1898.

NEW ZEALAND.

EDUCATION:

TEACHERS' AND CIVIL SERVICE EXAMINATIONS.

[In continuation of E.-1A, 1897.]

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

The INSPECTOR-GENERAL of SCHOOLS to the Hon. the MINISTER of EDUCATION.

SIR,— Education Department, Wellington, 30th March, 1898.

I have the honour to report upon the annual examinations of candidates for teachers' certificates, and for admission to, or promotion in, the Civil Service. The examinations were held in January, between the 6th and 15th days of the month, at the thirteen towns which are the seats of Education Boards, and also at Whangarei, Thames, Tauranga, Masterton, Gisborne, Westport, Oamaru, Palmerston South, and Lawrence.

The number of candidates was 1,309, made up as follows: For the Junior Civil Service examination, 451; for the Senior Civil Service examination, 95; for certificate examinations, 745; for drawing (pupil-teachers only), 18.

The expenses of the examinations amounted to £857 13s. 3d., and the fees paid by candidates to £1,017 12s. 6d. Printing and clerical work are not included in the account of expenses.

The results of the Senior Civil Service examination were made known on the 16th February, the results of the Junior Civil Service examination on the 21st, and those of the teachers' examination on the 24th of the same month.

Of the 95 Senior Civil Service candidates, 2 applied to be examined in shorthand only, but 1 of them did not present himself, and the other retired from the examination-room; 3 had already passed the examination, but wished to pass in one or two extra subjects for the purposes of the Barristers' General Knowledge examination, and 1 of them was successful in doing so; while 25 came up to complete examinations in which they had already been partially successful. Out of the 90 ordinary candidates, 32 passed the examination, 4 of them with distinction. (See *Gazette* of 24th February, 1898.)

The names of 328 of the Junior Civil Service candidates were published, in the order of marks, in the *Gazette* of the 24th February; the remaining 123 failed to reach the minimum required, which is one-third of the possible total.

Of the 18 pupil-teachers who availed themselves of the regulation which allows them to come up for one branch of drawing at a time, 12 satisfied the examiner.

At the teachers' examination, 3 were candidates for Class C (university status being taken into account), 194 were candidates for the whole examination for Class D, and 145, having been credited with "partial success" for Class D, came up to complete their examination; 252 were candidates for the whole examination for Class E, and 151 came up to complete the examination for that class. Among these 745 candidates were 157 candidates who had already passed for Class E, and were seeking promotion to Class D; and of the remainder—588 in number—130 were teachers in the service of the Boards, 295 were pupil-teachers, and 67 were normal-school students in training; while 34 were persons who had ceased to be teachers, pupil-teachers, or normal-students, and 62 had never sustained any such relation to the public schools.

Of the whole number of 745 candidates 380 have passed (158 for D, and 222 for E), and 156 have achieved "partial success" (76 for D—including 13 who have also passed for E—and 93 for E), while 209 have failed to improve their status. Of these last, 46 have been added to the list of candidates that have made absolute failures, the rest of the 209 being either absent candidates or candidates who were unsuccessful in attempting to complete "partial success." The names removed from the failure list in consequence of success achieved in this examination number 35. That list now contains 751 names, the accumulations of twenty years. As a result of the examination 318 new certificates will be issued (3 for Class C, 93 for D, and 222 for E), and 62 certificates of Class E will be raised to Class D.

The following table exhibits some of these statistics, and shows besides that the normal-students again achieve the greatest proportion of success:—

Status before Examination.	Number of Candidates.	Results of Examination.					
		Pass for D.	Pass for E.	Pass for E, and Partial Pass for D.	Partial Pass for D.	Partial Pass for E.	Total.
Passed before for E	157	62	...	...	25	...	87
Not passed before—							
Teachers	130	14	49	5	3	10	81
Pupil-teachers ...	295	27*	139	5	18	51	240
Normal students ...	67	38	4	3	9†	9‡	63
Retired	34	12*	8	...	1	5	26
Outside candidates ...	62	5*	9	...	7	18	39
Totals ...	745	158	209	13	63†	93‡	536

* Including 1 for Class C. † Including 1, who gains also partial pass for Class E. ‡ Not including 1, who gains also partial pass for Class D.

The analysis of the results according to education districts is as follows:—

—		D Passes.	E Passes.	E Passes, with Partial Pass for D.	Partial Pass for D.	Partial Pass for E.
I. Candidates for promotion from E to D—157:—						
Auckland	48	17	..	..	8	..
Taranaki	9	4	..	..	2	..
Wanganui	16	3	..	..	4	..
Wellington	12	5	..	..	3	..
Hawke's Bay	4	4	..	..	..	..
Marlborough	1	1	..	..	..	..
Nelson	5	4	..	..	..	..
Grey	5	2	..	..	2	..
Westland	1	1	..	..	..	..
North Canterbury	13	6	..	..	..	..
South Canterbury	12	8	..	..	2	..
Otago	9	5	..	..	..	..
Southland	22	2	..	..	4	..
II. Candidates that have not passed before—588:—						
(*a.*) Teachers—130,—						
Auckland	25	2	10	1	..	6
Taranaki	3	..	1	..	..	..
Wanganui	11	2	3	1	1	..
Wellington	10	1	2	..	..	..
Hawke's Bay	8	..	5	..	..	..
Marlborough	6	..	2	1	..	1
Nelson	18	2	9	..	2	2
Grey	9	..	4	..	..	1
Westland	6	..	3	..	..	..
North Canterbury	18	5	5	1	..	..
South Canterbury	6	1	3	1	..	..
Otago	4	1	1	..	..	..
Southland	6	..	1	..	..	..
(*b.*) Pupil-teachers—295,—						
Auckland	108	4	66	1	5	17
Taranaki	3	..	3	..	..	..
Wanganui	32	..	13	1	..	7
Wellington	57	11	14	2	5	8
Hawke's Bay	25	1	13	..	1	8
Marlborough	4	..	..	..	..	2
Nelson	9	..	7	..	..	1
Grey	4	..	1	..	..	2
Westland	3	..	2	..	..	1
North Canterbury	9	2	5	..	1	..
South Canterbury	11	2	4	1	2	2
Otago	8	4*	..	..	3	..
Southland	22	3	11	..	1	3
(*c.*) Normal students—67,—						
North Canterbury	30	15	3	2	3	5
Otago	37	23	1	1	6†	4‡
(*d.*) Candidates that have retired from the service—34,—						
Taranaki	1	..	1	..	..	..
Wellington	4	..	1	..	..	1
Hawke's Bay	1	1	..	..	..	..
Nelson	1	..	1	..	..	..

* Including 1, who gains Class C. † Including 1, who gains also partial pass for Class E. ‡ Not including 1, who gains also partial pass for Class D.

—		D Passes.	E Passes.	E Passes, with Partial Pass for D.	Partial Pass for D.	Partial Pass for E.
(*d.*) Candidates that have retired from the service—*continued.*						
Westland	1	..	..	..	..	..
North Canterbury	10	5	2	..	..	..
South Canterbury	7	2	2	..	..	2
Otago	5	4*	..	..	..	1
Southland	4	..	1	..	1	1
(*e.*) Candidates that have not been in the service—62,—						
Auckland	14	..	1	..	..	4
Wanganui	1	..	..	..	..	..
Wellington	4	..	..	..	1	1
Nelson	9	1*	2	..	1	2
Westland	1	..	1	..	..	..
North Canterbury	12	1	3	..	..	4
South Canterbury	2	..	..	..	..	1
Otago	9	2	..	..	3	3
Southland	10	1	2	..	2	3

* Includes one for Class C.

In many cases work done at the last matriculation examination of the New Zealand University was taken into account as if it had been done at the teachers' examination to which this report relates.

With this I send the list of passes and of cases of partial success at the teachers' examination, and a set of the examination papers.

I have, &c.,
W. Jas. Habens.

EXAMINATION LISTS.

I.—Passed for Class C.

(University status being taken into account.)

Nelson—
Enright, Ellen

Otago—
Little, Ralph Townley
Thomson, Marion Beatrice

Passed for Class D.

Auckland—
Bowles, Susanna Kate
Brown, Sarah Elizabeth
Browne, Lilian Mabel
Burns, Hector Kenneth
Campbell, Hugh John Joseph
Davis, Ethel Winifred Burbery
Ewart, Edmund Oscar
Jones, Herbert John
Jones, Sarah Grace
Jury, Ulia Alice Maud
Lockington, Isabella
Mander, Mary Jane
Miller, James
Moon, Mark Henry
Murray, George William
Perkins, Edward
Roberts, John Hartley
Robinson, Elizabeth Alice
Stephenson, Edward William
Thompson, Frances Ethel
Trayes, Alfred Ernest
Walker, Theodore Henry Adolphus
Warren, Thomas Francis

Taranaki—
Arrow, Amy Witherow
Gayne, Violet Emily
Maxwell, Margaret
Tyrer, Florence Antony Ronald

Wanganui—
Clapham, George Spencer
Goldsbury, Hugh
Matthews, James
Miller, Margaret
Murdoch, James Macqueen

Wellington—
Aldrich, Bertha Christina
Beavis, Maude
Benzoni, Frances Eleanor Sophia
Collins, Florence Bertha
Cowles, Vara Pallett
Duncan, Annie
Evans, Edith Mary
Jacobs, Phœbe

Wellington—*continued.*
Johnston, William
Kenny, Ida Grace
Tonks, May Emma
Turkington, Samuel
Webb, James Samuel
Whelan, Elizabeth Cecelia
Whelan, May Gabrielle
Whitcombe, Minnie Agnes
Williams, Ethel

Hawke's Bay—
Leslie, David Ernest
Macdonald, Donald
Moore, Elizabeth
Roythorne, Ellen Annie
Sidebottom, Nathaniel Ernest
Webb, Elizabeth Dora

Marlborough—
Brewer, Lottie Maria

Nelson—
Austin, William Semmens
Boswell, Edward Blair Buchanan
Lander, Thomas
McGavin, Elizabeth Annie
Malcolm, Arthur
Wilson, James Francis

Grey—
Dixon, Grace
Wickes, Arthur John

Westland—
McIntosh, Annie

North Canterbury—
Adams, Mary Annie
Aldridge, George William
Budden, Amy Hanson
Chapman, Gertrude
Chapman, Henry John
Chapman, Lucy
Dunn, Inez Lillian Lucretia
Gilmour, Lily
Glanville, Florence
Gorman, Annie
Hunter, William John
Killner, Elizabeth Dean
Lockwood, Mabel Fanny
McLauchlan, Mabel Jane Ross
McNeil, Christina
Manifold, Dorothy
Menzies, Agnes
Mounsey, Elsie Ellen
Mulville, Mary Jane
Newton, Isaac Edward
Pattrick, Cherrie Louisa
Perham, Theresa
Pike, William Henry

North Canterbury—*continued.*
Rapley, Claude Woodford
Revell, Percy
Starkiss, Fanny
Stout, Robert
Tayler, Mabel Violet
Taylor, Alfred Sydney
Taylor, Elizabeth
Todd, Isabel Margaret
Trezise, Mabel
Wauchop, Elizabeth Lilian
Wilson, Myra Lyster

South Canterbury—
Aimers, Amelia
Cotter, Winifred Shaw
Evans, Amy Elizabeth
Fleming, James John William
Fyfe, Jessie
Gore, William James Ramsay
Hooper, Ethel Emma
Jones, Lily
Leslie, Annie
McCaskill, Marion
Ritchie, Annie Murray
Ritchie, James
Wood, Thomas Laing

Otago—
Allan, Isabella Cumming
Bowie, Jane Milne
Brownlee, Tanzie Hay
Burnside, Mary Agnes
Calder, George Alexander
Campbell, Jessie
Cormack, Henrietta
Drummey, Agnes Jerina
Dunlop, Isabella
Early, Marion Frances
Fraser, Catherine Jane
Fraser, Margaret
Given, Walter Alexander
Glasgow, Jane Thompson
Gow, Harriet
Greaves, Alice
Hayes, Emma
Hogg, Sarah Jane
Ironside, John
Kay, Margaret
Keam, Gertrude Alice
Kennedy, Douglas William
Law, Christina Morrison
Macdonald, Isabella Mary
McPherson, Gertrude Comberbach
Matheson, John
Milligan, Thomas James
Morgan, Annie

Otago—*continued.*
Murray, Blanche Alice
Percy, Mary
Robertson, Catherine Mary
Robertson, David
Ross, Angusina
Stewart, Margaret Hutchison
Tayler, Mabel Adeline
Thompson, Robert John
West, Mary
Southland—
Lind, Janet
McKenzie, Donald
Pasley, Margaret Sabine
Pow, James
Pratt, Agness
Ramsay, Williamina Allan

PASSED FOR CLASS E.

Auckland—
Adlington, Mary Alice
Andrews, Ada Helen
Ashby, Elsie Gertrude
Aubin, Lilian Annie
Barber, George
Barnes, Myra
Beedell, Florence Isabella
Bollard, Marion Beatrice
Booth, Alice Mary
Brain, Alice Jeanette
Brain, Eleanor Esther
Braithwaite, James Henry
Cahill, William John
Cameron, Helen
Carson, Margaret Ellen
Chapman, Ellen Nora Isabella Mary
Collins, Rosina Valentine
Crabtree, Mabel
Crawford, Maud Marian
Crickett, Ada Mary
Driver, Maud Elizabeth
Duffus, Elizabeth Paul
Elliott, Margaret Jane
Elliott, Sydney James
Evans, Jessie Violet
Farrell, Daisy Isobel Pennington
Finch, Ada Blanche
Floyd, Elizabeth Heriot
Fraser, Anne Beatrice
Fulton, Annie
Garland, Susanna Mary
Gavey, Rose Langford
Gillibrand, Emma
Graham, Violet Frances Gwendoline
Gresham, Dorothy Isabel
Guiniven, Margaret Josephine
Hare, Frederick Wilmot
Harper, Ethel Mary
Harwood, Sarah Ann
Hawkes, Annie Eliza
Hosking, Blanche Beatrice
Jaffrey, Henry Cecil
Jane, Annie
Jenkins, David
Johnston, Margaret
Joll, William Albert
Kay, Agnes
Kelly, Mary Chadwick
Kirkbride, Mary Grace
Koller, Frederick Robert
Lambert, Alberta Wynifred
Lane, Margaret Fanny
Long, Albert John
Lowrie, William
Lyons, Euphemia Margaret
McElroy, John
McInnes, Donald
McKay, Lillian Gormhuile
Matthews, Alvira Mary
Maxwell, Lydia Bell
Meiklejohn, Lemuel Sydney Arnott
Murdoch, Alfred James
O'Meara, Annie
Parker, May
Patterson, Ada Mary
Peat, Mary Elizabeth
Pegler, Lydia
Piggot, Theodora Elizabeth
Plumley, Alice Grace
Ray, Josephine
Rees, Margaret Gwendoline
Reynolds, Ethel May
Rudall, John Henry

