6.) Potato (a garden vegetable). (7.) Psychological (having to do with mental science). (8.) Mistletoe (a plant that grows on hawthorn trees). (9.) Chintz (a shiny printed cotton fabric used in upholstery). (10.) Spinach (a garden vegetable). (11.) Harassed (constantly vexed, worried, or bothered). (12.) Effervesce (to bubble like boiling water). (13.) Dysentery (a disease of the bowels). (14.) Parallelogram (a mathematical figure). (15.) Mussel (a shell-fish). (16.) Pumice-stone (a volcanic rock that floats in water). (17.) Fuchsia (a flowering shrub). (18.) Preëminence (a greater degree of conspicuousness or notability). (19.) Medicinal (having healing properties). (20.) Separation (parting or being parted).

## Passage for Dictation.

Now, the popular opinion, under certain conditions, is not to be disregarded. When arising of itself-when manifesting itself in a strictly spontaneous manner-we should look upon it as analogous with that intuition which is the idinsyncrasy of the individual man of genius. In ninetynine cases out of a hundred I would abide by its decision. But it is important that we find no palpable traces of suggestion: the opinion must be rigorously the public's own. The distinction, however, is often exceedingly difficult to perceive and to maintain.

## No. 9.-English, I.-For Class D.

Time allowed: Three hours. [Candidates are expected to answer the first four questions, and any four of the others.]

1. Analyse the following in tabular form :-
"But she was calm and sad, musing alway
On loftiest enterprise, till on a day
The Tyrant heard her singing to her lute
A wild and sad and spirit-thrilling lay,
Like winds that die in wastes-one moment mute
The evil thoughts it made that did his breast pollute."
2. Parse fully the italicised words in the passage above.
3. In what exact sense is each of the following words used by grammarians: Stress, common, strong, mood, and relative? In each case compare the technical grammatical use with the more ordinary colloquial or literary use.
4. Define and explain fully the term "subjunctive mood." Write down all the forms of the subjunctive mood of the verb "to have." Give examples to show under what syntactical conditions these forms (a) must and (b) may be used, and comment upon the general tendency of modern English, written and spoken, with regard to the use of these forms.
5. Construct sentences showing the correct use of each of the following words: Oblivious, trite, propaganda, welkin, and mutual. Define carefully the meaning of each word, and point out any inaccuracies you have observed in the ordinary use of any of them.
6. Indicate as clearly as you can (by giving rimes, or otherwise) what you consider to be the correct pronunciation of each of these words: Envelope, indisputable, fanatic, slough, vase, progress, prepense, troth, lichen, and dahlia. Point out in each case any commonly occurring error in the pronunciation, and give a reason, where necessary, for your decision as to the correct pronunciation.
7. Define a metaphor. Point out all the metaphorical expressions in the following :-
"It still remains that the combined weight of these factors is not in harmony with the extent of the depression, and is inadequate as an explanation thereof."

Criticize the use of the metaphors in the above sentence.
8. What is a "split infinitive" ? On what grounds may the idiom be condemned and defended?
9. Give a list of words, not more than twelve, which have become English standard words during the last twenty or thirty years. Point out how the word has become Englis.. in each case, and produce from your list some general statement as to the way or ways in which the language continues to be enriched.
10. Give a complete list of those English consonant sounds which could be perfectly enunciated by a person with no tongue. Define also the exact sense in which the term "dental" is used in reference to consonant sounds.
11. In how many distinct grammatical functions can each of the following words be employed : Stone, pass, church, wing, and mother? Give an example of each usage, and account, if you can, for the peculiar facility with which English words change their function.
12. Translate each of the following expressions into terser or more idiomatic English :-
(a.) He partook of some refreshment.
(b.) I was favourably impressed by this manifestation of his intelligence.
(c.) We advanced with considerable celerity.

Under what circumstances, in cases like the above, is the longer and more formal expression to be preferred?

## No. 10.-English II.-For Class D.

Time allowed: One hour and a half.
White an essay on any one of the following subjects. Great attention must be given to the spelling and punctuation. Handwriting and general neatness of work will be taken into account.

1. The contrast between the North and South Islands of New Zealand, and its probable result, in the long run, upon the character of their respective populations.
2. The special advantages and drawbacks of the teaching profession as compared with either the Law, the Church, or Medicine.
3. The relative importance of athletics, natural science, and history in the equipment of the ideal teacher.

No. 11.-English Language and Literature.-For Class $C$ and for Civil Service Senior.
Time allowed: Three hours. [Eight questions may be answered, but not more than eight. Every candidate is expected to attempt the first five questions.]

1. Illustrate from Carlyle's "French Revolution" what seems to you his special strength and weakness as a historian.
2. Comment on the following: "If Shakespeare idealises Brutus, Cassius, Antony, he has notoriously depressed Cæsar."
3. Comment on the following: "Severely as Shakespeare judged Shylock, he entered into his situation with a marvellous intimacy of understanding, which the modern world has excusably mistaken for sympathy."
4. Show exactly what part each of the following persons plays in " Esmond," carefully distinguishing those whose connection with the plot is vital from those whose part is only subsidiary : The Pretender, Steele, General Webb, Lord Mohun, and Swift.
5. Analyse and paraphrase the following :-
" Be not fond
To think that Cæsar bears such rebel blood That will be thaw'd from the true quality With that which swelleth fools-I mean sweet words, Low-crooked court'sies, and base spaniel fawning."
6. Comment upon anything remarkable in the meaning, construction, or subsequent history of each of the italicised words in the passage above.
7. Give the substance of Carlyle's reflections upon the death of Mirabeau.
8. Of whom does Carlyle use the following expressions :-
(a.) "Wild burstings of affection were in this great heart-of fierce lightning, and soft dew of pity";
(b.) "Cruel-lovely, with half-angelic, half-demonic splendour";
(c.) "With immeasurable confused outlooks and purposes, with no clear purpose but this of still trying to do His Majesty a service" ?
Give a brief account of the share each person referred to had in the Revolution.
9. Quote two passages from Julius Cæsar (of not more than twenty lines each), the one to exhibit Shakespeare's power as a master of language, the other as a master of the human heart. Comment upon each passage from the corresponding point of view.
10. Quote the famous " mercy" speech of Portia in the "Merchant of Venice," and show whether it is or is not strictly in harmony with her character as displayed elsewhere in the drama.
11. Show fully the relation which "Esmond" bears either to the other works of Thackeray or to the historical novel as handled by Sir Walter Scott.
12. Quote any ten lines from Julius Cæsar. Explain the normal construction of the metre, and comment upon any irregularities or remarkable variations from the normal type. Show how such metre and such irregularities may serve as an aid to determine approximately the date of the composition of the play.

No. 12.-Greek.-(I.) Composition and Unprepared Translation.-For Class $C$ and for Civil Service Senior.
Time allowed: Two hours.

1. Translate into English-



























2. Translate into Greek-
(a.) The Persians, under the eyes of their king, fought with great bravery, but they were badly generalled, and the place of the combat was unfavourable to them. Their numbers were only an encumbrance, and when the ships in front retreated they hindered the rear from advancing, partly owing to the crowded space and partly to lack of practice in acting together.

Among the anecdotes told about this battle the most famous is that which was current at Halicarnassus, of the signal bravery and no less signal good fortune of the Carian queen Artemisia. She saved herself by the stratagem of attacking and sinking another Carian vessel. Those who stood round Xerxes observed the incident, but supposed the destroyed trireme to be Greek. "Sire," they said, "seest thou how Artemisia has sunk an enemy's ship?" And Xerxes exclaimed "My men have become women, my women men."
(b.) If I had known by whom these things were done, I should not have believed you.
(c.) He went away that no one might see him.
(d.) Everybody denied that they knew him.
(e.) He was so poor that he did not fear that he would be robbed.
(f.) You cannot go away too soon.
(g.) I have no place to run to.

## No. 13.-Greek.-(II.) Prepared Books.-For Class C and for Civil Service Senior.

Time allowed: Two hours.

1. Translate into English-




$\tau i \nexists \eta \sigma \iota^{*} \chi \dot{\eta} \mu \grave{\epsilon} \nu \tau \hat{\eta} \delta^{\circ} \dot{\epsilon} \pi v \rho \gamma$ ойтo $\sigma \tau \alpha \lambda \hat{\eta}$,




-Aeschylus, Persae, 188-196.
2. Explain the above passage. Conjugate $\dot{\delta} \rho \hat{\alpha} \nu, \mu a \theta \dot{\omega} r$. Explain the force of the tense of катєіхє.
3. Translate into English-

$$
\begin{aligned}
& \text { Фóßos } \delta \grave{\epsilon} \pi \hat{\alpha} \sigma \iota \text { ßaßápots } \pi \alpha \rho \hat{\eta} \nu
\end{aligned}
$$

> —Ibid., 391-398.
 $\gamma \nu \omega \prime \mu \eta \mathrm{s}$, $\phi \nu \gamma \hat{\eta}$, and the mood of $i \delta \varepsilon \hat{\imath} \nu$; parse $\dot{\alpha} \pi \sigma \sigma \phi a \lambda \epsilon \hat{\epsilon} \sigma \tau v$.
5. Translate into English-

> -Ibid., 818-822.
6. In the above passage: Parse $\bar{\xi} \xi a \mu \hat{\alpha}$; comment on the use of $\alpha \phi \omega v \alpha$ and the tense of $\dot{\epsilon} \kappa \dot{\alpha} \rho \pi \omega \sigma \epsilon$.
7. Translate the following passages, with brief notes on the syntax :-







(d.) ${ }^{\dagger} \mathrm{H}$ каì $\grave{̀} \nu \Pi_{\epsilon \rho \sigma \hat{\omega} \nu}$ av̉rồ

$\mu v \rho i ́ a ~ \mu \nu \rho i ́ a ~ \pi є \mu \pi а \sigma \tau т \grave{\nu} \nu$

8. Translate into English-








 explain the construction of $\dot{\omega} \stackrel{\epsilon}{\epsilon} \mu o i ̀ \delta o \kappa \epsilon ́ \epsilon \iota v$, and mentionother similar expressions.
10. Translate into English-






 $\pi \alpha \rho a \sigma \tau \eta^{\prime} \sigma a \sigma \theta a \iota .-I b i d .$, lxxix-lxxx.
11. In the above passage: Write a brief historical note on Aristides; parse $\sigma \dot{\eta} \mu \eta \nu o v$; give the


12. Translate the following passages, with brief explanatory notes :-









## No. 14.-Latin.-For Civil Service Junior. <br> Time allowed: Three hours.

1. Translate into English-
(a.) Cum Alexander, Macedonum rex, sorte monitus ut eum qui sibi porta egresso primus occurrisset interfici iuberet, asinarium forte sibi obvium factum ad mortem abripi iussisset, eoque quaerente quidnam se immerentem capitali supplicio afficeret, cum ad excusandum factum suum oraculi praeceptum rettulisset, asinarius "Si ita est" inquit "rex, alium sors huic morti destinavit: nam asellus, quem ante me agebam, prior tibi occurrit."-Valerius Maximus VII. iii. 10.
(b.) Caesar in eam spem venerat, se sine pugna et sine vulnere suorum rem conficere posse, quod re frumentaria adversarios interclusisset. Cur etiam secundo proelio aliquos ex suis amitteret? Cur vulnerari pateretur optime de se meritos? Cur denique fortunam periclitaretur, praesertim cum non minus esset imperatoris consilio superare quam gladio? Movebatur etiam misericordia civium quos interficiendos videbat: quibus salvis atque incolumibus rem obtinere malebat. Hoc consilium Caesaris plerisque non probabatur: milites vero palam inter se loquebantur, quoniam talis occasio victoriae dimitteretur, etiam cum vellet Caesar sese non esse pugnaturos. Caesar, De Bello Civili, i. 72.
(c.) Jam steterant acies ferro mortique paratae :

Jam lituus* pugnae signa daturus erat:
Cum raptae veniunt inter patresque virosque,
Inque sinu natos, pignora cara, ferunt.
Ut medium campi scissis tetigere capillis,
In terram posito procubuere genu :
Et, quasi sentirent, blando clamore nepotes
Tendebant ad avos brachia parva suos.
—Ovid, Fasti iii. 215.
2. Translate into Latin-
(a.) Do not go before I come.
(b.) All were spared save twenty.
(c.) Having said this he set out for home on the 25th March.
(d.) Do you know if your father is still at Athens?
(e.) There are some that are afraid that he will die.
(f.) The brave soldier was given a week's leave (commeatus).
(g.) Marching on steadily, he was only eleven miles from the German headquarters( ${ }^{1}$ ) when the envoys returned. Again they begged him to halt ; and again he refused. They then asked for three days' grace $\left({ }^{2}\right)$ to arrange terms with the Ubii. What they really wanted, as Caesar saw, was to gain more time. He promised, however, not to advance that day beyond a river, four miles distant, where he intended to water ${ }^{3}$ ) ; and told them to come back again on the morrow, that he might decide on their request, and to bring with them as many of their leaders as could come.
3. (a.) In passage 1 (a) above conjugate the verbs from which come egresso, abripi, rettulissent, give the reasons for the mood of occurrisset, afficeret; ut eum interfici iuberet-rewrite this, substituting impero for iubeo.
(b.) In $1(b)$ compare optime, minus; explain the cases of re frumentaria, gladio, quibus salvis, plerisque. What is meant by subjective and objective genitive? To which classes belong vulnere suorum and misericordia civium?
(c.) In 1 (c) give the nominative singular, the genitive plural, and the gender of ferro, morti, pignora, genu, nepotes; write out in full the future indicative active of steterant, the present indicative active of ferunt, and the perfect subjunctive passive of tetigere; explain morti paratae, medium campi.

## No. 15.-Latin.-For Class D. <br> Time allowed: Three hours.

1. Translate into English-
(a.) Post haec mala Carthaginienses Regulum ducem, quem ceperant, petierunt ut Romam proficisceretur et pacem a Romanis obtineret, ac permutationem captivorum faceret. Ille Romam cum venisset, inductus in senatum nihil quasi Romanus egit, dixitque se ex illa die qua in potestatem Afrorum venisset, Romanum esse desiisse. Itaque et uxorem a complexu removit et senatui suasit ne pax cum Poenis fieret: illos enim fractos tot casibus spem nullam habere: se tanti non esse ut tot milia captivorum propter unum se et paucos qui ex Romanis capti fuerant redderentur. Ipse Carthaginem rediit cum negasset se in ea urbe mansurum in qua, postquam Afris servierat, dignitatem honesti civis habere non posset.-Eutropius iii. 25.
(b.) Sensus autem interpretes ac nuntii rerum in capite tamquam in arce ad usus necessarios et facti et collocati sunt. Nam oculi altissimum locum obtinent ex quo plurima conspicientes fungantur suo munere: et aures, cum sonum percipere debeant qui natura sublime fertur, recte in altis corporum partibus collocatae sunt: itemque nares et quod omnis odor ad supera fertur recte sursum sunt, et quod cibi et potionis iudicium magnum earum est non sine causa vicinitatem oris secutae sunt.-Cicero, De Natura Deorum ii. 140.
(c.) "Vive et amicitias omnes fuge " : verius hoc est Quam " regum solas effuge amicitias."
Est mea sors testis: maior me afflixit amicus Deseruitque minor: turba cavenda simul.
Nam quicunque pares fuerant fugere fragorem, Necdum collapsam deseruere domum.
I nunc et reges tantum fuge! Vivere doctus Uni vive tibi, nam moriere tibi.
-Anthologia Latina.
2. Translate into Latin-
(a.) If you come I shall see you.
(b.) I shall enquire whether it rains or not.
(c.) I was persuaded to do this.
(d.) He promised to give me a million sesterces.
(e.) The soldiers were too weak to prevent the enemy from escaping.
(f.) He sent to say he was well.
(g.) Cassiopeia having boasted $\left({ }^{1}\right)$ herself to be fairer than Hera, Poseidon sent a seamonster ${ }^{(2)}$ to ravage the country belonging to her husband, Cepheus. On consulting the oracle it was ascertained that nothing would appease the anger of the gods except the exposure of the King's daughter, Andromeda, on a rock to be devoured by the monster. At the moment when the dragon $\left({ }^{3}\right)$ approached the maiden, Perseus appeared and, learning her peril, engaged the monster and slew him.
3. (a.) In passage $1(a)$ above, conjugate the verbs from which come proficisceretur, desiisse, fractos, redderentur; give the nominative singular, the genitive plural, and the gender of pacem, die, casibus, urbe; write a note on the mood of venisset (used twice) and the case of tanti.
(b.) Write out the comparison of necessarius, plurimus, recte, magnus; write out the present indicative of fero and the future indicative of sequor; fungantur suo munere-explain the mood and the case, and mention two other verbs which take the same construction.
(c.) Parse affixit, cavenda, deseruere, moriere; distinguish solas and soles, turbam cavere and turbae cavere, fugëre and fugëre; write out the singular of quicunque (all genders) and the plural of par (all' genders).
$\begin{array}{lll}\left({ }^{1}\right) \\ \text { (2)ast, use se iactare. } & \text { (2) Monster, use belua. } & \text { (3) Dragon, use anguis. }\end{array}$
No. 16.-Latin.-(I.) Composition and Unprepared Translation.-For Class $C$ and for Civil Service Senior.
Time allowed: Two hours.
4. Translate into English-
(a.) Ibi arbitris remotis cum crebro suspiritu et gemitu aliquantum temporis consumpsisset, ad postremum eum ex servis vocat, sub cuius fide regio more ad incerta fortunae venenum erat, et mixtum in poculo ferre ad Sophonisbam iubet ac simul nuntiare, Massinissam libenter primam ei fidem praestaturum fuisse, quam vir uxori debuerit: quoniam eius arbitrium qui possint adimant, secundam fidem praestare ne viva in potestatem Romanorum veniat: memor patris imperatoris patrizeque et duorum regum quibus nupta fuisset, sibi ipsa consuleret. Hunc nuntium ac simul venenum ferens minister cum ad Sophonisbam venisset: "Accipio" inquit "nuptiale munus neque ingratum, si nihil maius vir uxori praestare potuit: hoc tamen nuntia, melius me morituram fuisse, si non in funere meo nupsissem."-Livy, xxx. 15.
(b.) Cui genetrix flenti, "Fortuna viriliter" inquit "-Siste, precor, lacrimas-ista ferenda tibi est.
Sic erat in fatis, nec te tua culpa fugavit, Sed deus: offenso pulsus es urbe deo.
Non meriti poenam pateris sed numinis iram : Est aliquid magnis crimen abesse malis.
Conscia mens ut cuique sua est, ita concipit intra Pectora pro facto spemque metumque suo.
Omne solum forti patria est, ut piscibus aequor, Ut volucri vacuo quidquid in orbe patet.
Non fera tempestas toto tamen horret in anno, Et tibi, crede mihi, tempora veris erunt."

## 2. Translate into Latin-

There were some who told the following story of a German cohort, which had landed on the coast for the purpose of procuring water: Thinking that the barbarians had been cowed by the issue of the former battle, they advanced carelessly, as men who had nothing to fear either from the valour or from the strategy of the conquered enemy. But the Britons, having sent on their bravest men to occupy a hill overlooking* the river, attacked our men on the bank. Although cut off in this manner our men abated nothing of their usual bravery, seeing that slavery awaited them on the one hand and death on the other. At last, when all hope of safety had gone, and they had reached such a pitch of helplessness that scarcely twenty could hold their weapons, two fresh cohorts arrived, sent to their relief by the general, who had been alarmed by the long delay.

* Use immineo.

3. Give the Latin for-
(a.) He was born on the 23rd March, and died on the 3rd July, aged seventy-nine years.
(b.) I left nothing undone to appease him.
(c.) When will you find a man to take the letter?
(d.) No one can see him without loving him.
(e.) Don't you know that he is too honourable to tell a lie?

## No. 17.-Latin.-(II.) Prepared Books.-For Class C and for Civil Service Senior. Time allowed: Two hours.

1. Translate into English-

Bona fortunaeque in tributum, ager atque annus in frumentum, corpora ipsa ac manus silvis ac paludibus emuniendis inter verbera ac contumelias conteruntur. Nata servituti mancipia semel veneunt, atque ultro a dominis aluntur: Britannia servitutem suam quotidie emit, quotidie pascit. Ac sicut in familia recentissimus quisque servorum etiam conservis ludibrio est, sic in hoc orbis terrarum vetere famulatu novi nos et viles in excidium petimur : neque enim arva nobis aut metaila aut portus sunt, quibus exercendis reservemur. Virtus porro ac ferocia subiectorum ingrata imperantibus: et longinquitas ac secretum ipsum quo tutius, eo suspectius.-Tacitus, Agr. 31.
2. In the above passage explain the cases of silvis, servituti, ludibrio ; conjugate conteruntur, veneunt, pascit; why is reservemur in the subjunctive?
3. Translate into English-

Nullas Germanorum populis urbes habitari satis notum est, ne pati quidem inter se iunctas sedes. Colunt discreti ac diversi, ut fons, ut campus, ut nemus placuit. Vicos locant non in nostrum morem connexis aedificiis: suam quisque domum spatio circumdat, sive adversus casus ignis remedium sive inscitia aedificandi. Ne caementorum quidem apud illos aut tegularum usus; materia ad omnia utuntur informi et citra speciem aut delectationem. Solent et subterraneos specus aperire eosque multo insuper fimo onerant, suffugium hiemis et receptaculum frugibus, quia rigorem frigorum eiusmodi loci molliunt, et siquando hostis advenit, aperta populatur, abdita autem et defossa aut ignorantur aut eo ipso fallunt quod quaerenda sunt.Tacitus, Germ. 16.
4. In the above, comment on the cases of populis, remedium; the use of loci; domum spatio circumdant-what other construction does circumdo take?
5. Translate the following passages, with brief explanatory notes:-
(a.) Definitur et numerus: centeni ex singulis pagis sunt, idque ipsum inter suos vocantur, et quod primo numerus fuit iam nomen et honor est.
(b.) Sescentesimum et quadragesimum annum urbs nostra agebat, cum primum Cimbrorum audita sunt arma.
(c.) Quamquam primo statim beatissimi saeculi ortu Nerva Caesar res olim dissociabiles miscuerit, natura tamen infirmitatis humanae tardiora sunt remedia quam mala.
(d.) Brigantes femina duce exurere coloniam ac, nisi felicitas in socordiam vertisset, exuere iugum potuere.
6. Translate into English-

Hunc procul ut campo Turnus prospexit aperto,
Ante levi iaculo longum per inane secutus,
Sistit equos biiuges et curru desilit, atque
Semianimi lapsoque supervenit, et pede collo
Impresso, dextrae mucronem extorquet et alto
Fulgentem tinguit ingulo, atque haec insuper addit:
" En agros et quam bello, Troiane, petisti
Hesperiam metire iacens: haec praemia, qui me
Ferro ausi temptare, ferunt: sic moenia condunt."
—Virgil, AEneid xii. 353~361.
7. In the above, parse campo, dextrae, agros, metire; distinguish lëvi, lēvi, metire, metere.
8. Translate into English-

Ecce autem, flammis inter tabulata volutus
Ad coelum undabat vertex turrimque tenebat,
Turrim, compactis trabibus quam eduxerat ipse
Subdideratque rotas pontesque instraverat altos.
"Iam, iam fata, soror, superant: absiste morari :
Stat conferre manum Aeneae, stat, quidquid acerbi est,
Morte pati : neque me indecorem, germana, videbis
Amplius. Hunc, oro, sine me furere ante furorem."
Dixit, et e curru saltum dedit ocius arvis.
-Virgil, Anneid xii. 672-680.
9. In the above, explain the cases of Aeneae, acerbi; arvis; comment on volutus, absiste morari, turere furorem.
10. Translate with brief notes-
(a.) Longe illi dea mater erit, quae nube fugacem

Feminea tegat et vanis sese occulat umbris.
(b.) Purpureos moritura manu discindit amictus,

Et nodum informis leti trabe nectit ab alta.
(c.)

Neque enim levia aut ludicra petuntur
Praemia, sed Turni de vita et sanguine certant.
(d.) Paeonium in morem.
(e.) Ductor Rhoeteius.

> No. 18.-French.-For Civil Service Junior.
> Time allowed: Three hours.

1. (a.) Translate into English-

## A Brave Deed.

Au moment où Lena Tarn conduisait le troupeau des belles vaches rouges, le grand taureau de trois ans, qui s'ennuyait dans l'étable vide, avait réussi à défaire sa chaîne. Fièrement il s'approcha des femmes. Mais Lena, qui pensait toujours à tout, tenait en main le petit siège triangulaire en bois dont se servent les femmes lorsqu'elles vont traire. Brandissant son siège, elle cria au taureau: "Halte-là, polisson!" car elle ne pouvait le souffrir. Mais le taureau au poil rouge approchait toujours. Lena jéta un regard rapide et irrité vers les hommes armés de fouets qui se tenaient auprès de la grange: "Que faites-vous donc là, lourdauds?" cria-t-elle, puis elle leva le siège et en asséna un coup vigoureux sur la tête du taureau. Celui-ci en fut tellement abasourdi qu'il courut tout droit entre les mains des hommes.
(b.) Au moment où: What does où stand for in this sentence? Illustrate by short examples other uses of ou.
(c.) Dans l'étable vide: This position of the monosyllabic adjective is contrary to grammatical rule; account for it.
(d.) Vers les hommes: What is the difference between vers and envers?
2. (a.) Translate into English-

London welcomes President Loubet.
Les Français ne s'attendaient donc point à l'explosion d'enthousiasme qui accueillit leur premier magistrat dès qu'il eût mis le pied sur le sol anglais. Impossible de nier la spontanéité charmante des hommages qui furent prodigués au président: "Good old Loubet," dont la simplicité et le fin sourire plurent tout de suite aux Anglais, devint là-bas le personnage le plus populaire de l'année. Sa réception par le lord-maire marqua l'apogée de son triomphal séjour, et le bruit des acclamations suivit sur mer le navire qui le ramenait en France. A partir de ce moment, l'entente cordiale fut à l'ordre du jour. La présence d'Edouard VII. à Paris avait permis de constater combien peu de véritable anglophobie se dissimulait sous les traditionnels épigrammes que le parisien décoche aux Anglais chaque fois qu'il en a l'occasion.
(b.) Some of the verbs in the above piece are in the imperfect tense, some in the preterite: distinguish carefully between the uses of the two tenses.
(c.) Write in full the present imperative of servir.
" the present indicative of tenir.
$\prime$ " the present subjunctive of devenir.
3. Translate into English-

La source tombait du rocher
Goutte à goutte à la mer affreuse.
L'Océan, fatal au nocher,
Lui dit: "Que me veux-tu, pleureuse?
Je suis la tempête et l'effroi;
Je finis où le ciel commence.
Est-ce que j'ai besoin de toi, Petite, moi qui suis l'immense?
La source dit au gouffre amer:
Je te donne, sans bruit ni gloire,
Ce qui te manque, o vaste mer!
Une goutte d'eau qu'on peut boire."
4. Translate into French-

The little Dauphin, whiter than the cushions on which he is lying, is resting with his eyes closed. But he is not asleep. He turns to his mother, and seeing that she is weeping, he says: "Why are you crying? Do you really think, like the rest of them, that I am going to die?" The Queen tries to answer, but sobs prevent her from speaking. "Do not cry, mother; you forget that I am the Dauphin, and that Dauphins cannot die in this way." At last he gets frightened. "Stop," he says, "I do not wish death to come and take me, and I can easily prevent it from coming here. Let forty very strong guards be called in $\left(^{( }\right.$) immediately to mount guard round my bed. Let a hundred large cannon watch night and day, with lighted fuse $\left(^{2}\right.$ ), under our windows; and woe to death if he dares to come near us!"

$$
\begin{array}{ll}
\text { (2) Call in, faire venir. } & \text { (2) Fuse, la mèche. }
\end{array}
$$

5. $A$ writes to his friend $B$, telling him that he has been appointed to a post in Wellington, and asking him for information about that city. Write $B$ 's reply in French. The letter should consist of about ten ordinary written lines. If you do not know Wellington, choose some other place which you do know.
6. Translate into French-
(a.) This rule is difficult ; pay great attention to it.
(b.) We do not think it necessary to write to him.
(c.) What will be the end of it?
(d.) I want this book; give it to me.
(e) It is better to wait until it is finished.

> No. 19.-French.-For Class D.
> Time allowed: Three hours.

