EDUCATION: TEACHERS' AND CIVIL SERVICE EXAMINATIONS.

[In Continuation of E.-1A, 1891.]

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, 21st March, 1892.

I have the honour to report that the annual examination of candidates for teachers' certificates took place in the month of January at the time prescribed by regulation, and that, as usual, the senior and junior examinations for the Civil Service were conducted under the same management and supervision.

The fees received amount to £686 4s., and the expenses of the examinations (including prizes for drawing and elementary science) to £669 19s. 2d.

The number of candidates entered for examination was 950. The candidates for the teachers' examinations were 700: 186 for Class D, 109 "partial pass" candidates to complete the examina-tion for Class D, 232 for Class E, and 173 "partial pass" candidates to complete the examination for Class E. Of these 700 candidates, 169 had already passed for Class E, and were seeking promotion to Class D, and 2 others held provisional certificates which they desired to exchange for full certificates. Of the remaining number—529—there were 153 teachers in the service of the Boards of Education; 190 pupil-teachers; 80 normal-school students in training; 52 persons who had ceased to be connected with the public-school system as teachers, pupil-teachers, or normal-school students; and 54 who had not been in any such way connected with the system. Of the whole number of 700 candidates, 454 have improved their status through this examina-tion, 116 having passed for Class D and 203 for Class E, while 65 (including 15 of those who passed for Class E) obtained a "partial pass" for Class D, and 85 obtained a "partial pass" for Class E. I enclose a list of passes and "partial passes," which, owing to the inclusion of some additional results of the recent matriculation examination, differs slightly from the list published in the *Gazette* of the 25th February. examinations were 700: 186 for Class D, 109 "partial pass" candidates to complete the examina-

Gazette of the 25th February.

The following table exhibits at one view the facts already stated with respect to the success of the candidates at the examination for teachers' certificates, and some other facts that are not without interest. It shows, for example, that out of 80 normal-school students only five absolutely failed :-

Status before Examination.		Number of Candidates.	Results of the Examination.					
			Pass for D.	Pass for E.	Pass for E, and Partial Pass for D.		Partial Pass for E.	Total.
Passed before for E Not passed before—	•••	171	52			23		75
		153	11	57	· 1	6	14	89
Pupil-teachers		190	10	86	3	6	47	152
		80	40	9	10	13	3	75
Retired	•••	52	2	20	2		10	34
Outside candidates	•••	54	1	15	•••	1	9	26
Totals		700	116	187	16	49	83	451

The examination has added 34 names to the list of "failed" candidates, and has removed 60 from the list, reducing the number from 625 to 599.

Nine candidates availed themselves of the opportunity afforded to pupil-teachers to take up one

branch of drawing in each year of their course, and four of these satisfied the examiner. For the Senior Civil Service 50 candidates entered, 12 of them to complete examination partially passed in a previous year. There were 190 candidates for the Junior Civil Service examination, besides one who entered for shorthand only. The results were published in the Gazette of the 25th February.

I enclose copies of the examination papers.

The Hon. the Minister of Education.

I have, &c., WM. JAS, HABENS,

1-E. 1A.

EXAMINATION LISTS.

1. PASSED FOR CLASS C (University status being taken into account). Wellington-McDermid, George Scott Murray. PASSED FOR CLASS D. Aucklandkland— Blackman, Harold. Collins, William. Herbert, Mary Elizabeth. Hill, William Wilfred. Hooper, William Wilfred. Jones-Parry, Robert. McIntosh, William Nepean. McKenzie, Norman Roderick. Ormiston, Edward Nicolls. Pain. John. Pain, John. Renshaw, Mary Ellen. Thwaites, George. Worsley, George Arthur. Taranaki-Young, John. Wanganui-Rockel, Robert Hermann. Wellington-Britland, Walter. Broome, Emily Rose. Burns, Andrew Nisbet. Cowles, Jabez Alfred. Darroch, Robert. Hall, Alice Louise. Riddick, Bessie. Hawke's Bay-Vae's Day— Caughley, John. Jardine, Edmund. McClure, William David. Rudman, Robert Edgar. Webb, Mary Flora. Marlborough-Farmar, Mary. Matthews, Laura. Nelson Douglas, Arthur. Ingall, Ada Georgina Margaret. Johnson, Amy Frances. Smith, Frank Hedley. Westland-Harrop, Arthur Neville. Williams, Henry. Williams, Henry. North Canterbury — Adams, John Joseph. Baird, John Henry. Blake, Agnes Bertha. Bower, Catherine Alborough. Carter, Ada Alice. Cookson, Walter George. Craddock, Agnes Amelia. Cromie, George. Durose, Florence. Glanville, James Edward. Grand, Ellen. Green, Jeannie Alexandra. Harvey, Edith Mary. Hight, James. Irvine, Thomas. Izett, James Millar. Jackson, Joseph. Izett, James Millar. Jackson, Joseph. Kennedy, Hans. Lancaster, William. Le Cocq, Walter Alfred. McHaftie, Catherine Anne. McIlroy, Robert Logan. Menzies, Annie Jane. Menzies, Peter. Morrison, Mary Jane. Moses, William Henry. Powell, Helen Adelaide. Revell, Dora. Revell, Dora. Sheard, Fanny. Smith, William James. Walker, Joseph William Atha. Watson, Claudia. Wilkinson, Henry Robert. Bruce, Anne.