Auckland—*continued.*
Smith, George Hugh
Tills, Ethel Elizabeth
Totman, Leonard White
Twiname, Grace Alexandra
Vos, Evelyn Constance
Walker, Spenceley
Taranaki—
Andrews, Alice May
Shaw, Matilda
Smith, Kate Elizabeth
Tuck, Edith Margaret
Wade, Katie
Wanganui—
Bartlett, Alice Grace
Bates, Frederic Arthur
Beaven, Annie Elizabeth
Carter, Annie
Cuningham, Catherine Jane
Hare, Lilian May
Jenkinson, Margaret Bridson
King, Johannah
Lavery, Catherine
Lyall, George Alexander
Martin, Donald
Opie, Francis Dudley
O'Reilly, John Joseph
Reed, Amelia Dora
Scott, Mary
Stagpoole, Thomas
Taylor, Bertha Mary
Thurston, Daniel Peter
Wellington—
Arnold, Nellie
Bairstow, Ada Louisa
Bennett, John William
Black, Prudence Amelia
Brunton, Helen Orr
Carter, Elsie
Collett, Mabel Elizabeth Jane
Cooper, Harriett Ada
Fellingham, Marjory Urquhart
Holm, May Emma
Jacob, Margaret Hemment
Kean, Helen Mary
Meager, Clara
Moncrieff, Janet
Philip, William Hill
Roberts, Florence Grace
Townsend, Frances
Walton, Margaret Catherine
Weston, Constance Marion
Hawke's Bay—
Bissell, Edward
Cantle, Kathleen
Dugleby, Ethel Gertrude
George, Florence Rose
Gilberd, Charlotte
Guy, Mary Eveline
King, Letitia Churtain
Lindsay, Rose Earl
McVay, Ella Muriel
Marsh, Louise Margaret
Monteith, Mabel Ellen
Neal, Alice Eliza Akehurst
Parkinson, Minnie Margaret
Pettersen, Hilda Maria
Roach, Grace Lilian
Robertson, Margaret Maud
Seymour, Athena Mary
Wyllie, Annabella
Marlborough—
Beauchamp, Laura Elizabeth Gwendoline
Wanden, Elizabeth Winn
Wilmot, David Henry
Nelson—
Allport, Edith May
Brown, Emma
Colthart, Margaret Louisa
Cowles, Richard Kenneth
Gilbert, Esther Ellen
Haycock, Ellen May
Heyward, Elizabeth Alice
Kenyon, Isabella
Mackay, Jean Lindsay
Mackenzie, Janet Craig McKutcheon
Packard, Frances Minnie Baird
Page, May
Quinton, Ellen Harriet
Salmond, Andrew
Shirtliff, Elizabeth
Snook, Ada Jane

Nelson—*continued.*
White, Alfred Thomas
Winter, Elizabeth Ada
Wright, Isabel Emily
Grey—
Algie, Emily Marion
Barkley, Ethel Ida Maud Mary
Owens, Edith
Quinn, Ellen
Williams, John Frederick
Westland—
Benjamin, Eva
Coady, Ellen
Crowley, Johanna
Hodgson, Sarah Eliza
MacKinnon, Maud
Preston, Amanda Cecil
North Canterbury—
Armstrong, Christina Margaret
Banks, Laura May
Barlow, Mary Page
Bell, Henry
Cassidy, Margaret
Clarkson, Maude Winifred
Comer, Edith Rose
Corsbie, Edith Rosa Evans
Fear, Helen
Graham, Charles Henry Edger
Hall, Dorothy Elizabeth
Hewinson, Emma Witts
Hynes, Josephine
McIlraith, Barbara Harriet
McSherry, Henry
Manifold, Lucy
Mason, Rose Hellen
Pavitt, Marie Augusta
Smith, Clara Alice Mabel
Thompson, Emma Elizabeth
Williams, Elizabeth Jane
South Canterbury—
Bates, Charlotte Annie
Cormack, Elizabeth
Cullmann, Isabella
Freeman, Martha Frances
Harris, Thora Charlotte
Kirkcaldy, Mary Jane
Montgomery, Katherine Maria
Pringle, Marion Inglis
Pye, Annie Martha
Smart, Alice Rebecca
Smith, Ellen
Otago—
Apstein, Emilie Bertha
Elder, Jessie Jane
Ferguson, Catherine Ann Wilson
Southland—
Baldey, Maria
Cameron, Jessie
Christie, Agnes Russell Gorrie
Gibb, Robert
Macandrew, Elizabeth Anne Legge Fordyce
Macdonald, Alexandrina
McDonald, Christina
Macdonald, Sarah Mary Matilda
McKenzie, Helen
McKinnon, Janet Carmichael
Meek, Ada Mary
Morgan, Rosanna
Ridland, Christina
Swap, Mary Cormack
Todd, Eliza Thom

II.—OBTAINED "PARTIAL PASS" FOR CLASS D.

Auckland—
Ball, Eleanor
Corbett, Robert John
Edenborough, Mabel Kate
Green, Bertram Martin
Harris, Frederic
Koller, Frederick Robert
McIlhone, Ethel Josephine
Murray, Alice Maud
Nolan, Bessie Margaret
Robinson, Joshua Edwin
Shepherd, Arthur James
Sinclair, Ellen Evangeline
Smith, George Hugh
Vellenoweth, Lilian
Willis, Frances Alice

Taranaki—
Chambers, Walter Lawrence Frederic
Richardson, Isabel Mary

Wanganui—
Bowater, Harold Richard
Buchler, Arthur Owen
Chapple, Eleanor Cole
Hare, Lilian May
Maclean, Charles
Stansell, William Frederick
Thurston, Daniel Peter

Wellington—
Beechey, James Mansfield
Bennett, John William
Burns, John Campbell
Cooper, Harriet Ada
Dolan, Bernard Joseph Aloysé
Feltham, Edgar Charles
Gould, William Horace
Howden, Jessie Edith
Joplin, Charles Reesby
McBain, Alexander
Player, Mary Preston

Hawke's Bay—
Wilson, William Hendry

Marlborough—
Wilmot, David Henry

Nelson—
Fair, Teresa
Phair, Henrietta
Riley, Lilly Gertrude

Grey—
Crowley, Elizabeth Leo
Skoglund, Wilhelmina Charlotta

North Canterbury—
Campbell, John
Comer, Edith Rose
Finlayson, Janet Alice
Hight, Maude Louisa
Mason, Rose Hellen
Pavitt, Marie Augusta
Pearson, Robert Steele

South Canterbury—
Alexander, Gertrude Mabel
Cormack, Elizabeth
Harris, Thora Charlotte
Irwin, Robert
Thomas, William
Wilson, George

Otago—
Bressey, Florence Fanny
Cockerill, Ruth Vincent
Elder, Jessie Jane
Johnson, Helen Christina Wilkie
Loan, Marion Sandilands
Lucas, Evelyne May
Reid, Anne Rennie
Renton, William
Robertson, Marion Matheson
Sinclair, Agnes
Spraggon, Lilian Emma
Taylor, Lillias Oswald
Turner, George Alexander

Southland—
Adams, Elizabeth Anne
Brown, Jessie
Browne, Robert Annal Stanley
Fallow, Ellen Brown
Gray, Joseph Henry
Johnston, Mary Emily
Kilburn, Elsie May
Monteath, Thomas

OBTAINED "PARTIAL PASS" FOR CLASS E.

Auckland—
Aldridge, Ernest
Broun, Jane
Carnachan, Robert
Dean, Margaret Agnes Isabella Garlick
Dodd, Lucy Marian
Downard, Henry John Finch
Findlay, Mary Margaret
Gallie, Ada
Gillman, Florence Emma
Green, Florence Margaret
Harper, Georgina Catherine
Hill, Ethel Maud
Jones, Gwladys Rogers
Kelly, Ethel Rose
Kitching, Lydia Ethel

Auckland—*continued.*
Lavery, Mary Sophia
McKay, Donald Alexander
Masson, William
Murdoch, Albert
Paltridge, Alice Maria
Read, John
Reid, Robert Theodore
Shannon, Catherine
Tobin, Charles Edward O'Hara
Tooman, George
Vellenoweth, Jessie
Wilson, Louisa

Wanganui—
Aldridge, Olive Emily
Gordon, Maria Melhuish
Hunger, Mary Ann
Powle, Una Wyatt
Smith, Hugh Parker
Stevenson, Margaret
Worsop, James Hurnall Arthur

Wellington—
Campbell, Kathleen
Christie, Henry Maynard
Gallagher, Annie
Houghton, Jessie Henrietta
Hutchen, Marjory Fife
Parker, Mary
Rose, Florence Ernestine
Sicely, Mabel Henrietta
Sinnett, Nellie
Watson, Florence

Hawke's Bay—
Adams, Florence Kate
Gray, Maggie Isabella
Nicholls, Caroline May
Olsen, Hilda Antoinette
Pickering, Esther Emma
Robertson, Isabella Mary
Stubbs, Julia Frances
Tansley, Blanche Erskine Evelyn

Marlborough—
Keys, Edith Annie
Ladley, Ada Blanche Eunice
McMahon, Ethel Christina

Nelson—
Best, Frank Dockery
Cresswell, Annie Amelia Madeira
Gapper, Bernard Richard
Hanron, Clara
Hill, Hollis James

Grey—
Garland, Rachel Marion
Hall, Agnes
Sweetman, Eliza Jane

Westland—
Orr, Annie Elizabeth

North Canterbury—
Anderson, Roseline
Davis, Florence Kate
Hunter, Margaret
McAra, Christina Forbice
McRae, Marie
Moore, Estella Beatrice
O'Neill, Delia
Wallace, Emilie
Wright, Emily Harriot Ann

South Canterbury—
Bowkett, Annie Jane
Donn, Jessie Elizabeth
Hurst, Lucy Elizabeth
McDuff, Ada Maude
Taylor, Violet Amelia

Otago—
Anderson, Lydia
Farquharson, Janet Helen
Hay, Isabella Currie
Johnson, Edith Monica
Loan, Marion Sandilands
Mackay, Elspeth Murray
Miller, Janet Archer
Nicoll, Henrietta
Wood, Mary

Southland—
Adams, Margaret Harriet
Hardie, Margaret
Healey, Florence Edith
Morton, Minnie Reid
Murphy, Kate
Murray, Susan
Reid, Margaret

III.—PRIZES.

Drawing—
Wood, Thomas Laing, South Canterbury, first prize
Feltham, Edgar Charles, Wellington, second prize
Seagar, Edith, Wellington, third prize

Elementary Experimental Science—
Given, Walter Alexander, Otago, first prize
Thompson, Robert John, Otago, second prize
Renton, William, Otago, third prize

IV.—SPECIAL MENTION.

Class D.

English—
Drummey, Agnes Jerina, Otago
McNeil, Christina, North Canterbury
Miller, James, Auckland

Arithmetic—
Davis, Ethel Winifred Burbery, Auckland
Harris, Frederic, Auckland
McBain, Alexander, Wellington
McNeil, Christina, North Canterbury
Menzies, Agnes, North Canterbury
Ritchie, James, South Canterbury

Geography—
Austin, William Semmens, Nelson
Bowles, Susanna Kate, Auckland
Brownlee, Tanzie Hay, Otago
Chambers, Walter Lawrence Frederic, Taranaki
Enright, Ellen, Nelson
Fleming, James John William, South Canterbury
McNeil, Christina, North Canterbury
Richardson, Isabel Mary, Taranaki
Ritchie, James, South Canterbury
Robinson, Joshua Edwin, Auckland
Shepherd, Arthur James, Auckland
Stansell, William Frederick, Wanganui

History—
Bowater, Harold Richard, Wanganui
Keam, Gertrude Alice, Otago
McNeil, Christina, North Canterbury
Ritchie, James, South Canterbury
Thompson, Robert John, Otago

Elementary Experimental Science—
Austin, William Semmens, Nelson
Chapman, Gertrude, North Canterbury
Dolan, Bernard Joseph Aloysé, Wellington
Enright, Ellen, Nelson
Given, Walter Alexander, Otago
Gorman, Annie, North Canterbury
Gow, Harriet, Otago
Johnson, Helen Christina Wilkie, Otago
Keam, Gertrude Alice, Otago
Kenny, Ida Grace, Wellington
Little, Ralph Townley, Otago
Player, Mary Preston, Wellington
Renton, William, Otago
Revell, Percy, North Canterbury
Robertson, Catherine Mary, Otago
Robertson, David, Otago
Tayler, Mabel Adeline, Otago
Thompson, Robert John, Otago
West, Mary, Otago
Wood, Thomas Laing, South Canterbury

Agriculture—
Chambers, Walter Lawrence Frederic, Taranaki
Ritchie, James, South Canterbury

French—
Fyers, Christiana, Hawke's Bay
Roberts, John Hartley, Auckland

German—
Fyers, Christiana, Hawke's Bay

Algebra—
Brownlee, Tanzie Hay, Otago
McNeil, Christina, North Canterbury
Warren, Thomas Francis, Auckland

Euclid—
Brownlee, Tanzie Hay, Otago
Burns, John Campbell, Wellington
Davis, Ethel Winifred Burbery, Auckland
Drummey, Agnes Jerina, Otago
Hooper, Ethel Emma, South Canterbury
Law, Christina Morrison, Otago
McNeil, Christina, North Canterbury
Menzies, Agnes, North Canterbury
Ritchie, James, South Canterbury
Warren, Thomas Francis, Auckland
Wilson, George, South Canterbury

Chemistry—
Corbett, Robert John, Auckland

Class E.

English—
Adams, Florence Kate, Hawke's Bay
Bartlett, Alice Grace, Wanganui
Cooper, Harriett Ada, Wellington
Gow, Harriet, Otago
Monteith, Mabel Helen, Hawke's Bay

Arithmetic—
Adams, Mary Annie, North Canterbury
Gow, Harriet, Otago
Hunter, Margaret, North Canterbury
Kitching, Lydia Ethel, Auckland
Moore, Estella Beatrice, North Canterbury
Preston, Amanda Cecil, Westland

Geography—
Bartlett, Alice Grace, Wanganui

History—
Gorman, Annie, North Canterbury

Elementary Science—
Bates, Frederic Arthur, Wanganui
Fellingham, Rebecca, Wellington
Williams, John Frederick, Grey

Agriculture—
Long, Albert John, Auckland

Domestic Economy and the Laws of Health—
Bartlett, Alice Grace, Wanganui
Dixon, Annie Mary, Marlborough
Garland, Rachel Marion, Grey
Gilberd, Charlotte, Hawke's Bay
Guy, Mary Eveline, Hawke's Bay
Marsh, Louise Margaret, Hawke's Bay
Wright, Isabel Emily, Nelson

Classes D and E.

School Management—
Adams, Mary Annie, North Canterbury
Davis, Ethel Winifred Burbery, Auckland
Driver, Maud Elizabeth, Auckland
Floyd, Elizabeth Heriot, Auckland
Gray, Maggie Isabella, Hawke's Bay
Guiniven, Margaret Josephine, Auckland

School Management—*continued.*
Hunter, Margaret, North Canterbury
Jane, Annie, Auckland
Johnston, William, Wellington
Sinclair, Ellen Evangeline, Auckland
Swap, Mary Cormack, Southland
Tayler, Mabel Adeline, Otago
Warren, Thomas Francis, Auckland

Drawing—
Adams, Florence Kate, Hawke's Bay, freehand
Cooper, Charlotte Maude, Hawke's Bay, geometrical
Elliott, Sydney James, Auckland, geometrical
Feltham, Edgar Charles, Wellington, geometrical and perspective
Finch, Ada Blanche, Auckland, geometrical
Hartshorn, Edith Emily, Hawke's Bay, freehand and geometrical
Joll, Beatrice Mary, Hawke's Bay, geometrical
Lane, Margaret Fanny, Auckland, freehand and model
Read, John, Auckland, freehand
Stubbs, Julia Frances, Hawke's Bay, model
Warren, Thomas Francis, Auckland, freehand
Wood, Thomas Laing, South Canterbury, freehand, model, and perspective

EXAMINATION PAPERS.