1. (a.) Translate into English-

## Science.

Par la science les sages osent franchir les barrières étroites dans lesquelles la nature s'est plu à renfermer l'homme. Citoyens de toutes les républiques, habitants de tous les empires, le monde, quelle qu'en soit l'étendue, est leur patrie. La science, conductrice tout aussi fidèle que rapide, les mène de pays en pays, de royaume en royaume; elle leur en révèle les lois, les mœurs, la religion, le mécanisme politique dans ses ressorts même les plus secrets. Ils reviennent, à l'instar des triomphateurs romains, chargés des dépouilles de l'orient et de l'occident, après avoir rendu tributaires de leur génie tous les peuples, toutes les nations répandues sur la terre. N'étant pas plus arrêté dans son essor par les bornes des temps que par celles des lieux, la science, prodigue de merveilles envers ses disciples, semble les avoir fait vivre longtemps avant l'époque qui les a vus naître. C'est pour eux que les plus pures, les plus doctes célébrités des siècles anciens ont pensé, ont agi, ou plutôt ils ont vécu avec elles, ils les ont entendues parler, ils ont été témoins de leurs grands exemples.
(b.) In the last sentence of (a) [C'est-exemples] state exactly to what words eux, elles, ils, les, leurs refer.
(c.) Quelle qu'en soit l'étendue : put into French-
"However great its extent may be."
"Although its extent be great."
" Whatever you may think of its extent."
(d.) Révèle: Show, by means of English letters, the difference in sound between é and $\grave{e}$.
(e.) Romain: Put into French-
"I am a Roman."
"I speak the Roman tongue."
"The Roman and Greek literatures."
2. (a.) Translate into English-

## Zealous Service.

C'était en 1849 que le capitaine de vaisseau Nevelskoy outrepassait les instructions diplomatiques qu'il avait reçues et qui lui recommandaient d'observer, à l'égard de la Mandchourie, le status quo le plus absolu. Le conseil des ministres lui infligea un dur châtiment: il le dégrada et le ramena au rang de simple matelot. Il supporta la punition sans se plaindre, mais demanda audience au tsar Nicolas $1^{\text {er. Celui-ci le reçut }}$ dans son cabinet de travail, et, après un court entretien, lui dit, "Nevelskoy, il faut que ta désobéissance soit punie." Et, souriant, il prit, sur un guéridon, la croix de SaintVladimir, la lui épingla sur la tunique, lui donna l'accolade, ajoutant, avec gravité, ces mots qui sont gravés sur le monument de Nevelskoy, à Vladivostok: "Merci de ton patriotique labeur. Partout où le drapeau russe a été une fois hissé, il ne peut plus être descendu."
(b.) Give the first person singular present indicative, the first person singular preterite indicative, the present participle, and the past participle of the following: Mener, charger, repandre, faire, vivre, plaindre.
3. Translate into English-

## The Child.

Lorsque l'enfant paraît, le cercle de famille
Applaudit à grands cris. Son doux regard qui brille Fait briller tous les yeux,
Et tous les tristes fronts, les plus souillés peut-être,
Se dérident soudain à voir l'enfant paraître,
Innocent et joyeux.
Quelquefois nous parlons, en remuant la flamme,
De patrie et de Dieu, des poëtes, de l'âme
Qui s'elève en priant;
L'enfant paraít - adieu le ciel et la patrie
Et les poètes saints! La grave causerie
S'arrête en souriant.
4. Translate into French-

The gradual expansion of Russia towards the East was one of the reasons of the war between Russia and Japan. A certain Russian officer had been brought before the Czar for having been too zealous in extending the frontiers of the Russian Empire. He had already been punished, but the Czar wished to see him. "I see," said the Czar, "that you have been organizing expeditions"; and, unfolding a map of Siberia upon the table, he pointed with his finger to various places upon it. "By this expedition you became a lieutenant, by that a captain, and by that an admiral. Surely that was sufficient." The officer followed the Czar's finger upon the map, not knowing whether to be pleased or not. At last the Czar turned to him and said, "You have been too zealous on this occasion, and for this you have been punished. But by your zeal your country has been made greater, and for that I intend to reward you."
5. Write a short letter to a friend upon either: Your preparation for this examination, or Your favourite forms of amusement. [N.B.-The letter should consist of not less than fifteen lines of your usual writing.]
6. Translate into French-
(a.) What does this mean?
(b.) Show Mr. A into this room.
(c.) This place is used as a prison.
(d.) I can see nothing but mountains.
(e.) The next morning he started on his way.

No. 20.-French.-(I.) Composition and Unprepared Translation.-For Class C and for Civil Service Senior.
Time allowed: Two hours.

## 1. Translate into English-

## A Reinvestment.

Quinze jours depuis ma dernière lettre, et tant de petits événements. Il faudrait s'écrire au jour le jour, sinon, le fil casse . . vous savez avec quel accès de mauvaise humeur, quelle morgue bourrue, mon oncle avait accueilli ma détermination de déplacer cette fameuse somme qui constitue désormais ma dot. "Petite sotte, qui se permet de blâmer toute une vie de volonté et de labeur. Il était bien récompensé de sa philanthropie!" Enfin, il s'est rendu compte que mon "coup de tête" passait au-dessus de lui, visait un "ordre de choses fermement établi, une loi fatale," bref, qu'il aurait tort de paraître vexé plus longtemps. Je dis paraître, car au fond il l'est, terriblement. Il a beau affecter une courtoisie parfaite, l'ironie perce. Samedi dernier, il m'a jeté d'un air négligent, "Et ton argent, petite, veux-tu que je le passe à ton notaire-car tu as aussi un notaire, maintenant?-ou préfères-tu que je te signe un chèque?" Sur mon geste évasif, il a pris son carnet, sa plume, et tout au long a libellé le, "Payez au porteur la somme de deux cent quatre-vingt-sept mille cent et quelques francs," sans oublier les centimes. Son dur paraphe et avec un sourire, un salut narquois, il m'a tendu le chèque, en ajoutant: "De deux a cinq, payable au Crédit Lyyonnais." Comme le léger papier m'a paru lourd! La peur absurde de le perdre ; l'idée qu'il représentait tant de souffrances, tant de misères, tant de charités possibles ou de joies égoistes; l'idée aussi que c'était là ma dot, ma rançon de femme, le "Sésame, ouvre-toi" de ma vie nouvelle.-Paul et Victor Margueritte.
2. Translate into English-

## Advice to Young and Old.

Jeunes hommes, vieillards aux longues destinees, Vous, couronnés de fleurs; vous, couronnés d'années, Si vous faites le mal sous la voûte des cieux, Regardez devant vous et soyez sérieux.
Ces sont des instants courts et douteux que les nôtres. L'âge vient pour les uns, la tombe s'ouvre aux autres. Donc, jeunes gens, si fiers d'être puissants et forts, Songez aux vieux; et vous, vieillards, songez aux morts ! Soyez hospitaliers surtout! C'est la loi douce. Quand on chasse un passant, sait-on qui l'on repousse? Sait-on de quelle part il vient? Fussiez-vous rois, Que le pauvre pour vous soit sacré! Quelquefois Dieu qui d'un souffle abat les sapins centenaires, Remplit d'événements, d'éclairs et de tonnerres, Déjà grondant dans l'ombre à l'heure où nous parlons, La main qu'un mendiant cache sous ses haillons!
—Victor Hugo.

## 3. Translate into French-

The immoderate egotism of British commerce imposed on the native populations, in some instances, restrictions on industry that an honest application of the principles of free trade necessarily removed; and, in some cases, a forced cultivation, like that of opium, which was a shame to England and a scourge to China. But, everything considered, and allowing a large. amount of evil, we may boldly affirm that history gives no example of a conquest so completely turned to the good of the vanquished. Let us think of the frightful condition of those weak and industrious races exposed without defence for so many centuries to the cruelty, the rapacity, the
outrages of the Moguls, the Afghans, and others, and compare their condition with that of the one hundred and fifty millions of souls who live now in peace under the laws and the flag of England. They are governed by a handful of foreigners-foreigners by origin, by manners, by religion, but belonging by ties of justice and humanity to the populations which they govern, which they have saved from the worst excesses of oppression and iniquity. If, when transplanted to these distant regions, and deprived of all the conditions of success which short-sighted politicians consider as exceptional in the history of the world, this British race thus exhibits everywhere an incontestable superiority and solidity, we may reasonably reckon on a persevering exercise of the same qualities on their native soil.
4. Write an essay, in French (fifteen to twenty lines), on either-
" L'entente actuelle entre La France et L'Angleterre," or
"La Nouvelle-Zélande doit-elle avoir peur du vainqueur dans la lutte russo-japonaise?"
5. Put into French-
A. I am quite exhausted: what shall we order for lunch?
$B$. Anything you like; but if you take my advice, you'll make it dinner.
$A$. All right; ring the bell: I can hardly stand.
B. Poor fellow! How will you be able to use your knife and fork?
A. Never mind: get the things put on the table, carve, give me a good slice, and you'll see.
B. Here you are then.

No. 21.-French.-(II.) Prepared Books.-For Class $C$ and for Civil Service Senior.
Time allowed: Two hours.

1. (a.) Translate into English-

Auguste-
Apprends à te connoître, et descends en toi-même:
On t'honore dans Rome, on te courtise, on t'aime;
Chacun tremble sous toi, chacun t'offre des vœux,
Ta fortune est bien haut, tu peux ce que tu veux: Mais tu ferois pitié même à ceux qu'elle irrite,
Si je t'abandonnois à ton peu de mérite.
Ose me démentir, dis-moi ce que tu vaux,
Conte-moi tes vertus, tes glorieux travaux,
Les rares qualités par où tu m'as dû plaire,
Et tout ce qui t'elève au-dessus du vulgaire. Ma faveur fait ta gloire, et ton pouvoir en vient; Elle seule t'elève, et seule te soutient; C'est elle qu'on adore, et non pas ta personne; Tu n'as crédit ni rang qu'autant qu'elle t'en donne; Et pour te faire choir je n'aurois aujourd'hui Qu'aे retirer la main qui seule est ton appui. J'aime mieux toutefois céder à ton envie: Regne, si tu le peux, aux dépens de ma vie.
-Corneille: Cinna, Acte V., Sc. i.
(b.) The title of this play is "Cinna, ou la clémence d'Auguste." State whether you prefer the first or the alternative title, and give your reasons fully.
(c.) Choir: What parts of this verb are used in modern French?
(d.) Par où tu m'as dù plaire: What does où stand for here? Arrange these words in the order in which they would stand in modern French.
2. (a.) Translate into English-

Sabine-
Quand il faut que l'un meure et par les mains de l'autre,
C'est un raisonnement bien mauvais que le vôtre.
Quoique ce soient, ma sœur, des noeuds bien différens,
C'est sans les oublier qu'on quitte ses parens:
L'hymen n'efface point ces profonds caractères ;
Pour aimer un mari, l'on ne hait pas ses frères;
La nature en tout temps garde ses premiers droits,
Aux dépens de leur vie on ne fait point de choix:
Aussi bien qu'un époux ils sont d'autres nous-mêmes;
Et tous maux sont pareils alors qu'ils sont extrêmes.
Mais l'amant qui vous charme et pour qui vous brûlez
Ne vous est, après tout, que ce que vous voulez;
Une mauvaise humeur, un peu de jalousie,
En fait assez souvent passer la fantaisie.
Ce que peut le caprice, osez-le par raison,
Et laissez votre sang hors de comparaison.
-Corneille: Horace, Acte III., Sc. iv.
(b.) In what sense are the following words used in "Horace": Déplaisirs, heur, flamme, sus, étonnement?
(c.) Give very shortly the arguments of $L_{e}$ vieil Horace when pleading for the life of Horace.

4-E. 1a.
3. (a.) Translate into English-

Acaste-
Moi? Parbleu! Je ne suis de taille ni d'humeur A pouvoir d'une belle essuyer la froideur. C'est aux gens mal tournés, aux mérites vulgaires, A brûler coustamment pour des beautés sévères, A languir à leurs pieds et souffrir leurs rigueurs, A chercher le secours des soupirs et des pleurs. Et tâcher, par des soins d'une très-longue suite, D'obtenir ce qu'on nie à leur peu de mérite.
Mais les gens de mon air, marquis, ne sont pas faits Pour aimer à crédit et faire tous les frais. Quelque rare que soit le mérite des belles, Je pense, Dieu merci, qu'on vaut son prix comme elles; Que, pour se faire honneur d'un cœur comme le mien, Ce n'est pas la raison qu'il ne leur coûte rien ;
Et qu'au moins, à tout mettre en de justes balances; Il faut qu'à frais communs se fassent les avances.
-Molière: Le Misanthrope, Acte III., Sc. i.
(b.) Write a short character of Alceste, illustrating it by occasional quotations.
4. Comment on the following constructions which occur in the "Misanthrope," with special reference to the words in italics:-
(a.) A peine pouvez-vous dire comme il se nomme.
(b.) Que le cas soit pendable.
(c.) Son misérable honneur ne voit pour lui personne.
(d.) Parlons à cœur ouvert, et voyons d'arrêter.
(e.) Et savent $y$ donner de favorables noms.
(f.) Aussi ne trowverais-je aucun sujet de plainte.

## No. 22.-German.-For Civil Service Junior.

Time allowed!: Three hours. [N.B.-If you write in German characters, use a fine pen.]

1. (a.) Translate into English-

## A Street in Stamboul.

Ein Gang durch die engen Strassen ist zwar einerseits mühsam, da mạ im bunten Gedränge der Reiter, der Ochsenkarren, der Wasserträger, der Eseltreiber, der Träger von Olkrügen, der Brotverkäufer, der Eierhändler, u.s.w., nur langsam vorwärts kommt ; andererseits wieder hoch interessant, um die verschiedensten Stände und Nationalitäten zu beobachten. Dort reitet ein Pascha mit zahlreichem Gefolge, hier bringt ein Beduine seine gekauften Waffen in Sicherheit, ein singender Derwisch leiert seine Loblieder ab, oder ein weissbärtiger Hadschi erzählt dem lauschenden Kreise, der sich um ihn gebildet, Wundermärchen. Hier sehen wir rechts und links die Handwerker in ihren Werkstätten; dort schauen wir in ein Kaffeelokal, wo in qualmerfülltem Raume die Fanatiker der Ruhe stundenlang mit untergeschlagenen Füssen sitzen, um sich dem Kaf, dem absoluten Nichtsthun, hinzugeben.
(b.) Engen, bunten, hoch: give the comparative and superlative of these words.
(c.) Rechts und links: what other ways are there of forming adverbs in German?
(d.) Ein singender Derwisch : decline this expression in full.
(e.) Dort: express the English word "there" in as many ways as you can in German.
2. (a.) Translate into English-

## An Evening Song.

Abend wird es wieder; Über Wald und Feld Säuselt Frieden nieder, Und es ruht die Welt. Nur der Bach ergiesset Sich am Felsen dort, Und er braust und fliesset Immer fort und fort. Und kein Abend bringet Frieden ihm und Ruh! Keine Glocke klinget Ihm ein Rastlied zu. So in deinem Streben Bist, mein Herz, auch du; Gott nur kann dir geben Wahre Abendruh.
(b.) Give the third person singular of the present indicative, the third person singular of the imperfect indicative, and the past participle of the following: Kommen, beobachten, erzählen, sehen, sitzen.

## 3. Translate into German-

In a town there are always many streets, and on each side of the streets many houses and other buildings $\left({ }^{1}\right)$. In a new town the streets are generally wide, but in an old town they are often narrow ( ${ }^{2}$ ). In the early morning and in the evening there is not much noise, but from 10 a.m. until 7 p.m. the streets are full of people and carriages. In the principal streets there are always many shops, in the windows of which goods $\left({ }^{3}\right)$ of all kinds are to be seen. It is much pleasanter to live in the country than in towns.

$$
\text { () Building, das Gebäude. ( }{ }^{(2)} \text { Narrow, eng. ( }{ }^{3} \text { ) Goods, Waaren. }
$$

4. Translate into German-
(a.) He would rather go on horseback than by train ( $Z u g$ ).
(b.) The sooner you read your book the better.
(c.) The army arrived at midnight.
(d.) That has nothing to do with me.
(e.) We are going on a long journey; get clothes and money ready, and leave everything in order.

No. 23.-German.-For Class D.
Time allowed: Three hours. [If you write in German characters, use a fine pen.]

1. (a.) Translate-

## A Cavalry Recruit.

Man führte mich zu einem Stall, der gar nicht übel anssah, und in dem ich neben den Wagenpferden des Hausherrn meinen Rappen in einen bequemen Stall stellen konnte. Der Stallknecht kam und half mir absatteln und putzen, was ich heute, da mein Bursche bei der Batterie draussen blieb, selbst hätte besorgen müssen. Er erbot sich, aus dem Magazin meine Fourage zu holen, was mir sehr lieb war ; denn ich wäre doch nicht gern mit einem grossen Bunde Stroh und Heu und einem Sack Hafer durch die Strassen gelaufen. Zur Schlafstelle wurde mir ein Bett in einem Verschlag neben dem Stalle angewiesen. Er war neben zwei audern, die der Stallknecht und Bediente einnahmen. Ich wollte gegen diese Kameradschaft protestiren ; doch die Beiden, welche mich natürlich ganz für ihres Gleichen ansahen, meinten gutmüthig wir würden schon gute Freundschaft halten.-Hackländer.
(b.) Zu einem Stall: What other methods are there of expressing in German " motion towards"?
(c.) Half mir absatteln . . . erbot sich zu holen: How would you generally be guided as to the use or omission of $z u$ with an infinitive?
(d.) Wir würden: As a rule the finite verb in a dependent sentence is put at the end of it: why is this not the case here?
2. (a.) Translate-

## The Sturdy Workman and the Thin Doctor.

"Wie viel Geld geben Sie für Thr Mittagessen aus?" fragte der Professor. " Eine Mark," antwortete der Maurer. "Was kaufen Sic sich dafür?" "Drei Mass Bier-sind 78 Pfennig-und ein bischen Wurst und Brod." "Sehen Sie," lehrt ihn der Professor, "Wenn ich eine Mark für den Mittagtisch auslegen will, mache ich es umgekehrt: ich kaufe mir um 22 Pfennig Fleisch und um 22 Pfennig etwas zu trinken, aber nicht Bier, sondern Limonade." "Mei'," sagt der Arbeiter mit einem geringschätzigen Blick auf den Gelehrten, "Sie schauen aber darnach aus."
3. Translate-

> Ich reit'am finstern Garten hin, Die dürren Bäume sausen drin, Die welken Blätter fallen. Hier pflegt ich in der Rosenzeit, Wann alles sich der Liebe weiht, Mit meinem Lieb zu wallen. Erlöschen ist der Sonne Strahl, Verwelkt die Rosen allzumal, Mein Lieb zu Grab getragen. Ich reit'ins finstre Land hinein Im Wintersturm, ohn'allen Schein, Den Mantel umgeschlagen.
-Uhland.
4. (a.) Translate into German-

Not long afterwards there was a rumour ${ }^{(1)}$ ) that Metz had capitulated. Army and fortress and all the war material had been surrendered. Three marshals, 4,000 officers, and 173,000 men had given themselves up as prisoners. The entrance of our troops was to take place on the next day; so I drove to Metz. It was not until after one o'clock that the imprisoned troops began to march out of all the gates. Bazaine appeared before Prince Frederick Charles at the head of his officers. The Prince beckoned $\left({ }^{2}\right)$ him to his side, and then began the march-past of the prisoners: they were to lay down their arms later on in the town. No one would have seen from their faces that distress ${ }^{3}$ ) had reigned in the fortress, but the horses had eaten up one another's manes and tails The bearing ${ }^{4}$ ) of the soldiers was dignified.

[^0](b.) Translate into German-
(1.) These are my books.
(2.) Wishing to see him, I went to his house.
(3.) He has become ill from working too much.
(4.) I shall drink a cup of tea or coffee.
(5.) The sooner you read the book the better.

No. 24.-German.-(I.) Composition and Unprepared Translation.-For Class C and for Civil Service Senior.
Time allowed: Two hours. [If you write in German characters, use a fine pen.]

## 1. Translate into English-

## Fiete Krey searches for Treasure.

Fiete Krey aber blieb oben in der dürren Heide stehen; als Jörn sich umsah, stand er wie ein schwarzen Pfahl am Horizont. Langsam kehrte Fiete Krey sich um und ging wieder in die Mulde hinunter, legte sein Bündel neben das Wasser, zog seine Jacke aus, legte sich ins Gras und langte in das Wasser, so tief er konnte. So kroch er rund um das Wasser und fand nichts. Da kleidete er sich eilig aus, und als er nackend war, fasste er einige starke Zweige, die am Rande lagen und stieg vorsichtig in das kalte Wasser und bekam Grund. Es reichte ihm bis an die Brust. Er trat vorsichtig hin und her; aber er spurte nichts Hartes. Es war alles weich, Sand und verwestes Laub. Er tauchte dreimal unter und suchte an den Rändern, aber da war nichts als eine glatte Lehmwand, mit Wassergewächs überzogen. Da gab er es auf. Er stieg wieder heraus und stand eine Weile, ehe er nach dem Hemde griff. Er stand gerade und still. Er spürte die schneidende Kälte nicht, die ihn mit feinen, eisigen Ruten schlug. Er stand und sah ins Wasser, das mit Stillem, traurigem Auge ihn ansah, als hielte es wehmütig sein Geheimniss fest.-Gustav Frensser.
2. Translate into English-

## The Awakened Rose.

Die Knospe traümte von Sonnenschein,
Vom Rauschen der Blätter im grünen Hain
Von der Quelle melodischem Wogenfall, Von Süssen Tönen der Nachtigall, Und von den Lüften, die kosen und schaukeln, Und von den Düften, die schmeicheln und gaukeln. Und als die Knospe zur Rose erwacht, Da hat sie mild durch Thränen gelacht, Und hat geschaut, und hat gelauscht, Wie's leuchtet und klingt, wie's duftet und rauscht. Und als ihr Träumen nun wurde wahr, Da hat sie vor süssem Staunen gelebt, Und leis geflüstert: "Ist mir's doch gar, Als hätte'ich das Alles schon einmal erlebt!' -Sallet.
3. Translate into German-
(a.) Well, Staphyla died one day, and a great loss she was to me, and I went into the market to buy me another slave. But, by the gods! they were all grown so dear since I had bought poor Staphyla, and money was so scarce, that I was about to leave the place in despair, when a merchant plucked( ${ }^{1}$ ) me by the robe. "Mistress," said he, "dost thou want a slave cheap? I have a child to sell-a bargain. She is but little, and almost an infant, it is true; but she is quick and quiet, docile( ${ }^{2}$ ) and clever, sings well, and is of good blood, I assure you." "Of what country?" said I. "Thessalian." Now, I know the Thessalians are acute and gentle ; so I said I would see the girl. I found her just as you see her now, scarcely smaller and scarcely younger in appearance. I asked the merchant his price: it was moderate, and I bought her at once. The merchant brought her to my house, and disappeared in an instant. Well, my friends, guess my astonishment when I found she was blind! Ha! a clever fellow that merchant.

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\text { () Pluck, züpfen. } \quad \text { (2) Docile, gelehrig. }
$$

Dear C,-
(b.)

I hope you have received the card I sent you last week. I went to the post again to-day to get the letter I expected from you, but found none. Last Sunday I went to a concert, as you and I did a fortnight ago. It was a delightful concert, but I could not help thinking how much more I should have enjoyed it had you been with me. We have long hours at the office, but I will try to write regularly each week. Please try to do the same.

Your affectionate brother,
G.
4. Translate into German-
(a.) There was much talking and laughing.
(b.) He received three-fourths of the money.
(c.) What are you afraid of?
(d.) He walked there and back.
(e.) He did it in a most satisfactory manner.
( $f$.) He wrote to his friend and his son (i.e., his friend's son).

No. 25.-German.-(II.) Prepared Books. For Class C and for Civil Service Senior.
Time allowed: Two hours. [If you write in German characters, use a fine pen.]
. (a.) Translate into English-

## Maria-

Es kann der Brite gegen den Schotten nicht
Gerecht seyn, ist ein uralt Wort-Drum ist Herkömmlich seit der Väter grauer Zeit,
Dass vor Gericht kein Brite gegen den Schotten,
Kein Schotte gegen jenen zeugen darf.
Die Noth gab dieses seltsame Gesetz:
Ein tiefer Sinn wohnt in den alten Bräuchen,
Man muss sie ehren, Milord-die Natur
Darf diese beiden feur'gen Völkerschaften
Auf dieses Bret in Ocean: ungleich
Vertheilte sie's und hiess sie darum kämpfen.
Der Tweede Schmales Bette trennt allein
Die heft'gen Geister; oft vermischte sich
Das Blut der Kämpfenden in ihren Wellen
Und nicht erlöschen wird der Hass, bis endlich
Ein Parlament sie brüderlich vereint,
Ein Zepter waltet durch die ganze Insel.
-Schiller : Maria Stuart, Act I., Sc. vii.
(b.) Mention five or six historical inaccuracies in this play.
(c.) Der Väter grauer Zeit: When do you use von, and when do you use the simple genitive in German to represent the English " of "?
(d.) Hiess : Translate the various uses of the word heissen.
2. (a.) Translate into English-

Shrewsbury advises Mary Stuart-
Thuts dennoch!
Sprecht ehrerbietig, mit Gelassenheit!
Ruft ihre Grossmuth an, trotzt nicht, jetzt nicht Auf euer Recht, jetzo ist nicht die Stunde.

## Maria-

Ach, mein Verderben hab'ich mir erfleht,
Und mir zum Fluche wird mein Flehn orhört!
Nie hätten wir uns sehen sollen, niemals!
Daraus kann nimmer, nimmer Gutes kommen!
Eh mögen Feu'r und Wasser sich in Liebe
Begegnen, und das Lamm den Tiger küssen-
Ich bin zu schwer verletzt-sie hat zu schwer
Beleidigt-Nie ist zwischen uns Versöhnung. —Ibid., Act III., Sc. iii.
(b.) Give some account of the meeting between Mary and Elizabeth, with special regard to the arguments used by the former.
(c.) Mögen: Discuss the various uses of this word.
3. (a.) Translate into English-

## Mother and Son.

Also sprachen die Männer, sich unterhaltend. Die Mutter Ging indessen, den Sohn erst vor dem Hause zu suchen, Auf der steinernen Bank, wo sein gewöhnlicher Sitz war. Als sie daselbst ihn nicht fand, so ging sie, im Stalle zu schauen, Ob er die herrlichen Pferde, die Hengste, selber besorgte, Die er als Fohlen gekauft und die er Niemand vertraute.
Und es sagte der Knecht: Er ist in den Garten gegangen. Da durchschritt sie hehende die langen doppelten Höfe, Liesz die Ställe zurück und die wohlgezimmerten Scheunen, Trat in den Garten, der weit bis an die Mauern des Städtchens Reichte, schritt ihn hindurch, und freute sich jeglichen Wachstums, Stellte die Stützen zurecht, auf denen beladen die Aeste Ruhten des Apfelbaums, wie des Birnbaums lastende Zweige, Nahm gleich einige Raupen vom kräftig strotzenden Kohl weg; Denn ein geschäftiges Weib thut keine Schritte vergebens.
-Goethe: Hermann und Dorothea, Euterpe.
(b.) When Hermann's mother finds Hermann, what is the account of his grief which she elicits from him?
(c.) What circumstances probably gave rise to this poem?
(d.) Mention some of the constructions in (a) which are unlike ordinary German, and are introduced to heighten the resemblance of the poem to Homer's work.
4. Translate into English-
(a.) Nun aber scheint es nöthig, umständlicher anzuzeigen und begreiflich zu machen, wie ich mir in solchen Fällen in der französischen Sprache, die ich doch nicht gelernt, mit mehr oder weniger Bequemlichkeit durchgeholfen. Auch hier kam mir die angeborene Gabe zu Statten, dass ich leicht den Schall und Klang einer Sprache, ihre Bewegung, ihren Accent, den Ton und was sonst von äuszern Eigenthümlichkeiten, fassen konnte. Aus dem Lateinischen waren mir viele Worte bekannt; das Italiänische vermittelte noch mehr, und so horchte ich in kurzer Zeit von Bedienten und Soldaten, Schildwachen und Besuchen so viel heraus, dass ich mich, wo nicht ins Gespräch mischen, doch wenigstens einzelne Fragen und Antworten bestehen konnte.-Goethe: Aus meinem Leben I., iii.
(b.) Durchgeholfen: Is the use of ge with the past participle in this sentence in accordance with modern usage in German?
(c.) Write out the German of (a) from the words das Italiänische to the end, and mark the syllable in each word upon which the accent falls. Monosyllables need not be marked.
5. Translate into English-

Nicht glïcklicher ging es mit der Zusammensetzung einer Elektrisirmaschine. Ein Hausfreund, dessen Jugend in die Zeit gefallen war, in welcher die Elektricität alle Geister beschätigte, erzählte uns öfter, wie er als Knabe eine solche Maschine zu besitzen gewünscht, wie er sich die Hauptbedingungen abgesehen und mit Hülfe eines alten Spinnrades und einiger Arzneigläser ziemliche Wirkungen hervorgebracht. Da er dieses gern und oft wiederholte und uns dabei von der Elektricität überhaupt unterrichtete, so fanden wir Kinder die Sache sehr plausibel und quälten uns mit einem alten Spinnrade und einigen Arzneigläsern lange Zeit herum, ohne auch nur die mindeste Wirkung hervorbringen zu können. Wir hielten demungeachtet am Glauben fest und waren sehr vergnügt, als zur Messzeit, unter andern Raritäten, Zauber- und Taschenspielerkünsten, auch eine Elektrisirmaschine ihre Kunststücke machte, welche, so wie die magnetischen, für jene Zeit schon sehr vervielfältigt waren.-Ibid., I., iv.

## No. 26.-Maori.-For Civil Service Junior. <br> Time allowed: Three hours

1. Say how the passive of the verb is formed. Give the passive forms of the verbs pupuri, tango, tahu, hanga, horo, kakahu. How is the plural number formed?
2. What is the Maori for one, two, ten ; for once, ten times; for frst, second, twentieth?
3. Translate into English-

Kua mamae au. E haere na ia. Kua porangi te tangata. Kua makona au i te kai. Hapainga kia teitei ki runga. Aua koe e mangere. Hei a tera tau. No nanahi itae mai ia. E rua mano e wha rau e toru tekau ma whitu.
4. Translate into Maori-

Friend, I have been to Waikato, and have seen the land you told me of, but I do not like it ; there is too much swamp, and too little land fit to cultivate. I asked the owner the price, but he wants too much for that land. Hence shall I seek some other place as a home for myself and family. I will write to you when I have found a suitable place.

## 5. Translate into English-

I te wa i tae mai nei nga waka i Hawaiki, ka u aua waka ki Whangaparaoa, i ko atu o Opotiki. E rima aua waka, a, ka ngangare nga tangata o runga i aua waka. Mea ana nga tangata o tetahi o aua waka ko ratou i u wawe; mea ana etahi tangata ko ratou kua tae wawe mai. He nui te ngangare me te korero mo taua take. I te mutunga kua rere ke atu etahi waka ki te kimi kainga mo ratou kei nga wahi mamao o te motu. Koia i marara ai nga tangata o taua heke. Kua noho etahi ki Maketu, etahi ki Kawhia, etahi ki Waitara, etahi ki Turanga me era atu wahi-a, e noho nei nga uri o aua tangata i aua wahi i naianei. A, ko nga whakapaparanga tangata mai o te heke nei, tae iho ki naianei, e rua tekau ma rua.

## No. 27.-Maori.-For Class C and for Civil Service Senior. <br> Time allowed: Three hours.

1. Put the following into Maori :-

If I had been there. If it had not been for you. When I was living there formerly. I shall go at some future time. The largest of all. A little is better than none. You two alone. We stayed, they went. It were better to die than live in sin. They two quarrelled between themselves.
2. State the difference in meaning between ta ratou, to ratou, ma maua, mo maua. What is the plural of taua mea and of tetahi mea? What is the present participle of mea, patu, hanga, tanu, tiro, tia?
3. Translate into English-

Ma te aha ka oti ai? I peheatia i moumou ai? Ora noa au te mate. E taea ana te pehea. Mate tangata, mate whenua. Té korikori té aha. Ma te matapihitia mai. Whaka-te-tonga Kauaka e kataina. Whakarongo marire, ata tirohia. Aue te mamae i a au!
4. Translate into Maori-

Once upon a time there dwelt at an inland village named Waiaua, on the inland side of Opotiki, a certain man named Tapa-kakahu. This man was seized with a desire for fish, so he took his paua-pounamu, or jade shell-hook, proceeded to sea, and cast his hook on the waters. As it floated it was taken by the kahawai. He had caught at least ten fish, and was excited by the sport, when, alas, a great kahawai carried off his hook. The man was disconsolate on account of his hook, because it was an heirloom from his ancestors.

Tapa-kakahu then returned home, and taking his dog-skin mat, put it on, and started off to follow the shoal of kahawai, which proceeded along outside in the sea whilst the man ran along the shore repeating his karakias as he went. He knew well that the shoal of kahawai was going to Motu, which river is the source of all the kahawai in the seas of this island, and where is the mauri of the kahawai. It is a rock in the river, and is a tupua. He also knew that in all probability Te Whanau-a-Apanui would be fishing with the net for the shoals of kahawai, and, may be, that great kahawai that took his hook would be caught.
5. Translate into English-

Kua hui katoa nga iwi me nga toa-taua, mai tona kainga o Kawhia mai, a, tae noa mai ki a Te Ati-awa. Koia ra tenei ka haere nei tenei ope-ko te nuinga i tika ma runga waka, ka ahu ma te moana-ko Ngati-Koata ia. Ko Te Whare-o-te-riri i tika ma uta, ma te maunga e karangatia nei ko Maunga-tawhai. Ka tae taua ope ki Kaiapohia, rokohanga atu kua tae katoa nga iwi nei, kei te karapoti i te pa o Ngai-Tahu. Ka mahara a Ngati-Koata, e! me pehea ra e horo ai taua pa-teko. Katahi ka keria haeretia e ratou i te whenua; a ka tata noa ki te pa, katahi ka mahia ki te rarauhe, ki te manuka, a, ka pae, ka kimihia tetahi tino tohunga; ka kitea tetahi, a, nana i karakia te hau kia whiti ki te hautonga. No te putanga o taua hau katahi ka haria aua rarauhe me nga manuka hei tahu i taua pa-teko. No kona i hinga ai taua pa nui-kaha nei, na te ahi. I te mea e keria ana taua awarua nei ka haere atu tetahi tangata ki reira moe ai. Te makanga mai a te pu ki taua tangata mate tonu atu. No reira te whakatauki nei: " Ka mate te iwi keri parepare, hei aha ma Te Whare-o-te-riri?"

No. 28.-Arithmetic, A.-For Junior National Scholarships and Free Places in Secondary Schools. Time allowed: Two hours. [You are to answer, if you can, all the first eight questions, and two only of the remaining four.]

1. Find the least number that must be added to three hundred and seven million eight thousund five hundred in order that the sum may be exactly divisible by thirty-seven thousand and eight.

Also find the sum of all the numbers between 200 and 300 that are exactly divisible by 19.
2. In dividing $\frac{6}{7}$ by $3 I$ either divide the numerator by 3 , getting $\frac{2}{7}$, or multiply the denominator by 3 , getting $\frac{6}{21}$ : draw a diagram to show that the results are equal.

Find in pence the value of $\frac{7}{8}$ of $5 \mathrm{~s} .9 \mathrm{~d} .-\frac{3}{16}$ of $£ 16 \mathrm{~s} .1 \mathrm{~d} .+3 \frac{1}{12}$ of 4 s . 5 d .
3. A merchant buys a quantity of butter; three-sixteenths of it is unsaleable, and the rest, sold at $10 \frac{1}{2} \mathrm{~d}$. a pound, realises $£ 36217 \mathrm{~s}$. 3 d . : how much butter did he buy?
4. Find by the method of practice the value of 3 cwt .0 qr .50 lb . of copper at $£ 64 \mathrm{a}$ ton.

Also, by the same method, find the cost of 857 things at $£ 16 \mathrm{~s} .10 \mathrm{~d}$. a hundred.
5 . The wheel of a motor car is 30 inches across: how often will it revolve in $3 \frac{3}{5}$ minutes when travelling at the rate of 50 miles an hour ? [Assume that the circumference is $3 \frac{1}{7}$ times the diameter.]
6. My walking-stick, which is 2 ft .10 in . long, casts a shadow of 6 ft .8 in . at the same time that the shadow of a tree is 26 yd .2 ft .3 in . : find the height of the tree.
7. The working of the sum "What is the interest on $£ 187$ for 5 months at $4 \frac{8}{4}$ per cent. per annum?" was set out in two steps, without explanation, as follows:-

$$
\begin{aligned}
& £ \frac{19}{4} \times \frac{187}{100} \\
& £ \frac{19}{4} \times \frac{187}{100} \times \frac{5}{12}
\end{aligned}
$$

State as clearly as you can the reasoning on which these two steps are based.
8. A farmer buys a block of land of 1,095 acres 3 roods 10 perches; he finds that 476 acres 3 roods of it is good pasture, the remainder being swamp land and bush: if the area of the swamp land is $2 \frac{1}{2}$ times as great as that under bush, what will be the cost of draining the swamp land at $£ 610$ s. an acre?
9. On the 5 th December I repaid the sum of $£ 750$ which I had borrowed some time before at $7 \frac{1}{2}$ per cent. per annum : if the charge for interest was $£ 115 \mathrm{~s}$., what was the date of the loan ?
10. In an arithmetic-book a sum was printed with a number omitted, thus: Simplify $9 \frac{3}{4}-3 \frac{5}{8}$ $+4 \frac{1}{12}-\quad+10 \frac{7}{18}$ : if the answer given at the end of the book was $8 \frac{1}{3}$, find the missing term.
11. A test was made of the eyesight of the pupils in three schools containing $1,240,1,160$, and 1,075 pupils respectively; in the first school 45 per cent., in the second 30 per cent., and in the third 56 per cent. had weak eyes: find the percentage of pupils with weak eyes in the three schools together.
12. Given that a surveyor's chain contains 100 links, and that 10 square chains make an acre, show that with a little knowledge of decimals you can readily express square links in acres. Express 476875 square links in acres and the decimal of an acre, and reduce the decimal part to roods and perches.

No. 29.-Arithmetic, B.-For Junior National Scholarships and Free Places in Secondary Schools. Time allowed: Two hours. [You are to answer, if you can, all the frst eight questions, and two only of the remaining four.]

1. Show by means of a diagram that $\frac{2 f}{5}=\frac{1}{2}$; also express the difference between $2 \frac{3}{5}$ feet and $6 \frac{7}{10}$ inches as the fraction of $3 \frac{1}{2}$ yards.
2. A bankrupt whose debts amount to $£ 8,760$ can pay only $9 \frac{1}{1} \frac{1}{2}$ d. in the $£:$ find what he is worth.
3. Travelling at the rate of $6 \frac{1}{2}$ miles an hour I can get from Napier to Taupo in $15 \frac{3}{4}$ hours : what must be my speed if I return in $9 \frac{3}{4}$ hours?
4. A farmer threshes 6 qr .5 bush. of wheat per acre from a field of 28 acres, and he sells it at $£ 1 \mathrm{lls} .6 \mathrm{~d}$. a quarter : find, by the method of practice, the value of the crop.
5. What is the interest on $£ 1,25315 \mathrm{~s}$. from November 14th, 1904, to February 14th, 1905, at $6 \frac{1}{2}$ per cent. per annum ?
6. A coal-merchant buys a cargo of 297 tons 12 cwt. of coal for $£ 2234 \mathrm{~s}$.; he reckons that it will cost him 8 s .4 d . a ton to sell it in truck-loads of 4 tons 16 cwt . each : if he charges $£ 610 \mathrm{~s}$. a truck, what is his total profit?
7. A can do a piece of work in 10 days; $B$ can do it in 6 days : how long will it take them, working together, to do a piece of work twice as great?
8. Assuming that 396 inches $=1008$ centimeters, express 2 miles 14 chains in centimeters.
9. A farmer sends 260 sheep to the saleyards, and they are sold at 15 s .9 d . a head : if the auctioneer charges a commission of 24 per cent., how much does the farmer receive for his sheep?
10. Express 2 roods 16 perches as the decimal of an acre, and find the value of a farm of 164 acres 2 roods 16 perches at $£ 8$ an acre.
11. Gold-leaf is sold in packets of 500 sheets, each sheet measuring $3 \frac{1}{2}$ inches square, at $£ 210 \mathrm{~s}$. a packet; the quantity required to cover a cubical block costs $£ 3$ : find the length of the edge of the block.
12. The working of the sum " How long will 16 reapers take to cut 120 acres of wheat if 12 reapers cut 84 acres in 7 hours? " was set out in two steps, without explanation, as follows :-

> Hours. $\begin{aligned} & 7 \times \frac{12}{16} \\ & 7 \times \frac{12}{16} \times \frac{120}{84}\end{aligned}$

State as clearly as you can the reasoning on which these two steps are based.

## No. 30.-Arithmetic.-For Civil Service Junior.

Time allowed: Three hours. [The full working of the questions should in all cases be given.]

1. By what factor less than 1000 must 4389 be multiplied so that the last three figures of the product may be 438?
2. Simplify $1 \frac{5}{8}$ of $\frac{\frac{1}{2}+\frac{1}{8}+\frac{1}{2}}{2 \frac{1}{2}-3 \frac{1}{3}+4 \frac{1}{4}}$ of $\frac{\frac{2 \sqrt{3}}{37}+\frac{\frac{2}{16}}{16}}{\frac{3}{18}} \frac{\frac{3}{2}}{4 \frac{1}{2}}+\frac{\frac{1}{2}}{3}$
3. Reduce 3 cwt .3 qr .5 lb .4 oz . to the decimal of a ton.
4. Show how to obtain the product of $27.540 \dot{6}$ and $8.34 \dot{7}$ to five places of decimals by contracted multiplication, and test your answer by multiplying in the ordinary way.
5. A vessel whose speed was $9 \frac{1}{4}$ miles an hour started at 8 o'clock to go a distance of 74 miles ; a second vessel whose speed was to that of the first as 8 to 5 , starting from the same place, arrived 5 minutes before the first: when did the second vessel start?
6. Two rectangular fields are enclosed by fences each 3,796 feet in total length, the first field being square, and the second 624 feet longer than the first: what length of fencing would it take to enclose a square field equal in area to the second?
7. A Lyons merchant could sell silk at home at 7 fr .10 c . a meter, making a profit of $6 \frac{1}{2} \%$; but at Vienna he could sell it at 10 fl .25 kr . ( 100 kreutzer $=1$ florin) for 3 meters, gaining $8 \frac{2}{2} \%$ : find the rate of exchange between Austria and France in florins for 200 fr .
8. If the interest on $£ 2532 \mathrm{~s} .6 \mathrm{~d}$. at $5 \%$ be equal to the true discount on $22576 \mathrm{~s} .10 \frac{1}{2} \mathrm{~d}$. for the same time at the same rate, when is the latter sum due?
9. A rents a house for a year at $£ 9312 \mathrm{~s}$., and at the end of four months takes in B as a co-tenaut, and they admit C in like manner for the last $2 \frac{1}{2}$ months: how much of the rent should each pay?
10. Given that 7 women are paid as much as 4 men, and that 24 men and 7 women working together earn 726 guineas in 51 days, what number of women should work with 20 men so that the earnings of the 20 men and the women together for 17 days may amount to $£ 2542 \mathrm{~s}$. ?
11. If the length of the minute hand of a clock is 11 ft ., find to the nearest yard the distance that the end of it will travel in $365 \frac{1}{4}$ days, taking the ratio of the diameter of a circle to its circum. ference as 7 to 22.
12. The area of a coalfield is $937 \frac{1}{2}$ square miles, and the average thickness of the coal is 70 ft . : if a cubic yard of coal weigh a ton, and the annual output be $70,000,000$ tons, how many years will it take to exhaust the coal?

> No. 31.-Arithmetic.-For Class D.

Time allowed: Three hours. [All the work by which a result is obtained must be clearly shown, as no credit can be allowed for any result, however correct it may be, unless the method of obtaining it is given.]

1. (a.) Divide 3879769 by 56 , short division, by factors; and explain the reason for your method of finding the remainder.
(b.) Find the G.C.M. of 441441 and 844272 , and explain the principles involved in the working
2. Find the value of 375 ac .2 ro .17 pr . at $£ 7515 \mathrm{~s} .6 \mathrm{~d}$. an acre.

(b.) Find the value of $0.24 \dot{6}$ of $9 \mathrm{~s} .3 \mathrm{~d} .+0.25 \dot{9}$ of $25 \mathrm{~s} .+0.0 \dot{2}$ of $£ 37 \mathrm{~s} .6 \mathrm{~d}$,, and reduce the result to the decimal of $£ 3$.
3. Apply a short method to find the product of $375 \cdot 76843$ and $3 \cdot 14159$ correct to four places of decimals.
4. A bankrupt estate pays 6 s .6 d . in the pound, and a creditor is paid $£ 3505 \mathrm{~s} .6 \mathrm{~d}$. : what was his full claim?
5. If a meter contains $39 \cdot 37$ inches, find the number of meters in a mile, to three places of decimals.
6. Find the length of the side of a square which is equal in area to a rectangle whose sides are 513 yards 1 foot 11 inches and 1,628 yards 11 inches.
7. At what time between 10.30 and 11.30 will the angle between the hands of a watch be equal to the angle through which the long hand turns in 25 minutes?
8. Find the compound interest on $£ 2,3505 \mathrm{~s}$. 9 d . for 2 years at $3 \frac{1}{2}$ per cent. per annum, interest accruing quarterly.
9. A person invests $£ 14,970$, part in the three-per-cents at 90 and the rest in the three-and-a-quarter-per-cents at 97 : if his total income is $£ 500$ a year, how much of each stock did he buy?
10. (a.) When multiplying a number by 9 the digits.carried were successively $7,2,3,0,6,6$, 2, 4: what was the number?
(b.) Supply the missing digits in the following multiplication sum :-

| $* * 9^{*}$ |
| ---: |
| $6^{*}$ |
| $18^{* *}{ }^{*} 9$ |
| ${ }^{* * * * * *}$ |
| $173^{* * *}$ |

12. The diameter of a tree at the base is 6 feet, and at 25 feet from the ground it is 5 feet: find the number of cubic feet in this part of the tree, considering it as a part of a right circular cone. [The volume of a right circular cone is one-third of the product of the height and the area of the base.]

## No. 32.-Arithmetic and Algebra.-For Class $C$ and for Civil Service Senior.

## Time allowed: Three hours. [Algebraic symbols and methods may be used throughout.]

1. The solar year contains $365 \cdot 242218$ mean solar days: show that it would be more nearly correct to add 8 days in 33 years than to continue the present arrangement of leap year. With this correction, what would the accumulated errors amount to in 5,000 years?
2. Discuss briefly the advantages and disadvantages of introducing a decimal system of measures.

Make out the following bills:-
(a.) 23 tons 7 cwt 3 qr .14 lb ., at 11s. 5 d . a pound.
$18 \mathrm{yd} .2 \mathrm{ft} .1 \frac{1}{2}$ in., at $5 \frac{1}{2} d$. an inch.
107 gallons 1 quart, at 10 s. 4 d. a pint.
(b.) $1278 \cdot 35$ grams, at 11.23 francs a gram.
$17 \cdot 26$ meters, at $5 \cdot 22$ francs a meter.
$236 \cdot 13$ liters, at $15 \cdot 35$ francs a liter.
3. Prove the identity $\frac{(a+b)(a+b)-(a-b)(a-b)}{(a+b)+(a-b)}=2 b$;
and hence, or otherwise, simplify $\frac{\left(1+\frac{1}{10+\mathrm{I}^{\frac{1}{0}}}\right) \times\left(1+\frac{1}{10+\frac{1}{10}}\right)-\left(1-\frac{1}{10+\frac{1}{10}}\right) \times\left(1-\frac{1}{10+\frac{1}{10}}\right)}{\left(1+\frac{1}{10+\frac{1}{10}}\right)+\left(1-\frac{1}{10+\frac{1}{10}}\right)}$
4. A and B enter into a speculation. A puts in $£ 50$ and B puts in $£ 125$; at the end of 5 months A withdraws $\frac{1}{2}$ of his capital, and at the end of 6 months B withdraws $\frac{1}{5}$ of his; C then enters with a capital of $£ 85$. At the end of 15 months the profits of the concern are £364. How ought this to be divided, allowance being made for capital and for the time during which it remains invested.
5. A merchant insures a ship and cargo for $£ 65,250$ at a premium of $21 \%$ to cover the value of the ship and cargo and the cost of insurance: find the premium paid, and the value of the ship and cargo.
6. Simplify (i.) $\frac{a}{a-c}-\frac{a}{a+c}-\frac{2 a c}{a^{2}+c^{2}}-\frac{4 a c^{8}}{a^{4}+c^{4}}$
(ii.) $\left(c-a+\frac{a^{2}}{c}\right) \div\left(\frac{a}{c^{2}}+\frac{c}{a^{2}}\right)$
7. Prove that $a^{m} \times a^{n}=a^{m+n}$ where $m$ and $n$ are positive integers. What meaning is ascribed to the symbols $a^{\frac{1}{2}}, a^{-2}, a^{0}$, and why? Multiply $a^{\frac{1}{8}} c^{-\frac{1}{2}}+1+a^{-\frac{1}{3}} c^{\frac{1}{2}}$ by $a^{\frac{1}{8}} c^{-}-1+a^{-\frac{1}{8}} c^{\frac{1}{2}}$.
8. Draw graphs of $y=x+2$, and $y=3-2 x-x^{2}$; and hence solve the equations $x+2=0$, $3-2 x-x^{2}=0$, and the simultaneous equations $y=x+2$ and $y=3-2 x-x^{2}$.

5-E. 1A.
9. Solve the equations-
(i.) $\frac{x-1}{x-2}+\frac{x-6}{x-7}=\frac{x-5}{x-6}+\frac{x-2}{x-3}$
(ii.) $\sqrt{x+1}+\sqrt{x-2}-\sqrt{2 x-5}=0$

$$
\left\{\begin{array}{l}
x^{2}+y^{2}+x+y=14  \tag{iii.}\\
x y=3
\end{array}\right.
$$

verify the results in each case.
10. Find formulæ for the $n^{\text {th }}$ term and the sum of $n$ terms of a geometrical progression.

From a cask of wine $\frac{1}{8}$ was drawn off, and the cask was filled by pouring in water : if this were done 6 times, show that the contents of the cask would be more than $\frac{9}{10}$ water.
11. Eight persons contributed $£ 60$ to buy a piano ; one-half of the amount was contributed by women, and the other half by men, each man giving $£ 4$ more than each woman: what did each contribute?

No. 33.-Algebra.-For Completion of Class D, under Regulations now repealed. Time allowed: Three hours.

1. Explain briefly the relation between arithmetic and algebra.

Two boys had together $£ 1 \mathrm{ls}$ : if the elder had twice as much as the younger, how much had each? Work this out (a) by arithmetic, (b) by algebra.

If $a=1, b=2, c=3, d=4, e=5$, find the numerical value of-

$$
[\{(a+b) \times c(d+e)-a\} b] \div b d \sqrt{a+c}
$$

2. State and prove the rules for adding and subtracting positive and negative quantities. Show by examples how the conception of negative quantities may arise in dealing with problems of daily life.

Simplify $a-b-c-(d+2 a+\{3 b-2 c+d\}-4 a-2 b)$
3. Prove $(a+b)(a-b)=a^{2}-b^{2}$, and find the squares of $a+b$ and of $a+b-c+d$. Hence find the squares of 999 and of 97 , and the product of 32 and 28.
4. In division the sign of any term of the quotient is + when the divisor and dividend have like signs, and - when they have unlike signs: why is this?

Divide $a^{2}+2 b c-b^{2}-c^{2}$ by $a-b+c$; and $a^{5}-b^{5}$ by $\left(a^{8}+b^{8}\right)(a+b)+a^{2} b^{3}$
5. Factorise-
(i.) $8 x^{2}+x-7$
(ii.) $x^{2}-b^{2}-2 x y+y^{2}$
(iii.) $36 a b-18 a c-18 b^{2}+9 b c$
(iv.) $81 x^{4}-64 x^{3} y^{2}+4 y^{4}$
6. Explain carefully the reasoning involved in the process of finding the highest common factor of two expressions by division. Find the H.C.F. of $3 x^{2}+11 x+6$ and $2 x^{2}+11 x+15$.
7. Solve the equations-

> (i.) $\frac{4 x-2}{11}+4-\frac{3 x-5}{13}=5$
> (ii.) $\frac{2 x+8}{5}+\frac{x}{2}-8=\frac{x-\frac{4 x-9}{3}}{6}-8 \frac{5}{6}$
> (iii.) $\left\{\begin{array}{l}2 x-3 y=3 \\ 4 x+5 y=39\end{array}\right.$
8. A lady distributed 252 shillings arnong the poor, giving the men 12s. each, the women 6 s . each, and the children 3 s . each; the number of women was two less than twice the number of men, and the number of children was four less than three times the number of women: how many poor were there?
9. If a certain rectangle were 1 ft . longer and 1 ft . broader it would contain 14 sq . ft . more area; if it were 1 ft . shorter and 6 in . broader its total area would be unchanged: find the dimensions of the rectangle.

No. 34.-Elementary Mathematics.-For Civil Service Junior.
Time allowed: Three hours.

1. (i.) Write down the squares of $3 a b^{2} c^{8}$ and $-4 a^{2} b^{5} b^{5}$ and the cube of $-7 a^{9} b^{5} c^{4}$, find the product of the results, and divide it by the fifth power of $6 a^{2} b^{6} c^{5}$.
(ii.) Divide $5 x^{5}-12 x^{2} y^{5}+16 x^{4} y+17 x^{8} y^{2}+18 x y^{4}$ by $3 x y^{2}-4 x^{2} y+5 x^{8}$.
2. Factorise-

$$
\begin{array}{lll}
\text { (i.) } x^{3}-2 x^{2}-x+2 & \text { (ii.) } x^{2}-\left(a+\frac{1}{a}\right) x+1 & \text { (iii.) } x^{4}-16
\end{array}
$$

Also find the H.C.F. of $x^{4}+3 y^{4}+x y\left(x^{2}-y^{2}\right)+2 x^{2} y^{2}$ and $x^{3}-3 y^{4}+x y(x+y)$
3. (i.) Simplify-
(ii.) Draw the graph of $y=\frac{\frac{a^{2}-(b-c)^{2}}{(a+b)^{2}-c^{2}}+\frac{b^{2}-(c-a)^{2}}{(b+c)^{2}-a^{2}}+\frac{c^{2}-(a-b)^{2}}{(c+a)^{2}-b^{2}}}{x-5}$
4. Solve the equations-

$$
\begin{aligned}
& \text { (i.) } \frac{2}{3-x}+\frac{3}{9-x^{2}}=\frac{1}{x+3} \\
& \text { (ii.) }\left\{\begin{array}{l}
17 x+23 y=5 \\
23 x+17 y=35
\end{array}\right. \\
& \text { (iii.) } x^{2}+\frac{36}{x^{2}}=13
\end{aligned}
$$

5. A train travelling at the rate of 45 miles an hour ( 66 ft . a second) takes 5 seconds to pass a man walking in the same direction, but would have taken only 3 seconds to pass him if he had been walking in the opposite direction at the same rate: find the length of the train.
6. Two triangles are congruent if two angles and a side of one triangle are respectively equal to two angles and the corresponding side of the other.

The bisectors of two angles of a triangle meet in a point which is equidistant from the sides.
7. Parallelograms on equal bases, and between the same parallels, are equal to one another.

If $A B C D$ is a quadrilateral having $B C$ parallel to $A D$, and if $E$ is the middle point of $D C$, then the triangle AEB is half the quadrilateral.
8. In any right-angled triangle the square described on the side that subtends the right angle is equal to the squares described on the sides that contain the right angle.

If a quadrilateral has its diagonals at right angles to each other, the sum of the squares on two opposite sides is equal to the sum of the squares on the other two sides.
9. Describe a square that shall be equal to a given rectilineal figure.

If the perimeter of a rectangle is constant, its area is greatest when its sides are equal.

## No. 35.-Elementary Mathematics.-For Class D. <br> Time allowed: Three hours.

1. Write out, with appropriate illustrations and examples, as if explaining to a class of beginners, the proof of the fundamental theorems $a-(-b)=a+b$ and $a \times b=b \times a$.
2. Multiply $a^{5}-5 a^{8}+2 a^{2}-1$ by $a^{5}+5 a^{3}-2 a^{2}+1$, and check the result for the case $a=1$.

Divide $a^{6}-b^{8}$ by $a^{8}-2 a^{2} b+2 a \bar{b}^{2}-b^{8}$.
3. Factorise-

$$
\begin{array}{ll}
\text { (i.) } 4 x^{2}-7 x+3 & \text { (ii.) } 12 a x-9 a y-8 b x+6 b y \\
\text { (iii.) } a^{4}+a^{2}+1 & \text { (iv.) } a b x y+b^{2} y^{2}+a c x-c^{2}
\end{array}
$$

4. Solve the equations-

> (i.) $\frac{3 x-3}{4}-\frac{3 x-3}{3}=\frac{15}{3}-\frac{27+4 x}{9}$
> (ii.) $\frac{9 x+20}{36}-\frac{x}{4}=\frac{4 x-12}{5 x-4}$
> (iii.) $\left\{\begin{array}{l}\frac{3 x}{5}+\frac{7 y}{4}=10 \\ \frac{2 x}{7}-\frac{y}{5}=\frac{22}{35}\end{array}\right.$
> (iv.) $3 x^{2}+5 x=8$

Illustrate the solution by graphs wherever possible.
5. A started from home on a bicycle at $7 \mathrm{a} . \mathrm{m}$., going at the rate of eight miles an hour ; when he had ridden a certain distance the machine broke down, and he was compelled to return afoot, and reached home at 6.30 p.m. : how far did he ride if he walked back at the rate of three and a half miles an hour?
6. Show how, by means of ruler and compasses, to draw a straight line through a given point in the straight line A B at right angles to A B.

Prove that the following is a correct method for erecting a perpendicular from a point $A$ in a line AB: With A as centre, describe an are of a circle; with the same radius, and B as centre, describe a second arc intersecting the first at $O$; with $O$ as centre, and the same radius, describe a third arc ; join BO, and produce it to meet the third arc in $D$; then $A D$ is the perpendicular required.
7. If two triangles have a side and two adjacent angles of one equal to a side and two adjacent angles of the other, the two triangles are equal.

Through a given point draw a straight line such that the perpendiculars on it from two given points may be equal.
8. Triangles on equal bases and between the same parallels are equal in area. Show that a trapezium is bisected by the straight line that joins the middle points of its parallel sides.
9. If a straight line is divided into any two parts, the square on the whole line is equal to the sum of the squares on the two parts, together with twice the rectangle contained by the two parts.

If a straight line is divided into any three parts, the square on the whole line is equal to the sum of the squares on the three parts, together with twice the rectangles contained by each pair of those parts.

Prove both the proposition and the rider algebraically as well as geometrically.

No. 36.-Euclid.-For Completion of Class D, under Regulations now repealed. Time allowed: Three hours.

1. If two triangles have the three sides of the one equal to the three sides of the other, the triangles are equal in ail respects.

If $A B C D$ is a rhombus, and $A C$ cuts $B D$ in $E$, then $A E$ is equal to $E C$.
2. Bisect a given rectilineal angle.

Compare Euclid's method with any practical one with which you are acquainted.
3. If one side of a triangle be produced, the exterior angle is greater than either of the interior and opposite angles.

Two of the medians of an isosceles triangle are equal.
4. If a straight line fall on two parallel straight lines, it makes the alternate angles equal, and the exterior angle equal to the interior and opposite angle on the same side; and also the two interior angles on the same side together equal to two right angles.

If any straight line be parallel to the line joining two points, it is equidistant from those points.
5. Triangles on equal bases and between the same parallels are equal to one another.