School Management and the Art of Teaching.—For Classes D and E.
Time allowed: 3 hours.

[Candidates must answer one question, and not more than one, in each section. All the sections must be attempted.]

Section I.

Detail the items of information concerning each pupil which are furnished by the admission register; and name the other official registers in use in the public schools.

Section II.

Draw up a time-table for one of the following rooms. The time-table must contain, in a separate column, a synopsis showing the time allotted to each subject in each class.

(1.) Infant department of country school—there being sixteen pupils in Standard I., and twenty-one pupils in P_1, P_2, and P_3. The mistress may be assisted occasionally by a monitor.

(2.) Upper department of country school—there being forty pupils, distributed among Standards II., III., IV., and V. The teacher may be assisted occasionally by a monitor.

(3.) Room containing Standards IV., V., and VI., and Class X. Staff, an adult teacher and a fourth-year pupil-teacher; roll number, sixty.

Section III.

1. Draw up notes of lessons showing how you would teach subtraction, by the method of equal additions, to a class in Standard II., and also showing the preliminary oral work necessary.
2. Draw up notes of a first lesson on one of the following subjects:—
   (*a.*) An elephant (Standard I.), *or*
   (*b.*) An island and a lake (Standard II.), *or*
   (*c.*) Liquids (object-lesson for Standard III.), *or*
   (*d.*) The Peasant Insurrection, 1381 (Standard IV.), *or*
   (*e.*) The moods of the verb (Standard V.).

Section IV.

1. Illustrate the distinction between the eductive (inductive) and the deductive methods of teaching.
2. "Due attention must be paid to the cultivation of a child's memory, and also to the training of his reasoning faculties."
   Give your views as to the best methods of promoting each of these objects.
3. For what different purposes may pupils be questioned? What are the chief features of good questioning?

Section V.

1. Explain and illustrate your method of teaching a beginner (P_1 class) how to read.
2. Detail the steps you would take to insure correct spelling in a class preparing for Standard II.
3. What is the value of transcription in the lower classes, and how should the subject be dealt with?

Section VI.

1. Explain fully your method of teaching composition to a class preparing for either Standard IV. or Standard V., assuming that one of the following subjects is dealt with, and that the time devoted to composition is at least two hours a week:—
   (*a.*) Reproduction of a story read to the class (Standard IV.), *or*
   (*b.*) Essay on "A cup of tea" (Standard V.).
2. "The rendering of the sense of a passage of easy verse into good prose" is prescribed as a portion of the syllabus in composition for Standard V.
   Show how you would deal with this portion of the syllabus, and illustrate your answer by means of the following passage:—

"The western waves of ebbing day
Rolled o'er the glen their level way;
Each purple peak, each flinty spire,
Was bathed in floods of living fire.
But not a setting beam could glow
Within the dark ravines below,
Where twined the path in shadow hid
Round many a rocky pyramid,
Shooting abruptly from the dell
Its thunder-splintered pinnacle."

SECTION VII.

1. Draw up an outline syllabus of subjects suitable for object-lessons for a class preparing for Standard II.

2. Write a short essay on one of the following subjects:—
   (*a.*) The value of regular drill in a school, *or*
   (*b.*) The necessity of supervision in the playground, *or*
   (*c.*) Short and varied lessons, *or*
   (*d.*) The benefits of good teaching-notes.

Elementary Experimental Science.—For Class D. Time allowed: 3 hours.

1. Explain the meaning of the term "energy of motion." How would you exhibit the transformation of energy of motion into some other form of energy?

2. You are required to prove, by means of Attwood's machine, that the velocity of a falling body increases with the time of fall. How would you do it?

3. Describe the method that you would employ in order to find the specific gravity of a solid body that is lighter than water.

4. In talking to a class about the refraction of light, to what facts which must have come within the children's experience would you refer? What experiments would you make, and how would you explain them?

5. Make a sketch illustrative of the passage of the rays of light through an ordinary magic lantern.

6. Explain in detail how you would fit up an apparatus for the distillation of water. How could you measure approximately the latent heat of steam by means of the apparatus when fitted up?

7. Describe the construction of any form of bichromate battery. What substances are used to make up the solution, and in what proportions?

8. What magnetic effects are produced by a coil of wire carrying an electric current? Describe exactly how you would show the magnetic properties of such a coil to a class.

9. You are given three jars of oxygen gas: explain in detail how you would proceed in order to exhibit the combustion in oxygen (*a*) of sulphur, (*b*) of hydrogen, (*c*) of iron.

10. Give a short account of the element chlorine, and of any of its compounds which you have seen. Describe in particular the method you would adopt for the preparation and collection of chlorine gas.

11. A lesson on ventilation is to be given: indicate briefly what you would say, and what experiments you would make.

Elementary Science.—For Class E. Time allowed: 3 hours.

1. Define and give illustrations of momentum, energy, and mass.

2. Describe the principle of the hydraulic ram, and make a sketch to illustrate your answer.

3. Make sketches illustrating the wheel and axle and the screw.

A screw with a pitch of 1 in. is turned by a bar at right angles to its axis, and having an effective length of 3 ft.: what is the gain of power, disregarding friction?

4. Upon what conditions do the pitch and the loudness of a musical note depend?

How is the apparent pitch of a steam whistle affected by rapidly receding motion of the whistle?

5. Describe the eye, show how an image is formed in it, and explain the use of convex spectacles.

6. State the various means by which heat is generated, conserved, and distributed. Give illustrations of the practical use of each of the means you mention.

7. How would you make a compass and a dipping-needle? What do you understand by magneto-electricity and electro-magnetism? Give examples of each kind of action.

8. How would you make CO_2 from chalk? What experiments would you make with CO_2?

9. Describe the process of digestion. What organs are concerned in digestion, and what is the function of each organ?

Domestic Economy and Laws of Health.—For Class E. Time allowed: 3 hours.

1. What conditions make the proximity of trees to a house favourable or unfavourable to health?

2. Discuss the advantages of open and of closed drains. Show how to connect a house with a closed drain.

3. Describe a hen's egg. State the composition of its parts, and give a general idea of the uses of eggs in cookery.

4. What are the advantages and what the disadvantages of a strictly vegetable diet?

5. Discuss the effects of the use of stimulants and of narcotics.

6. Name the chief antiseptics and disinfectants, and say to what purpose each is particularly adapted.

7. What do you consider the best methods of ventilating a schoolroom and a bedroom respectively?

8. State what you know of the micro-organisms of disease. What is meant by the aseptic method of surgery?

9. Describe the circulatory system and the mechanism of breathing.

10. Describe the way to grill a chop, to boil a leg of mutton, and to make beef-tea.

Elementary Knowledge of Agriculture.—For Class D. Time allowed: 3 hours.

1. Describe the general structure of the stem of any fruit-tree, and show how it increases—(*a*) in length, (*b*) in thickness. Explain the operation of grafting.

2. Describe the germination of the seed of—(*a*) any cereal, (*b*) a bean or turnip-seed. Call attention to any differences in the modes of germination. What conditions are necessary to germination?

3. Describe the general and minute structure of a foliage-leaf. Explain the relation of the arrangements you describe to the mode of nutrition of the plant.

4. Give an account of the phenomena of diffusion (osmosis), and show what part they play in the life of the plant. Describe the experiments you would employ to illustrate the subject to a class.

5. Explain how rocks may decay to form soils. What agents promote the decay of the rocks? Show how the properties of a soil may depend upon the rock from which it is derived.

6. It is shown by the analysis of a soil that it contains a considerable quantity of the various elements required for the growth of an ordinary crop, but nevertheless the soil does not yield good crops. To what causes might the sterility be due, and by what principles would you be guided in deciding upon the mode of treatment of the soil.

7. Give some account of the nature and mode of multiplication of bacteria. Show the importance of bacteria in the soil.

8. What do you understand by capillary attraction? How does capillary attraction influence the supply of water to a plant? What bearing have the phenomena of capillary attraction upon modes of cultivation?

9. What are the chief sources of phosphatic manures? Describe fully how you would manufacture a small sample of superphosphate, and illustrate its properties experimentally.

Elementary Knowledge of Agriculture.—For Class E. Time allowed: 3 hours.

1. Describe the flower of a plum, peach, or apple, and show how the fruit is formed from the flower.

2. Explain the terms *organic compounds* and *inorganic compounds*, and illustrate them by reference to a plant.

3. Explain the importance of water in the growth of a crop. How does a plant take in water? Why does it require so much water?

4. Describe some soil which you have examined, referring to the mechanical condition or the physical qualities which would influence the growth of a plant.

5. What substances does an ordinary plant require from the soil? In what condition is it supposed that those substances occur in the soil, and how does the plant obtain them?

6. Say how light and warmth influence the growth of a plant.

7. Describe the arrangement and characters of the roots of any plant. State the points to which you would give special attention in transplanting any young plant in order to avoid, as far as possible, any check to its growth. State your reasons.

8. What do you understand by the expression *exhaustion of the soil?* To what causes may the exhaustion be due, and how may it be remedied?

9. What are the general characteristics of farm-yard manure? Under what circumstances should it be used in preference to artificial manures?

English Grammar and Composition.—For Class D. Time allowed: 3 hours.

[NOTICE.—All candidates are required to attempt the spelling and the punctuation exercise.]

1. What do you mean by "case"? Mention, with examples, the various functions of the objective case in English.

2. Explain clearly the difference between the weak and the strong conjugation in English. State whether each of the following forms is weak or strong: told, sought, fought, could, would, caught, held, beat, sat, sped, shod, burst.

3. State the exact grammatical function of the italicised words in the following sentences:—

(*a.*) This is the same *as* that.
(*b.*) A few came—*some* seven, I think.
(*c.*) I am three *pounds* heavier than I was last *May*.
(*d.*) He did his very *best*.
(*e.*) He swore *like* a trooper.
(*f.*) Was anybody *else* there?
(*g.*) The boys had a hard lesson *to learn*.

4. Distinguish between the uses of the various words ending in *ing* in the following sentences:—

(*a.*) Simon Peter saith, I go a *fishing*.
(*b.*) My noble partner you greet with great prediction of noble *having*.
(*c.*) You do draw my spirits from me with new *lamenting* ancient oversights.
(*d.*) While *looking* at the stars, the philosopher fell into the well.
(*e.*) *Barring* accidents, we sail to-morrow.
(*f.*) Oblige me by all *remaining* in your seats.
(*g.*) The arrival of the great man was the signal for much *clapping* of hands.

5. Explain clearly the differences in meaning of the following words, and form sentences illustrating the correct use of each: adversary, antagonist, enemy, foe, opponent.

6. Punctuate the following passage, and insert capital letters where they are required :—

If you have anything of moment to tell us said the archdeacon pray let us hear it at once has eleanor gone off no she has not said mr harding with a look of great displeasure has slope been made dean no he has not but but what said the archdeacon who was becoming very impatient they have they have what said the archdeacon they have offered it to me said mr harding with a modesty which almost prevented his speaking good heavens said the archdeacon and sank back exhausted in an easy-chair my dear dear father said mrs grantly and threw her arms round her father's neck so i thought i had better come out and consult with you at once said mr harding consult shouted the archdeacon but my dear harding i congratulate you with my whole heart with my whole heart i do indeed i never heard anything in my life that gave me so much pleasure.

7. Point out and correct anything that you see wrong in the following passages :—

(*a.*) I wish you would tell me who to send.
(*b.*) He lives in a large and a very picturesque house.
(*c.*) Nobody ever has or will read of so sensational an occurrence.
(*d.*) He had intended to have started the next day.
(*e.*) Will you come home with Mary and I ?
(*f.*) I know that he cares little for these kind of things.
(*g.*) Everybody makes mistakes some time or other in their lives.

8. Point out the various faults of style in the following passage, and rewrite it in such a manner as to avoid them :—

These and the like instances of distraction and confusion brought the reputation of that party low ; and made it looked upon, as like to destroy itself without an enemy ; while the King's party, at that distance, seemed to be more united, and to have recovered their spirits, of which they received frequent evidence by the news of some of their quarters being beat up, and many of their men lost by the unexpected incursions of the King's horse ; whereof some parties, by night marches, and unusual lanes, went often near London, and took many prisoners, who thought themselves secure, in their houses, and in journeys they made ; who were put to ransom themselves with good sums of money : so that, after all those mountains of promises, and undertakings, the wants were greater, and the city more importuned for money, and the Parliament visibly more necessitated for want of it, than they had been before ; and instead of dispersing the King's army, and bringing the King back to his Parliament, a sudden direction was given, and a vigorous execution of that direction was begun, to draw a line about the cities of London and Westminster, and to fortify it ; lest the King's forces might break in upon them ; which made the people suspect the state of their affairs to be worse than in truth it was ; yet so far were they from any thoughts of peace and accommodation, that the House of Commons raged more furiously than ever ; and every day engaged themselves in conclusions more monstrous, than they had yet entered upon.

9. Write an essay on one of the following subjects :—

(*a.*) Your favourite novelist.
(*b.*) The influence of the stage.
(*c.*) The training of the imagination.
(*d.*) "He jests at scars that never felt a wound."

10. As a test of spelling, write the words dictated by the Supervisor. [Candidates are requested to number the words, and write them in a column.]

Spelling.—Part of a Paper on English Grammar and Composition.—For Class D.

The Supervisor will be so good as first to read over slowly and very distinctly, and then to dictate, the following words :—

Hypochondriac, ancillary, plagiarist, codicil, diaphragm, fascine, anodyne, colonnade, pirouette, eviscerate, crystalline, malachite, asphyxiate, catafalque, cinerary, yeomanry, pachydermatous, titillate, fricassee, parquetry, desiccated, nonpareil, equerry, escutcheon, diocesan.

English Grammar and Composition.—For Class E, and for Junior Civil Service.
Time allowed : 3 hours.

[Notice.—All candidates are required to attempt the spelling and the punctuation exercise.]

1. Define a noun, an adjective, a verb, an adverb, and a preposition, forming sentences to illustrate each definition.

2. What is meant by comparison of adjectives ? What are the usual forms of comparison ? Give two instances of regular, and six of irregular, comparison.

3. What is a participle ? What participles, properly so called, do verbs have ? Give the past tense and both participles of the following verbs : Abide, awake, begin, come, cost, die, dye, eat, forbid, forsake, grow, know, lay, lie (both words), lose, sit, see, sew, sow, tear, tread.