Make a triangle equal in area to a given quadrilateral ABCD.
6. In any right-angled triangle, the square on the side subtending the right angle is equal to the sum of the squares on the sides containing the right angle.
7. If a straight line be divided into any two parts, the square on the whole line is equal to the sum of the squares on the two parts, together with twice the rectangle contained by the two parts.

In a right-angled triangle, if a perpendicular be drawn from the right angle to the hypotenuse, the square on this perpendicular is equal to the rectangle contained by the segments of the hypotenuse.
8. In every triangle the square on the side subtending an acute angle is less than the squares on the sides containing that angle by twice the rectangle contained by either of these sides, and the straight line intercepted between the perpendicular let fall on it from the opposite angle and the acute angle.

If from one of the base angles of an isosceles triangle a perpendicular be drawn to the opposite side, then twice the rectangle contained by that side and the segment of it adjacent to the base is equal to the square on the base.

## No 37.-Geometry and Trigonometry.-For Class C and for Civil Service Senior.

 Time allowed: Three hours.1. Triangles on the same base and between the same parallels are equal in area.

Find the triangle that has the least perimeter, with a given base and area.
2. In every triangle the square on the side subtending an acute angle is less than the sum of the squares on the sides containing that angle, by twice the rectangle contained by either of those sides and the straight line intercepted between the perpendicular let fall on it from the opposite angle and the acute angle.
$C$ is any point on the circumference of a circle whose centre is the middle point of a given straight line $A B$ : prove that the sum of the squares on $A C, B C$ is constant.
3. Equal chords in a circle are equidistant from the centre, and chords that are equidistant from the centre are equal.

In a given circle draw a chord that shall be equal to one given straight line and parallel to another.
4. Angles in the same segment of a circle are equal.

Two circles intersect at A and B, and through A any straight line PAQ is drawn terminated by the circumferences: prove that $P Q$ subtends a constant angle at $B$.
5. Inscribe a circle in a given triangle.

If the circle inscribed in the triangle $A B C$ touches the sides at $D, E, F$, prove that the angles of the triangle DEF are respectively $90^{\circ}-\mathrm{A} / 2,90^{\circ}-\mathrm{B} / 2,90^{\circ}-\mathrm{C} / 2$.
6. If a straight line be drawn parallel to a side of a triangle it shall cut the other sides, or those sides produced, proportionally.

From P , a given point in the side AB of the triangle ABC , draw a straight line to AC produced so that it shall be bisected by BC.
7. Give a definition of an angle, suitable for the purposes of trigonometry. Explain the different systems of measuring angles, and the advantages and disadvantages of each system. What is meant by positive and negative angles?

What is the circular measure of the angle subtended at the centre by an arc of length 2.7 in . if the radius of the circle is 5 in .?
8. Prove the formulæ-

$$
\begin{aligned}
& \sin (A+B)=\sin A \cos B+\cos A \sin B \\
& C \cos (A+B)=\cos A \cos B-\sin A \sin B
\end{aligned}
$$

and deduce expressions for $\sin 2 \mathrm{~A}$ and $\sin 3 \mathrm{~A}$ in terms of $\sin \mathrm{A}$ and $\cos \mathrm{A}$.
9. Prove the identities-
(i.) $\sin ^{2} \mathrm{~A}+\cos ^{2} \mathrm{~A}=1$
(ii.) $1+\frac{\tan ^{2} A}{1+\sec A}=\sec A$
(iii.) $\cos (\mathrm{A}+\mathrm{B}) \cos (\mathrm{A}-\mathrm{B})=\cos ^{2} \mathrm{~B}-\sin ^{2} \mathrm{~A}$
(iv.) $\cos ^{4} A-\sin ^{4} A=\cos 2 A$
10. Find relations between the trigonometrical ratios of A and those of $180^{\circ}-\mathrm{A}, 180^{\circ}+\mathrm{A}$, and $90^{\circ}+\mathrm{A}$. Trace the changes in $\tan \theta$ as $\theta$ increases from $-\pi$ to $\pi$, and draw graphs of $y=\sin x, y=\cos x$, and $y=\tan x$, between the limits $-\pi$ and $\pi$ of $x$.
11. In any triangle prove-

> (i.) $\tan A+\tan B+\tan C=\tan A \tan B \tan C$
> (ii.) $\frac{\sin A}{a}=\frac{\sin B}{b}=\frac{\sin C}{c}$
> (iii.) $\tan \frac{A-B}{2}=\frac{a-b}{a+b} \cot \frac{C}{2}$
12. Show how to solve a triangle, given two sides and the included angle.

If $a=410 \cdot 03$ chains, $b=487 \cdot 18$ chains, $\mathrm{C}=68^{\circ} 33^{\prime} 58^{\prime \prime}$, find the remaining parts.

| Log $7 \cdot 715=88734$ | $\log 4 \cdot 100=61278$ | $\log 5 \cdot 093=$ |
| :---: | :---: | :---: |
| $\log 8 \cdot 972=.95289$ | $\log 4 \cdot 101=\cdot 61289$ | $\log 5 \cdot 094=$ |
| $\log 8.973=.95294$ |  |  |
| $\mathrm{Ltan} 55^{\circ} 43^{\prime}=10 \cdot 16639$ | Ltan | $7^{\circ} 11^{\prime}=9 \cdot 10049$ |
| $\mathrm{L} \tan 55^{\circ} 44^{\prime}=10 \cdot 16666$ | Ltan | $7^{\circ} 12^{\prime}=9 \cdot 10150$ |
| $\mathrm{L} \sin 68^{\circ} 33^{\prime}=9.96883$ | Lsin | $48^{\circ} 31^{\prime}=9.87457$ |
| $L \sin 68^{\circ} 34^{\prime}=9 \cdot 96888$ | $L \sin$ | $48^{\circ} 32^{\prime}=9 \cdot 87468$ |

## No 38.-Elementary Mechanics.-For Civil Service Junior.

Time allowed: Three hours. [All answers should be illustrated, where possible, with diagrams.]

1. Define mass, acceleration, pound, poundal, and momentum.

Write down the main formule that connect the acceleration with other magnitudes.
What is the weight in poundals of a mass of 40 lb . at a place where the body would fall through only 12 ft . in the first second?
2. Explain fully the principle on which the recoil of a gun depends.

A quarter-ton shot is discharged from an eighty-one-ton gun with a velocity of $1,750 \mathrm{ft}$. a second: what will be the velocity of recoil of the gun?

How would it affect your answer if the mass of the powder, which also is a quarter of a ton, were taken into account?
3. Prove (or describe an experiment arranged to verify) the parallelogram of forces.

Show how you would find by construction the angle between two forces, each of 12 units, which have a resultant equal to 6 units.
4. State the conditions necessary for the equilibrium of a body free to move in one plane, and acted on only by a system of parallel forces. To what do these conditions reduce when one point in the body is fixed?

Three parallel forces of $2,6,8$ units are in equilibrium : find how they are disposed, and illustrate by a figure.
5. What is the C.G. of a body? How would you verify by experiment that the C.G. of a cube is equidistant from the faces?

If a cube be placed on a plane with an edge about which it turns horizontal, at what inclination of the plane will the cube just topple over, the cube being supposed not to slide?
6. Describe the requisites of a good balance.

Supposing that a balance is accurate except for an inequality in the arms, and that a body that appears to weigh 49 pounds when placed in the one scale-pan appears to weigh 51 when placed in the other, find the true weight of the body to three places of decimals.
7. How is the pressure of a fluid measured when variable?

Find the pressure at a depth of 600 yards below the surface of the sea in pounds to the square inch, taking a cubic foot of sea-water to weigh $1,025 \mathrm{oz}$.
8. Distinguish between density and specific gravity. Describe two different methods for finding the specific gravity of a liquid. How would you find that of sand?
9. Prove that when a body floats in equilibrium the weight of the liquid displaced is equal to that of the body. What determines the particular position in which the body will float?

A body floats with one-ninth of its volume above the surface of pure water: if the body were transferred to liquid of specific gravity of $1 \cdot 2$, what fraction of its volume would then project above the surface?

## No. 39.-Elementary Mechanics.-For Class D.

## Time allowed: Three hours. [All answers should be illustrated, where possible, with diagrams.]

1. Describe how velocity is measured (i.) when uniform and (ii.) when variable.

If the velocity of a body is 30 when measured in feet and seconds, what is it when measured in miles and hours?
2. Describe briefly how you would explain and illustrate to a class (i.) the formula $s=u t+\frac{1}{2} a t^{2}$, where a represents the acceleration; (ii.) the distinction between the weight of a body and its mass.
3. If a body falling freely describes a distance of 20 yards in one particular period of a third of a second, what was the velocity at the beginning of the period?
4. State the principle of the parallelogram of forces, and describe any modifications of it that are sometimes useful, showing what uses may be made of them.

Find the resultant, by construction or otherwise, of forces of 5 and 15 units acting at a point and inclined at $120^{\circ}$.
5. What is meant in mechanics by a couple and its moment? Mention some familiar instances of couples. How would you make it clear that a couple cannot be kept in equilibrium by a single force?
6. What is the centre of a system of parallel forces?

If two weights of 3 lb . and 7 lb . balance on a lever, one of whose arms is 5 in . longer than the other, find the lengths of both the arms.
7. Find the force that will keep a body at rest on an inclined plane when the force is (i.) horizontal and (ii.) parallel to the plane.

Two unequal weights, connected by a string, are in equilibrium on two smooth inclined planes, the string passing over a pulley at the intersection of the planes: find the ratio between the weights.
8. Distinguish between a solid and a fluid, between a liquid and a gas, and between density and specific gravity. What is the special character of a perfect fluid?

The specific gravity of brass being taken as 8, and the mass of one cubic foot of water as $1,000 \mathrm{oz}$., find the density of brass in ounces to the cubic inch.
9. Describe the essential features of the mercurial barometer, and explain why the mercury falls when carried up a mountain. When carried up $1,000 \mathrm{ft}$. will the mercury fall ten times as much as it does when carried up 100 ft .? Why?
10. Show how you would prove, experimentally or otherwise, that the pressure at any point in a heavy liquid at rest is proportional to the depth below the free surface of the liquid.

Find the pressure on a square inch of the base of a cone one foot high, standing with its vertex upwards, and just filled with water.
11. Two liquids which do not mix meet in a bent tube : show how to compare their densities by observing the relative heights of the three surfaces.

## No. 40.-Theoretical Mechanics.-For Class C and for Civil Service Senior.

Time allowed: Three hours. [All answers should be illustrated, where possible, with diagrams.]

1. What do you understand by relative velocity? State and justify the theorem known as the "parallelogram of velocities." For what other magnitudes can a similar theorem be stated?

A train travels 100 miles in 3 hours 50 seconds: what is its average velocity in feet a second?
2. Distinguish carefully between kinetic and potential energy, and show that the kinetic energy of a mass $m$ moving with velocity $v$ is $\frac{1}{2} m v^{2}$.

A train weighing 500 tons runs on a level road against a total resistance of 10 lb . a ton : how many units of work must be expended in a run of 50 miles?
3. Explain the principle and describe the applications of the simple pendulum. What other varieties of pendulum are there?

A simple pendulum, supposed to beat seconds, loses 20 seconds in a day : find by how much its length should be altered to make it accurate.
4. What are the complete conditions that three forces should be in equilibrium?

Show that forees represented completely by the three medians $\mathrm{AD}, \mathrm{BE}, \mathrm{CF}$ of a triangle ABC will be in equilibrium.
5. Show, with proof, how to find the resultant of two like parallel forces.

Parallel forces of $5,4,3$ units act at points $4,6,10$ inches respectively from one end of a line: find the magnitude and position of the resultant.
6. Where are the centres of gravity of a triangle, a pyramid, and a cone? Establish the case of the triangle.

The mass of an equilateral triangle is 6 lb ., and masses of $1 \mathrm{lb} ., 1 \mathrm{lb}$., and 2 lb . respectively are placed at its angular points: find the centre of mass of the system.
7. A salesman's balance has unequal arms $a, b$, and he weighs goods alternately in one scale and the other to the same nominal amount in each : does he gain or lose by his balance not being true, and how much?
8. State and prove a rule for finding the whole pressure of a liquid on a body, or the magnitude of the resultant pressure on a plane area, immersed in it.

A sphere, whose radius is 2 ft ., has its centre 5 ft . below the surface of water in which it is immersed : find the whole pressure and also the resultant pressure of the water on it.
9. Describe the hydrometer of variable immersion.

A hydrometer of this kind is put first into a liquid whose S.G. is 0.80 , and then into a liquid whose S.G. is 0.90 , a mark being made in each case at the point of the stem that is at the surface of the liquid, and one mark is found to be 6 in . from the other: how far above or below the surface will each of the marks be when the hydrometer floats in a liquid whose S.G. is 0.87 ?
10. Describe the force pump and its action. If the cross-section of the piston has an area of 8 square inches, with what pressure must it be forced down to raise water to an elevation of 120 ft .

## No. 41.-Physiography.-For Class $C$.

Time allowed: Three hours. [Candidates are requested to answer only eight questions. Diagrams should be used wherever applicable.]

1. Account for-
(a.) The phases of the moon.
(b.) An eclipse of the moon.
(c.) The same face of the moon always being presented to the earth.
2. Distinguish between true solar day, mean solar day, and sidereal day. Explain clearly why a sidereal day is always of the same length.
3. What simple method would you adopt of determining the latitude of the place in which you live?
4. Define a unit of work.

A mass of ' $m$ ' pounds falling from rest reaches the ground at the end of two and a half seconds : what is its energy at the moment of impact ?

What kind of energy does such a body possess (a) before falling, (b) when just reaching the ground ?
5. State the reasons why mercury is so generally used in thermometers.

A thermometer plunged into a hot liquid registers $203^{\circ}$ Fahrenheit: what temperature would be indicated by the centigrade scale?
6. In summer the absolute humidity of the air may be much greater than in winter, and yet the latter season may show a larger rainfall : explain this.
7. Observations taken in the Southern Hemisphere show that on a certain day the readings of the barometer indicate that the atmospheric pressure is greatest towards the N.E. and gradually diminishes towards the S.W.: what deductions can you make as to the direction of the wind?
8. What causes lead to the production of oceanic circulation? Account for the current known as the Gulf Stream.

9 Give as many proofs as you can to show that glaciers are in motion. Why are they sometimes called rivers of ice?
10. What is meant by specific gravity? The specific gravity of the earth as a whole is considerably greater than that of the rocks forming its crust: can you offer any explanation of this ?
11. An exposure of rock shows a bed of limestone overlaid by beds of shale and sandstone, the sandstone being on the top: classify these rocks, and describe as far as you can the probable conditions under which they were formed.
12. The island of Ascension is a mass of volcanic rock rising out of mid-ocean, yet it possesses a fauna and a flora: how do you account for this?

> No. 42.-Sound, Light, and Heat.-For Civil Service Junior.

Time allowed: Three hours. [Candidate may answer questions either in Sound and Light or in Heat, but not in both. All answers should be illustrated, where possible, with diagrams.]

> A.-Sound and Light.

1. The velocity of sound in air is largely influenced by the temperature, but not by the pressure of the atmosphere: explain this.
2. What do you understand by wave motion? Define, by reference to a diagram, the meaning of the terms " wave length," "phase," and " amplitude."
3. Give a short account of the phenomenon known as interference.
4. Describe any method whereby the velocity of light has been accurately determined.
5. State the laws of reflection of light.

Two vertical plane mirrors meet at an angle of $60^{\circ}$, and a luminous point is placed between the mirrors and equidistant from each: construct a diagram showing the number of images of the point which will be formed in each mirror.
6. Define the terms "principal axis," "principal focus," and "focal length " of a concave mirror ; and explain two methods whereby the focal length of a concave spherical mirror can be determined experimentally.
7. What do you understand by a real and a virtual image? If you wished to demonstrate the existence of virtual images, what apparatus would you employ?
8. How can it be shown that white light is composite in its nature?
B.-Heat.

1. Two similar thermometers are exposed to the sun's rays, but the bulb of one of them is wrapped round with a single thickness of flannel: will both thermometers indicate the same temperature? Give reasons for your answer, and mention any other experiments which support the truth of your statement.
2. How is a common thermometer constructed? How would you ascertain whether the fixed points upon a mercurial thermometer were correctly placed?
3. You are told that " two solid bodies have the same mass, and that one is much hotter than the other, but contains far less heat ": explain clearly what this statement means. How would you find out whether the statement is true or not?
4. What is meant by the coefficient of linear expansion of a substance? A bar of metal 1 meter long at $0^{\circ} \mathrm{C}$. was found to have increased in length by 2 millimeters when the temperature was raised to $97^{\circ}:$ what was the coefficient of expansion of the metal?
5. Define the terms "unit of heat," "specific heat," and "latent heat of fusion." How. can it be shown that the latent heat of fusion of ice is smaller than the latent heat of vaporisation of water?
6. State clearly how you would find the boiling-point of a strong solution of common salt. Give a neat sketch of the apparatus you would employ.
7. Give a short account of the phenomena of ocean currents.

No. 43.-Sound, Light, and Heat.-For Class D.
Time allowed: Three hours. [Candidates may answer questions either in Sound and Light or in Heat, but not in both. All answers should be illustrated, where possible, with diagrams.]

> A.-Sound and Light.

1. How has the velocity of sound in air been ascertained? Point out the sources of inaccuracy in the method which you describe, and show how the errors may be minimised or eliminated.
2. Explain the statement that a sound-wave consists of longitudinal vibrations. The wave-length of a certain note in air is found to be double that of a second note in the same medium : show how the pitch of the first note is related to that of the second.
3. State what you know about resonance.
4. What is the law connecting the intensity of illumination of a given plane surface with the distance from the source of light? How can the truth of the law be experimentally tested?
5. A. gas flame of sixteen-candle power is 75 centimetres from a standard candle: what is the nearest position to the candle at which a screen can be placed so as to be equally illuminated by both sources of light?
6. Define the terms "refractive index" and "critical angle."

A scratch on the under surface of a horizontal glass plate appears to be 3 in . from the upper surface when viewed normally from above: if the refractive index of the glass is $1 \cdot 5$, what is the real thickness of the plate?
7. Make a careful diagram of the path of the rays from an object placed 3 in . in front of a doubleconvex lens and coming to a focus at the same distance behind it. Deduce from your diagram the focal length of the lens.
8. Describe and explain the changes in the nature of the image seen by an observer as he approaches a large concave mirror from a considerable distance.
B.-Неат.

1. Define the terms: Unit of heat, coefficient of linear expansion, specific heat, latent heat of vaporisation, radiation.
2. In what respects is the expansion of water anomalous? Describe and show graphically the nature of the volume changes which a piece of ice would undergo if gradually heated from $-10^{\circ} \mathrm{C}$. to $120^{\circ} \mathrm{C}$.
3. What do you understand by the boiling-point of a liquid? What circumstances affect the boiling-point of a liquid? How would you determine the boiling-point of benzine ?
4. Make a sketch showing the application of a hot-water system to the heating of a two-storied school. Explain the principle of the apparatus, and point out the probable effects which would result if the circulating-pipes became frozen overnight.
5. Into 100 grams of oil at $80^{\circ}$ C. 60 grams of ice (at its melting-point) were dropped; after careful stirring the mixture showed a uniform temperature of $5^{\circ}$ : what was the specific heat of the oil?
6. Describe three experiments which you would perform in order to convince your class that steam contains more heat than the same weight of water at the same temperature.
7. How would you propose to measure temperatures above the boiling-point or below the freezing. point of mercury?

No. 44.-Sound, Light, and Heat.-For Class C and for Civil Service Senior.
Time allowed: Three hours. [Candidates may answer questions either in Sound and Light or in Heat, but not in both. All answers should be illustrated, where possible, with diagrams.]

> A.-Sound and Liget.

1. How would you construct a simple sonometer and demonstrate with it the laws of the transverse vibrations of strings ?
2. Describe any method whereby the relative velocity of sound in air and in glass can be determined.
3. Explain the formation of musical notes in open and in closed pipes. A narrow closed pipe gives a fundamental note the pitch of which is 256 vibrations a second: if the velocity of sound in air is $1,100 \mathrm{ft}$. a second, what is approximately the length of the pipe?
4. State the laws of reflection of light, and show how they may be applied to find the angular elevation of the sun.
5. How can a hollow acute-angled prism be used for determining the refractive index of a transparent liquid?

Calculate the refractive index of a substance in which the critical angle is $30^{\circ}$.
6. Explain the action of the eye as an optical instrument. What is the physical meaning of "shortsightedness," and how can this defect be remedied by spectacles?
7. Draw a clear diagram of the path of rays of sunlight through a spectroscope to an observer's eye. What is the spectroscope used for?
B.-Неат.

1. Thermometers are sometimes found to indicate correctly at $0^{\circ} \mathrm{C}$. and at $100^{\circ} \mathrm{C}$., but to be incorrect at intermediate temperatures: how can this be accounted for, and how could the exact error at $50^{\circ}$ be ascertained?
2. How can the real and apparent coefficient of expansion of a liquid be determined?
3. Describe two methods whereby the temperature of maximum density of water can be ascertained.
4. Heat is said to be a form of energy : give any evidence you can in support of this statement.
5. $100 \mathrm{c} . \mathrm{cm}$. of steam at $100^{\circ} \mathrm{C}$. and 760 mm . pressure, contained in a cylinder with a moveable piston, is (a) compressed to one-half its volume (b) expanded to twice its volume by the movement of the piston : state clearly what other physical changes will accompany the changes in volume.
6. A ball of brass weighing 75 grains, and at a temperature of $15^{\circ} \mathrm{C}$., was surrounded by steam at $100^{\circ}$ until the temperature became constant, when it was found that $1 \cdot 1$ grams of water had condensed on the ball: if the latent heat of vaporisation of water at $100^{\circ}$ be 537 , what value does this experiment give for the specific heat of brass?
7. Describe Bunsen's ice calorimeter. Explain how it is got ready for use, and how it is used. What advantages or disadvantages has Bunsen's method over the method of mixtures?
8. How would you show that benzine has a lower specific gravity but a higher vapourpressure than kerosene? How would you propose to measure the vapour-pressure of kerosene at $100^{\circ} \mathrm{C}$.?

## No. 45.-Magnetism and Electricity.-For Civil Service Junior.

Time allowed: Three hours. [Illustrate your answers, where possible, by diagrams.]

1. What do you understand by the magnetic meridian at a given place? How can the plane of the magnetic meridian be accurately determined and recorded?
2. By what experiments would you ascertain whether the poles of two magnets were of the same strength?
3. How could you magnetize a steel ring in such a way that it would show neither north nor south poles? Show by a diagram the magnetic state of the two pieces if the ring were broken in halves.
4. Describe the construction of the gold-leaf electroscope. How is the instrument used to test the state of electrification of an insulated conductor?
5. Explain the production of electricity by the plate electrical machine and by the electrophorus.
6. Make a careful diagram of a Daniell cell, indicating by arrows the direction of the current without and within the cell. What changes occur in the cell when a current is passing?
7. Define the terms "ampère," "ohm," and "volt"; and explain how the ampèreage of two currents can be compared.
8. What conditions determine the heating effect of an electric current? A current flows in series through a fine platinum wire surrounded by cold water and through a strong solution of copper sulphate : if the strength of the current be doubled, what will be the effect upon (1) the rate of evolution of heat from the wire, (2) the rate of deposition of copper from the copper sulphate?

## No. 46.-Magnetism and Electricity.-For Class D.

Time allowed: Three hours. [Illustrate your answers, where possible, with diagrams.]

1. Describe any experiments which you have made with magnets.
2. A magnetic needle is suspended in the magnetic meridian in such a manner that it can swing only in a vertical plane: if the stand upon which the needle is suspended is slowly turned horizontally through an angle of $180^{\circ}$, trace and explain the changes in the position taken up by the needle.
3. How can it be shown that there are two kinds of electrification? How would you attempt to show that the production of one kind of frictional electricity involves the production of an equal quantity of the other kind?
4. Explain the terms "free" and "bound" electricity, and describe any of Faraday's experiments upon free and bound charges.
5. What do you understand by electrical potential ? How would you ascertain (1) whether the potential, (2) whether the density of the charge were the same at all points upon an insulated eggshaped conductor? What results would you expect to find ?
6. Describe any effects which may be observed in the neighbourhood of a wire through which a current is flowing. Which effects are directly proportional to the strength of the current ?
7. If you were given two bichromate cells, on what considerations would you decide whether to use them in series or in parallel ?
8. Explain the construction of an incandescent lamp. If you were able to increase gradually but indefinitely the voltage between the terminals of such a lamp, what effects would you expect to notice?

No. 47.-Magnetism and Electricity.-For Class $C$ and for Civil Service Senior.
Time allowed: Three hours.
[Atomic weights: $\mathrm{H}=1, \mathrm{O}=16, \mathrm{~S}=32, \mathrm{Cu}=63, \mathrm{Zn}=65$.]

1. What do you understand by " the intensity of a magnetic field" at a point in it? How would you plot a chart showing at all points the direction and intensity of the horizontal field passing through the centre of a vertical circular coil of wire through which a uniform current is flowing?

6-E 1a.
2. Define the magnetic axis and the magnetic moment of a magnet, and explain two methods whereby the magnetic moments of two magnets may be compared.
3. State the laws of electrical attraction and repulsion. How can the truth of these laws be accurately demonstrated?
4. What is meant by " an electrical condenser"? What factors affect the capacity of a spherical condenser ?

Two similar condensers of unit capacity are respectively charged with two units and ten units of positive electricity; they are then connected for a moment by a fine wire: what is the final potential of each condenser, and what is the initial and final energy of the system ?
5. Four Daniell cells are arranged in series, with two cells containing (a) a solution of copper sulphate and (b) a solution of sulphuric acid: give a quantitative account of the changes which occur in each part of the circuit during the solution of 1 gram of zinc in one of the Daniell cells.
6. Explain clearly the meaning of the terms "electrical resistance," "specific resistance," and "temperature coefficient." How would you determine the specific resistance of platinum at $0^{\circ} \mathrm{C}$.?
7. The resistance of a galvanometer is 0.9 ohm : what is the maximum current which a combination of 20 cells, each having an internal resistance of 1 ohm and an E.M.F. of 1 volt, can send through it ? At what rate does the instrument absorb energy when the maximum current is flowing?

> No. 4.8.-Chemistry.-For Civil Service Junior.
> Time allowed: Three hours.
> $[\mathrm{H}=1 ; \mathrm{N}=14 ; \mathrm{Cl}=35 \cdot 3$.

1. How would you distinguish between-
(a.) Zinc oxide and slaked lime;
(b.) Chalk and white lead;
(c.) Black oxide of copper and manganese dioxide?
2. Mention three common oxidizing and three reducing agents, and give equations to illustrate the oxidizing and reducing action of each.
3. How is carbon dioxide prepared in a pure and dry state? What are the properties of the gas and its chief industrial applications? How would you attempt to find out whether a sample of the gas contained nitrogen or not?
4. Show, by reference to water and ammonia, that a chemical formula is a symbol representing the quantitative composition of a compound together with the volume relations of the compound in the state of vapour to its gaseous constituents.
5. Give instances of gases and solids which are very easily soluble, moderately soluble, and sparingly soluble in water. What circumstances usually affect the solubility of gases and solids in a given liquid?
6. What do you understand by acid, basic, and neutral salts? Give instances of carbonates belonging to each of these classes.
7. State shortly the most striking properties of hydrochloric, nitric, and sulphuric acids.
8. What weight of ammonia could be obtained from 100 grams of ammonium chloride? What volume would the gas occupy at $100^{\circ} \mathrm{C}$. and 700 mm . pressure?

> No. 49.-Chemistry.-For Class D.
> Time allowed : Three hours.

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\text { [Atomic weights : } \mathrm{H}=1, \mathrm{O}=16, \mathrm{C}=12, \mathrm{Na}=23, \mathrm{Cl}=35 \cdot 3, \mathrm{~S}=32 \text {.] }
$$

1. Explain how you would prove to a class that the liquid produced by burning hydrogen in air is really water.
2. What evidence is there that air is a mixture, and that hydrochloric-acid gas is a compound ?
3. How could you show that sulphuric acid contains each of the elements which enter into its composition? Calculate the percentage composition of sulphuric acid.
4. Explain clearly the nature of the evidence for the statement that the three forms of carbon, though physically distinct, are chemically identical.
5. How would you distinguish between caustic soda, soda crystals, and bicarbonate of soda? How can each of these compounds be prepared from common salt ?
6. What volume of hydrochloric acid measured at $0^{\circ} \mathrm{C}$. and 760 mm . pressure could be obtained from 10 grams of common salt? If the gas were dissolved in water, what weight of four-per-cent solution of caustic soda would be required to neutralise it?
7. What are blue and green vitrol ? A boiling solution of each of these substances is treated successively with sulphuretted hydrogen, nitric acid, and ammonia: what changes will occur in each case?
8. What experiments would you perform if you were giving a lesson on ammonia? Why is the formula $\mathrm{NH}_{3}$ given to this compound ?

> No. 50.-Chemistry.-For Class $C$ and for Civil Service Senior.
> Time allowed : Three hours.
$[\mathrm{H}=1 ; \mathrm{O}=16 ; \mathrm{S}=32 ; \mathrm{N}=14$.