4. Give four Saxon, four Greek, and six Latin prefixes, supplying words in each case to illustrate their signification.

5. Comment on each of the following sentences, correcting any that you think to be wrong, and giving reasons for retaining unaltered any that you think to be right :—
   (*a.*) Which is the greatest affliction—to become totally blind or stone-deaf?
   (*b.*) I am afraid we will be told that it is all a sham.
   (*c.*) If I had written this from Russia I would probably have been detained there.
   (*d.*) No gentleman's education is complete if he don't know a good picture from a bad one.
   (*e.*) Would I be wrong, Sir, in saying that I went at once to you, and asked if I might see it?
   (*f.*) I see nothing wrong in them supplying refreshments to *bonâ fide* travellers.
6. Analyse the following sentence, and parse fully the words in italics :—
   A great preacher *had told* the Court of France two *centuries ago* that they *might judge* how *little* God thought of riches by the sort of people to *whom* he gave riches.
7. Paraphrase the following passage from "Paradise Lost" :—

   Now came still evening on, and twilight grey
   Had in her sober livery all things clad.
   Silence accompanied—for bird and beast,
   They to their grassy couch, these to their nests,
   Were slunk—all but the wakeful nightingale—
   She all night long her amorous descant sung.
   Silence was pleased : now glowed the firmament
   With living sapphires : Hesperus that led
   The starry host rode brightest.

8. Punctuate the following passage, and put capitals where required :—
   The pure and noble arts of peace are founded upon war no great art ever yet rose on earth except among a nation of soldiers there is no art among a shepherd people if it remains at peace there is no art among an agricultural people if it remains at peace commerce is barely consistent with fine art but cannot produce it manufacture is not only unable to produce it but invariably destroys what seeds of it exist there is no art possible to a nation but that which is based upon battle i mean also that war is the foundation of all the high virtues and faculties of men it is very strange to me to discover this and very dreadful but i saw it to be quite an undeniable fact the common notion that peace and the virtues of civil life flourished together i found to be wholly untenable peace and the vices of civil life only flourish together we talk of peace and learning of peace and plenty of peace and civilisation but i found that those were not the words which the muse of history coupled together that on her lips the words were peace and sensuality peace and selfishness peace and corruption peace and death.
9. Write about thirty lines on one of the following subjects, attending carefully to expression, punctuation, and neatness :—
   (1.) Kindness to dumb animals.
   (2.) Good manners.
   (3.) The author of "Paradise Lost."
   (4.) Newspapers.
10. As a test of spelling write the words dictated by the Supervisor, using a separate sheet of paper, writing the words in a column, and numbering them. No marks will be given for any word that contains a doubtful letter.

Spelling.—Part of a Paper on English Grammar and Composition.—For Class E, and for Junior Civil Service.

The Supervisor will be so good as to read through, and then slowly dictate, the following words, afterwards reading the whole of them again to afford opportunity for correction :—

Privilege, consignment, variance, delegate, unaccustomed, seizure, poignancy, accessible, grievance, accumulate, precocity, soliloquy, conceivable, acquiesce, recognize, extravagant, mantelpiece, unconscious, miscellaneous, survival.

English.—For Senior Civil Service. Time allowed : 3 hours.

PAPER NO. 1.—COMPOSITION AND PRÉCIS.

1. Correct anything that you see wrong in the following sentences :—
   (*a.*) The effect of her handsome dress, glowing face, and charming manners were overpowering.
   (*b.*) I suppose one loves a man according to how much he loves us.
   (*c.*) He was one of those who could laugh at his own misfortunes.
   (*d.*) How could any one look at us both—she and I—and not see the likeness?
   (*e.*) He hasn't the slightest idea of whom or what I am.
   (*f.*) She had hardly read this note than she did a curious thing.
   (*g.*) I know sufficiently about him to like him.
   (*h.*) I will not be disturbed either by man nor woman.
2. Write an essay on one of the following subjects :—
   (*a.*) Bacon's philosophy.
   (*b.*) Horace Walpole.
   (*c.*) Hamlet's madness.
   (*d.*) Patriotism.

3. Make an abstract of the following correspondence:—

[An abstract serves as an index, and should give the date of each letter, the names of the writer and the person addressed, and, in as few words as possible, the subject-matter of each letter.]

4. Draw up a *précis* of the same correspondence.

[A *précis* is a brief and clear statement of what passed, not letter by letter, but in the form of a narrative. It should include everything material, and be expressed very clearly, and as briefly as is compatible with completeness and distinctness.]

No. 1.

Mr. W. H. HENNAH to the Hon. the Premier.

SIR,— Wellington, 20th June, 1894.

I have the honour to report that the messengers were present for practice with the fire appliances on Saturday last, as ordered by you.

They are not the stamp of men that a fire brigade would be recruited from, but, as each did his best, no fault could be found with their work.

I would recommend that ten of the most active of the messengers be trained as a fire brigade for the protection of the Government Buildings, and meet once a fortnight for practice. This number is ample for the work, and the older men would only be in the way.

Both lengths of hose burst during the practice. I would advise that the whole of the hose within the building be tested as soon as possible, and 500 ft. of new hose be ordered at once.

I have, &c.,

The Hon. the Premier, Wellington. W. H. HENNAH.

No. 2.

Mr. T. H. HAMER, Private Secretary to the Hon. the Premier, to the UNDER-SECRETARY for PUBLIC WORKS.

Premier's Office, Wellington, N.Z., 18th June, 1894.

Memorandum for Under-Secretary for Public Works.

HON. Premier wishes instructions given to Captain Hennah to thoroughly test all hose throughout the public buildings.

Mr. Moncrieff, who will call on you in the morning, is to assist.

T. H. HAMER, Private Secretary.

No. 3.

From the UNDER-SECRETARY, Public Works, to Mr. W. H. HENNAH.

Public Works Department, Wellington, 20th June, 1894.

Memorandum for Captain Hennah, Wellington.

I HAVE the honour, by direction of the Minister for Public Works, to request that you will be good enough to have a thorough inspection made of all hose required to be used for fire-prevention purposes throughout the public buildings in Wellington, at your early convenience. Mr. Moncrieff, about whom I spoke to you recently, will assist you in the matter.

H. J. H. BLOW,
Under-Secretary for Public Works.

No. 4.

Mr. W. H. HENNAH to Hon. MINISTER for PUBLIC WORKS.

SIR,— Wellington, 25th June, 1894.

I have the honour to report that I have examined all the hose throughout the Government buildings, and beg to submit the following report:—

Parliament House.

The hose in front of the building is very bad, but my previous recommendations having been approved this will not be required. Remainder of hose in good order.

Government House.

Hose in good order.

Museum.

The fire appliances consist of two lengths inch rubber hose; the hose is very bad, and should be replaced at once with canvas and cradles. There should also be a hydrant, branch, and 150 ft. hose near the entrance.

General Post Office.

With one exception, the hose is in good order. I would draw your attention to the fact that there is only inch hose throughout the building. I would strongly recommend that a 3 in. column be erected in the centre of the building from the ground to the top floor; valves, cradles, and 150 ft. 2½ in. canvas hose on each flat; also a 2½in. pipe to command the room where the mails are received.

A great danger exists through the use of the cellar under the mail-room: there is a gas-stove placed close to a wood and paper partition. I was informed that some of the employés use it at lunch time to warm their tea, &c.

This, without a doubt, is very dangerous.

Printing Office.

With the exception of 100 ft. length (which in some way has been cut) the hose is in good order. If it were coupled to the stand-pipe, and placed in cradles, a great saving of time would be effected in case of fire.

Supreme Court.

Hose very bad; should be replaced at once.

I have, &c.,
W. H. HENNAH.

The Hon. the Minister for Public Works, Wellington.

No. 5.

Mr. W. H. HENNAH to the Hon. the MINISTER for PUBLIC WORKS.

SIR,— Wellington, 1st July, 1894.

A statement appeared in last night's *Post* which, if true, would appear that I was wanting in common-sense. The facts are as follows:—

On receipt of instructions from the Under-Secretary to examine the hose in the Government buildings, I did so at once, and sent you my report. Moulton, the plumber from the Government workshops, was with me during the examination. On overhauling the hose at the Supreme Court I discovered a hole through which I could put my finger, and on doing so it tore like a piece of old linen. I reported the hose was bad, and the Resident Engineer went with me to the Supreme Court to see it. No knife has ever been used by me to examine the hose. When the hose has been new I have been satisfied, and when not by water test.

The Resident Engineer and Moulton can substantiate the above facts.

I have, &c.,
W. H. HENNAH.

The Hon. the Minister for Public Works, Wellington.

Mr. Wilson,—Will you please remark hereon—viz., as to correctness of statements made by Captain Hennah. Also get Moulton to remark similarly, please.—H. J. H. BLOW.—2/7/94.

No. 6.

Mr. D. MOULTON to the RESIDENT ENGINEER, Public Works, Wellington.

District Office, Public Works Department, Wellington, 2nd July, 1894.

Memorandum for the Resident Engineer.

I WAS with Captain Hennah when he examined the hose at Supreme Court. It was quite rotten. We could tear it off with our fingers. We used no knife in our examination.

D. MOULTON.

No. 7.

Mr. J. A. WILSON, Resident Engineer, to the UNDER-SECRETARY for PUBLIC WORKS.

Public Works Department, District Office, Wellington, 2nd July, 1894.

The Under-Secretary, Public Works.

Re *Hose at Supreme Court.*

I WENT with Captain Hennah to examine the hose at the Supreme Court, which was reported by him as defective.

It was quite perished, and could be torn by the hand, as we found by testing it in that manner.

What Captain Hennah says as to no knife having been used is, of course, quite correct.

A new hose has been provided and fixed to-day.

Attached is a statement on the subject by Moulton, the Government plumber.

J. A. WILSON, Resident Engineer.

No. 8.

The UNDER-SECRETARY, PUBLIC WORKS, to the Hon. the MINISTER for PUBLIC WORKS.

Hon. the Minister for Public Works.

WILL you please see memorandum from Captain Hennah in reference to a paragraph which appeared in last Saturday's *Evening Post* in reference to the cutting of hose at the Supreme Court building. I have inquired into Captain Hennah's statements, that he was accompanied on the occasion referred to by our plumber, and that he also reported the tearing of the hose to the Resident Engineer, and took him across to see it, and find that the same are correct, and I attach memoranda from Messrs. Wilson and Moulton supporting the same.

3rd July, 1894. H. J. H. BLOW.

English.—For Senior Civil Service. Time allowed: 3 hours.

PAPER No. 2.—LITERATURE.

1. "The moral qualities of Bacon were not of a high order." Mention the chief incidents in Bacon's life that go to prove this assertion of Macaulay's.

2. "Two words form the key of the Baconian doctrine, Utility and Progress." Explain this statement as fully as you can.

3. Describe the character and style of the writings of Horace Walpole.

4. Give some account of the characters of Sir Robert Walpole and Lord Carteret.

5. Give a brief account of the plot of "Hamlet," quoting, if you can, two or three of the passages that you consider most remarkable.

6. Explain the following passages, stating by whom and on what occasion each was uttered:—

(*a.*) Some say that ever 'gainst that season comes
Wherein our Saviour's birth is celebrated
The bird of dawning singeth all night long.

(*b.*) I could a tale unfold whose lightest word
Would harrow up thy soul.

(*c.*) He seem'd to find his way without his eyes.

(*d.*) What's Hecuba to him, or he to Hecuba,
That he should weep for her?

(*e.*) O, my offence is rank, it smells to heaven.

(*f.*) For 'tis the sport to have the enginer
Hoist with his own petar.

(*g.*) Your worm is your only emperor for diet.

(*h.*) There's rosemary, that's for remembrance.

(*i.*) Why may not imagination trace the noble dust of Alexander, till he find it stopping a bung-hole?

(*j.*) This lapwing runs away with the shell on his head.

7. Write notes on the following expressions: Sledded Polacks; tickle o' the sere; the altitude of a chopine; caviare to the general; bisson rheum; I know a hawk from a handsaw; miching mallecho; the mutines in the bilboes; the brooch indeed and gem of all the nation; this quarry cries on havoc.

8. Mention the chief poets whose works appeared between 1625 and 1688, and give a brief account of their works.

9. Name the authors of the following works, and give such an account of any two of them as to show that you have read them: "Areopagitica," "Hudibras," "Pilgrim's Progress," "Religio Medici," "Compleat Angler," "Comus," "Absalom and Achitophel," "Holy Living," "Histriomastix," "Eikon Basilike," "Holy and Profane State," "The Purple Island."

Arithmetic.—For Class D. Time allowed: 3 hours.

1. Find the value of $\frac{1}{117} + \left\{\frac{1}{5} - \frac{1}{3\times5^3} + \frac{1}{5\times5^5} - \frac{1}{7\times5^7} + \ldots\right\}$ to five places of decimals.

2. What is the weight (avoirdupois) of £1,000,000 in gold if each sovereign weighs 123 grains? [7,000 grains = 1 lb. avoirdupois.]

3. If some tobacco be bought at 6s. per pound avoirdupois and retailed at 6d. per ounce troy, and if some be bought at 6s. per pound troy and retailed at 6d. per ounce avoirdupois, what is the profit or loss in each case?

4. Find the square root of $\frac{1}{3}$ to four places of decimals, and the cube root of $\frac{300763}{1367631}$.

5. Find the cost of 127 tons 13 cwt. 3 qr. 14 lb. at £6 15s. 6d. a ton.

6. If 320 horses consume a stack of hay 40 ft. long, $11\frac{1}{4}$ ft. broad, and $31\frac{1}{2}$ ft. high in nine days, for how many days will a stack 15 yd. long, $1\frac{2}{3}$ yd. broad, and $4\frac{2}{3}$ yd. high supply 20 horses?

7. Divide £5 among A, B, C in the ratio of $\frac{1}{3}$, $\frac{3}{5}$, $\frac{17}{135}$.

8. A person has invested £1,014 in the $3\frac{1}{2}$-per-cents at 78, and, after receiving a year's dividends, sells out at 83 and invests the proceeds of the sale, together with the dividends received, at simple interest at 4 per cent.: what will be the amount at the end of two years and a half?

9. Find the difference between banker's and true discount on a bill of £250 due in two years and a half at 3 per cent.

10. What sum will amount to £12,155 1s. 3d. in four years at 5 per cent. compound interest?

11. Find at what time between three and four o'clock the minute-hand of a clock is thirty minutes in advance of the hour-hand.

12. A cistern has three pipes, A, B, and C; A and B can fill it in four and three hours respectively, and C can empty it in eighty minutes: if the cistern be empty, and if the pipes be opened in order at one, two, and three o'clock, when will the cistern be empty again?

Arithmetic.—For Class E, and for Junior Civil Service. Time allowed: 3 hours.

1. How do you find the L.C.M. of three or more numbers whose prime factors are not evident? Explain the principle of the method.

Two men are walking together. One man covers 30 in. at every step, and the other 27 in. They are now in step: how far will they require to walk before coming into step again?

2. Find the value of—

$$\frac{5\frac{1}{3}-\frac{2}{3}}{3\frac{1}{2}-\frac{1}{3-\frac{2-\frac{1}{4}}{\frac{1}{2}+\frac{1}{5}}}}$$

3. What number divided by $\frac{2}{3}$ of $5\frac{1}{2}$ will give as the result the reciprocal of 11?

4. The rent a farmer pays is 10s. 8d. an acre. His whole rent for 150 acres is exactly the same as his neighbour pays for 120 acres. How much does the latter pay per acre?

5. What is the true present value of £4,000 due 4 years hence at 5 per cent. compound interest?

6. Find the length of a room the area of whose walls is 71 sq. yd. 7 sq. ft. 126 sq. in., the breadth $13\frac{1}{4}$ ft., and the height 11 ft. 3in.

7. The estate of a bankrupt, which is valued at £3,151 5s. 10d., is to be divided among his four creditors in proportion to the amounts of their claims. A's claim is to B's as 3:4, B's to C's as 5:6, C's to D's as 7:8. What must each receive?

8. If 3 oxen are worth 22 sheep, and 6 sheep cost £3 3s., what must be given for 50 oxen?

9. The difference in area between two squares is 62·1049 sq. ft., and the side of the smaller square is 7 yd.: what is the side of the larger square?

10. One man invests a sum of money in the $3\frac{1}{2}$-per-cents, and another invests an equal sum in the 4-per-cents. They obtain the same amount of interest. The 4-per-cents being at 96, at what price are the $3\frac{1}{2}$-per-cents?

11. If £21=428 marks, and 278 francs=£11, how many marks are equal to 124 francs?

12. Divide £10 4s. 2d. among 23 men, 30 women, and 35 children, giving each woman $\frac{3}{4}$ of a man's share, and each child $\frac{2}{5}$ of a woman's.

Arithmetic.—For Senior Civil Service. Time allowed: 3 hours.

1. Resolve the numbers 2926, 5005, 6545 into prime factors; hence find their G.C.M. and L.C.M.

2. Reduce 1234567 drams avoirdupois to tons; and find to the nearest farthing the cost at £1 a ton.

3. Add together $5\cdot12\dot{3}\dot{4}$, $16\cdot\dot{5}3\dot{4}$, and $\cdot1\dot{9}\dot{6}$.

Reduce $\cdot12\dot{1}42857\dot{1}$ to a simple vulgar fraction.

4. Find the value of 578·735 yards of material at £1 2s. $7\frac{3}{4}$d. a yard.

5. A quantity of fruit is bought for £50; 40 per cent. is sold at a profit of 35 per cent. on its cost; of the remainder, half cannot be sold, and the other half realises $\frac{2}{3}$ of the selling-price of the good fruit per pound. Find the total loss.

6. What sum will amount to £2,005 in 5 years at 11 per cent., compound interest?

7. A certain 3-per-cent. stock is at 92, and a 4-per-cent. stock at 122: which is the better investment? If you had £5,550 to invest, what would be the difference in the yearly income offered by the two stocks?

8. The populations of the four largest towns in New Zealand in 1896 were 57,616, 41,758, 51,330, and 47,280 respectively; their increases per cent. for the preceding period of 5 years were 12·3, 22·1, 7·3, and 3·1 respectively: what was the increase per cent. of the average population of the four towns during the same period?

9. If a grocer mixes 144 lb. of tea at 1s. $5\frac{1}{4}$d. per lb. with 180 lb. at 1s. 3d. per lb., at what price per lb. must he sell the mixture so as to gain $2\frac{1}{2}$d. per lb. after paying 6s. 9d. for paper and labour?

10. Find the square root of $\frac{1}{2}$ to four places of decimals, and the cube root of 1442897.

11. If 55 men working 9 hours a day do $\frac{3}{7}$ of a certain piece of work, and 180 men working 11 hours a day do the remainder, compare the times spent on the work before and after the change.

12. Three bicyclists racing round a circular path $\frac{1}{4}$ of a mile in circumference all start from scratch, and their rates per hour are 20 miles, 20 miles 400 yards, and 20 miles 650 yards respectively: when will they come together again?

Geography.—For Class D. Time allowed: 3 hours.

1. Explain clearly and illustrate by diagrams the changes of the seasons.

2. What are the chief conditions upon which the climate of a place depends; and how does each of them affect it?

3. Describe, either in words or by means of a sketch-map, the position of the different countries which border on the frontier of our Indian Empire, including therein Burma.

4. Enumerate the principal islands and groups of islands in the Mediterranean, giving their position, and the countries to which they respectively belong politically.

5. Describe fully the course and character, mentioning the tributaries and chief towns, of the Rhine, *or* of the Mississippi.

6. Draw a sketch-map of the eastern Soudan to illustrate the present and projected military operations; *or* of Africa south of the equator, showing its physical features and political divisions.

7. Name, as far as you can in the order of their discovery, the principal goldfields of the world, and state approximately the annual value of the gold they severally produce.

8. Give in order the names and the chief towns of those of the United States that border on the Atlantic.

9. Describe the main lines of railway, completed and projected, in New Zealand, and name the chief places through which they pass or are to pass.
10. Where are the following situated: Larissa, Mt. St. Elias, Marida, Rawal Pindi, Chemulpho, Santa Clara, Vardo, Canea, Hué, Benin?
11. What are the chief meat-exporting countries? Discuss briefly their relative advantages or disadvantages for competing in the meat trade.
12. Give a brief description of Europe, touching upon its size and its main physical features, and grouping its chief rivers in order according to the seas into which they fall.

Geography.—For Class E, and for Junior Civil Service. Time allowed: 3 hours.

1. Why, in places on or near the equator, are day and night of equal length throughout the year, while in London, New York, and Wellington their duration varies at different periods of the year?
2. In what way is a delta formed? State the position of some of the most remarkable deltas.
3. What are spring-tides, neap-tides? How are they caused, and when does each occur?
4. The western side of the Andes between Chimborazo and Copiapo is a district in which rain falls only in small quantity and at long intervals, while the eastern side is subject to heavy rains. State the cause of the difference.
5. Give the best account you can of the course of the Congo, the Nile, and the Niger. Mention the most important places on the banks of each, and the Powers to which they respectively belong.
6. Write a short note on each of the following places: Brisbane, Corinth, Derby, Klondyke, Lassa, Ottawa, St. Petersburg, Toulon.
7. Draw a sketch-map of India. Show the position of the chief ports, the principal cities, rivers, and mountain-chains.
8. Write a short descriptive essay on the Auckland Isthmus, or on the lakes of Otago.
9. Name the more important goldfields in New Zealand: state the position of each, and the form in which the gold occurs.
10. In what part of the colony does the kauri grow? To what purposes are kauri timber and kauri "gum" applied? State the approximate value of the annual export of each.

History.—For Class D. Time allowed: 3 hours.

1. Give the chief provisions of Magna Charta, and mention some of the subsequent confirmations of it.
2. Give a brief account of the Hundred Years' War with France.
3. Trace the history of the Long Parliament.
4. Mention, with dates and descriptive notes, the chief Acts passed in the reign of Charles II.
5. Characterize William III. as a soldier and a statesman. What special difficulties had he to contend with as King of England?
6. Give an account of the various military successes that make the years 1757–61 specially illustrious in the history of Britain.
7. Describe the career and policy of Robert Walpole.
8. Mention, with explanations, the chief discoveries, reforms, improvements, and new openings for colonisation connected with the reign of George III.
9 What do you know of the following: Rye-House plot, Non-jurors, Wood's halfpence, Patriot Party, Jenkins's ear?

History.—For Class E, and for Junior Civil Service. Time allowed: 3 hours.

1. Give a brief account of the Norman Conquest and its chief effects on England.
2. Describe the foreign relations of England in the reign of Queen Elizabeth.
3. Give two genealogical tables—the first showing how James VI. of Scotland came to have a claim to the English throne, and the second tracing the Stuart family from the time of James I. of England till the direct line disappears.
4. Compare the foreign policy of Cromwell with that of Charles II.
5. Describe the character and aims of James II.; and show how his actions led inevitably to the Revolution of 1688.
6. Write two paragraphs—the first dealing with the state of English politics in the reign of Queen Anne, and the second with the social condition of the people in the same period.
7. Trace the history of British colonisation between 1603 and 1837.
8. Describe the struggle with America in the reign of George III.
9. What do you know of the following: Wentworth, Wilkes, Jeffreys, Canning, Huskisson?

History.—For Senior Civil Service. Time allowed: 3 hours.

1. Give a careful description (1) of the Bill of Rights, and (2) of the Act of Settlement.
2. Give, under the following heads, an account of the parliamentary Union of England and Scotland: (1) The preliminary negotiations, (2) the conditions of union, and (3) the beneficial results to both countries.
3. How did the accession of George I. favour the growth of parliamentary government? Summarise the chief events of his reign.

4. Give an account of the rise of the English power in India. What do you know of the doings of Warren Hastings in India, and of his subsequent trial?

5. What were the effects of the French Revolution on England? What were Burke's views on the subject? Mention the two most famous replies to Burke's "Reflections."

6. Describe the foreign policy of the elder Pitt and its results.

7. Write two paragraphs on the improvements effected (1) in manufactures, and (2) in the social condition of the people, between 1750 and 1837.

8. Give as full an account as you can of the Reform Bill of 1832.

9. What do you know of the following: reform of the calendar, Manchester massacre, Huskisson's reforms, Catholic emancipation, rise of Methodism?

Latin.—For Class D, and for Senior and Junior Civil Service. Time allowed: 3 hours.

1. (*a.*) Decline, in singular only, *tardum iter, laurus viridis, M. Tullius Cicero;* in plural only, *spes, locus, aedes.*

(*b.*) Set down the Latin for "seven," "seventh," "seven apiece," "seven times." Are the distributive numerals ever used in other than a distributive sense? If so, when and how? Express in full the abbreviation A.D. III. Non. Jan., and give its equivalent in English.

(*c.*) Give the meaning and the chief parts of *iaceo, iacio, iacto;* of *orior, ordior;* of *edo* (2); of *vinco, vincio, vivo;* of *fero, ferio.*

(*d.*) Conjugate the present imperative active of *facio, eo;* the imperfect subjunctive active of *malo;* the 1st future indicative active of *posse, venio.*

2. (*a.*) With what case is each of the following used, and what is its force: *cum, prae, in, apud, tenus, ob, sub?*

(*b.*) How is the agent expressed in Latin in connection with the verb passive? State the rules that determine what case may be used.

(*c.*) What are deponent verbs? Account for their origin. What participles has such a verb?

(*d.*) What are the chief uses of the dative case? Give an example of each.

(*e.*) What different uses and meanings has the conjunction *ut?*

3. Translate into Latin—

Caesar sent Crassus to see where the enemy's camp was placed.
He does not deny that he has been defeated.
I should be glad if I could reach home to-morrow.
He asked was it true that the English army had been annihilated.
There are men who, before you begin to speak, know all you can tell them.
On the following day he pitched his camp before Numantia, a well fortified town in Spain.
This is a plan which all the wisest will approve.

4. Translate into English—

Tres ferme horas pugnatum est et ubique atrociter: circa consulem tamen acrior infestiorque pugna est. Eum et robora virorum sequebantur, et ipse, quacumque in parte premi ac laborare senserat suos, impigre ferebat opem: insignemque armis et hostes summa vi petebant et tuebantur cives, donec Insuber eques (Ducario nomen erat) facie quoque noscitans consulem "En" inquit "hic est qui legiones nostras cecidit agrosque et urbem est depopulatus: iam ego hanc victimam manibus peremptorum foede civium dabo." Subditisque calcaribus equo per confertissimam hostium turbam impetum facit, obtruncatoque prius armigero qui se infesto venienti obviam obiecerat, consulem lancea transfixit.

French.—For Class D, and for Senior and Junior Civil Service. Time allowed: 3 hours.

1. Translate into English—

Les Tyriens, par leur fierté, avaient irrité contre eux le grand roi Sésostris, qui régnait en Égypte, et qui avait conquis tant de royaumes. Les richesses qu'ils ont acquises par le commerce, et la force de l'imprenable ville de Tyr, située dans la mer, avaient enflé le cœur de ce peuple: ils avaient refusé de payer à Sésostris le tribut qu'il leur avait imposé en revenant de ses conquêtes; et ils avaient fourni des troupes à son frère, qui avait voulu le massacrer à son retour au milieu des réjouissances d'un grand festin.

Sésostris avait résolu, pour abattre leur orgueil, de troubler leur commerce dans toutes les mers. Ses vaisseaux allaient de tous côtés cherchant les Phéniciens. Une flotte égyptienne nous rencontra, comme nous commencions à perdre de vue les montagnes de la Sicile. Le port et la terre semblaient fuir derrière nous et se perdre dans les nues. En même temps nous voyons approcher les navires des Égyptiens, semblables à une ville flottante. Les Phéniciens les reconnurent et voulurent s'en éloigner; mais il n'était plus temps: leurs voiles étaient meilleures que les nôtres; le vent les favorisait; leurs rameurs étaient en plus grand nombre. Ils nous abordent, nous prennent, et nous amènent prisonniers en Égypte.

2. Translate into French—

Sir William Douglas, owner of the castle where Mary was imprisoned, was a half-brother by the mother's side of the Regent Murray. This baron discharged with severe fidelity the task of Mary's jailer; but his youngest brother, George Douglas, became more sensible to the Queen's distress, and perhaps to her beauty, than to the interests of the Regent, or of his own family. A plot laid by him for the Queen's deliverance was discovered, and he was expelled from the island in consequence.

3. Translate also—

Come here: I want to speak to you.
Where are you? I cannot see you.
I have been here for at least an hour.
What are you doing?—I am reading.
Who is with you?—Nobody.
Why did you come here?—To see you.
At what o'clock will you be at home?

4. Write down, in four columns, the third person singular of the present indicative, and of the present, imperfect, and preterite subjunctive, of the verbs *agir, boire, craindre, devoir, faillir, falloir, gémir, haïr, meurtrir, prendre.*

5. Give the rules for the formation of the plural of (*a*) proper nouns, (*b*) nouns of foreign origin, (*c*) compound nouns. Illustrate by examples.

6. Give the French for—

They will be pardoned.
Miss, they have admired you.
Gentlemen, why have you blamed my sons?
They would have been praised (*louer*).
We have saved her.
The pear (*poire*) which you said (that) you would give me is ripe.
Ladies, what have you done this morning?

7. Distinguish the meanings of the similar words in the following pairs of expressions: Elle a froid, *and* il fait froid; une médaille bénite, *and* une famille bénie; une rose fleurissante, *and* une industrie florissante; un mur haut, *and* un fruit mûr; ces dames sont tout étonnées, *and* ces dames sont toutes étonnées. Comment on the grammatical peculiarities illustrated above.

8. Name tense, mood, and infinitive of *ils contraignirent, il disparut, dites, dors-tu? il entrouvrit, elle exagérerait, il s'en serait allé, il reconnut, il hait, tu t'abstiendras.*

9. Give the feminine form of *complet, dû, exigu, favori, frais, gentil, majeur, chasseur.*

10. What does each of the following become before a vowel: *beau, ce, la, ma, que, si?*

German.—For Class D, and for Senior and Junior Civil Service. Time allowed: 3 hours.

1. Given the imperf. ind., *blies, fuhr, floh, genas, hieb, litt, rieth, soff, sott,* and *schuf;* supply the meaning, the pres. inf., the 1st pers. sing. of the pres. ind., and the past part. of each.

2. Illustrate by examples the various ways in which nouns form their plural in German.

3. Give in full the three forms of declension of adjectives, taking *klein* as an example.

4. What prepositions may govern either the dative or the accusative?

5. Translate the following interjections: Oh dear! Well! Alas! Fie! Begone!

6. As an illustration of the suffixes of adjectives, translate—womanly, fruitful, painful, suspicious, timid, wooden, woollen, earthy, verbal.