1. Describe in detail any experiment you would perform in order to illustrate the proposition that when a chemical reaction occurs there is no change in mass, but that there is generally a change in volume and an evolution of heat.
2. When steam is passed over red-hot iron, hydrogen is evolved; when hydrogen is passed over red-hot iron oxide, steam and metallic iron result: explain this apparently contradictory behaviour, and mention other reactions to which your explanation is also applicable.
3. Give a short account of the allotropic forms of sulphur and of phosphorus. What do you understand by the statement that prismatic and octahedral sulphur are in equilibrium at $96^{\circ} \mathrm{C}$.?
4. How can the percentage of oxygen, water, and carbon dioxide in the air be accurately ascertained? What experimental difficulties attend the determination of the carbon dioxide?
5. What is the action of hot strong sulphuric acid upon each of the following substances: Charcoal, copper, alcohol, potassium iodide, and sulphuretted hydrogen? Indicate in each case the equation expressing the probable reaction.
6. Two grams of the ammonium salt of a monobasic acid were distilled with excess of causticsoda solution, and the gas evolved neutralised 25 grams of five-per-cent. sulphuric acid: calculate the percentage of ammonia in the salt, and the molecular weight of the monobasic acid.
7. Show, by a comparison of the two elements and of their more important compounds, that magnesium is intimately related on the one hand to calcium, and on the other to zinc.
8. Demonstrate, by reference to the compounds of mercury and of iron, that the reactions of the salts of a metal are influenced not only by the nature of the metal and of the acid radicle, but also by the state of oxidation in which the metal exists.

## No. 51.-Elementary Geology.-For Class D. <br> Time allowed: Three hours.

1. I is often stated that the interior of the earth differs in important physical and chemical respects from its exterior: state any facts that support this belief.
2. If you were given a rock specimen, how would you satisfy yourself that it belonged to the igneous, to the sedimentary, or to the metamorphic class ?
3. By what characters is pyrites or mundic distinguished from other minerals? What is its chemical composition? State what you know of its general occurrence and of its occurrence in New Zealand.
4. Pumice is said to cover one-twenty-fifth part of the surface of New Zealand: state what you know of the composition and origin of pumice and of its distribution in New Zealand.
5. In what parts of New Zealand are artesian wells used? On what conditions does their existence depend? What reasons are there to expect that the flow of the water from them will decrease or that it will be permanent?
6. Describe the general arrangement of strata deposited near the mouth of a river off a low-lying coast undergoing gradual submergence.
7. What are the general differences between the coals mined on the east and on the west coasts of New Zealand? Account for these differences.
8. How are river valleys formed? Give any examples that you can from New Zealand.

## No. 52.-Geology.-For Class C and for Civil Service Senior. <br> Time allowed: Three hours.

1. Mention and discuss the facts that have been quoted in support of the belief that the mineralogical and chemical composition of the earth's crust is different from that of its interior.
2. Upon what principles is the chronological classification of the rocks of the earth's crust based ?
3. A land-surface consists of a central axis of Palæozoic rocks much folded and denuded. The rocks are slates and grits, and their strike is parallel to the axis. Round the flanks and in some of the larger valleys middle Tertiary limestones lie almost horizontally. The rivers have transverse valleys with broad shingle beds, and run indifferently over the Tertiary and Palæozoic rocks. Trace the geological history of the area.
4. Black ironsand fringes much of the west coast of New Zealand: of what minerals does it consist? From what rocks have they been derived? Account for its present distribution.
5. Classify and describe the formations in which payable auriferous deposits are found in New Zealand.
6. The New Plymouth "Sugarloaf" is composed of a light-coloured rock containing black crystals with bright cleavage-surfaces inclined $56^{\circ}$ and $124^{\circ}$; also colourless crystals with bright cleavagesurfaces apparently inclined $90^{\circ}$, some showing simple and others polysynthetic twinning. These crystals are imbedded in a fine-grained ground-mass. What are the minerals and the rock they compose ? Give reasons for your answers.
7. State any facts in connection with the New Zealand fauna and flora that tend to show that New Zealand was formerly connected with other lands.

## No. 53.-Elementary Botany.-For Civil Service Junior.

Time allowed: Three hours. [Illustrate your answers with careful and fully labelled diagrams.]

1. Suppose that you have a healthy green plant completely submerged in water and exposed to sunlight-
(a.) State what phenomenon will be observed.
(b.) Explain carefully what is taking place in the plant.
(c.) By what steps do you arrive at your conclusions?
2. Describe the life-history of a fern.
3. Give an account of the structure of an albuminous seed, and also of an exalbuminous seed: Describe what happens when a seed is placed in conditions suitable for its germination, and state what those conditions are.
4. Describe carefully the following fruits: Orange, apple, strawberry, gooseberry. State exactly what parts of the original flower are concerned in the formation of each of the above fruits.
5. What are the functions of stomata, phloem, xylem, root?
6. Write an account of any composite plant with which you are familiar. Mention some New Zealand representatives of this order.

## No. 5t.-Elementary Botany.-For Class D.

Time allowed: Three hours. [Illustrate your answers with careful and fully labelled diagrams.]

1. What are the functions of leaf, root, and stem, so far as the process of nutrition is concerned ?
2. Describe the structure, internal as well as external, of a leaf. How would you ascertain whether starch is present? In what part of the leaf would you expect to find it?
3. Describe the series of events which occur when a pollen grain falls upon the stigma of a flower.
4. Describe briefly any flower you are acquainted with which presents some special adaptations to ensure pollination by an insect, and another in which some special arrangement exists for the dispersal of seeds.
5. What do you understand by cambium, tracheide, epipetalous flower, gamopetalous flower, and hypogynous flower?
6. Describe carefully the following fruits: Currant, grape, bean, walnut. Show exactly what parts of the original flower are concerned in the formation of each of these fruits.

## No. 55.-Botany.-For Class $C$ and for Civil Service Senior.

Time allowed: Three hours. [Illustrate your answers with careful and fully labelled diagrams.]

1. Give a general account of the mode of nutrition of a green vascular plant.
2. Describe the method of conjugation in Mucor, Spirogyra, and Marchantia. Point out carefully the resemblances and the differences in the process, and state what is the result of the process in each case.
3. Describe an ovule of Pinus, and the corresponding phase in the life-history of a liverwort.
4. Describe in detail the methods by which you would prepare a leaf and a piece of the stem of a plant for the study of their internal structure.

Briefly describe this structure in the case of any plant that you have examined. Name the plant.
5 . If you place (a) yeast and (b) Haematococcus separately in vessels of ordinary water, and expose them to sunlight, what will happen in each case? Explain this.
6. Give an account of the structure of the flower of a member of each of the orders Violaceae, Myrtaceae, Leguminosae, Rosaceae. Mention New Zealand representatives of each of these orders.

## No. 56.-Zoology.-For Civil Service Junior.

Time allowed: Three hours. [Illustrate your answers, wherever it tends to shorten or to elucidate them, by means of fully labelled drawings. N.B.-These sketches should be neatly and carefully done, and of fair size; do not squeeze them into the text of your answer. The use of coloured pencils is recommended.]

1. Write an account of (a) the structure and (b) the physiology of nutrition of Amoeba.
2. What characters have plants and animals in common, and what are the important differences between them? Take some simple animal and plant in illustration.
3. Write a brief description of the external features of a beetle, and describe its life-history.
4. Describe the organs of locomotion, and their arrangement on the body, of a sea-urchin and of a worm (preferably a marine worm).
5. What do you understand by "respiration"? Describe the organ of respiration of a fish and of a frog, pointing out the differences in the manner in which respiration is effected in the two animals.
6. Draw a fully labelled sketch of a vertebra of a frog or of a rabbit. Indicate as far as you can the use of the various parts.
7. Write a brief account of the general characters of the Mollusca; and refer to New Zealand representatives in illustration, giving sketches, if possible, of the forms mentioned.
8. State precisely and in detail the procedure that you would follow in dissecting a rabbit so as to exhibit the kidneys and their ducts. Make a sketch of these organs.

## No. 57.-Zoology.-For Class D.

Time allowed: Three hours. [Illustrate your answers, wherever it tends to shorten or to elucidate them, by means of fully labelled sketches. N.B.-These sketches should be neatly and carefully done, and of fair size; do not squeeze them into the text of your answers. The use of coloured pencils is recommended.]

1. Describe the external and internal structure of a sea-anemone. Where would you seek for such an animal ?

Give a brief account of its mode of nutrition.
2. Write a description of a simple egg-cell, and describe what part this cell plays in the animal's economy.
3. Write an account of the life-history of a frog.
4. Write a description of the external and internal structure of the fore limb of a rabbit and of the wing of a bird. Point out any agreements between those two organs.
5. Give a brief description of the external features of a living whelk.
6. What do you understand by "excretion"? Describe the organs of excretion in a frog or in a rabbit.
7. Give some account of the important external characters of the Insecta. Refer to any New Zealand representatives in illustration, and make sketches, if possible, of those to which you refer.
8. State exactly and in detail the procedure you would follow in dissecting a rabbit so as to display its heart and see the origins of the arteries. Make a drawing of the heart as seen from the ventral surface, labelling all the parts.

No. 58.-Zoology.-For Class $C$ and for Civil Service Senior.
Time allowed: Three hours. [N.B.-Any diagrams that you may draw to illustrate your answers should be executed neatly, and on a fairly large scale; do not squeeze them into the text, but allow yourself plenty of room. The use of coloured pencils is recommended.]

1. Describe, with drawings, a transverse section across Hydra, showing details of structure. State your reasons, from any facts known about $H y d r a$, for regarding this organism as an animal ; and discuss its systematic position in the animal kingdom.
2. Write an account of the structure and life-history (including general physiology) of Bacterium. Give reasons for considering it to be more nearly related to Haematococcus than to Amoeba.
3. Draw fully labelled diagrams to illustrate the arrangement of the vascular system and the respiratory system in the mussel, the crayfish, and the dogfish. Indicate, by arrows, the course taken by the blood; and state the condition of the blood in the various parts of the system.
4. What do you understand by "excretion"? Briefly describe the form and position of the "excretory organ" in Amoeba, the mussel, and the crayfish.
5. What are the principal characters of the groups (a) Platyhelminthes, (b) Annelida, (c) Arthropoda? Enumerate the classes included in each group; and give one or more examples of animals belonging to these groups, placing them in their classes as nearly as you can.
6. Refer each of the following animals to its class and "group," giving briefly your reasons: Barracouta, bat, kiwi, lancelet, sea-anemone, snail, starfish, tuatara.
7. State exactly and in detail the processes by which you would (a) exhibit the reproductive organs in a crayfish, and (b) prepare for microscopic examination a piece of its muscle.
8. Identify, or at least refer to its class, the animal described below: Length from three to four inches; colour greenish, with variable dark markings; skin smooth, moist, soft. The body consists of (a) a flattened head bearing a large mouth, a pair of dorsal nostrils, a pair of large lateral eyes, and behind each a tympanic membrane, and of (b) a short trunk, supported by two pairs of three-jointed, digitate limbs. The animal possesses a bony internal skeleton, and breathes by means of a pair of lungs.

## No. 59.-Elementary Physiology.-For Civil Service Junior.

Time allowed: Three hours. [N.B.-Attempt all the questions; and illustrate your answers, wherever possible, by diagrams.]

1. A snail and a thistle live in the same garden : point out the essential differences between them, especially as regards the way in which they obtain the food they require.
2. Explain the naked-eye and microscopic characters of a muscle such as the biceps, and explain how movements of the limbs are effected by means of the muscles.
3. Describe the femur (thigh bone) of any mammal that you have examined, and explain the meaning of the ridges, roughnesses, and smooth surfaces on it.
4. Describe as fully as you can the structure of a typical nerve cell and of the processes that arise from it.

What do you mean by "reflex action"?
5. Enumerate the chief glands connected with the alimentary canal, and state what changes take place in the food while it is in the stomach.
6. Contrast veins and arteries as regards their structure, contents, and functions.
7. Explain how you would proceed to dissect a rabbit so as to expose the viscera in the abdominal cavity. Briefly indicate the relative positions of the viscera that would be exposed.
8. What are the differences between the air drawn into the lungs and that breathed out from them?

No. 60.-Elementary Human Physiology.-For Class D.
Time allowed: Three hours. [N.B.-Attempt all the questions; and illustrate your answers, wherever possible, by diagrams.]

1. What do you mean by the "axial skeleton" of a mammal ? Enumerate and briefly describe the different parts of the axial skeleton of any mammal you have examined.
2. What are the various ways in which the waste products of the body are eliminated ?
3. Briefly describe the lungs and windpipe of a sheep, and explain how the air is drawn into the lungs and driven out again.
4. Mention and very briefly describe the different parts of the brain, and make a sketch to show their relative positions.
5. Explain the processes of digestion that take place after the food has left the stomach and while it is in the small intestine.
6. How would you proceed to dissect a rabbit so as to show the organs in the thorax ? Make a sketch showing the relative positions of these organs.
7. What is a gland? Describe the glands situated in the skin.
8. Explain briefly how the blood is kept circulating through the blood-vessels.

No. 61.-Physiology and the Structure of the Body.-For Class C and for Civil Service Senior. Time allowed: Three hours. [Attempt all the questions; and illustrate your answers, wherever possible, by diagrams.]

1. What do you know of the position, structure, and functions of the thoracic duct ?
2. Describe as fully as you can the structures seen in a transverse section through the spinal cord, and contrast this section with one through the cerebellum.
3. Describe fully a lobule of the liver, explaining carefully the relation of its various blood-vessels to it. What is the composition of the bile? What do you know of the uses of the bile ?
4. Make a diagram showing the organs seen in a transverse section through the thorax of a mammal, and show clearly the arrangement of the pleura.
5. Explain how you would obtain and prepare for the microscope unstained specimens of the following tissues: Tendon, non-striped muscle, yellow elastic ligament. Briefly describe the microscopic appearances seen in each case.
6. Describe fully the composition and action of the pancreatic juice, and contrast them with those of the gastric juice.
7. Describe the sympathetic nervous system of a mammal, and say what you know of its special functions.
8. Describe the structure of hyaline cartilage, and explain as fully as you can the process by which bone is formed in cartilage.

## No. 6\%.-Psychology and Ethics.-For Class C.

[No candidate is to answer more than eight questions. Every candidate is expected to attempt the first six questions.]

1. "Psychology is the science of mental processes": examine carefully this definition, giving special emphasis to the words in italics.
2. Define sensation. Is there such a thing as mere sensation? What light does experimental psychology throw upon the general question?
3. Trace in outline the process by which an individual becomes conscious of external reality, noting the factors that enter into the process.
4. Examine briefly the relation of the following: Want, appetite, desire, wish, will, purpose, motive, end, conduct, character.
5. What have been the principal views held during recent years with regard to the moral standard? Give typical examples.
6. What are the cardinal virtues ? Can you reduce them into a simpler form?
7. Define memory, giving the marks which distinguish a good from a bad memory.
8. What light does mental science throw upon the conception of self ?
9. Discuss fully the process of voluntary decision, and show the bearing of your analysis upon the question of the freedom of the will.
10. What do you understand the true scope of ethics to be ?

## No. 63.-Logic.-For Class C. <br> Time allowed: Three hours.

1. Give the converse and the contrapositive of "If a straight line falling upon two other straight lines makes the alternate angles equal to one another, these two straight lines shall be parallel."
2. Examine the following arguments, putting them in syllogistic form, and naming any fallacies they may contain:-
(a.) "Seeing that A and B are inseparable, and that C is sometimes found along with B, we know that C and A will sometimes be found together."
(b.) "The historical novel is an impossibility; for it proposes to combine fiction with fact, and these are contradictory."
(c.) "Provided that he has been properly taught, he can himself teach; for experience makes experts."
3. Is it possible that there should be two syllogisms having a common premise such that their conclusions, being combined as premises in a new syllogism, may give a universal conclusion? If so, determine what the two syllogisms must be.
4. Explain the most important conditions that should be observed in conducting an experiment. Are th results of a single experiment, without reference to previous investigations, ever sufficient to establish a scientific truth ?
5. State the rules of definition, and criticize the following :-
(a.) A dog is a domestic animal.
(b.) A politician is one who serves his country in order that he may serve himself.
(c.) Tranquillity is the absence of unrest.
6. Expain what is meant by "elassification," and show how classification grows out of logical division.
7. "Induction is really the inverse process of deduction." (Jevons.) Discuss this fully.
8. Explain the following fallacies, giving an example of each: Ignoratio elenchi, non causa pro causa, a dicto secundum quid, false analogy, mal-observation.

No. 64.-Domestic Economy and the Laws of Health.-For completion of Class E, under Regulations now repealed.
Time allowed: Three hours.

1. What substances useful as foods are found in the wheat grain? Describe the processes by which bread is made, giving reasons for the different operations.
2. Describe the structure of the stomach, and explain the changes that take place in the food while it is in the stomach.
3. What differences are there between the air of a schoolroom before school and the air of the same room after school? How may these differences be made as small as possible?
4. What do you know of the composition of milk? Give examples showing how diseases may be spread by means of milk.
5. What diets would you suggest for (a) a person suffering from acute illness and (b) a person recovering from severe illness?
6. What are the principles to be kept in view in arranging the drainage of an ordinary dwellinghouse?
7. State exactly how you would (a) grill a beef-steak, (b) boil a leg of mutton, (c) boil a cabbage.
8. What is a disinfectant? Mention some of the most useful, and explain how they are used.
9. What is "flannelette," and for what purposes may it be used? Why is it warmer than calico?
10. What is soap, and why is it used in washing? What is the difference between hard soap and soft soap?

## No. 65.-Hygiene.-For Class $C$ and for Civil Service Senior. Time allowed: Three hours.

1. What do you know of fermentation? Describe the means by which fermentation is induced in the manufacture of beer and wine respectively.
2. State fully what you know of the digestion and absorption of oils and fats. What is their value as food?
3. What is meant by "contagious diseases," and how are they caused? State what you know of scarlet fever and of the precautions that should be adopted when a case occurs.
4. What amount of floor space and of cubic space should be allowed for each child in designing school buildings? Give as nearly as you can the shape and dimensions of the forms and desks best suited for schools.
5. Show, by reference to the structure of the eye, why some persons are short-sighted; and state what precautions should be taken in schools to preserve the eyesight of the children.
6. Describe and sketch the arrangements suitable for the drainage of a two-storied house with water-closet, bath, and sink.
7. What do you understand by "tuberculosis"? What steps are being taken to prevent its increase in New Zealand? Discuss the possibility of its complete eradication.
8. What do you know of the composition of milk? What changes is milk liable to undergo during transit from the dairy to the customers, and what measures should be taken to prevent such changes?
9. What are the disadvantages of ordinary open fire-places? Sketch and describe some form of stove in which the same fire is used to warm the room by radiation and to heat the fresh air admitted to the room.

## No. 66.-Agriculture.-For Class D. <br> Time allowed: Three hours.

1. Describe the effects that a heavy undrained soil would have on the growth of three different plants cultivated, A for its leaves, B for its root, and C for its fruit.
2. To what disa dvantages are light soils subject from an agricultural standpoint? How may these disudvantages be minimised?
3. Give notes of a lesson to exhibit to a class the effects of (a) lime and (b) superphosphate on plant growth, and to demonstrate their utility in agriculture.
4. How would you demonstrate to a class the effects of good tillage on the productiveness of the soil ?
5. If crops of wheat had been grown for three successive seasons in a virgin soil, what culture and cropping would you recommend in order to restore the fertility?
6. How would you explain to a class the reasons for adopting different methods o: planting or sowing for the following crops :-(a) wheat, (b) potatoes, (c) turnips? Why are different seasons chosen for planting or sowing these erops?
7. Compare the damage inflicted on the wheat plant by rust and by Hessian fly. State what you know of the development of each of these pests and of the best methods of preventing and mitigating their ravages.

## No. 67.-General Agriculture.-For Class $C$ and for Civil Service Senior. Time allowed: Three hours.

1. The iormation of the fruit may be effected by the development of different parts of the flower in different plants : compare in this respect wheat, the plum, and the gooseberry.
2. Explain why particular conditions of soil, light, temperature, air-supply, and water-supply are all necessary to the healthy growth of green plants.
3. By what methods may a sufficient supply of nitrogen be given to a soil that is deficient in it? Explain fully the sources of the nitrogen in each case.
4. What methods and what implements should be used in preparing land for a crop of potatoes?
5. Discuss the qualifications that a breed of stock should possess to fit it for dry hilly land covered with tussock and patches of native scrub.
6. What advantages may be gained by grafting trees? Explain how a graft becomes united with the stock.
7. Describe a method of performing a mechanical analysis of soils

## No. 68.-Agricultural Chemistry.-For Class C and for Civil Service Senior. Time allowed: Three hours.

1. What is the usual composition of atmospheric air? Which of the constituents are directly important as plant-food, and by what organs does the plant assimilate them?
2. Give a short classification of soils based upon the nature of the rocks from which they are derived. W'at are the common defects in each of the soils which you mention?
3. How can a mechanical analysic of a soil be carried out? Why is it desirable to supplement he mechanical analysis by a chemical analysis?
4. What are the beneficial constituents of the following manures: Dissolved bones, kainit, guano, basic slag, soot, wood-ashes?
5. Point out the chemical and physical principles involved in an ordinary four-course crop-rotation
6. Explain clearly what is meant by "germination," illustrating your remarks by special reference to the case of barley.
7. What do you know of the value of hay, oats, potatoes, cotton-cake, brewer's grains, and skim milk as food for agricultural stock?
8. How would you ascertain whether a sample of milk had been diluted with water? What constituents of milk would you expect to find in the following preparations: Condensed milk, butter, cheese cream cheese, whey, junket?

## No. 69.-Agricultural Botany.-For Class C and for Civil Service Senior. Time allowed: Three hours.

1. Describe the process of germination of a seed of wheat. Explain the special dangers to which a plant is subject during the process of germination.
2. Give a detailed description of the two chief organs of nutrition of a plant. Explain how both are necessary for the formation of the tissue of ordinary plants. Give an instance of a plant in which bo'h are absent, and explain how in this case the growth and vitality of the plant are maintained.
3. Moisture, light, a moderate temperature, and a fertile soil are necessary for the successful growth of vegetation: state the effect that an insufficiency of any one of these will have upon the growth of gresn plants.
4. Mention and describe three grasses suitable for growing in permanent pasture. State what peculiaritiss of soil or climate are suitable for each kind.
5. Name and describe three weeds belonging to the Compositae. What methods must be employed to prevent each of them from spreading?
6. How may the germinating-power of a sample of seed be tested? What would you consider the most important characters in determining the value of a sample of rye-grass seed?
7. Describe the growth and life-history of the rust fungus. How may its ravages be minimised ?

No. 70.-Agricultural Zoology.-For Class $C$ and for Civil Service Senior. Time allowed: Three hours.

1. On what principles is the classification of insects based? Exemplify the application of those principles.
2. What is an earthworm? Describe the effects that earthworms have upon the soil.
3. Give full descriptions of two kinds of insects that are particularly destructive to wheat. Describe the injury they inflict, and discuss any methods that may be employed to minimise it.
4. The ladybird beetle (Coccinella) is of special value in the destruction of some kinds of blight: give an account of its life-history and of the manner in which it destroys blight.
5. Discuss the extent to which agriculture benefits by the action of insects in fertilising flowers.
6. To what extent do (a) the sparrow and (b) the starling affect agricultural prospects?
7. What destructive effects does the New Zealand cockchafer (Odontria zelandica) have upon the growth of any plants of agricultural value during the various stages of its existence? How may these be minimised?

No. 71.-Geography, A.-For Junior National Scholarships and Free Places in Secondary Schools. Time allowed: Two hours. [Any eight questions may be answered, but not more than eight. Draw diagrams or sketch maps, where possible, to illustrate your answers.]

1. Give a full description of the surface and other physical features of the place in which your school is situated, and of the country lying within a few miles round it. Draw a map to illustrate your answer.
2. What causes the length of the period of light to vary from day to day? When is it longest, and when shortest? Why?
3. Name an inland town and a coast town in the Education District to which you belong. Compare them as to (a) population, (b) industries, (c) climate, (d) possibility of growth.
4. Give the names and the exact position and approximate population of six important manufacturing towns in Britain, and explain the circumstances to which each of them owes its importance.
5. What towns in New Zealand form the centres of the following industries, and from what ports are the products exported: Timber, flax, coai, gold, oats, apples ?
6. What is meant by longitude? What is the length of a degree of longitude at the Equator, and how does the length change as you go away from the Equator? If two places on the Equator are 7,000 miles apart, how much sooner will one have midday than the other?
7. Tell all you know about each of the following places: Hull, Vigo, Marseilles, Matterhorn, Crimea, Kiel, Cook Islands, Sicily, Waimangu, Gippsland.
8. Compare in respect of (a) length, (b) drainage-area, (c) rate of flow, any two rivers of New Zealand. Draw maps to illustrate your answer.
9. From which European ports or countries are the following articles exported (name the ports if you can) ?? Sugar, glass, butter, hemp, currants, olive oil, boots, silk, porcelain? Whence does New Zealand receive its supply of each of these ?
10. Compare the surface of England with that of the South Island of New Zealand. In each case show how the nature of the surface influences (a) climate and (b) industries.
11. You are sending a letter to London: describe two routes by which it might go. How would you address it? Give approximately the length of each route, and mention the chief stopping-places on the way.
12. Give as full an account as you can of the winds most commonly experienced in the district in which you live (name the district).

No. 72.-Geography, B.-For Junior National Scholarships and Free Places in Secondary Schools.
Time allowed: Two hours. [Any eight questions may be answered, but not more than eight. Draw diagrams or sketch maps, where possible, to illustrate your answers.]

1. What changes would you observe during December in the length of the shadow cast at noon by a post, and how do you account for such changes? At what other places on the earth would the changes be exactly the same as at the place in which you live?
2. Compare Otago and Auckland in the following respects: (a) Area, (b) population, (c) iarge centres, (d) productions.
3. Explain fully the action of frost in the formation of soll. What is an iceberg? Where are they to be found, and what work do they do ?
4. What rivers drain the northern slope of Central Europe? Describe one of them fully under the following heads: (a) Length, (b) drainage-area, (c) navigability, ( $d$ ) nature of the country through which it flows.
5. Give a general idea of the distribution of land and water on the surface of the globe. Compare the positions of England and New Zealand, and point out any advantages nossessed by either over the other.
6. Explain as well as you can why England has become such a great manufacturing country.
7. Tell all you know about each of the following: Bohemia, Caucasus, Rome, Antwerp, Kawhia, Riverina, Mount Cenis, Maniototo, Great Barrier Reef, Wakatipu.
8. Compare the surface of Switzerland with that of Holland, and in the case of each country show how the nature of the surface has affected the character and industries of the people.
9. What towns in Australia are the centres of the districts in which the following articles are grown or obtained: Sugar, coal, fruit, gold, copper, grain, silver? Name and give the position of the ports from which each of these articles is exported.
10. Name and give the direction, height, and length of three mountain ranges in New Zealand. Compare with any one of them, in the same respects, the Pyrenees. Tell the height of the snow-line in each case.

7-E. $1_{\text {A. }}$
11. State from what manufacturing centres in Europe the cups, the cutlery, the salt, the glassware, the silverware, and the linen tablecloths on your table come. Give the position and approximate size of each place you mention.
12. You are offered a trip to London: by which route would you choose to go ? Why ? Name the ports at which you would call, and tell anything you would expect to see at each.

## No. 73.-Geography.-For Civil Service Junior.

Time allowed: Three hours. [Candidates are requested to answer only eight questions, four from each of the Sections $A$ and B. Sketch maps and diagrams should be used wherever applicable.]

## Section A.

1. Briefly describe the chief currents of the Atlantic Ocean, and state what you know of the causes of ocean currents.
2. Why is the period of daylight in New Zealand ıonger in December than in June? Illustrate your answer by a diagram.
3. How do you account for the fact that in the vast majority of cases sea cliffs, instead of overhanging, slope backwards at a greater or less angle from the sea?
4. What are glaciers, and what functions do they discharge? Can you explain why some glaciers on the western slopes of the Southern Alps reach a lower level than those on the eastern slopes?
5. What is meant by "lakes of reception"? Mention a few of these, saying where each is situated and explain why their waters are usually salt.
6. Define the following terms: Solfatara, geyser, llano, steppe, tundra, polder, atoll, monsoon, seabreezes, isothermal lines.

## Section B.

7. What is meant by an all-red cable route? Trace out one such route between England and New Zealand, stating the positions of the chief places on the route.
8. Give a brief account of the Trans-Siberian Railway, mentioning the countries through which it passes, and the places of importance on the route.
9. Draw a map of the Balkan Peninsula, marking the positions of the countries it comprises, and of the following towns: Adrianople, Salonika, Constantinople, Cettinge, Belgrade, Bucharest, Sofia, Galatz, Varna, Plevna.
10. Write a short account of Switzerland and its people, under the following heads :-
(a.) Climate.
(b.) Commercial position.
(c.) Character and social condition of people.
(d.) Manufactures.
(e.) Commerce.
11. What do you know of the position and importance of Great Grimsby, Kirkwall, Como, Kiel, Teneriffe, Agra, Fusiyama, Saskatchewan, Mosgiel, Goulburn?
12. Mention six of the principal New Zealand exports, and say from what port or ports each is shipped.