7. Give two sentences, using, as conjunction of time, in the one *wenn,* and in the other *als.*

8. Translate—In these days; twice a week; at Xmas time; nowadays; three days ago.

9. Write out in full the pres. ind. of *übersetzen*—first, as an inseparable verb; second, as a separable verb.

10. Translate (using impersonal verbs)—I am glad; I am cold; I am vexed; I succeed; I wonder.

Translate into German,—

1. When will the Governor arrive here?
2. He is to come next Saturday morning.
3. Will he remain long in this province?
4. I hear that he is to return to W. at the end of next week.
5. I hope that he will have fine weather during his stay in this place.
6. At present it is raining very hard, but probably the weather will soon clear up.
7. Rain is very much wanted for the country.
8. Yes, if the dry weather had continued much longer we should scarcely have had any harvest.
9. The other day we had thunder, lightning, and hail.
10. Hail is very destructive to fruit.
11. The plums and the peaches have suffered a good deal from the frost.
12. We shall have plenty of apricots, apples, and pears this year.
13. What beautiful flowers you have in your garden!
14. Yes; I am a great lover of flowers, and I have some of all sorts—violets, pinks, tulips, roses, and many more.
15. You should see my vegetable-gârden: it is full of the most beautiful peas, beans, cabbages, potatoes, &c.
16. You must be very busy with your garden, your horses, your cows, your sheep, &c.
17. Oh, certainly; but a country life is the one I like best.

Translate into English,—

Herr Tobias Witt war aus einer nur mässigen Stadt gebürtig, und nie weit über die nächsten Dörfer gekommen. Dennoch hatte er mehr von der Welt gesehen, als Mancher, der sein Erbtheil in Paris oder Neapel verzehrt hat. Er erzählte gern allerhand kleine Geschichtchen, die er sich hie und da aus eigner Erfahrung gesammelt hatte. Poetisches Verdienst hatten sie wenig, aber desto mehr praktisches, und das Besonderste an ihnen war, dass ihrer je zwei und zwei zusammenge-

hörten. Einmal lobte ihn ein junger Bekannter, Herr Till, seiner Klugheit wegen.—Ei! fing der alte Witt an und schmunzelte: Wär' ich denn wirklich so klug?

Die ganze Welt sagt's, Herr Witt. Und weil ich es auch gern würde——

Je nun, wenn Er das werden will, das ist leicht.—Er muss fleissig Acht geben, Herr Till, wie es die Narren machen.

Was! wie es die Narren machen?

Ja, Herr Till! Und muss es denn anders machen, wie die.

—*Engel.*

Also,—

O wie kalt ist es geworden
Und so traurig, ö-d, und leer!
Rauhe Winde weh'n von Norden,
Und die Sonne scheint nicht mehr.
Auf die Berge möcht' ich fliegen,
Möchte sehn ein grünes Thal
Möcht in Gras und Blumen liegen
Und mich freun am Sonnenstrahl.

* * *

Schöner Frühling komm doch wieder,
Lieber Frühling, komm doch bald
Bring uns Blumen, Laub und Lieder,
Schmücke wieder Feld und Wald!
Ja, du bist uns treu geblieben,
Kommst nun bald in Pracht und Glanz
Bringst nun bald all deinen Lieben
Sang und Freude, Spiel und Tanz.

—*Hoffman von Fallersleben.*

Algebra.—For Class D, and for Junior Civil Service. Time allowed: 3 hours.

1. If $a=3$, $b=4$, $c=5$, and $s=\frac{1}{2}(a+b+c)$, find the value of $\sqrt{\frac{(s-a)(s-b)}{s(s-c)}}$
2. Show that, if x, y, and z are three consecutive odd numbers, $y^2-xz=4$.
3. Multiply $x^3-4y^2+12y-9$ by $x-2y-3$, and divide the product by $x+2y-3$.
4. Find the highest common measure of $3x^2-2xy-y^2$ and $4x^3-2x^2y-3xy^2+y^3$. Also find their lowest common multiple, expressed in factors.
5. Simplify the following expressions:—

(*a.*) $\left\{\frac{x}{x-y}-\frac{y}{x+y}\right\} \div \left\{\frac{x}{x+y}-\frac{y}{x-y}\right\}$

(*b.*) $\frac{b}{a}-\frac{a}{a-b}+\frac{b^2}{a(a^2-b^2)}$

(*c.*) $\frac{a^3-x^3}{a^3+x^3} \times \frac{a^2-ax+x^2}{a^2-x^2} \div \frac{a^2+ax+x^2}{a^2+x^2}$

6. Prove that $\frac{ax}{by}+\frac{ax-a}{by+b}=\frac{(a-b)^2}{b^2}$, when $x=\frac{a}{a+b}$ and $y=\frac{b}{a-b}$
7. Find the square root of $x^2+6xy+9y^2-4x-12y+4$.
8. Solve the equations—

(*a.*) $\frac{x}{x+1}-\frac{3x}{x+2}=-2$

(*b.*) $\frac{a}{x-a}+\frac{b}{x+b}=\frac{a+b}{x}$

(*c.*) $\frac{6}{x}+\frac{4}{y}=3$, $\frac{9}{x}-\frac{8}{y}=1$

9. Find a number such that, whether it is divided into two or into three equal parts, the continued product of the parts shall be the same.
10. A fruiterer, having bought a case of oranges, found that if he sold four dozen and a half at a shilling a dozen and the rest at eighteen for a shilling he would gain one shilling and sixpence, but that if he sold the whole at sixteen for a shilling he would gain only one shilling: find the cost of the case, and the number of oranges which it contained.

Algebra.—For Senior Civil Service. Time allowed: 3 hours.

1. Find the value of $\frac{x+2a}{x-2a}+\frac{x+2b}{x-2b}$ when $x=\frac{4ab}{a+b}$
2. Multiply $x^m+y^p-z^q$ by $x^m-y^p+z^q$, and divide x^2-y^2 by $x^{\frac{1}{2}}+y^{\frac{1}{2}}$.
3. Find the highest common measure and the lowest common multiple of x^4+2x^2+9 and $7x^3-11x^2+15x+9$.
4. Simplify the following expressions:—

(*a.*) $\frac{1}{(x-1)^2}+\frac{2}{x-1}-\frac{2x}{x^2+1}$

(*b.*) $\frac{a^2-x^2}{a+b} \times \frac{a^2-b^2}{ax+x^2} \times \left(a+\frac{ax}{a-x}\right)$

(*c.*) $\left\{1+\frac{b^2+c^2-a^2}{2bc}\right\}\left\{\frac{1}{a}+\frac{1}{b+c}\right\} \div \left\{\frac{1}{a}-\frac{1}{b+c}\right\}$

5. Find the relation which must exist between the coefficients a, b, and c, in order that the expression ax^2+bx+c may be a complete square.

6. Extract the square roots of $l^{2x}+l^{-2x}-2$ and $\frac{9}{4}a^3-5a^{\frac{5}{2}}b^{\frac{1}{2}}+\frac{179}{45}a^2b-\frac{4}{3}a^{\frac{3}{2}}b^{\frac{3}{2}}+\frac{4}{25}ab^2$

7. Solve the equations—

(*a.*) $$\frac{2x+a}{b}-\frac{x-b}{a}=\frac{3ax+(a-b)^2}{ab}$$

(*b.*) $$\frac{\sqrt{x+a}+\sqrt{x-a}}{\sqrt{x+a}-\sqrt{x-a}}=\frac{b}{a}$$

(*c.*) $$\frac{x+1}{y}=\frac{3}{5}=\frac{y-1}{x}$$

(*d.*) $$\begin{cases}6x+y+8z=50\\8x+3y-10z=-6\\12x+7y-16z=2\end{cases}$$

8. Divide a number a into three parts, such that the first may be to the second as m is to n, and the second may be to the third as p is to q.

9. Three persons divide a certain sum of money in the following manner: A takes one-third of the whole together with £8; B takes one-third of the remainder together with £8; C takes one-third of what now remains together with £8; and then nothing remains. Find the sum.

10. If the numerator and denominator of a certain fraction be each increased by 2, the value of the fraction will be $\frac{3}{5}$; but if each of them be diminished by 3, the value of the fraction will be $\frac{2}{5}$. Find the fraction.

Euclid.—For Class D, and for Junior Civil Service. Time allowed: 3 hours.

1. Define an angle, a circle, a rhombus, parallel straight lines, a parallelogram.

2. If two triangles have the sides of the one respectively equal to the sides of the other, prove that the triangles are equal in all respects.

Show that if the opposite sides of a quadrilateral are equal the opposite angles are also equal.

3. Prove that the sum of any two sides of a triangle is greater than the third side, and that the difference between any two sides is less than the third side.

4. Prove that the opposite sides and angles of a parallelogram are equal, and that the diagonal bisects its area.

Prove that any straight line through the intersection of the diagonals of a parallelogram bisects its area.

5. If the square on one side of a triangle be equal to the sum of the squares on the other two sides, show that the angle contained by those two sides is a right angle.

6. If a straight line be divided into any two parts, the sum of the squares on the whole line and one of the parts is equal to twice the rectangle contained by the whole line and that part, together with the square on the other part.

7. Prove that in any triangle the square on the side subtending an acute angle is less than the sum of the squares on the other sides, and show by how much.

The sides of a triangle are respectively 5 in., 6 in., and 8 in.: what kind of a triangle is it?

8. ABC is an equilateral triangle, and D is any point in the side BC: prove that the square on BC is equal to the rectangle contained by BD, DC, together with the square on AD.

Euclid, Books I.–IV.—For Senior Civil Service. Time allowed: 3 hours.

1. Show that if one side of a triangle be produced, the exterior angle is greater than either of the interior and opposite angles, and any two of the angles of the triangle are together less than two right angles.

Enunciate the subsequent proposition in which these results are virtually included.

2. Give Euclid's definition and postulate for parallel straight lines.

Two straight lines, AB, CD, are met by another at E, F, and a pair of alternate angles are equal: show by superimposing AEFC on DFEB that AB is parallel to CD.

Prove also the converse of this theorem.

3. If a parallelogram and a triangle be on the same base and between the same parallels, the parallelogram is double of the triangle.

If two triangles have the rectangle contained by the base and the altitude of the one equal to the rectangle contained by the base and the altitude of the other, the triangles are equal.

If the straight line joining the vertices of two triangles on the same base be bisected by the base or by the base produced the triangles are equal to each other.

4. Describe a square equal to a given rectilineal figure.

Describe also a right-angled isosceles triangle equal to the same rectilineal figure.

5. If straight lines are drawn to the circumference of a circle from any point which is not the centre, they are in the same order of magnitude as the angles they subtend at the centre.

Hence show that if more than two equal straight lines can be drawn from a point to the circumference, that point is the centre.

6. Show how to draw a tangent to a circle from a given point either on or without the circumference.

Show also how to draw the common tangents of two circles.

7. Show that an angle at the circumference of a circle is equal to, less than, or greater than a right angle according as the arc on which it stands is equal to, less than, or greater than half the circumference.

Find the locus of the middle points of chords of a circle drawn through a fixed point.

8. Show that in any regular polygon the bisectors of the angles all meet in a point.

9. Show how to describe an isosceles triangle having each of the angles at the base double of the third angle. What use does Euclid make of this problem?

Mechanics.—For Class D, and for Senior and Junior Civil Service. Time allowed: 3 hours.

1. Explain the terms "component," "resolved part," "poundal," "impulse," "energy," "density," "buoyancy."

Find the components of a velocity of 100 units in directions inclined to its own direction, each at an angle of 30 degrees.

2. State the meaning of the letters in the formulæ $s=vt$, $s=\frac{1}{2}vt$, $s=\frac{1}{2}(u+v)t$.

A stone is thrown upwards with a velocity of 100 ft. a second: when will it reach a height of 100 ft., and when will it reach the ground again?

3. A mass of 5 lb. hangs by a string, and is let down with (1) a constant velocity of 5 ft. per second, and (2) with a constant acceleration of 5 ft. per second per second. What is the tension of the string in each case?

4. State the "triangle of forces," and also the extension known as the "polygon of forces."

Three forces are represented in magnitude and direction by three consecutive sides of a square taken the same way round: what is their resultant (1) when they act at a point, (2) when they act along the lines representing them?

5. Show that the sum of the moments of two parallel forces round any point in the same plane is equal to the moment of their resultant.

A rod 5 ft. long is of mass 6 lb., and has masses of 1 lb. and 4 lb. suspended from its extremities: what must be the position of the centre of gravity of the rod that the system may balance about it?

6. If a body is suspended freely at a point, what do you infer about its C.G., and how?

Show how you would experimentally determine the C.G. of any thin plate with plane faces.

7. Describe the requirements of the common balance, and how they are usually satisfied.

Does it matter at what parts of the scales the weights are supported? Give reasons for your answer.

8. If nine-tenths of an iceberg be immersed, what is its density relatively to sea-water?

If the specific gravity of sea-water be 1·026, what is that of the iceberg?

9. If a rectangular vessel, full of water, has its base horizontal, and if an opposite pair of its sides be brought nearer together, how does the pressure on its sides and base vary?

If a body is immersed or is allowed to float in the water, is any change made in the pressure on the sides or on the base of the vessel?

10. Explain the statement "Liquids maintain their level," and mention the necessary conditions.

Why do bubbles in a liquid often cling to the sides or base of the vessel?

Physics.—For Class D, and for Senior and Junior Civil Service. Time allowed: 3 hours.

1. Explain the nature of heat, and state the chief effects of heat.

2. What is meant by the *coefficient of cubical expansion* of a substance?

The volume of a kilogramme of water being 1000 cc. at 4° C., and 1038·7 cc. at 94° C., what is the mean coefficient of expansion of water between these temperatures?

3. Define the normal boiling-point of a liquid, and state the laws of ebullition.

4. If 300 grammes of small shot at the temperature of 100° C. be put into 200 grammes of water at 12° C., and the resulting temperature be 16° C., what is the specific heat of lead?

5. Explain the following terms as used in the theory of sound: *pitch, interval, octave, major third, harmonic.* What harmonics are absent in the note of a closed organ-pipe?

6. Draw a neat diagram illustrating the formation of a real image by a double convex lens. Under what circumstances does the lens produce a virtual image?

If an object placed at the distance of 2 in. from a convex lens has its image magnified five times, find the focal length of the lens (1) when the image is real, (2) when the image is virtual.

7. What is meant by a *magnetic field*, and by *lines of magnetic force?* Give a rough sketch of the direction of the lines of magnetic force when two bar magnets are laid parallel to one another with their like poles pointing in opposite directions.

8. Describe the Leyden jar, and explain its use.

9. Describe in detail the arrangements which you would make in order to electrolyse water, and to collect the resulting gases.

10. The E.M.F. of a bichromate cell is 1·92 volt, and its internal resistance is $\frac{1}{3}$ ohm: find the current which it gives when its poles are connected by a wire of 5 ohms resistance.

Chemistry.—For Class D, and for Senior and Junior Civil Service. Time allowed: 3 hours.

1. Explain, giving a sketch of the apparatus, how you would make and collect ammonia gas from ammonium-sulphate.

2. How would you remove from atmospheric air (*a*) its carbon-dioxide; (*b*) its oxygen; (*c*) any ammonia gas it might contain? State what gases would be left after the removal of these.

3. Describe a process for extracting iodine from sea-weeds.
4. State what you know about the manufacture of sulphuric acid on the large scale.
5. A gas may be one of the following: *Oxygen, nitrogen, ammonia, sulphur-dioxide, carbon-dioxide, nitrous oxide*: how would you determine which of them it is?
6. In what respects do chlorine and bromine resemble each other? Give equations to show this similarity.
7. Describe as many processes as you know for making chlorine gas, giving equations and sketching apparatus.
8. Show by equations the effect of heat on the following: (1) manganese-dioxide, (2) nitrate of ammonium, (3) carbonate of calcium, (4) chlorate of potassium, (5) sulphur with access of air, (6) sulphur without access of air.
9. State what useful products can be got from fresh bones; and explain how each of these products may be obtained (equations to be given and apparatus to be sketched).

Biology.—For Class D, and for Senior and Junior Civil Service. Time allowed: 3 hours.

[N.B.—Candidates must answer questions in one subject only. All answers should be illustrated, as far as possible, by diagrams.]

ANIMAL PHYSIOLOGY.

1. Explain how the hair grows, and describe its minute structure.
2. State what you know concerning the structure and functions of the kidneys.
3. What is respiration? Explain how it is performed in man.
4. Write a short account of the functions of the nervous system.
5. Describe the structure of the skeleton of the human hand and wrist.
6. What is an epithelium? Describe the different kinds of epithelium found in the human body.
7. State what you know of the arrangement and functions of the lymphatic system.
8. Describe the structure of the human heart.

BOTANY.

1. Describe the structure and mode of growth of the stem in Monocotyledons and Dicotyledons respectively.
2. What are stomata? Describe their mode of occurrence, their structure, and their functions.
3. State what you know of the manner in which plants make use of food-materials occurring in the soil. Enumerate these materials.
4. State what you know of the relations existing between flowers and insects, and of the modifications of flowers in accordance therewith.
5. Write an account of the Scrophularineæ, with special reference to New Zealand members of the order.
6. What is meant by phyllotaxis? Explain how you would determine the phyllotaxis of a leafy shoot.
7. State what you know concerning the composition, the mode of formation, and the occurrence of starch.
8. Describe the structure of an apple, a gooseberry, a plum, a raspberry, a strawberry, and a fig.

Shorthand.—For Senior Civil Service. Time allowed: 3 hours.

INSTRUCTIONS TO SUPERVISORS.

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2. Inform candidates that when once you have commenced to dictate you cannot stop until the passage is finished.
3. Dictate the passages at the following rates of speed:—
   (*a.*) 80 words per minute.
   (*b.*) 120 " "
   (*c.*) 150 " "

N.B.—It will be well to practise reading these passages 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 into sections, each of which is to occupy a minute. The Supervisor will perhaps find it advisable to mark it off into smaller sections, each containing the number of words to be read in fifteen seconds, and to read one section in every quarter of a minute. 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.

4. Candidates are at liberty to take down one, two, or three passages, as they choose. All the passages required by candidates are to be dictated before any one begins to transcribe; and there should be as little delay as possible between the readings.
5. Inform candidates that rapidity in transcribing notes into longhand is essential, and note carefully on the transcribed copy the exact time taken in transcription. Candidates must not look at their notes while a passage that does not concern them is being read.
6. Inform them also that the clearness and accuracy of the shorthand notes (which must in every case be sent in attached to the transcript) will be taken account of by the examiner; and that they must not alter the shorthand notes after the dictation is finished.

Passages for Dictation.

(*a*.) At the rate of 80 words per minute. Takes 10 minutes

What strikes us most forcibly upon a general survey of the progress made since the Queen ascended the throne is, perhaps, the interdependence of different lines of inquiry and of practical effort. Not only do the abstract investigators borrow help from one another, but while placing new and pregnant observations at the disposal of applied science they also depend upon its advance for the means of arriving at new discoveries. Any man who strikes
1 out ideas too much in advance | of his time usually fails of his due effect. It is left for the historian to call attention to his remarkable but stillborn efforts. So it is difficult for any science to proceed very far upon its own lines unless progress is concurrently made in other departments which may at first sight seem somewhat remote. Take, for example, the enormous strides made in electrical science, both pure and applied, during the last sixty years. We
2 bridge the whole distance from | a rudely-made induction coil in the hands of a Faraday to the modern dynamos turning out currents measured by hundreds of horse-power. That immense development has become possible only through the conjunction of the chemist, the metallurgist, and the engineer with the electrician. A thousand details involving the specialised skill of many workers and discoverers in very different fields of study go to insure the high degree of
3 efficiency to which the electrician has attained. With the steam | engines of the early Victorian age the electrical output of the present day would be impossible. Had not chemical science and metallurgical skill made great advances the electrician and the engineer together would be baffled by the imperfections of their materials. Pure research in the laboratory of the Royal Institution gave the root ideas, and pure research has ever since been contributing new ideas
4 at every stage. But research has depended upon the utilisation of what it gave for the | means of enabling it to discover more. Application to practical uses of what we already know is the indispensable condition of further progress, even on the lines of abstract investigation. The practical applications of electrical science have paid back their debt to the student, both by placing at his disposal instruments of previously unattainable delicacy and by indefinitely enlarging the chemist's command over matter through the powerful agency of the electric arc.
5 By the development of the germs of sixty | years ago we have bound the Empire together, enlarged and facilitated the operations of commerce, broken down the barriers of mutual ignorance, wrested from nature her most jealously guarded secrets, and in some degree approached to her secular processes of synthesis. But the advance has been upon a wide front. The chemist, the physicist, the mathematician, the engineer, and the electrician have combined to produce results which the most daring thinker would hardly have ventured to
6 predict when Her Majesty | ascended the throne.

The very large part played by Englishmen in this advance may well consolidate our faith in the intellectual and practical ability of our race. There has been a gradual improvement in scientific education during the last sixty years, but by far the greater part of our magnificent results has been won in spite of grave difficulties. If our manufacturers have missed great
7 chances and allowed important industries to pass into the hands of foreigners, we may at | least remember that few of them had any systematic training to fit them to appreciate and utilise the work of the laboratory. It is due to rough natural sagacity and keen business faculty that so much has been done to turn to account the discoveries of original genius, not to any systematic and conscious provision of appropriate instruction. But we cannot afford any longer to trust to this haphazard management. We have lost the long start we once had,
8 and | our rivals are running us neck-and-neck. Undisciplined initiative can perform wonders, but if forces are at all evenly balanced it cannot make head against a method which co-ordinates all available resources and gives unity of direction to national effort. We have played for a considerable time with the problem of providing systematic instruction in pure and applied science, and we are still heedlessly drifting into wasteful and ineffectual makeshifts
9 which will constitute so many obstacles in the way | of thorough reform. Unless we are willing to allow the end of the Victorian age to mark a retrograde movement as distinct as the forward movement that is the glory of its prime we must bestir ourselves to place the technical education of the country on a sound basis. There is no more important problem before the nation at this moment, nor any that is more urgent. The vested interests hostile to real
10 reforms are already powerful and are growing |

(*b*.) At the rate of 120 words per minute. Takes 10 minutes.

I can add little to the eloquent terms in which the leader of the House has introduced this motion, which I beg to second: "That a humble address be presented to Her Majesty congratulating Her Majesty on the auspicious completion of the sixtieth year of her happy reign, and to assure Her Majesty that this House profoundly shares the great joys with which her people celebrate the longest, the most prosperous, and the most illustrious reign in any country, joining with them in praying earnestly for the continuance during many years of Her Majesty's life and health." I have qualifications which he does not possess, and which he will not envy
1 me—that I can recall, as if it were | yesterday, the booming of the guns which announced the accession of the Queen. It is right and fitting that an address of congratulation should be presented to the Sovereign from this House of Commons, which has the highest claim to represent the sentiment of the nation. Since the accession of the Queen, this Parliament has been placed upon a wider basis of representation. The reign of the Queen opened with a new political epoch; it began at a period when the real enfranchisement of the people had only recently commenced—in the era of reform, social, political, financial, and commercial; and there was great need in those days of such reforms. It is only those who personally recollect what
2 was | the condition of the people of this country sixty years ago who can realise the enormous

progress and improvement which have been made. We rejoice to-day, and justly rejoice, in the greatness of this Empire and the extension of the dominions of the Queen. But for the maintenance of such a vast structure there must be solid foundations at the base, and these foundations can only be found in a prosperous and contented people. (Cheers.) I am myself able to testify that it was not always so. I can remember when the people of this country were neither prosperous nor contented; when disorder was rife amongst the masses of the people, who were
3 impatient of suffering and intolerant of their | miserable lot. Any one who knows the social history of this country for the first six years of the Queen's reign—from 1837 to 1843—and remembers what the sufferings were in the great towns, and still more perhaps in the rural districts, will be able to form some conception of the marvellous improvement which has taken place in the stability of the nation, in the growth, not only of its members, but in the health and wealth, in the moral no less than the physical fibre of the people. (Cheers.) That has been a distinguishing feature, to my mind, of this auspicious reign—of people better fed, better
4 clothed, better housed, better educated; crime | diminished, and taxation decreased. That is the solid base upon which this vast Empire rests. (Cheers.) I can recall the fears of the brave, and the follies of the wise, who believed that the extension of popular power would endanger the Constitution. And yet, in these sixty years, measure after measure of democratic reform has been sanctioned, and each extension of popular right has only strengthened the Monarchy and increased the confidence of the people. Queen Victoria has never feared her people. (Cheers.) Decade after decade has passed with these reforms, and the Sovereign has never been more trusted or more revered, and, as the right honourable gentleman well indicated, this enlarged democracy has been peacefully and insensibly incorporated
5 with | the framework of an ancient Throne. We celebrate to-day, and gladly celebrate, with just pride the gathering of the representatives of our distant colonies. They are communities who went forth instinct with the same love of freedom which was native to their parent State. They carried that spirit beyond the seas, and it has borne the fruit of their self-government and self-reliance. (Cheers.) But in this memorable growth of our race and of our Empire there has presided over two generations of men one figure, which has presented to the world the British name with a noble simplicity and greatness which have
6 not been known before, and which will live for ever in the records of this nation. | Sir, it has been asked, what has been the office which the Queen has performed? That office has been the supreme tie which has bound together various classes and diverse races in these vast dominions, and which has held them in one united whole by a Sovereign partaking of the spirit of the people, and gathering them in growing affection around her throne. (Cheers.) The blessing which was invoked by the patriarchs of old was length of days and multitude of offspring. Surely, never has a Sovereign been surrounded by a more illustrious progeny both in her family and among her subjects. Her subjects are to be found on every shore, and her children's
7 children are established in every State. | There have been glorious reigns in the great traditions of this land—reigns of strife and storm, of peril and of conquest; but if I might be permitted to affix an adjective to the characteristic of this reign I should call it a sympathetic reign. (Loud cheers.) It has appealed to the heart of the nation, and it is the heart of the nation still more than its pride which speaks to-day and addresses Queen Victoria in the sixtieth year of her reign. She has made her people feel that she was the companion of their joys and the partaker of their distress, and in all their
8 fortunes—whether ill fortunes or good fortunes—her sympathies have never | been wanting in that touch of nature which makes the whole world kin. (Cheers.) That has always been present in the case of the Queen in a sense unknown before, in that the present Sovereign can be justly called the mother of her people. (Loud cheers.) In the fulness of her years and of her grace those children gather around her to-day with the sentiment of filial devotion. The Queen has passed through bitter sorrows, and none so great as that which took from her the wise counsellor and consort who supported with her the burden of her Empire in former days; but
9 in all her desolation she never forgot her care and duty to the nation. (Cheers.) It is | not for me to attempt to portray a character known, admired, and loved by all. Those who have served her in any capacity will ever cherish the memory of her gracious kindness, of her upright justice, her ripe experience, and her constitutional fidelity. (Cheers.) Her public as her private life has been a lesson to all in every station. First in virtue as first in place, she has added dignity to a mighty throne, and deserves the passionate loyalty of a free people. She will leave to those who come after her larger dominions and a happier people; but what is more, she will bequeath to future time the imperishable inheritance of a sovereign example.
10 (Loud and prolonged cheers.) |

(*c.*) At the rate of 150 words per minute. Takes 5 minutes.

Athens has always been audacious in the extreme, and her defiant little navy has of late been making quite a stir upon the Mediterranean. But the Athenian fleets of to-day are insignificant, both in numbers and their relative strength, compared with those which the ancient city sent out on the same waters. Of course the individual ships are bigger now, though not so much larger as many imagine. But the Athens of Pericles feared no "intervention of the Powers," for she was herself the greatest Power of them all. Long before England she boasted of the strength of her "wooden walls," and was the almost undisputed mistress of the sea. In her best days her admirals feared no odds, and always held their own, sometimes routing fleets that outnumbered their own fully three to one.

How this marvellous superiority was attained—how the old Greek warship was built and manned | and handled in battle—is a curious and interesting problem. Without going into pedantic and confusing technicalities I shall endeavour to make plain the nature of the vessel

and the tactics that brought success to these Yankees of the ancient world—for such the Athenians really were.

When we read that an old Greek galley was propelled by means of oars, we naturally conclude that it was a slow and clumsy affair; but this is far from the truth. In fact, a first-class Athenian man-of-war, or "trireme," was a light, trim craft, built upon graceful lines, and in speed no contemptible rival even of the modern steamship. One of our great "ocean greyhounds," with its enormous panting engines, consuming coal so fast that the parboiled stokers can scarcely shovel it in fast enough, is able by strenuous effort to make slightly more than
2 twenty miles an hour. | A trireme, under the most favourable conditions, could probably make about fifteen miles an hour—a rate quite equal to that of any ordinary steamboat. This is certainly surprising. How was such an achievement possible?

It will perhaps seem less incredible when we consider the speed which may be reached in a racing shell driven by the muscle of trained oarsmen; but the cases are not closely parallel. The wonderful effectiveness of the trireme was secured by a system which brought to bear fully three times the number of oars which can be utilised in a boat of the same length to-day.

This method was developed slowly. The Homeric warriors seem to have made their perilous voyages in open boats urged forward by a long line of rowers ranged on each side in
3 single file—about fifty in all. Then it was found that much power could be gained by placing | a second tier of oarsmen above the first on raised benches, with oars long enough to reach the water just beyond the blades of those below; and by this means the possibilities of speed were much increased. Such a craft was called a bireme; the trireme soon followed.

In this perfected form three tiers or "banks" of oars were used on each side. The men were given barely room enough to make an effective stroke; they were packed together, rank upon rank, as closely as the soldiers massed in the phalanx which made the Greeks invincible on shore during the same period, and the sides of the ship bristled with oars as thickly as the battle-front with spears. The oarsmen in each tier were just three feet apart; but this gives a
4 very imperfect idea of the compactness of the whole array. Let us begin with the man nearest | the bow in the topmost bank. Almost between his knees, two feet below and one foot toward the stern, sat the corresponding oarsman of the second bank. Deep in the hold, two feet lower and one foot further aft, sat his fellow in the third and last bank. The full rowing crew was nearly 200, and, as all pulled in unison, the combined strength of so many brawny arms would drive the big rowboat onward with a speed almost equalling that of a screw propeller.