## No. 74.-Geography.-For Class D. <br> Time allowed: Three hours.

1. Give, as clearly as you can, a brief sketch of a lesson to a Fiftn Standard class on the ocean and its work.
2. How would you impress the following facts on a Sixth Standard class: The effects of climate $(a)$ on plants, $(b)$ on animals, and (c) on man?
3. Give, with diagrams, such proofs of the approximately spherical form of the earth as are likely to appeal to children.
4. Draw on the equidistant or any other projection a diagram of a hemisphere, giving at least five meridians and five parallels. Add, in the form of a lesson to a class, a simple explanation of the diagram; also explain clearly but briefly the principle on which a Mercator's chart is constructed, and state the advantages it has for the navigator over other projections.
5. Write, under the following heads, three paragraphs on Britain as a colonising nation: (a) How, when, and by whom were Britain's chief colonies acquired; (b) principal products of the colonies; (c) Britain's imperial destiny a blessing to the home-country, to the colonies, and to the world in general.
6. Locate, as exactly as you can, the following places, and tell why they are important historically, commercially, or otherwise: Benares, Bologna, Boston, Canton, Leipzig, Marseilles, Rotterdam, Seoul, Sheffield, Tokio.
7. Point out the influence of the position, soil, climate, and natural productions of New Zealand upon the occupations, trade, and general life of the people; and show the great value of our colony to Britain, more especially in the matter of food-supply.
8. Draw an outline map of Scotland, or of England, or of India, and put in the chief natural features and the principal towns.

## No. 75.-Commercial Geography.-For Class $C$ and for Civil Service Senior. Time allowed: Three hours.

1. Give a clear statement of the chief uses of the study known as "commercial geography." With what subjects has a commercial geographer specially to deal?
2. Point out, with explanatory notes, the chief physical conditions that determine the commercial development of a country.
3. Mention the chief countries in which the following articles are mainly found or produced, and explain why they are found in these countries: Maize, coffee, rice, wine, tobacco, tea. Give, where possible, some notion of the extent of Great Britain's consumption of these products, and indicate the leading routes by which they reach Britain.
4. Draw an outline map either of the North or of the South Island of New Zealand, and indicate as carefully as you can the main geographical features and the distribution (a) of minerals, (b) of forests, and (c) of industries. Mention the chief lines of communication within the colony, as well as the sea routes to Australia, the Pacific Islands, and America. Write brief notes on such of the above headings as you are unable to insert in the map.
5. What industries are specially fostered by the New Zealand Government? Why is a protective tariff considered necessary in young countries? Mention (a) some of the chief articles coming from Great Britain on which there is a heavy duty in New Zealand, and (b) some that enter free of duty. What legislative changes have been made recently in New Zealand with the view of encouraging Mr . Chamberlain's preferential tariff policy?
6. Show briefly how the geographical conditions of Australia (including therein its climate) affect its commerce. Mention the various divisions of Australia, and indicate their chief products and their respective commercial and agricultural advantages and disadvantages. Give some notion of the volume of Australia's exports to Great Britain, and of the approximate money value to the colony of its various exports.
7. Point out the chief agricultural advantages possessed by the United States of America, and give an approximate estimate of the extent of its trade with Great Britain, more especially in wheat, oats, cotton, live-stock, petroleum, and metals. What are the chief trade routes between the United States and the Australasian colonies?
8. In what countries are the following coins used, and what is their English par value: Silver rouble, dollar, piastre, mark, lira, gulden, rupee, franc, guilder, peseta?

## No. 76.-English History.-For Civil Service Junior.

Time allowed: Three hours. Any seven questions may be attempted, but not more than seven.

1. Sketch the history of the English Parliament from its inception to the reign of William III. Give the provisions of the following measures passed in William's reign, and show the importance of each : Mutiny Act, Triennial Act, Bill of Rights, Royal Revenue Act, Toleration Act.
2. On what conditions was the Parliamentary Union of England and Scotland secured? What were the effects of this union?
3. What part was played in Irish affairs by the following: William III., Pitt, Grattan, O'Connell, Gladstone?
4. Describe the events that led $(a)$ to the acquisition of Canada, (b) to the secession of the Amerizan colonies.
5. Trace the growth of British power in India, illustrating by a map. What do you know of the method of Government established in India in 1857?
6. Give an account of the reforms connected with the following names: Wilkes, Sir Samuel Romilly, Huskisson, Robinson, Russell, Wilberforce.
7. Explain in precise terms what is meant by (a) party government, (b) act of Parliament, (c) cabinet, (d) impeachment, (e) act of indemnity, (f) act of grace, $(g)$ balance of power.
8. "The Netherlands has been the battleground of Europe." Draw a map of Holland and Belgium, marking the sites where battles have been fought since 1688 . Give the date of each, and state also the cause and result of the war in which each engagement took place.
9. Select one naval battle fought by Nelson and one land battle by Wellington. Give a detailed account of each, illustrating by a plan, if possible. In each instance show the importance of the victory.
10. What continental people invaded Britain between 450 and 1200 ? Estimate the influence of each on the social and political life of England.

## No. 77.-English History.-For Class D.

Time allowed: Three hours. Any seven questions may be attempted, but not more than seven.

1. What unconstitutional acts of the Stuarts led to the revolution of 1688 ? What steps were taken by Parliament to prevent a recurrence of despotism ?
2. Give an account of the industrial progress made during the latter part of the 18 th century, and estimate as well as you can the social and political results due to this changed industrial condition. What laws were subsequently passed to regulate the production of manufactured goods and to improve the conditions of labour ?
3. Describe the events following on Russia's attempt in 1853 to reach the open sea. Draw a map of the area of war, and show the exact positions of the battlefields.
4. Estimate the importance of the English navy during the Napoleonic wars.
5. Describe the struggle for (a) Catholic Emancipation, (b) Parliamentary Reform. What were the principal arguments for and against these measures?
6. Record the steps by which the freedom and power of the Press was established.
7. Describe exactly the causes that led (a) to the acquisition of India, (b) to the colonisation of New Zealand.
8. Sketch briefly the history of the English Parliament from 1250 to the present day.
9. Say what you know of the following writings, and discuss the influence of each on the history of its time: Edmund Burke's Reflections on the French Revolution, and his Letters on a Regicide Peace ; John Locke's Letters on Toleration; Adam Smith's Wealth of Nations; The Letters of Junius.

No. 78.-General History.-F'or Class $C$ and for Civil Service Senior.
Time allowed: Three hours. [Six questions may be attempted, but not more than six, two of which must be taken from the first three.]

1. Compare the Greek, the Roman, and the English systems of colonisation. Show wherein lies the superiority of the British over other modern colonisation.
2. What conditions hampered the progress of the American colonies before the Declaration of Independence? In what way did their secession affect England's treatment of her other colonies?
3. Show clearly the influence of Sir George Grey upon the administration of South Africa, South Australia, and New Zealand respectively. Compare his ideal of colonisation with that held by Edward Gibbon Wakefield.
4. What caused the dismemberment of Poland? Say what you know of the subsequent history of the Poles.
5. Sketch briefly the history of Russia from the time of Peter the Great.
6. Discuss the influence exercised by the French Revolution on the social conditions and on the national life of Europe.
7. Show the influence of the following men on the history of Europe: Charles XII of Sweden, Robert Clive, Garibaldi, Ibrahim, John Sobieski.
8. Give an account of the rise and development of the German Empire.

## No. 79.-Constitutional History.-For Class C and for Civil Service Senior. Time allowed: Three hours.

1. In regard to what legislative matters does the Lower House of Parliament in England and the Colonies claim exclusive or special rights? What is the present relation of the two Houses on such matters? Note shortly the history of this question.
2. How would you describe the tenure of office of Judges of the Superior Courts in England and in New Zealand? To what Act do they owe their position? Mention some leading constitutional cases illustrating the necessity for that Act. Name any other officer who holds his position by the same tenure.
3. From what Courts do appeals lie to the House of Lords and to the Privy Council respectively ? Note shortly the history of the appellate jurisdiction of each of these bodies.
4. Give a short account of the history of trial by jury, in England, in civil and in criminal cases.
5. How would you describe the relation of the Privy Council in England or the Executive Council in a Colony to the Cabinet? Note shortly the history of this matter.
6. Write a short account of the history of the liberty of the Press in England.
7. Note shortly the history of the power of the Crown in Council to legislate by Ordinance or Royal Proclamation. What remnant of this power still exists, and how is it limited ?
8. Write short notes on the following cases: Bates' Case, Darnel's (or the Five Knights') Case, Skinner $v$. The East India Company, the Seven Bishops' Case, Wason v. Walter.

> No. 80.-Contracts and Torts-For Civil Service Senior.
> Time allowed: Three hours.

1. (a.) A. in Wellington posts an offer to B. in Dunedin. B. writes to A. accepting, and sends his office boy to post the letter. Whilst the boy is on the way to the post, and just before he posts the letter, B. receives a telegram from A. revoking the offer.
(b.) A. in Wellington posts an offer to B. in Dunedin. B. writes to A. accepting, and posts the letter. B. subsequently telegraphs to A. revoking his acceptance, and the telegram reaches A. before the letter of acceptance.

State, in each of the above cases, whether in your opinion there is a binding contract, giving your reason. Discuss the principles applicable.
2. Discuss the question whether a promise to pay for past services can under any circumstances amount to a binding contract. What was decided in the case of Lampleigh v. Braithwait? How has that case been subsequently explained?
3. A. and B. are in negotiation for the lease of a house by A. to B. A. states that he intends to effect certain repairs, and, in fact, that he has let a contract for these repairs, which will be completed before the commencement of the proposed lease. B. executes an agreement for a lease relying upon this statement, but the agreement says nothing about the repairs. A. did in fact intend to carry out the repairs, and had in fact let a contract, but he changes his mind and does not carry them out, making an arrangement with his contractor cancelling the contract. Can B. repudiate the agreement for a lease? Has he any remedy? Give your reason for each part of your answer, and discuss the principles applicable.
4. (a.) A. and B. arrange the terms of a contract partly in conversation and partly by correspondence. (b.) They arrange the whole terms verbally, and go to a lawyer and give him instructions for a written agreement, which he prepares and they sign. Can anything not contained in the correspondence or writing be relied on as a term of the contract in either case, the contract not being one which is required by law to be in writing? What is the principle applicable?
5. What do you consider to be the proper use of the terms "condition" and "warranty"? What important difference of effect may there be between a condition and a warranty? Give an illustration of each.
6. Name some classes of actions for tort in which actual damage must be proved, and others in which it need not. What is the test for determining whether damage which has occurred is or is not too remote a consequence of the defendant's act? Explain the meaning of terms used in your answer.
7. A. calls B. a liar in the street in the presence and hearing of others: explain how the question whether the words are actionable depends upon the context in which they are spoken and other circumstances.
8. Define " malicious prosecution" and "false imprisonment." What important distinction as there between them?
9. Discuss the question of the liability of a landowner for damage done by a fire lit upon his own land and extending to the property of a neighbour. To what other classes of cases is the same principle applicable? What is the leading case upon the whole of these classes of torts? In what sense can the principle applied in such cases be said to be anomalous ?
10. What matters is it essential that the plaintiff should prove in an action for trespass to and conversion of chattels ? Can there be conversion of chattels without trespass?

## No. 81.-Criminal Law.-For Civil Service Senior. Time allowed: Three hours.

1. Give the substance and effect of the provisions of "The Criminal Code Act, 1893," upon the questions ( $a$ ) whether a man can be indicted for a crime not specified in the Code or its amendments and (b) whether defences other than those specified in the Code can be raised.
2. What are the provisions of "The Criminal Code Act, 1893 ," upon the subject of insanity as a defence? From what leading case are the provisions taken? What are the medical and legal views respectively in regard to responsibility in cases of "moral insanity" or "irresistible impulse"?
3. Mention some of the more general grounds upon which an act otherwise criminal may be justified or excused. What general limitation is placed upon the right to apply force to the person or property of another in cases where such a right exists?
4. (a.) A. puts his hand inte B.'s pocket with the intention of stealing any money it may contain. There was, in fact, no money in the pocket.
(b.) A. goes up to a haystack and lights a match with intent to set fire to it, but blows the match out on seeing that he is watched.
(c.) A., intending to shoot B., buys a revolver for the purpose, and sets out for B.'s house to carry out his intention. On reaching B.'s gate he changes his mind and goes away again.

State, in regard to each of the above cases, whether A. has committed any offence; and, if he has, what offence. Give your reasons.
5. In a prosecution for criminal libel what defences are covered by the plea of "Not guilty" and what defence must be specially pleaded?
6. What important distinction is there between the definition of theft given in the Criminal Code and that of larceny at common law?
(a.) A. leaves a horse in B.'s possession, to depasture on B.'s land, for payment. B. knowingly includes it in a mortgage which he gives over his own stock.
(b.) B. deliberately works a horse left with him by A. upon similar terms, for the daily purposes of his farm, contrary to the express terms of his agreement with A.

State, in regard to each of the above cases, whether B. has committed a criminal offence; and, if he has, what offence. Give your reasons.
7. Subsection (2) of section 307 of "The Criminal Code Act, 1893," declares that nothing shall be a crime under Part XXXIII. of the Code, headed " Mischief," unless it is done "without legal justification or excuse" and " without colour of right" : explain and illustrate these two expressions.
8. Upon what grounds and by what process in each case may a new trial be obtained in a criminal case (a) by the prosecution and (b) by the accused ?
9. How is a prosecution for an offence punishable summarily commenced under "The Justices of the Peace Act, 1882 "? Within what time must such a prosecution be commenced ? What is the test of the sufficiency of a written conviction under that Act, when drawn up?
10. State quite generally the purpose and effect of "The Indictable Offences Summary Jurisdiction Act, 1894," and of section 6 of "The Indictable Offences Summary Jurisdiction Amendment Act, 1900."

> No. 89.-Industrial Economics.--For Civil Service Senior. Time allowed: Three hours.

1. Show how the wages earned by a particular class of labourers is connected with the supply of labourers and the demand for that kind of labour. Explain the disturbing effects of custom and of combinations amongst employers.
2. What is the probable effect upon the industries of the colony of a substantial alteration in the current rate of interest on loans? Give full reasons.
3. Discuss, with special reference to national and individual gain or loss, the effect of a compulsory shortening of the hours of employment $(a)$ in factories, $(b)$ in shops, (c) in mercantile offices.
4. What is "the law of diminishing return"? Discuss its application to partially settled countries.
5. What are the economic advantages and disadvantages of extensive combinations (a) amongst manufacturers by the formation of "trusts," (b) amongst employees by the formation of tradeunions and the organization of such unions under a central controlling executive ?
6. Discuss compulsory arbitration in industrial matters under the following heads :-
(a.) Practicability of enforcement of awards against employees.
(b.) Incentive to special effort by employees.
(c.) Probability of employees entering the employer class.
(d.) Stability of cost of production.
7. Describe as accurately as you can the part that capital plays in the production of commodities, distinguishing the different classes of capital. Criticize the statement that interest is the remuneration of abstinence.
8. Show, with examples, the actual operation of competition in determining (a) prices in the retail trade, (b) the rate of interest on loans.
9. Discuss the question of free-trade and protection, with special reference to the development and extension of American industries. What deductions would you draw from American experience in reference to the proposal for a British zollverein and on the question of preference in British countries to goods of British manufacture?

> No. 83-Writing-For Class $D$.
> Time allowed: Half an hour.

1. As a test of handwriting, write the following passage and reference on the lines [89 in apart] ruled below:-

Thy father bears the type of King of Naples, Of both the Sicils and Jerusalem,
Yet not so wealthy as an English yeoman.
Hath that poor monarch taught thee to insult?
It needs not, nor it boots thee not, proud Queen.
-3 Henry VI., I., ii., 121-125.
2. Write the words "Marine Office" in such a band that the small letters shall fit the space [ $\frac{1}{8} \mathrm{in}$.] between the two lines ruled below.

No. 84.-Shorthand.-For Civil Service Junior.
Time allowed: One hour. [For Supervisors only.]
Instructions to Supervisors.

1. Inform the candidates before the time for taking up this subject that a candidate may use pen or pencil as he pleases for taking notes, which should be written in a ruled note-book, but that he must transcribe those notes into longhand with pen and ink in one of the ruled foolscap books provided.
2. Inform them also that the clearness and accuracy of the shorthand notes (which must in every case be handed in together with the transcript) will be taken into account by the examiner.
3. Inform candidates that when once you have begun to dictate you cannot stop until the passage is finished.
4. Dictate the passage at the rate of 80 words a minute.
N.B.-It will be well to practise reading the passage aloud some time beforehand, looking at a watch or clock, so as to accustom yourself to reading at the exact rate indicated. The matter to be read is marked off by thick lines into sections, each of which is to occupy a minute, and also by thinner lines into smaller sections, each containing the number of words to be read in twelve seconds. As the candidates hear the passage read only once, the reader's articulation ought to be very clear, and the candidates ought to be so placed as to be able to hear well.

## Passage for Dictation, at the Rate of 80 Words a Minute. <br> [The passage takes 10 minutes.]

Then, you have the system of landlordism in Ireland. I do not know whether you would $\mid$ wish me to make reference to what such historians as Froude and others have said in | that connection, and the terrivie sufferings inflicted on the unfortunate Irish, but here is a description | by the Roman Catholic Bishop of Meath of the sufferings that were inflicted on these generous | but unfortunate people. He describes a scene in connection with certain evictions :-
"The horrid scenes that \| I then witnessed I must remember all my life long. The wailing of women, the screams, | the terror, the consternation of children, the speechless agony of honest, industrious men, wrung tears of $\mid$ grief from all who saw them. I saw the officers and men of a large police | force, who were obliged to attend on the occasion, cry like children at beholding the
2 cruel|sufferings of the very people whom they would be obliged to butcher had they offered the least resistance. The heavy rains that usually attend the autumnal equinoxes descended in cold, copious torrents throughout the night, and at once revealed to those houseless sufferers the awful realities of their condition. I visited them next morning, and rode from place to place administering to them all $\mid$ the comfort and consolation I could. The appearance of men, women, and children as they emerged from the ruins of their former homes-saturated with rain, blackened and besmeared
3 with soot, shivering fin every member from cold and misery-presented the most appalling spectacle I ever looked at. | The landed proprietors in a circle all round-and for many miles in every direction -warned | their tenantry, with threats of direct vengeance, against the humanity of extending to any of them | the hospitality of a single night's shelter. Many of these poor people were unable
4 to emigrate | with their families, while at home the hand of every man was thus raised against them.

They were driven from the land on which Providence had placed them, and in the state |of society surrounding them every other walk of life was rigidly closed against them. What was | the result ? After battling in vain with privation and pestilence they at last graduated from the | workhouse to the tomb, and in little more than three years nearly a fourth of them | lay quietly in their graves."

What a picture this is ot landlordism! The point I wish to make is this: Under either state landlordism or individual landlordism the people in occupancy of the land have to bear a system of rentals far beyond their abilities, and although you | may have in this country a better form of government-and so long as good government | is continued on safe lines these people will be justly and fairly treated-what has been | may be again, and past history shows that if 6 bad governments arise, either by extravagance or anything else, the lands of the tenants of a state will have inordinate rentals extracted from: them, whereas if the people are owners of landed property they will only be required to | share pro ratd with the other owners of property in their contributions towards the state. In connection with the land administration of Ireland, we have evidence from those who have taken a $\mid$ deep interest in the matter that practically nothing was done from the time that Cromwell took the land from the chiefs and gave it to his followers and adventurers until 1870, when the Bright clause was made law. When Mr. Wyndham's Bill was introduced in $1903 \mid$ Mr. John Redmond said, "You must not remove from the provisions of this Bill the knowledge | that these men were becoming absolute owners. If you remove that you do away with all | the good the Bill was calculated to promote." He also said that if the 8 lands were in the hands of the people of Ireland, and if the people had the right to | make them their own, the holders would at once double the productive capacity of the land |owing to that tenure. In connection with Continental countries, others express precisely similar opinions when the lands had gone into use and had been under the right of final acquirement. I come, then, 9 to consider some of the Continental countries where the system of freehold tenures exists, and here a brighter picture is presented. I take France first; and I want members to mark | the contrast between the countries where state and individual landlordism prevails and countries where they have the right either of acquiring the freehold or of enjoying the freehold. France is an example of the kind. France has divided her lands among her people. There are in France no | less than two million occupiers of the soil who cultivate areas of less than twelve acres.

> No. 85.-Shorthand.-For Class D.

Time allowed: Three hours (two hours for Questions 1 to 5, and one hour for Question 6).

1. What system of shorthand do you write?
2. What are the main principles of that system? Answer briefly.
3. Explain the chief essentials for attaining speed in writing, combined with accuracy of transoription.
4. What are the fundamental principles of abbreviation in the system you write?
5. What rules should guide the writer in the use of phraseography?
6. Write in shorthand and transcribe into longhand the passage dictated to you by the Supervisor. [Use a fresh book for the transcription.]

## No. 86.-Shorthand.-For Class D.

Time allowed: One hour. [For Supervisors only.]

## Instructions to Supervisors.

1. Inform the candidates before the time for taking up this subject that a candidate may use pen or pencil as he pleases for taking notes, which should be written in a ruled note-book, but that he must transcribe those notes into longhand with pen and ink in one of the ruled foolscap books provided.
2. Inform them also that the clearness and accuracy of the shorthand notes (which must in every case be handed in together with the transcript) will be taken into account by the examiner.
3. Inform candidates that when once you have begun to dictate you cannot stop until the passage is finished.
4. Dictate the passage at the rate of 80 words a minute.
N.B.-It will be well to practise reading the passage aloud some time beforehand, looking at a watch or clock, so as to accustom yourself to reading at the exact rate indicated: The matter to be read is marked off by thick lines into sections, each of which is to occupy a minute, and also by thinner lines into smaller sections, each containing the number of words to be read in twelve seconds. As the candidates hear the passage read only once, the reader's articulation ought to be very clear, and the candidates ought to be so placed as to be able to hear well.

## Passage for Dictation at the Rate of 80 Words a Minute.

[The passage takes 8 minutes.]
Now for the Cook Strait lights. In the lifting colours of a sea sunrise the "Hinemoa" splashed her anchor into the water opposite Palliser Bay station, and after breakfast two boats were | lowered away to transport stores to the beach. All trouble lies in this part of the \| work; the landing-places are indifferent, and in bad weather there is much danger. Often and | often a boat's crew has to battle back and forward from ship to shore through 1 snarling, | smothering surf that, to a landsman-aye, to any but an experienced boatmanit seems impossible |for a boat to live in. See them go shooting backward on the curling
crest of |a broken roller-a black forsaken-looking boat amongst menacing, misshapen waves that shoulder past each | other in their efforts to strike and stamp her to the bottom-and feel the relief | that sweeps through the blood as the men reach shallow water and leap out to
2 drag | her beyond the savagery behind them. Sit in the boat as she is brought back to |the ship; sit and quake with white fear fluttering round and round your heart! In front | of you the men, with set faces and tightened mouths, work strainingly at the long oars; |above them, dancing spasmodically against the grey sky-line like a shadow, is the steer-oarsman. As |
3 they drop giddily into a hollow a blind wave lifts in front nearly twelve feet high, I grey and hideous, while the fear creeps up from the heart to the throat. Screaming down upon the boat comes the broken water, and, under the blow, she reels and turns her | nose aside. Halffilled, she faces the waves again, and, down on his knees, one of $\mid$ the crew is bailing as a man who is paced by death. Again and again the | apparent uselessness of it all rushes to the
4 tongue for expression; again and agaiu the desire It be free from the boat, to escape the look on the faces of men at | the edge of the point where physical endurance fails, is quieted only by the hope that | will not be denied in man until the end. Suddenly it is over; highthrown the | boat goes staggering over a roller, and the broken water is past. The crew of the |"Hinemoa" have been selected because of their fitness, because of their skill, for such
5 work. They I come of families that have all their lives been whalers or sealers-men who have earned | their living in open boats and practically lived in open boats-only such men could do the work they are asked to do, and only such men would take the risks they | are asked to take. To return to Palliser Bay; there was no difficulty in landing this
6 time, and very quickly the piles of sugar and flour and groceries and coal were safe | on the beach. Cape Palliser is comparatively a new lighthouse. It was built in 1897, | and is a revolving white light, flashing twice every half-minute, with an interval of | three seconds between the flashes. Through the great glass prisms the head keeper points out the | place where the "Ben Avon" went ashore, and we are told how she came down and | piled herself
7 up on the rocks almost under the light. "No," said the keeper, in | answer to a question, "they did not see it-the night was too thick." No sign | of the vessel is left now; she stood for some time with all her sails at | the yards, until one morning the heavy seas crowded upon her. At 3 o'clock in | the afternoon her hull was broken into three pieces, and before evening all that remained was | loose, floatable fittings. Other wrecks are told of. The
8 keeper points where the good ships died. I

No. 87.-Shorthand.-For Class C and for Civil Service Senior.
Time allowed: One hour and a quarter. [For Supervisors only.]

## Instructions to Supervisors.

1. Inform the candidates before the time for taking up this subject that a candidate may use pen or pencil as he pleases for taking notes, which should be written in a ruled note-book, but that he must transcribe those notes into longhand with pen and ink in one of the ruled foolscap books provided.
2. Inform them also that the clearness and accuracy of the shorthand notes (which must in every case be handed in together with the transcript) will be taken into account by the examiner.
3. Inform candidates that when once you have begun to dictate you cannot stop until the passage is finished.
4. Dictate the passage at the rate of 130 words a minute.
N.B.-It will be well to practise reading the passage aloud some time beforehand, looking at a watch or clock, so as to accustom yourself to reading at the exact rate indicated. The matter to be read is marked off by thick lines into sections, each of which is to occupy a minute, and also by thinner lines into smaller sections, each containing the number of words to be read in twelve seconds. As the candidates hear the passage read only once, the reader's articulation ought to be very clear, and the candidates ought to be so placed as to be able to hear well.

## Passage for Digtation at the Rate of 130 Words a Minute.

[The passage takes 8 minutes.]
The next subject I have to deal with is that of defence. The proper way in which we should try to secure the efficient defence of |our colony is by combining with the other colonies, and having a comprehensive system of imperial and colonial defence under one control. It seems to me | that in these days when guns and the methods of the defence of harbours are constantly changing, when things which are in use one year may | possibly be obsolete the next, it is highly necessary, and would be of great advantage, that we should follow such a course as he suggests, and | that we should make a larger and more worthy contribution to the cost of the navy of Great
1 Britain. When we come to consider that in the past we have paid a very trifling, I may say a paltry, sum, and when we remember that in recent years the British navy has |called upon the inhabitants of Great Britain to increase their taxes largely for the purpose of the navy-they are now paying something like 20 s . | a head of a population of forty millions for the navy alone, and we here are only going to contribute $£ 40,000$ with a population | of eight hundred thousandto me it does seem an extraordinarily small sum for us to give. I do trust as time goes on the people | of this colony will recognise that it is to our interest, and that we cannot too freely give
2 of our substance to help the Mother-country \|in times such as we have had recently. There seems to be a possibility that this Russo-Japanese war may eventuate in the long-run in | European
complications that may involve the whole Empire in a contest for supremacy in the East. People who have a knowledge of the subject-which I have not-say that our forts and batteries are absolutely obsolete, and that it would take very little to reduce them to ashes were they confronted with guns such as are now being built. I now pass to the question of the Judges. I have long thought they have not been remunerated in accordance with the duties they have to perform.
3 And when we remember the prosperity of the last ten years and see the large increase of $\%$ business which is being done in every direction, necessarily involving to the legal fraternity very much larger remuneration for their services than they had previously, we | must recognise that the Judges are very much underpaid in comparison with what they might earn were they in private practice. Therefore, Sir, I anticipate with pleasure the probability of our Supreme Court Bench being paid more in harmony with their services and in accordance with what other colonies pay. Now, Sir, I come to a genial subject for me to discuss, and that is the question of state fire insurance. I am very sorry, but I am $\mid$ not surprised, to find that the companies interested in fire insurance have
4 adopted a hostile attitude towards this new movement of ours. Their attitude is quite in harmony with the whole of their proceedings in the past. They are absolutely blind to anything like knowledge of what the people of the colony | think and require in regard to this matter. For years past it has been known that they have a monopoly. Much has been talked about monopolies, but to my mind this is one of the worst, because they have an enormously large reserve capital, and they have a field which they have been able to keep free from all intruders from abroad. They have carried on their business in a way that would have broken up in six months any other business that had been conducted in the same way. If you want an insurance for nine months you have
5 to pay for twelve months, if you want six months' insurance you have to pay nine, if you want three you have to pay four months, and so forth. And/then again, as I have pointed out in this Chamber before, they carry on their business with no scientific view at all. Their rates are so high that they can afford to take anything, and they impose on you conditions as to the rate they put on your property that are really |ridiculous and absurd. Theoretical lines are drawn between houses, and differences of 9 s . and 15 s . are made in the rates. Then, as I say, $\mid$ they take risks that only the high rates they charge enable them to take. I will give you an instance in connection 6 with a property which was sold recently. For several years the building on this property had been insured for $£ 650$, and when the property was sold the building was sold for removal for $£ 50$. There had evidently been no inspection of that risk, and no application was made by the company |that the value should be reduced, and they came to the new owner of the property for a renewal of the insurance. He said the building | had been sold for $£ 50$ for removal, and they did not know anything about its position and value. How could a competitive business be carried on by such methods? You insure a house for ten or fifteen years for, say, $£ 1,000$.
7 Naturally, unless you keep improving the place, it deteriorates in vaiue. Should there be a fire the question is raised as to whether they will rebuild, and they fight you on the question of acompromise or rebuilding. I do hope this new Department of the State will pursue something like a policy of common sense, and that when they take | risks they will make sure that they are of the value they are taken at; that they will give reasonable rates, and not charge twelve months' for a nine months' insurance, and so forth, but will proceed on the same lines as other trades have to do in order to insure a successful business.

Then I come to the great question of leasehold versus freehold. I suppose there will be many 8 opportunities of discussing this question during this session.

## No. 88.--Book-keeping.-For Civil Service Junior. <br> Time allowed: Three hours.

1. Edward Williams accepted James Thomson's draft for $£ 45$ 5s. 6d., dated 1st July, 1904, and payable three months after date: write out the bill, with acceptance and due date.

2, Give definitions of the following terms: Bills payable, contingent liability, cheque, limited liability, mortgagor, post-date, composition.
3. A grocer's sales for twelve months amount to $£ 7,500$, expenses amount to $£ 525$, bad debts to $£ 250$, and profit to $£ 875$ : what rate per cent. of profit must be realised on his sales to bring about this result?
4. The following were the ledger balances in the books of A and B on the 31st December, 1904: arrange them as a trial balance ; also show Trading Account, Profit and Loss Account, and Balance Sheet:-The goods on hand at date of balance are valued at $£ 2,583$. A receives three-fifths and B twofifths of the profits. A's capital, $£ 1,380$; B's capital, $£ 1,060$; goods, 31/12/03, $£ 2,437$; Edward Jones owes $£ 49$, Thomas Evans $£ 210$, and A. Black $£ 338$; Bills Payable, $£ 1,124$; Bills Receivable (all on hand), $£ 235$; the firm owes T. Williams $£ 241$ and E. Browning $£ 115$; Purchases for the year $£ 5,774$, and Sales $£ 6,823$; Charges Account is in debit $£ 147$, Salaries $£ 388$, and Rent $£ 150$; the partners had drawn, A $£ 224$ and B $£ 195$; Cash in hand $£ 53$, and in bank $£ 543$.
5. From the following particulars prepare London account sales: 37 bales wool branded CD and numbered 1 to 37, ex "Gothic" from Lyyttelton, consigned by Charles Downes, Christchurch, and sold by Frederick Jones, London in three lots as under - 15 bales crossbred weighing 34 cwt. 1 qr. 21 lb. gross, @ 8 , per 1 b ; 18 bales half-bred, 43 cwt. 0 qr. 17 lb . gross, @ 10d. per 1b; 4 bales matted and pieces 12 cwt .2 qr. 18 lb . gross, @ 6 d . per lb . Deduct from the gross weights 12 lb . a bale for tare and 1 lb . per cwt. for draft (for each lot calculate on the nearest cwt.). The charges were-freight on $10,108 \mathrm{lb}$. @ $\frac{3}{4} \mathrm{~d}$. per Ib . plus $5 \%$, dock charges @ 2 s . a bale, sale expenses (a) 4 d . a bale, fire insurance 10 s ., brokerage $\frac{1}{2} \%$, and commission $2 \%$.
6. Rule a simple form of cash-book suitable for a firm which allows and is allowed' discounts, iodges all cash received in bank, and pays only by cheque. Also give six specimen entries on each side.
$8-\mathrm{E}, 1 \mathrm{~A}$.

## No. 89.-Book-keeping.-For Class D. Time allowed: Three hours.

1. From the following ledger balances in the books of Smith and Brown, on 31st March, 1904, prepare trial balance Trading Account, Profit and Loss Account, and Balance-sheet. The goods on hand at date of balance were valued at $£ 1,874$. Smith is to receive $\frac{2}{3}$ and Brown $\frac{1}{3}$ of the net profits.

Smith, capital, $£ 1,375$; Brown, capital, $£ 580$; goods, $31 / 3 / 03, £ 1,734$. Ernest Aimes owed the firm £75, William Evans owed $£ 127$, and A. Jack owed $£ 314$. There was a sum of $£ 70$ in the bank; bills payable current amounted to $£ 343$; bills receivable, all in hand, $£ 337$. The firm owed Billows and Co. £138, T. Longford £49, Thomas Cornish £113, and Edmonds and Co. £38. The purchases for the year were $£ 7,388$, and the sales $£ 8,477$; charges, $£ 245$; salaries, $£ 407$; rent, $£ 150$. Smith had drawn $£ 154$ and Brown $£ 112$.
2. Give definitions of the following terms : Debenture, accommodation bill, partnership, impersonal account, set-off.
3. A and B enter upon a venture. A supplies $£ 2,000$ at 5 per cent. simple interest, and $B$ is to manage the venture at a salary of $£ 300$ per annum ; profits and losses to be divided equally. At the end of a year all the assets were sold for $\mathfrak{f} 3,500$, but at the date of sale there was an account unpaid of $£ 350$. Neither partner had drawn any sum for interest or salary. Make up a statement showing the amounts due to $A$ and $B$.
4. A merchant's books show a sum to his credit at the bank of $£ 215$, but on comparison with his bank book it is found that two items appearing in the bank book have not been taken into accountviz., exchange 5 s., and cheque dishonoured $£ 257 \mathrm{~s}$.; and that cheques for $£ 3310 \mathrm{~s}$., $£ 1715 \mathrm{~s}$., and $£ 198 \mathrm{~s} .$, have not been presented for payment: give the balance of the account as shown in the bank book.
5. From the following particulars prepare an Account Sales : 300 lambs, sold by Edward Smith and Co., of Auckland, on account of John James, on 21st November, 1904, at the following prices85 at 13s. each, 60 at 11 s . each, 100 at 10 s .9 d . each, and 55 at 10 s . each. The charges were-railage, $£ 317 \mathrm{~s}$. ; unloading, 10s. ; paddocking, £1 5s. ; yard dues, 1d. a head ; and commission at 3 per cent.

## No. 90.-Book-keeping, I.-For Class $C$ and for Civil Service Senior. <br> Time allowed: Three hours.

1. Give a short explanation of that method of keeping a petty-cash book which in your opinion is the best.
2. Explain the following: Lien, accommodation bill, account current, bill of exchange, bill of lading, negotiable instrument, statute barred, charter party.
3. The ledger of Robinson and Son, manufacturers, shows the following balances on 31st March, 1904. You are required to arrange the items in the form of a trial balance, and prepare Manufacturing Account, Trading Account, Profit and Loss Account, and Balance-sheet.
J. Robinson, capital, $31 / 3 / 03, £ 3,825$; W. Robinson, capital, $31 / 3 / 03$, $£ 1,820$; sundry debtors, $£ 1,857$; bills payable, $£ 1,060$; bills receivable, $£ 2,470$, of which bills amounting to $£ 2,050$ have been discounted ; premises, $£ 1,570$; machinery, $£ 850$; stock of raw material, $31 / 3 / 03$, $£ 3,785$; finished goods, $31 / 3 / 03, £ 1,823$; sundry creditors, $£ 2,836$; J. Robinson, drawings, £370; W. Robinson, drawings, $£ 286$; wages, $£ 2,390$; salaries, $£ 456$; discounts allowed, $£ 28$, and earned, $£ 37$; travelling-expenses, $£ 260$; repairs to machinery, $£ 36$; office furniture, $£ 158$; goods manufactured during the year, $£ 12,750$; purchases of raw material, $£ 7,748$; general charges, $£ 395$; sales, $£ 13,984$; cash in hand, $£ 33$; in bank, $£ 724$; bad debts written off, $£ 373$.
 accrued amount to $£ 38$. Provide 2 per cent. discount on bills on hand and book debts; reserve for doubtful debts 5 per cent. on bills current and book debts; allow for depreciation on premises 2 per cent. on machinery, $7 \frac{1}{2}$ per cent. on office furniture, $£ 10$. Divide net profit in proportion to capital as held on 31st March, 1903.
4. Give examples of ledger accounts for Bills Receivable and Bills Discounted, kept in such a way as to show at any time the amount of bills under discount. Also make entries in the accounts of bills received, discounted, held for collection, dishonoured, and paid on due dates; and state in the folio column the names of the books from which the respective entries are posted.

> No. 91.-Book-keeping, $11 .-$ For Class $C$ and for Civil Service Senior. Time allowed: Three hours.

1. An agent has the sum of $£ 1,563$ in his hands belonging to his principal in London. He wishes to forward a draft, which (with exchange and stamp) will cost exactly $£ 1,563$. The rate of exchange is $\frac{3}{4} \%$, and the stamp duty $£ 112 \mathrm{~s}$. Find the amount of the draft, and show your working.
2. Should "Reserve Fund" on a company's balance-sheet be an asset or a liability ? Why ?
3. Find the average due date of the following sums, and show your working: Feb. 1, £250; Feb. 15, £155; March 3, £220; April 14, £147; April 19, £375; May 3, £89.
4. Rule a form of contract book suitable for a builder, and explain how such a book can be made self-balancing.
5. A cash-book shows a balance of $£ 374$ to the debit of bank, but it is found that a promissory note for $£ 34$ paid in for collection has not been entered in the cash-book, and that cheques for $£ 38, £ 75$, $£ 123$, and $£ 8$ have not been presented for payment; whilst a cheque for $£ 15$ lodged on the last day of the month has been since charged back as dishonoured : prepare a reconciliation account showing the balance as in the bank pass-book,
6. Rule a form of cash-book for a trust estate which would show separately the balances of capital and income on hand at any particular date. Also make entries therein of the following transactions :June 12. A. Brown repaid his mortgage of $£ 500$, with interest to date $£ 7$.
$"$ 15. Interest collected from Smith £8, from Jones $£ 510$ s., and from Robinson $£ 18$; the latter also repaid $£ 100$ of principal.
July 1. Lent Edwards $\mathfrak{f} 300$ on mortgage.
7. Received $£ 1,706$ for property sold, $£ 6$ of the amount being a refund of rates paid.
" 4. Paid legacies, $£ 1,080$.
" 7. Paid to widow (who receives the income of the estate), £35.
8. A company is formed to purchase the business of A. B. and Co. and C. D. and Co. for $£ 9,000$ and $£ 3,000$ respectively. The balance-sheets of the selling firms were as follows :-
A. B. and Co.-Liabilities : Creditors, $£ 3,000$; capital, $£ 7,500$. Assets: Debtors, $£ 5,500$; premises, $£ 2,000$; stock, $£ 1,570$; plant, $£ 500$; furniture, $£ 200$; cash in bank, $£ 730$.
C. D. and Co.-Liabilities : Creditors, $£ 1,500$; bank overdraft, $£ 350$; capital, $£ 2,350$. Assets : Debtors, $£ 2,100$; stock, $£ 1,200$; premises, $£ 775$; furniture, $£ 125$.

The purchase-prices are to be paid, two-thirds in fully paid-up shares at $£ 1$ each and one-third in cash to each firm. After the above shares are allotted and the cash payments made, record in the form of journal entries in the company's books all the transactions.

> Mo. 92.- Précis-uriting and Correspondence.--For Civil Service Senior.
> Time allowed: Three hours.
> QUESTION I.-PRECIS-WRITING.

Write a précis of the following despatches and enclosures :-
No. 1.
Mr. J. W. Hamilton to Mr. W. Wakefield, Principal Agent of the New Zealand Company. Sir,-

Wellington, 27th February, 1844.
I have the honour of forwarding to you, by desire of the Governor, a copy of the instructions which His Excellency has given to Mr. Commissioner Spain.

By these instructions you will see that a purchase or purchases, to the extent of not more than 150,000 acres of land in or near the Wairarapa, and of not more than 250,000 acres elsewhere, are authorised by His Excellency, under that officers' superintendence, under certain conditions.

And by the enclosed copy of instructions to Mr. John Jermyn Symonds, Police Magistrate, you will perceive that Mr. Symonds is authorised to proceed to New Munster and there superintend and assist in effecting the valid purchase of not more than 150,000 acres of available land, without regard to figure or continuity of blocks, to which extent the Crown right of pre-emption will be waived on certain conditions.

The conditions referred to are-
First, that all existing arrangements made by 'he Government with respect to the New Zealand Company's settlements shall be strictly observed, except as altered by the present arrangement.

Second, that the land so purchased shall be counted in exchange for an equal number of acres claimed by and to which a valid title can be proved by the New Zealand Company elsewhere, it being clearly understood that the purchase-money in both cases referred to is to be provided by the Company.

Third, thus the exterior boundaries as well as interior divisions of the land so purchased shall be surveyed by and at the expense and by the surveyors of the New Zealand Company.

By these arrangements being carried into effect I trust that the Government will enable the New Zealand Company to insure undisturbed possession of a sufficient extent of available land to a numerous and important body of British subjects who have already settled in New Zealand in consequence of purchases made by the Company, as well as to others of our own countrymen who may hereafter emigrate under the New Zealand Company's auspices.

I have, \&c.,
J. W. Hamilton,
W. Wakefield, Esquire, Principal Agent, New Zealand Company.

Principal Secretary

## No. 2.

Copy of the Directions issued by Governor Fitzroy to J. J. Symonds, Esq., P.M., Wellington.
You are hereby required and directed to proceed to New Munster (on the Middle Island), and there superintend and assist the agent of the New Zealand Company in effecting the valid purchase or valid purchases of not more than 150,000 acres of available land, without regard to figure or continuity of blocks.

To such an extent of the land the Crown right of pre-emption will be waived, upon your report of the validity of the purchase, under certain conditions.

You will be most careful not to countenance any, even the smallest, encroachment on or infringement of existing rights or claims, whether Native or other, unless clearly sanctioned by their legitimate succession.

You will inform settlers now established in New Munster that their cases will be most carefully and kindly dealt with by the Government under existing regulations, or by a special act of grace, such as by waiving the Crown's right of pre-emption in their favour to a reasonable extent.

You will inform the aboriginal native population that you are sent to superintend and forward the purchase of lands which they wish to sell, and that you, on behalf of the Government, will not authorise nor in any way sanction any proceedings which are not honest, equitable, and in every way irreproachable.

You will exert authority as Police Magistrate where it may be required, and report your proceedings from time to time to the Superintendent of the Southern Division.

Your Lnowledge of the Native character and habits, your late employment as Sub-Protector of Aborigines, and your own personal conduct recommend you for this special service.

While absent from Wellington on this important duty you will be entitled to receive 10 s . per diem for travelling-allowance.

Given under my hand and seal, this 27th day of February, 1844.
Robert Fitzroy, Govermor.

## No. 3.

Mr. William Wakefield, Agent of the New Zealand Company, to Mr. J. J. Symonds.
SIR,-
Wellington, 27th March, 1844.
I have the honour to communicate to you the steps I have taken, in pursuance of the arrangemené sanctioned by His Excellency Governor Fitzroy, for establishing a settlement in the Middle Island by the New Zealand Company, to facilitate which object, by assisting the Company's agent in the acquisit on of a suitable district of land, you received the instructions from His Excellency, with a copy of which he was pleased to furnish me.

Mr. Frederick Tuckett, late Chief Surveyor to the Company at Nelson, has been charged by me, on the part of the Company, with the selection of the site and with the purchase of the land from the Natives, with your approval and assistance, for the proposed settlement.

Mr. Tuckett has chartered the schooner "Deborah," 120 tons, for the purpose of conveying an exploring party, with provisions and materials for a house, to Port Cooper, from whence he purposes to examine the land in the neighbourhood of Banks Peninsula, and afterwards to proceed to Foveaux Strait and Milford Haven. He calculates that the time requisite for determining the place and allowing the "Deborah" to return to this place would be within sixty (60) days.

As it is a matter of importance that no time should be lost in treating with the Natives after the appropriate locality is selected, previously to the commencement of any surveying operations, Mr. Tuckett proposes to call here on his way from Nelson, for the purpose of inviting you to accompany him on his voyage.

The "Deborah" was to leave Nelson on the 25 th or 26 th instant, and may therefore be hourly expected here. As soon as she arrives I will wait upon you with Mr. Tuckett to learn your wishes on the subject.
J. J, Symonds, Esq.

I have, \&c.,
William Wakefield,
Agent of the New Zealand Company.
No. 4.
His Honour M. Richmond, Superintendent, to His Excellency the Governor, \&c., Auckland.
I do myself the honour to report that Mr. Symonds embarked yesterday in the schooner "Deborah" for New Munster, to superintend and assist in effecting the purchase of land by the New Zealand Company, agreeably to the instructions he received from Your Excellency.

As I learnt there were two surveyors on board attached to Mr. Tuckett, the agent selected to conduct this purchase, and as Mr. Symonds expressed himself apprehensive that an attempt would be made to survey the land before the arrangements were completed, I took an opportunity, when the principal agent of the New Zealand Company was present, to distinctly and positively forbid Mr. Tuckett proceeding with any survey until the land was alienated by the Natives, and permission given him by the Government officer who was intrusted to superintend the negotiations; and, in order that no misunderstanding might exist on the subject, I gave Mr. Symonds the letter of which the enclosed is a copy. I have, \&c.,
His Excellency the Governor, \&c., Auckland.
M. Richmond, Superintendent.

## Enclosure in No. 4.

His Honour M. Richmond, Superintendent, to Mr. J. J. Symonds, Assistant Police Magistrate, Wellington.
Sir,-
Wellington, 2nd April, 1844.
You are clearly to understand that in superintending the purchase of land by the New Zealand Company in the Middle Island no survey is to be proceeded with by its agents or any one employed by him, until you are perfectly satisfied that the land has been alienated by the Aborigines and purchased by him on behalf of the Company.

I have, \&c.,
J. J. Symonds, Esq.
M. Richmond, Superintendent.

No. 5.
His Honour M. Richmond, Superintendent, to His Excellency the Governor, \&c., Auckland. Str,Wellington, 23rd May, 1844.
By the accompanying documents which I do myself the honour to forward, Your Excellency will learn the reason of Mr. Symonds's return to Wellington from New Munster, to which place I reported he had proceeded on the 2nd ultimo.

After transmitting the correspondence which passed between him and Mr. Tuckett to the Principal Agent of the New Zealand Company, and finding he had commissioned his brother, Mr. Daniel Wake.
field, to proceed to the Middle Island prepared with funds to effect the acquisition of land for the Company, I directed Mr. Symonds to return with him by the schooner "Scotia," which sailed on the 2lst instant, in order that every facility might be afforded in the negotiations for the purchase.

From the tone of the letter I received from the Company's Principal Agent I was apprehensive that in his communications with Mr. Tuckett he might not have expressed himself in sufficiently strong terms on the impropriety of his proceedings so as to prevent a repetition of them ; and, it having likewise come to my knowledge that an influential chief in the south had written to another assenting to the sale of the land, but at the same time remarking " that if the pakehas did not make all straight, they had only to repeat the scene of the Wairau," I considered that Mr. Symonds should be furnished with more stringent directions to enable him at once to put a stop to any measure which he conceived was likely to bring on a collision with the Aborigines or create any serious misunderstanding between them and our countrymen.

A copy of these instructions I herewith enclose.
Previous to Mr. Symonds's and Mr. D. Wakefield's departure, they had several interviews at my house, when I courted their putting any question to each other, or to me, upon points on which either entertained the slightest doubt; and from the manner in which both appeared to understand the business, and the correct sense Mr. Wakefield seemed to take of Mr. Tuckett's conduct, I do not contemplate there will be any further misunderstanding or delay.

In relation to the new settlement, when the choice of sections is being made it will be necessary to have an officer on the spot to select reserves for the Government and Natives. For this duty (should I not be previously instructed by Your Excellency) it is my intention to appoint Mr. Symonds, whose local knowledge and experience as a surveyor qualifies him for the service.

I shall endeavour to furnish him with a list of what is required, in the event of my not learning in time what reserves Your Excellency may consider necessary.

I have, \&c.,
His Excellency the Governor, Auckland.
M. Richmond, Superintendent.

## Enclosure 1 in No. 5

## Mr. J. J. Symonds, P.M., to His Honour the Superintendent, Wellington.

Sir,-
Wellington, 1st May, 1844.
I have the honour to report to you my arrival in this place, having been oompelled, by the following unforeseen circumstances, to withdraw from the expedition for the purchase of a site for the settlement of New Edinburgh, viz.: First, because the Agent of the New Zealand Company for New Edinburgh has proceeded to survey lands and roadsteads contrary to your instructions to me on this head, dated the 2nd April, 1844, alleging as an excuse for so doing his having obtained permission from the proprietors, both European and aboriginal. As the principal chiefs to whom this district partly belongs were absent at Port Levy, and no permission to survey was granted by them to Mr. Tuckett while he was at Port Cooper, I considered the sanction of the aboriginal proprietors had not been obtained. Mr. Jones, who is the greatest landed proprietor in this district, did grant permission to Mr. Barnicoat to survey Waikowaite; but this gentleman did not think proper to inform me of the circumstance, although he led Mr. Tuckett to understand that he had fulfilled his instructions on this head. It was by unintentionally overhearing two of Mr. Tuckett's assistants forming plans for the commencement of the survey in question that I was led to conceive their intentions, and was then informed that Mr. Tuckett had left instructions with them to survey Waikowaite during his absence. Not having informed me of any such arrangement previous to his departure, as I considered your instructions most positive on this point, I recommended these gentlemen, in the mildest terms, to abstain and await the arrival of Mr. Tuckett, who on his return transmitted me the enclosed communication (No. 1), a copy of which I have now the honour to forward for your inspection.

Second, as the instructions of His Excellency the Governor to me were to superintend and assist in the purchase of a portion of land for the settlement of New Edinburgh, I was led to understand, previous to my departure from this place, by a letter from the New Zealand Company's Principal Agent, a copy of which I had the honour to place before you, that Mr. Tuckett was empowered by him to effect this purchase, and had the means of so doing.

I subsequently ascertained that it was his intention to remunerate the Aborigines for their land partly in goods and partly by a cheque drawn on the Principal Agent of the New Zealand Company. I did not consider the latter mode of payment satisfactory, the aborigines not comprehending the nature of such.

I beg leave to add, in conclusion, that, although Mr. Tuckett disclaims in his letter (No. 2), a copy of which I also have the honour to enclose, having expressed any intention of acting in opposition to any of your wishes, he informed me " that he had no idea of being trammelled by any instructions I might have received on this subject, more especially as they were opposed to the object of his present expedition." And he furthermore stated, as you will perceive by the enclosed communication, that it was his indispensable duty to give his assistants similar instructions in reference to the Port of Otago and all other ports which he might subsequently visit.

Considering this mode of proceeding in direct opposition to the tenor of your instructions, which were peremptory on this head, I conceived myself bound to withdraw from the expedition, and avail myself of the opportunity which fortunately offered itself at that moment to ascertain your further instructions on these important points.

His Honour the Superintendent, Wellington.

I have, \&c.,
John Jermyn Symonds, P.M.

Enclosure 6 in No. 5 .
His Honour M. Richmond, Superintendent, to Mr. W. Wakefield, Principal Agent of the New Zealand Company.
Sir, - Wellington, 22nd May, 1844.
I do myself the honour to transmit for your information a letter I received this morning from Mr. Symonds, the officer selected by His Excellency the Governor to superintend and assist in the acquisition of land by the New Zealand Company in New Munster, together with a correspondence which has taken place between him and Mr. Tuckett, the agent appointed by you to conduct the purchase, occasioned by the latter persisting in landing instruments for the alleged purpose of surveying the Port of Waikowaite. As the Government representative considered the act of conducting the survey on shore, without giving him an opportunity of ascertaining if it was objectionable to the Natives, to be in direct opposition to the spirit of his instructions, he remonstrated with Mr. Tuckett on the impropriety of such a proceeding, which was so far disregarded that he avowed his purpose of continuing the same system at Otago and every other port they might touch at. Mr. Symonds therefore, rather than sanction such measures by his presence, withdrew from the party and returned to Wellington.

As Mr. Tuckett will have completed his tour before it is possible he can receive any further instructions, the responsibility must rest upon him of any consequences that may result from carrying on measures so liable to misconstruction by the Natives, and which may probably frustrate the objects of his mission.

I conclude you will soon be made acquainted with the site the Company's Agent considers most eligible for the new settlement, when Mr. Symonds will be ready to comply with his instructions ; but, as the purchase must be complete before he can furnish his report to His Excellency, I would suggest that a sufficient sum of money be forwarded by the same vessel that conveys him, to enable the Company's Agent to effect this satisfactorily, which it appears, from Mr. Symonds's letter, Mr. Tuckett is not at present in a position to accomplish.

William Wakefield, Esq.
I have, \&c.,
M. Richmond, Superintendent.

Enclosure 7 in No. 5.
Mr. W. Wakefield to His Honour the Superintendent of the Southern Division of New Zealand.

## Sir,- <br> Petre, 8th May, 1844.

I have to acknowledge the receipt of your letter of the 2 nd instant, acquainting me with the return to Wellington of Mr. Symonds, the officer charged by His Excellency the Governor to superintend and assist in the purchase of land for the projected settlement of New Edinburgh in New Munster, in consequence of Mr. Tuckett, the Agent of the New Zealand Company, having directed some partial survey of the roadstead at Waikowaite, which the former did not consider himself authorised by your instructions to him to sanction by his presence, and enclosing copies of a correspondence between these gentlemen.

Whilst I regret exceedingly that any misunderstanding should have arisen which may oppose the accomplishment of the objects of the expedition for the acquisition of a suitable location for the proposed settlement, I do not think it necessary to advert to the subject of difference further than to express my conviction that Mr. Tuckett was conscientiously impressed with the importance of the steps he adopted in order to enable him to detail the comparative merits of the ports he visited, and bore in mind the express permission you gave verbally at the interview with which you favoured us on the eve of his sailing from Port Nicholson that partial surveys of harbours might be made, provided the resident Natives did not object to them.

I have directed that a copy of the letter which Mr. Kelham addressed to Mr. Tuckett in my absence, on the propriety of his obtaining Mr. Symonds's express sanction to any operations he may consider requisite to determine the relative qualities of places before the work is proceeded with, if such necessity again arises, should be delivered to you, and I shall communicate to Mr. Tuckett my entire concurrence in the sentiments expressed in it.

Mr. Kelham is instructed by me, so soon as Mr. Tuckett has made his report of the site he may select for the settlement, to remit to him the amount of the purchase-money of the land, or such goods as the Natives may desire of the same value, according to the information he may receive from Mr . Tuckett respecting the mode of payment preferred by them, and to acquaint you and Mr. Symonds with the desired object in a satisfactory manner to all parties.

I have, \&c.,
His Honour the Superintendent, Southern Division of New Zealand. W. Wakefield.

## Sub-enclosure to Enclosure 7 in No. 5.

Mr. J. Kelham to Mr. F. Tuckett, Acting Agent for New Edinburgh, Wellington, New Zealand. SIR,lst May, 1844.
In the absence of Colonel Wakefield, who has proceeded to Taranaki, I reply to your communications up to the 22 nd April received this morning by the "Scotia."

It appears that an obstacle to the well-working of your important undertaking has arisen from a difference of opinion between you and Mr. Symonds respecting certain preliminary surveys, and that this has induced him to leave the scene of operations and return to Wellington. This difference seems to relate not to the expediency of the surveys as proposed by you, but to the mode of commencing them, and wherein, perhaps, Mr. Symonds may not have been sufficiently consulted.

From a conversation I have had this morning with Major Richmond, taken in connection with the statement he has received from Mr. Symonds upon the subject, it would appear that, although the latter replied officially to you in his letter of the 22nd April, quoting his instructions from the Super-
intendent " that no survey was to be proceeded with until he was satisfied that the land had been alienated by the Aborigines and purchased through him on behalf of the Company," yet that such instructions are not to be literally construed as depriving him of all discretionary power. I also understand from Major Richmond that Mr. Symonds is authorised to permit any surveys that may be preliminarily necessary for fixing upon the site of the intended settlement, provided he is satisfied they may be made without causing irritation or uneasiness in the mind of the Natives.

I ought, moreover, to inform you that the Government, in according Mr. Symonds's assistance to the undertaking, do so upon the understanding that he is to be the sole judge of what proceedings in respect of surveying are calculated to irritate the Aborigines. Under these circumstances, it seems to me that your operations must, if possible, be conducted so as to harmonize with Mr. Symonds's views, and that you would do well to consult him upon all occasions, so as to obtain his cordial cooperation.

In conclusion, I can only say that I have done my best to express Colonel Wakefield's sentiments, with which frequent consultations with him on the subject of the new settlement make me fully acquainted.

I have, \&c.,
(Pro W. Wakefield),
Frederick Tuckett, Esq.
Enclosure 8 in No. 5.
His Honour M. Richmond, Superintendent, to Mr. J. J. Symonds, Police Magistrate, Wellington. Sir,-

Having referred your letter of the 1st instant to the Principal Agent of the New Zealand Company, I have now the honour to enclose a copy of communication addressed to Mr. Tuckett, together with two extracts from letters, which will be delivered to him by Mr. Daniel Wakefield, who is commissioned by his brother to proceed with you to New Munster.

Should these instructions be disregarded, and you find that the Company's Agent undertakes any sulvey without your permission and against your remonstrance, or should adopt any measure which you may deem calculated to bring about another collision between our countrymen and the Aborigines, you are hereby directed either to suspend all further negotiations between the New Zealand Company's Agent and the Natives for the acquisition of the land until you again communicate with me, or exert your authority as Police Magistrate to enforce obedience to your instructions (which can easily be effected by swearing in special constables from the crew of one of the vessels at Otago), whichever mode in your opinion will be best adapted to meet the emergency and maintain a friendly intercourse with the Natives.
J. J. Symonds, Esq.

I have, \&c.,

## Enclosure 9 m No. 5.

His Honour M. Richmond, Superintendent, to Mr. W. Wakefield, Principal Agent of the New Zealand Company.
Sir,-
Wellington, 20th May, 1844.
I do myself the honour to acknowledge the receipt of your letter of the 8 th instant, and, as you mention you had communicated to Mr. Tuckett your entire concurrence in the sentiments expressed in Mr. Kelham's letter to him, there would have been no occasion for further correspondence on the subject were it not for the lenient construction you appear to put upon the proceedings of your agents, and the manner in which you dwell on the qualified permission I gave for partial surveys of ports, as shown by the following extract from your letter: "I do not think it necessary to advert to the subjects of difference further than to express my conviction that Mr. Tuckett was conscientiously impressed with the importance of the steps he adopted in order to enable him to detail the comparative merits of the ports he visited, and bore in mind the express permission you gave verbally at the interview with which you favoured us on the eve of his sailing from Port Nicholson that such partial surveys of harbours might be made, provided the resident Natives did not object to them."