Neither were the oars of such length and weight as to be unmanageable. Those of the highest bank were only about fourteen feet long, while the longest now in use in the British navy measure eighteen feet. The oars of the lowest bank were barely seven and a half feet in
5 length—much shorter than those commonly used in a racing shell nowadays. |

Shorthand.—For Junior Civil Service. Time allowed: 3 hours.

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(*b.*) 80 " "
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PASSAGES FOR DICTATION.

(*a.*) At the rate of 50 words per minute. Takes 10 minutes.

A very remarkable adventure of two young men upon the River Mersey has come to light. It appears that on Monday evening the two young men in question, whose names are Dawson
1 and Dingwall, left Tranmere in a small dinghey for the purpose of visiting a chum on board a | steamer lying off New Ferry. It was nearly dark when they left, and they found a strong tide

making, with half a gale blowing from the westward. They were both, however, confident as to their boatmanship, and determined to proceed. They had not got far before they were
2 in difficulties, | and, when some distance off the steamer for which they were making, the dinghey capsized. Happily the boat floated, and the two young men succeeded in getting hold of her. They shouted for assistance, and those on board the steamer evidently caught the
3 alarm, for the two castaways saw a | boat launched and manned. The strong wind, however, soon drowned their voices, and they drifted away to the southward with the flood tide before they were seen by the rescuing boat. The current set them towards the Garston side
4 of the river. Fortunately, both young men were strong swimmers, and | the weather and water being not very cold, they were able, by clinging to the capsized boat, to keep afloat, but they dared not attempt to clamber into her as she could not have sustained their joint weight.
5 Ultimately the two young fellows came within hail of several schooners lying | at anchor, but, being too exhausted for much shouting, they failed to attract notice. Dawson at length determined to leave his companion with the boat and strike out for the shore. This he did, and, after a desperate struggle, succeeded in landing on the beach at Grassendale. It was
6 now | some time after midnight. He saw lights in a large house close to the shore, knocked at the door, and reported his adventures. He was most kindly received by the owner, refreshed, and sent to bed, his clothes being also dried. The next morning he was natur-
7 ally very anxious about | his companion and was early down on the shore. There he saw a boat approaching from a schooner some distance out. The boat made for the shore, and out jumped Dingwall, who waded ashore through the mud, bringing up the dinghey. It can be
8 well imagined that the meeting was | a relief to both, for Dingwall had not expected that Dawson could reach the shore, and Dawson was equally uncertain as to Dingwall's fate. Dingwall's story was that shortly after Dawson left him he drifted against the anchor chain of
9 a schooner, when, summoning all his strength, he shouted for | help, and fortunately was heard. He was taken on board and made as comfortable as circumstances would permit. Both young men were considerably dilapidated in apparel after their adventure, and their losses in odds and ends of property were considerable, but they appeared to have suffered little or nothing in
10 health. |

(*b.*) At the rate of 80 words per minute. Takes 10 minutes.

The chief point you refer to against the abolition is the fact that a large number of debtors pay when committal orders are made against them, and from this you seem to infer that they must have the money by them, but are dishonestly withholding it. This is, I need hardly say, an entire fallacy. I hardly think it would occur in one out of 500 cases, and when it has
1 occurred in my experience the debtors have | not been of the artisan class, which comprises 90 per cent. of those affected by this Act. In the first place, it must be recollected that committal orders are only applied for when the debtor has no goods or chattels to distrain upon; and is it likely that such debtors could or would have money hidden in some secret place when they
2 had not even a chest of drawers in their possession to place it in, and would they | wilfully withhold it until they had gone through the disgrace of publicly having committal orders made against them? Any one who sees the miserable wretches who appear, or more often the poor wives who represent them, must unhesitatingly come to the conclusion that this idea is a fallacy and has no foundation in fact.

It is an easy matter to discover the place where the money comes from. The order of the
3 Court generally is, "Twenty-one or fourteen | days' imprisonment; keep it back for twenty-one or fourteen days." The plaintiff can select his time for enforcing the order, and those who are experienced in the art take care to do it just at or about the time when the poor debtor receives his wages, and, having the money in his possession when arrested, he naturally parts with it rather than face the degradation of entering a prison-cell. But whose money is this?
4 In reality it is | the money of another tradesman, who has trusted the debtor with the necessaries of life during the fourteen or twenty-one days, as the case may be, that he took to earn the money, and the debtor, who himself had every desire to be honest towards such tradesman, is made to appear dishonest by this process of law, created by the British Parliament and enforced by Her Majesty's Courts of law. In other cases, friends, amongst whom is
5 frequently | the tradesman the debtor is then dealing with, come to the rescue and lend the money; but under these circumstances the debtor places himself under a new obligation, which he is often unable to discharge. It will be seen from this that the Act does not benefit even the tradesmen themselves, for the debts they allow are often contracted solely by reason of the existence of this Act of Parliament.

6 The very idea that when debts are sold—and this | practice is carried out to a very large extent—the body of the debtor is legally transferred to the assignee as the only security for the debt is repugnant to the feeling of every true Briton, who has always abhorred slavery or anything in the nature of it.

With respect to the construction placed by County Court Judges upon the Act, I should hardly care to offer an opinion. They are competent and practical Judges, and generally dis-
7 charge their duties | consistently with law and justice. If they err in construing the Act it is probably owing to the fact that by having so many thousands of applications for committal before them every year they have become hardened to a practice which was adopted when many of the present Judges were appointed, and possibly they have never considered that the Act is capable of a different construction. If, however, one reads the discussion in Parliament when
8 the Act of 1869 | was passed, it is quite evident that Parliament at that time never thought that the Act would be enforced unless the debtor, at the time the order for committal was made, had either in his possession or under his control the means to satisfy it. I believe it was never intended that a man's future energy should be taxed in order to save him from gaol. The

order that is usually made in stating "that it is to be kept | back for a stated time" shows that it is in the mind of the Judge who commits that the debtor has not got the money at the time, but may earn it. If, on the contrary, the Judge believes the debtor has the money at the time the order is made, he must know the debtor would be much more likely to pay it on that day than in three weeks hence; but I do not blame County Court Judges.

(*c.*) At the rate of 100 words per minute. Takes 5 minutes.

After some preliminary proceedings Mr. Clay rose to make a motion, presenting the credentials of his successor. Advancing a few paces toward the front of the chamber he stood silent a moment, as if loth, now that the time had arrived, to make his exit from public life and to take leave of his colleagues. Presently, in a voice that bespoke deep emotion, the "Great Commoner" began:—

"And now allow me to announce formally and officially my retirement from the Senate of the United States, and to present the last motion I shall ever make to that body. But, before | I make that motion, I trust I shall be pardoned if I avail myself of the opportunity to make a few observations which are suggested to my mind by the present occasion. * * Full of attraction as a seat in this Senate is, sufficient to fill the aspirations of the most ambitious heart," Mr. Clay continued, "I have long determined to forego it, and to seek that repose which can only be enjoyed in the shade of private life, and amid the calm pleasures which belong to the beloved word 'home.' * *

"From 1806, the period of my entry | on this noble theatre, with short intervals, to the present time, I have been engaged in the public councils, at home and abroad. Of the nature of the services rendered during that long and arduous period of my life it does not become me to speak; history, if she deigns to notice me, or posterity, if the recollections of my humble actions be transmitted to posterity, are the best, the truest, the most impartial judges. When death has closed this scene, then her sentence will be pronounced, and to that I appeal and refer myself.

"My acts and my public | conduct are affairs subject to the criticism and judgment of my fellow-men, but the private motives by which they have been prompted, they are known only to the Great Searcher of the human heart," he said, pointing his finger heavenward, "and to myself; and I trust I may be pardoned for repeating a declaration made some thirteen years ago, that whatever errors—and I doubt not they have been many—may be discovered in a review of my public service to the country, I can, with unshaken confidence, appeal to the Divine Arbiter for the truth of the declaration | that I have been influenced by no impure purposes, no personal aggrandisement, but that in all my public acts I have had a sole and single eye, and a warm and devoted heart, devoted and dedicated to what, in my judgment, I believed to be the true interests of my beloved country.

"During that long period, however, I have not escaped the fate of other public men, nor failed to incur censure and detraction of the blackest, most unrelenting, and most malignant character, and, though not always insensible to the pain it was meant to inflict, I have borne it."

Maori.—For Senior and Junior Civil Service. Time allowed: 3 hours.

Answer the following:—

Give three adjectives in which a plural is formed. State the meaning of the words you give

Give the several meanings of the verb *hemo*.

Give verbs that have passive terminations as follows: *a, hia, mia, ngia, ina, rina.* Give the meaning of each verb.

Put the following into English:—

Ko te tangata tenei i patua e Hone.
No tatou tenei kainga.
Katahi ano te potae pai no Heni.
No te Mane i haere mai ai ia i Heretaunga.
Mo te aha koe i mauahara tonu ai ki a au?
Haria atu, mana e whakapai, mana e whakahe.
Aratakina mai te poaka, haunga te mea purepure
Me poa te manu ki te kaanga ka mau ai.

Put the following into Maori:—

He went, so did I.
We have to do what we are told.
You ought to do the work that has been set you, and quickly.
My little boy can read.
He is far off, but you could write to him.

Translate the following into Maori:—

In the old old days, when the Maoris had New Zealand all to themselves, it was not easy to travel from one place to another. There were then no good roads on which persons could travel by land, and no steamers to take them by sea. In those days, if people wanted to make a voyage they had to use great canoes. These were made of single large trees. Sometimes a huge totara tree was split and made into two canoes. The canoe was worked into shape with greenstone adzes, for the Maoris had no iron in those old times. The canoe was first hollowed out roughly by means of fire, and then it was made smooth with the adze. It was only the lower part of the canoe that was made thus; and this part could be very well used just as it

was in rivers or arms of the sea where the water was smooth, but it was of no use on the ocean or anywhere where the sea was rough. The wood of which the canoe was made was heavy, and the canoe would be so low in the water that a wave of any great size would swamp it at once. To get over this difficulty the Maoris used to bore small holes around the upper part of the canoe, and fasten boards on its sides by means of laces passed through these holes. In this way they formed bulwarks, and so made their canoes pretty safe even in a rough sea. But there was no comfort in them. The canoes could not be kept from leaking, and the men had to bale the water out constantly. On a voyage every one had to work very hard to make the canoe go and keep the water out of her.

Translate the following into English :—

A ka takiri te ata katahi ano ka tukua mai te ngohi o te huka ki uta, katahi ano ka tahuri te Patupaiarehe ki te tango i nga ngohi ki uta, ka eke hoki te kupenga ki uta. Kaore e peneitia tana ika me ta te tangata Maori e tuhaina—he mea huri noa iho ki te tui—me te tui, me te karanga " Tenei po korua mai, ke whakakowatawata te ra " me te tui ano i te ika. Ko Kahukura e tui ana, ko te pona o te tui a Kahukura, he mea titorea te pona, a ka pau te tui te whakaeke ki te ngohi, ka hapainga te tui, e kore e roko hapainga, ka horo ano nga ngohi ki raro, ka tahuri mai ano tera ki te tui, ka haere mai ano ki te pona i te tui a Kahukura, ka mau te pona pahemo rawa ake te kaipona. Te maunga atu ano a Kahukura wetekina ake ano, titoreatia ake ano te tui, ka tui ano, a ka maha, ka hapainga ano e Kahukura, ka warea ano ki te tui, na wai a ka awatea, ka kitea te kanohi o te tangata. Ka kite i a Kahukura, katahi ano ka whati, ka mahue nga ika, ka mahue te kupenga, ka mahue nga waka, ko nga waka he korari. Heoi ano, ka whati tera te Patupaiarehe ki tona kainga, ka mahue te kupenga—ko te kupenga he wiwi. Heoi ano, ka whati tera te Tahurangi—ko te rua tena o nga ingoa o tera Iwi. Katahi ano ka kitea te ta o te kupenga, ka mahue iho te kupenga nei, ka riro mai i a Kahukura hei tauira mana, ka akona e ia ki ana tamariki, na reira i mohio ai nga tapuna o te tangata Maori ki te ta kupenga, a mohio noa nei.

Trigonometry.—For Senior Civil Service. Time allowed; 3 hours.

1. What is indicated in trigonometry by the symbol π?

Find the circular measure of a right angle.

Find the length of arc of a circle of radius one mile subtending an angle 1° 15′ 40″ at the centre.

2. Express Sin θ in terms of Cot θ, and Cos θ in terms of Cosec θ.

Find the relations between the trigonometrical ratios of 90°+A and those of A.

Also find the values of Sin 150°, Cos 225°, and Tan 600°; and write down the general values of $\text{Sin}^{-1}\frac{1}{2}$, $\text{Cos}^{-1}\frac{1}{2}$, and $\text{Tan}^{-1}\frac{1}{\sqrt{3}}$.

3. Establish the following formulæ :—

(*a*) $\text{Sin}(\text{P}-\text{Q}) = \text{Sin P Cos Q} - \text{Cos P Sin Q}$;

(*b*) $\text{Sin } 3\text{P} = 3\text{ Sin P} - 4\text{ Sin}^3\text{P}$;

(*c*) $\text{Sin}\frac{\text{A}}{2} = \sqrt{\frac{(s-b)(s-c)}{bc}}$;

(*d*) $\frac{\text{Sin A}}{a} = \frac{\text{Sin B}}{b} = \frac{\text{Sin C}}{c} = \frac{1}{2\text{R}}$.

4. Establish the following identities :—

(*a*) $\frac{1+\text{Sin}\,\theta-\text{Cos}\,\theta}{1+\text{Sin}\,\theta+\text{Cos}\,\theta} = \text{Tan}\frac{\theta}{2}$;

(*b*) $\text{Cos}^2\theta+\text{Cos}^2(\theta+\frac{2\pi}{3})+\text{Cos}^2(\theta+\frac{4\pi}{3}) = \frac{3}{2}$;

(*c*) $\text{Cot}^{-1}3+\text{Sin}^{-1}\frac{1}{\sqrt{5}} = \frac{\pi}{4}$;

And solve the equation

$$\text{Cos } 2\theta = 2\text{ Sin}^2\theta,$$

5. Describe and prove the properties of *common* logarithms.

Given that one cubic foot of granite weighs 2,660 ounces, find the edge of a cubical block of granite weighing 250 tons.

[Log. 19=1·2787536; log. 17988=4·2549901, diff. for 1=243.]

6. Describe the method of the solution of a triangle when two sides and the angle contained by them are given.

A man on the top of a tower 100 ft. high observes one object south at an angle of depression of 30°, and another north-east at the same angle of depression: what is the distance between the objects?

7. Show that the area of a triangle is $\frac{1}{2}bc$ Sin A, and transform this into $\sqrt{s(s-a)(s-b)(s-c)}$ by using $\text{Cos A} = \frac{b^2+c^2-a^2}{2bc}$.

Show that the area of a quadrilateral is $\frac{1}{2}dd^1$ Sin θ where d, d^1 are the lengths of the diagonals and θ is the angle between them.

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