It is therefore incumbent on me to bring to your recollection that at the interview to which you allude I positively prohibited Mr. Tuckett from proceeding with any survey until the land had been alienated by the Natives, and on being asked by him if I would consent to partial surveys of ports, provided it was not objectionable to the resident aborigines, my answer was that every reliance could be placed on Mr. Symonds's discretion, who, having been a surveyor, was competent to judge when such a measure was necessary, and that I could offer no objection, provided he first ascertained that the Natives were not unfavourable to it, and gave his permission.

I distinctly repeated several times, in your presence and when you left us, "but nothing must be done without the sanction of the Government officer." All this was communicated to Mr. Symonds, who was prepared to act upon it, but Mr. Tuckett never thought proper either to consult him or afford an opportunity of learning what sensation such a proceeding was likely to create. Lest, therefore, you should have been equally lenient in expressing to Mr. Tuckett your sense of his conduct, or that he may disregard your concurrence in what Mr. Kelham has written, I have considered it necessary, in order to guard against the peace of the country being again disturbed, and that no misconception whatever may in future exist, to furnish Mr. Symonds with the additional instructions, of which I enclose a copy. As your brother, Mr. Daniel Wakefield, has been commissioned by you to proceed to New Munster, and is prepared with funds to effect the purchase of the land, I have directed Mr. Symonds to return by the same conveyance (the "Scotia," which sails to-day), in order that no delay may take place, and every facility be afforded to the Company to complete their arrangements for the reception of the first emigrants for the new settlement, whose early arrival may be expected.

I have, \&c.,
William Wakefield, Esq.
M. Richmond, Superintendent.

QUESTION 2.-CORRESPONDENCE.
Write an official letter from the following rough note :-
To Hon. Col. Sec.
11/7/1844.
I have, \&c., transmit letter fm Mr. Symonds stat. his reasons again retn to Welltn without effecting object of mission ent ustd to him by H.E. together with cop. long corresp. wh hs taken place on sub.

Having acqtd the prin. agt of N.Z. Co. with my determn not to allow the Govt. off. to hold further com. with Mr. Tuckett, he dec. his inten. to procd to Otago and conduct proceed. himself.

After manr Mr. Tuckett express himslf in hs let. to Mr. D. Wakefield and construction put by prin. agent on permiss. I gave for survey it will be satis. to H.E. to read accompy. lets. from 2 interested persons who were pres at interview with Col. Wakefield and Mr. T. before dept. of lat. from Well.

I have, \&c.,
M. Richmond.

## QUESTION 3.-INDEX.

Make a general index of all documents set out in Question 1 and in your answer to Question 2, in the form below. It should be so clear that the date, the writer, the receiver, and a brief statement of the contents of every letter can be seen at a glance.

Index.

| No. | Date. | Writer. | 'To whom addressed. | Subject. |
| :---: | :---: | :---: | :---: | :---: |

No. 93.--Methods of Teaching.-F'or Pupil-teachers.
Time allowed: Two hours. [Candidates are to answer the first four questions, and two only of the remaining four.]

1. Discuss the value of order in school work, and state what qualities are most essential in the teacher and in his class management if good order is to be secured.
2. What conditions contribute most to a teacher's success in the art of questioning a class ? What are the marks ( $a$ ) of good answering, (b) of bad answering in response to oral questions ?
3. Without touching on the preliminary matters of class, time, aim, and introduction, give (with sufficient explanation) the further steps of your procedure in drawing up notes of lessons.
4. Your class having had sufficient practice in the analysis and synthesis of numbers and in notation, show how you would proceed to teach them subtraction by the method of complementary addition. Point out the special difficulties involved in this method.
5. What subjects are, in your opinion, most appropriate for home lessons? On what grounds do you base your choice? Give some directions for the correction of these lessons.
6. Give the time-table of a class you have recently taught. Point out (a) in what respects it is based on approved principles, and (b) any features in it that might be open to criticism.
7. Selecting subjects that are readily suggested by the environment of your school, draw up a list of fifteen or sixteen object-lessons suitable for Standard III. Show as precisely as you can how the physical and intellectual activities of your pupils are cultivated in these lessons.
8. Sketch a lesson on Froebel's Second Gift (sphere, cylinder and cubes, \&c.). Indicate (a) the special aspects of intellectual and moral development on which your lesson bears, and (b) some prominent features of the Kindergarten system on which it does not touch.

No. 94.-Methods of Teaching.-For Class D, and Theory of Education, Section A, for Class C.
Time allowed: Three hours. [Candidates should answer at least two questions in each of Sections I., II., III., and IV.]

Section I.

1. Explain clearly what is meant by " a method of teaching," and give examples of (1) a good method and (2) a bad one--with adequate explanations.
2. Write an essay of moderate length enforcing the fact that, while there is well-marked identity running through all gooi school methods, the ways of getting off the right track are numerous and varied.
3. Give practical directions (as if to a junior teacher) showing how the transition from kindergarten to Standard I. work and discipline may be best effected.

## Section II.

4. State the advantages and disadvantages connected with the use of simultaneous reading in class, and describe in full your mode of giving a reading-lesson to Standard III.
5. What do you believe to be the special function of viva voce arithmetic as a mental discipline? How would you teach it in a Standard II. class?
6. What would you consider essential points when framing your geography lessons for Standard IV.? Would you make your physical geography an offshoot from your political geography, or vice versa; or would you adopt some other method? Give reasons.

## Section III.

7. Explain fully how you would teach an infant class arithmetic so that its members might be qualified to make good progress immediately after being promoted to the upper school.
8. Try to answer in a page or so the following objections to handwork for schoois: (a) It takes up valuable time; (b) the objects produced have little value; (c) drawing, with sewing for girls, gives sufficient training for hand and eye. [Answer from standpoint of method.]
9. Briefly criticize one or two methods (other than your own) of teaching writing in moderately high classes, and then describe your own method at some length.

## Section IV.

10. Give an outline of the advantages derivable from much fuller treatment of elementary numbers than is now usually bestowed on them. Sketch one or two suitable lessons for a Standard I. or a Standard II. class.
11. Contrast the " unitary" method of working rule-of-three sums with that based on the doctrine of proportion-from the point of view of educational value.
12. How would you conduct your English composition work with senior pupils? State reasons for your mode of proceeding, where it seems necessary to do so.

> SECTION V.
> [One item in this section must be dealt with.]
13. Write an essay on any one of these subjects :-
(a.) The mutual influence of discipline and method.
(b.) The teacher's preparation of his own school-work.
(c.) The potential utility of his own school records to the teacher.

## Section VI.

[Only one item in this section must be dealt with.]
14. Write full notes for a lesson to a senior or to a junior class on any one of the following subjects, remembering that it is manner or method, rather than the included information, that is of greatest importance :-
(a.) Your town or district. (b.) A shower of rain. (c.) The wind. (d.) The sun. (e.) Flowers. (f.) War.

## No. 95.-Theory of Education, Sections B, C, and D.-For Class C.

Time allowed: Three hours. [Candidates are required to answer questions in at least two of Sections B, C, and D.]

## Section B.—Psychology.

## [Candidates are to answer three questions at least.]

1. Illustrate the relationship between physiology and psychology. Give an outline of the means by which and the mode in which an external shock may be the origin of a thought.
2. Give an outline of the process of abstraction and its true result. Illustrate by reference to a concrete example. What special error in connection with abstraction should be avoided by the teacher?
3. Amplify the following elementary statements, and show their practical value for the teacher:-
(a.) "There is no such thing as absolutely passive sensuous perception."
(b.) "Perception rests on a process which may be described as involuntary comparison."
4. What valuable suggestion does the expression "a train of thought" possess for the practical teacher? Trace a train of thought from its origin in an impression.
$9-\mathrm{E} .1_{\mathrm{A}}$.

## Section C.-(i) Ethics and (ii) Laws of Health.

- [Candidates are to answer three questions at least in Ethics, and one at least in Laws of Health.]
(i.) 5. What is meant by "the moral faculty"? What important activity has to be got rid of before the existence of that faculty, or of something equivalent to it, can be denied? What is meant by "ethics"?

6. Show that in matters of tone and discipline the intuitional method has the highest value for the teacher, or state reasons for dissent.
7. What ought to be the attitude of a teacher, as such, towards the doctrine of free will? What important bearing has this doctrine on school management generally?
8. Write an essay, not more than two pages in length, on "school tone" and its cultivation.
(ii.) 9. Give reasons for believing that insanitary conditions in connection with a school seriously interfere with the moral and intellectual progress of the children attending it.
9. With reference to a school and the buildings and grounds connected with it, draw up a table containing ten or twelve short paragraphs that would, if attended to, do much to improve or secure the health of both teachers and pupils.

## Section D.-History of Education.

[Candidates are to answer three questions at least.]
11. Write about a page concerning the theory that underlies Froebel's practice, and show what in particular has been the nature of his influence on education.
12. Give as complete an account as you can of the "Socratic method" of teaching, and show that its influence is not yet exhausted.
13. In what way has it come to be understood that the art of composing in English, or in a foreign language, may be more easily and effectively taught synthetically than by means of parsing and analysis? Have these two exercizes no value?
14. Discuss the pupil-teacher system. Has it served any useful purpose? What are its incurable weaknesses? How can the gap, if one has been left, be best filled?

## No. 96.-Needlework.-For Classes $C$ and D.

Time allowed: Three hours. [Before handing in your sewing-work to the Supervisor, write your examination number clearly on each of the picces of squared paper, and on each of the four labels, and on the envelope provided; fasten one label securely with thread to each of your four pieces of sewing, and enclose the whole in the envelope. Hand in the envelope tothe Supervisor with your book of answers. Take care that no needles or pins are left in the work or enclosed in the envelope. Every candidate is expected to attempt Questions 1, 2, 9 , and 4.]

1. Take a strip of longcloth twelve inches long and four inches wide: gather and stroke, and set it into a band six inches long and half an inch wide.
2. Take a piece of longcloth six inches square : in the middle of one side make a slit four inches long; make a narrow hem on one side and a false hem on the other; sew the whole, and finish neatly.
3. Darn the L-shaped tear in the piece of dress-linen provided, using flourishing-thread.
4. Use the smaller piece of flannel and the mending-wool provided to patch the hole in the larger piece.
5. What considerations would guide you in selecting old material or new for making a patch ?
6. Take the half-imperial sheet of paper divided into one-inch squares, and draft on it a fullsized pattern of a "circular" petticoat-waistband for a twenty-four-inch waist. How would you explain your method to a class?
7. On the paper divided into quarter-inch squares indicate, by diagrams, how you would teach a class to cut out any two of the following garments :-
(a.) A child's pinafore.
(b.) A calico bodice for a child's flannel petticoat.
(c.) A woman's under-bodice.

Regard the quarter-inch squares as representing inches, and adopt the following measures, which are given in inches :-

|  |  |  | Child. | Woman. |
| :--- | :--- | :--- | :---: | :---: |
| Chest $\ldots$ | $\ldots$ | $\ldots$ | 28 | 34 |
| Waist $\ldots$ | $\ldots$ | $\ldots$ | 26 | 26 |
| Length of body in front | $\ldots$ | 10 | $15 \frac{1}{2}$ |  |
| Full length in front | $\ldots$ | 27 | $\ldots$ |  |

The diagrams should show the width of the material that would be used and the lay of the pattern. Credit will be given for economy of material as shown in the lay.

## No. 97.-Vocal Music.-For Class D. <br> Time allowed: Three hours.



1. In what key is the above two-part exercise? Through what keys does it pass in bars 5 to 11 ? Explain why.
2. Rewrite the first four bars in (a) ${ }_{8}^{3}$ time, (b) $\frac{8}{2}^{8}$ time.
3. Explain the various signs and marks of expression in the above exercise.
4. Translate the last four bars (both parts) into the tonic-solfa notation.
5. Rewrite the first four bars in the key of $A$ major, placing the proper key-signature at the beginning.

6: Name the intervals which occur between the two voices on each beat in bars 5 and 6 .
7. How would you attempt to develop a soft even quality of tone in a mixed clase of boys and girls? Give one or two suitable exercises.
8. Write the following scales : A flat major, D minor (harmonic), E minor (melodic), ascending and descending. Mark the places of the semitonee, and place solfa names under the notes.

## 9. From memory write two tunes.

10. Write short exercises introducing the sharpened fourth (fe), the flattened seventh (ta), and the sharpened sixth (se). What transition or modulation might each of these accidentals imply?
No. 98.-Practical Tests: Part of a Paper on Vocal Music.-For Class D.

Any two of the following phrases to be imitated by the candidate from the Examiner's pattern, as an ear test:-

Ear Tests.
No. 1. EXY G.
No. 2. Key $G$.
$\left\{\begin{array}{llll}\mathbf{d}: & : & \mid m: t_{1} & \mathbf{d}:-1-:\end{array}\right.$
$\| \mathbf{m}: \mathbf{r}|\mathbf{f}: \mathbf{m . r}| \mathbf{d}:-1-: \quad| |$
The same in staff notation.

E. -1 A.

No. 3. key G.


No. 4. $\mathrm{k} E \mathrm{Y}$ G.
$\left\{:: s_{1}\left|s_{1}:-: t_{1} \cdot \mathbf{r}\right| \mathbf{d}:-:\right.$

The same in staff notation.


Time Tests. (The Examiner to use either or both at his discretion.)
No. 1.
$\left\{\begin{array}{l}\mathbf{d}: \mathbf{d} . \mathrm{d}: \mathbf{d}|\mathbf{d}: \quad: \mathbf{d}| \mathbf{d}:-: \mathbf{d} . \mathrm{d}, \mathrm{d}|\mathrm{d}:-. \mathbf{d}: \mathbf{d}| \mathbf{d}:-\quad:-\quad| |\end{array}\right.$
The same in staff notation.


No. 2.
$\left\{\begin{array}{l}\mathbf{d}:-: \mathbf{d}|\mathbf{d}:-:-|\mathbf{d}:-:-|\quad: \quad: \quad| \mathbf{d}:-:-| \mathbf{d}: \mathbf{d}: \mathbf{d}\}\end{array}\right\}$
$|\mathbf{d}:-:-|-:-:-| |$
The same in staff notation.


Singing at Sight.
No. 1. Key G.

The same in staff notation.


No. 2. KEY F.


The same in staff notation.


No. 3. KEX O.

The same in staff notation.


No. 99.-Drawing: First Paper, A: Freehand Drawing and Design.-For Junior National Scholarships and Free Places in Secondary Schools.
Tims allowed: One hour. . [The two questions are supposed to take half an hour each; both should be attempted.]


Question 1.
Question 2.

No. 100.--Drauing: First Paper, B: Freehand Drawing and Design,--For Junior National Scholarships and Free Places in Secondary Schools.
Time allowed: One hour. [The two questions are supposed to take half an hour each; both are to be attempted.]

2. The design in the given equilateral triangle (see Fig. 2) is based on the figure you have just copied. Fill the half-hexagou on the drawing-paper with a design based on the same figure. You need not complete the whole of the design, but you must drew enough of it to show the general arrangement.

No. 101.-Drawing: Second Paper, A: Drawing with the aid of Instruments, and Brush Drawing. -For Junior National Scholarships and Free Places in Secondary Schools.

Time allowed: One hour. [Any two questions to be attempted.]
[Caction.-In drawing with the aid of instruments, no credit whatever will be given for answers which appear to be the result of experiment-i.e., those in which the lines ased to obtain the required result are not clearly shown.]

1. Draw from memory, to a scale of two inches to one inch ( $2^{\prime \prime}$ to $1^{\prime \prime}$ ), the plan and the olevation of a common school ink-well. The scale from which you work must be shown.
2. Make a drawing of a pair of bellows, using the measurements shown in the given diagram.

3. By means of brush strokes make a drawing of a-leaf and a flower of any plant with which you are acquainted. Use the leaf and flower you have drawn as elements to decorate the given border. [A band of $2 \frac{1}{2}$ inch squares.]
4. With the given brush forms as elements, decorate each of the two given spaces. [(a.) A rectangle 8 in . by 3 in , with $3 \frac{3}{4}$ inch equilateral triangle projecting from middle of one long side. (b.) Square of $4 \frac{1}{4}$ inch side.]


No. 102.-Drawing: Sccond Paper, B: Drawing with the aid of Instruments, and Brush Drawing. -For Junior National Scholarships and Free Places in Secondary Schools. Time allowed: One hour. [Any two questions to be attempted.]
[Caurion.-No oredit whatever will be given for answers which appear to be the result of experiment-i.e., those in which the lines used to obtain the required result are not clearly shown.]

1. Enlarge the given diagram of a bell (Fig. 1), making

2. Copy the given figure Fill the semicircle on the drawing-paper with a design based on the figure as an element. [Radius 3 in.]
3. Fig. 2 is an elevation of 2. sloping school desk, the width of which is half its length: draw a plan of the desk.

4. Draw with brush strokes representations of three of the following objects: A leaf, a flower, an insect, a bird. Name each object that you draw.

## No. 103.-Blackboard Drawing.-For Civil Service Junior. Test 1. Time allowed: Five minutes.

Make a drawing from memory of any one of the objects mentioned in the following list, and write the name of it underneath before you begin :-

A bucket. A cup and saucer. An apple on a plate. An open book. An open umbrella. A chair.

Test 2. Time allowed: T'en minutes.
Make an enlarged copy of the accompanying diagram. [See diagram.] Show also, by a small sketch in the corner of your paper, your method of constructing the diagram.

Test 3. Time allowed: Eight minutes.
Draw the imperial drawing-board, the bucket, the brick, and the bowl, as arranged, as large as your paper will allow.


No. 104.-Blackboard Ż̈rawing.-For Class D.
Test 1. Time allowed: Five minutes.
Make a drawing from memory of any one of the objects mentioned in the following list, and write the name of it underneath before you begin:-

A boat. An inkstand. A round stool with three legs. An open cupboard. A small table. The head of an animal (give the name of the animal).

Test 2. Time allowed: Ten minutes.
Make an enlarged copy of the accompanying diagram. [See diagram, page-73 .]
Test 3. Time allowed: Eight minutes.
Draw the imperial dxawing-board, the bucket; the cube, the bowl, and the ruler, as arranged, as large as your paper will allow.

> 'No. 105.-Freehand Drawing.-For Civil Service Junior.

Make an enlarged drawing of the given copy so as to fill the semicircle printed on the sheet of drawingpaper. The whole of the drawing should first be sketched in and then as much of it as the time will allow should be finished in bold outline. The method by which the drawing is constructed should be shown either in a small separate drawing or by leaving some of the construction-lines, lightly drawn, in the larger drawing. Marks will be awarded for correctness of construction as well as for the finished drawing. [See diagram next page.]

No. 104A.-Blackboard Drawing.-For Class D.
DIAGRAM TO TEST 2.


No. 105A,-Freehand Drawing.-For Civil Service Junior.
DIAGRAM


No. 106.-Freehand Drawing.-For Class D.
Make an enlarged drawing of the given copy so as to fill the rectangle printed on the sheet of drawing-paper. The whole of the drawing should first be sketched in, and then as much of it as the time will allow should be finished in bold outline. The method by which the drawing is constructed should be shown either in a small separate drawing or by leaving some of the construction lines, lightly drawn, in the larger drawing. Marks will be awarded for correctness of construction as well as for the finished drawing. [See diagram, next page.]


No. 107.-Instructions about Model-drawing.-For Civil Service Junior.
(For Supervisors only.)
Time allowed: One hour and a half.
A board or a piece of strawboard (preferably a drawing-board), the dimensions of which must be not less than those of an imperial drawing-board ( 30 inches by 22 inches), is to be arranged so that its uppen surface is about 18 inches above the floor. The objects supplied are to be placed thereon in accordance with the following sketch.


No.108.-Instructions about Model-drawing.-For Class D.
(For Supervisors only.)
Time allowed: One hour and a half.
A board or a piece of strawboard (preferably a drawing-board), the dimensions of which must not be less than those of an imperial drawing-board ( 30 inches by 22 inches), is to be arranged so that its
upper surface is about 18 inches above the floor. The objects supplied are to be placed thereon in accordance with the following sketch.


No. 109.-Geometrical Drawing.-For Civil Service Junior.
Time allowed: One hour. [Any five quesions may be answered, but not more than five. No credit whatever will be given for solutions that appear to be the result of experiment-i.e., those in which the lines used to obtain the result are not clearly shown. The constructions should be very accurate, and distinctly and neatly finished in fine pencil. Careless work, or work done with pencils that are blunt, coarse, or too soft, will receive little credit. The diagrams referring to Questions 6 and 7 are to be accwrately transferred to the drawing-paper, by pricking through or otherwise.]

1. Draw the scale the representative fraction of which is $\frac{1}{264}$. The scale is to be properly finished, figured, and described. Find by scale the distance on the given line between the points A and B.
2. One pair of the opposite angles at the point of intersection of the diagonals of a parallelogram measure together $118^{\circ}$; the lengths of the diagonals are $2 \frac{3}{4}$ inches and $4 \frac{1}{4}$ inches respectively: construct the parallelogram.
3. Draw the given pattern, using the figured measurements.
4. A four-sided field A B C D has the side A. B 480 yards long, the side B C 600 yards long, the side C D 840 yards long, the angle A B C of 140 degrees, and the angle B C D of 68 degrees.

Draw a plan of the field to the scale of 1 inch to 360 yards; find the length of the fourth side D A, and the number of degrees in the angle A D C, and the area of the field.

Draw a triangle equal in area to the plan of the field.
5. A jeweller having cut out of a piece of sheet silver two discs $4 \frac{1}{2}$ inches and 6 inches in diameter, wishes to cut out a third dise equal in weight to the two discs together : find by construction the diameter of the third disc.
6. The plan is given of a screen 6 feet high, composed of five vertical hinged divisions of varying widths: draw elevations of the screen as on the ground-lines X Y and Y $Z$.
7. The plan is given of a square prism, one long edge of which lies in the horizontal plane, and is inclined to the vertical plane A B, which cuts the prism: draw the sectional elevation on the groundline X Y, which is parallel to A B. Does the view thus obtained show the true shape of the section? Give reasons for your answer.

Question 1.


11-E. 1A.


No. 110.-Geometrical Drawing.--For Class D.
Time allowed: One hour. [Any five questions may be attempted, but not more than five. No credit whatever will be given for solutions that appear to be the result of experiment-i.e., those in which the lines used to obtain the result are not clearly shown. The constructions should be very accurate, and distinctly and neatly finished in fine pencil. Careless work, or work done with pencils that are blunt, coarse, or too soft will receive little credit. The diagrams referring to Questions 4, 6, and 7 are to be accurately transferred to the drawing-paper, by pricking through or otherwise.]

1. Draw the scale to which the given figure is drawn. The scale must be long enough to measure 4 feet, and must be properly figured, finished, and described. Find by scale the lengths of the lines A B, A C.

Make a reduced drawing of the figure on a base-line equal to the given line 0 P , the lines of the reduced drawing bearing the same ratio to the corresponding lines in the given figure that the line $0 P$ bears to the line M N.
2. At a point $O$ in a straight line $S T$ construct (without using a protractor) an angle SOP of $82 \frac{1}{2}$ degrees. Inscribe in the angle a circle of 1 inch radius.
3. Draw the given pattern, making the basis of construction a regular hexagon of $1 \frac{3}{4}$ inches in the side, and making the difference in radius of concentric arcs $\frac{3}{16} \mathrm{inch}$.
4. From the two given points $S$ and $T$ draw two straight lines $S C$ and $T C$, to meet in a point $C$ in the given straight line A BC, such that the angle SCA shall be equal to the angle T CB.
5. A certain quantity of cement will just cover a surface 4 yards long by $1 \frac{1}{2}$ yards wide with a layer 2 inches thick: find, by construction, the size of a square surface which the same quantity of cement will cover with a layer 2 inches thick.
6. The plan drawn to a scale of $\frac{1}{2}$ inch to 1 foot is given of a disc 9 inches thick, a hexagonal pyramid, and an equilateral triangular prism ; the axis of the pyramid is horizontal: draw two elevations on the ground-lines X Y and A B.
7. A B is the elevation of an equilateral triangle inclined to the horizontal plane: draw the plan of the triangle.



Wo. 111.-Perspective Drawing.--For Civil Service Junior.
Time allowed: One hour ancl a half. [At least two of the questions must be attempted. All the necessary construction-lines must be shown. The diagrams may be transferred to your draw-ing-paper by pricking through.]

1. The given diagram, drawn to a scale of $\frac{1}{2}$ inch to 1 foot, shows in perspective a right-angled triangle standing vertically on the ground plane; the centre of vision and the distance of the spectator from the picture plane are given: find the vanishing and measuring points, the length of $A B$ and of BC , the position of the point. B with respect to the picture plane and the spectator, and the angle at which BC recedes from the picture plane.
2. Draw the perspectiv e representation of a semicircle 7 feet in diameter. The semicircle lies on the ground plane to the left of the diameter, the nearer end of which is 3 feet to the right of the spectator and 1 foot beyond the picture plane. The diameter recedes to the right at an angle of $40^{\circ}$. The eye of the spectator is to be 12 feet by scale in front of the picture plane and 6 feet above the ground plane. Scale, $\frac{1}{2}$ inch to 1 foot.
3. The elevation and plan, drawn to a scale of $\frac{1}{2}$ inch to 1 foot, are given of a block letter K. Draw the perspective view of the letter as it stands vertically on the ground plane with its face at right angles to the picture plane, the nearest, point A being 10 feet to the left of the spectator and 1 foot beyond the picture plane. The eye of the spectator is to be 12 feet by scale in front of the picture plane and 6 feet above the ground plane. Scale, $\frac{1}{2}$ inch to 1 foot.


## No. 112.-Perspective Drawing.-For Class D.

Time allowed: One hour and a half. [At least two of the questions must be attempted. All the necessary construction-lines must be shown. The diagrams may be transferred to your drawing-paper by pricking through.]

1. A perspective view, drawn to a scale of $\frac{1}{2}$ inch to 1 foot, is given of a two-fold screen standing vertically on the ground plane, the line A B being in the picture plane. The position of the spectator with respect to the object and the direction of the principal visual ray are given. Find the distance of the spectator from the picture plane, the vanishing and measuring points, the length of BC and of BD , and the angles at which these lines recede from the picture plane.
2. The plan, drawn to a scale of $\frac{1}{2}$ inch to 1 foot, is given of a letter $G$, supposed to be of no thickness. Draw the perspective view of the letter as it lies on the ground plane, with the nearest point A 2 feet beyond the picture plane and 2 feet to the left of the spectator, and with the line $A B$ receding to the right at an angle of $40^{\circ}$. The eye of the spectator is to be 12 feet by scale in front of the picture plane and 6 feet above the ground plane. Scale, $\frac{1}{2}$ inch to 1 foot.
3. Draw the perspective view of the object of which the elevation and plan, drawn to a scale of $\frac{1}{2}$ inch to 1 foot, are given. The object stands vertically on the ground plane, with its face at right angles to the picture plane, the nearest point A being 9 feet to the left of the spectator and 2 feet beyond the picture plane. The eye of the spectator is to be 12 feet by scale in front of the picture plane and 6 feet above the ground plane. Scale, $\frac{1}{2}$ inch to 1 foot.


## No. 113.-Brush Drawing.-For Civil Service Junior.

Time allowed: One hour and a half. [Any four questions may be attempted, but not more than four. T'wo or more colours may be used, and marks will be given for taste in colour.]

1. Make a brush design of a fish and sea-weed to fill decoratively the given semicircle. [Radius $3 \frac{1}{2}$ in.]

2 Give a brush rendering of (a) a leaf form, (b) a fruit form, (c) an insect form or a bird form.
3. With the given brush strokes $1,2,3$ as elements, decorate the given space. [Half a hexagon: radius $3 \frac{1}{2} \mathrm{in}$.]

4. Design an all-over repeating pattern based on the square with the given brush forms $4,5,6$. [Squares of $2 \frac{1}{8}$ in. side.]
5. With the given brush rendering of the snowdrop (fig. 7) as an element, make a design to fill the given equilateral triangle. [Side 8 in.]
6. Draw with the brush what you consider to be the principal brush formsthose on which all other brush forms are based.

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No. 114.-Brush Drawing.-For Class D.
Time allowed: One hour and a half. [Any four questions may be attempted, but not mare than four. Two or more colours may be used, and marks will be given for taste in colour.]

1. What do you consider to be the leading principles on which the study of brush drawing should be based? [The answer to this question is to be written in one of the ruled foolscap books provided by the Supervisor.]
2. Make brush drawings of two garden vegetables, with the ides of illustrating a lessun.
3. Give what you consider to be suitable units of design in brushwork for each of the Standards III., IV., and V. [By unito is meares a combination of brush forms. See example.]

4. With the given brush rendering of an Iris as an element, decorate a square of 6 inches side, and a rectangle 8 inches by 4 inches, with its longer sides horizontal.
$12-E .1_{\text {s }}$.
5. Make a brush drawing like the given representation of an eagle, but of about twice the dimensions.


By Authority: John Mackar, Government Printer, Wellington.-1905.


[^0]:    ${ }^{(1)}$ Rumour, das Gerücht.
    ${ }^{(2)}$ Beckon to, winken an.
    ${ }^{(3)}$ Distress, die Not.
    (i) Bearing, die Haltung.