South Canterbury—*continued.* Cartwright, Maud Jane. McIlroy, Annie Logan. Strong, Theophilus Benjamin. Sutherland, Donella. Otago Alexander, Mary. Alexander, Mary. Bagley, Benjamin. Browne, William Frederick. Carson, Mary Desmond. Chalmer, Clara Ellen. Closs, James Gunning. Cole, Robert. Devidem Andere Davidson, Andrew. Donald, James. Galland, James. Gillies, Agness Wilson. Gow, Alexander. Green, Mabel Ashley. Hannah, Kate Isobel. Harlow, Elizabeth Margaret. Hilgendorf, Frederick William. MacLymont, Mary Elsie. McNab, Jane Ann. Mitchell, George Wylie. Moore, Marion. Moore, Marion. Nelson, James. Nelson, Jessie Russell. Pringle, John. Robertson, William. Sherriff, Margaret Rosina. Shore, Mary Thomson. Sinclair, Mary Anne. Smith, Charles Albert. Smyth, Margaret. Snow, Charles Buchanan Steel, Margaret. Stewart, David. Strachan, David Anderson. Sumpter, Clara. Tamblyn, Joseph. Treseder, Selina. Wallace, John Robert. Walsh, James. Warden, Charles Howard. Wilson, Robert. Woods, Mary. Southland-Cameron, Hugh MacLeod. Gilchrist, William. Learmonth, Robert. PASSED FOR CLASS E. Auckland----Adams, Annie. Akers, Margaret. Algie, Sarah Eleanor Muir. Baker, Ida. Barlow, Miriam Violette. Berry, Gertrude. Brinsden, Maria Susan Cecilia. Broup. Marra ret Broun, Margaret. Brown, Edith Ellen. Buchanan, Margaret Louisa. Campbell, Donald Roderick Frank. Carnachan, Blanche Eleanor. Chapman, Edith Maude. Connor, William John. Granch, Maria. Davies, Annie. Davison, Matilda. Devin, Annie Maria. Dunne, Sarah Mary. Edwards, Mary Elizabeth. Elliott, Joseph Ernest. Fielder, Elizabeth Mary. Flatt, Caroline Josephine. Gibbons, Annie Langford. Giffney, John Turner. Goldsworthy, Elizabeth Mary. Grant, Elsie Donaldson. Greatbatch, Lilian La Motte. Hamlin, Alethea Sophia Osborne. Harris, Richard John. Haverfield, Rosa Louisa Mary. Hawkins, Elizabeth Frances. Hill, Arthur John. Hoe, Mary.

Auckland—continued. Holloway, Eveline Matilda. Hunter, Margaret. Johns, William Elgar. Johnston, Mary Jane. Johnston, Mary Jane. Johnston, Sarah Anne. Jourdain, Helen Melicent. Kay, William. Keaney, Annie. Keaney, Mary. Kissling, Hilda Mary Evanson. Larritt, Emma Jane. Latimer, Adelaide. Lynas, Jane Johnston. Lynas, Jane Johnston. McKee, Fanny Jane. Newbegin, Annie. Patterson, Matilda Louisa. Phillips, John Stephens. Quinlan, William Henry. Reynolds, Alice Jane. Rice, Thomas Dominic. Robb, Marion Alexandrina. Russell, Elizabeth Anne. Russell, Mardalen Laura. Russell, Magdalen Laura. Sandes, Bessie Henrietta. Simmonds, William. Smith, Florence M. Smith, Margaret Jemima. Tidd, Emily Eleanor. Tidmarsh, Henry Herbert Collins. Walter, Helen Jane. Wily, Harry Herbert Daniel. Taranaki-Chapman, Lucy. Gow, Margaret. Smith, Frances Mary. Wanganui-Ballantine, Elizabeth Clara. Cheyne, Jemima. Ferguson, Richard Hay. Hollis, Kate Mary. Innes, Nellie Curtis. Keeble, Marion Edith. Low, Elizabeth Deans. McCaul, Jessie. McLean, Annie Letitia. McNeill, Elizabeth Ann. Mason, Maud Elizabeth. O'Brien, Lucy Mary. Stansell, William Frederick. Strombom, Frederick. Wellington-Brann, Grace Ludlow. Brann, Kate Marcia. Bunting, Elizabeth. Bunting, Nelson D'Arcy. Davies, Jane Eleanor. Edmonds, Herbert. Fraser, Sara. George, Marion Alison. Hutchens, Emmeline Emma Rosetta. McKenzie, Mary. Meek, Ellen Mary. Munro, Isabella. Robinson, Alice. Rothenberg, Annie Wright, Mary Matilda. Zohrab, Ravenna Frances Marian. Hawke's Bay-Banks, Annie. Broberg, Felicia. Chegwidden, Rose. King, Clara. Magill, Mary. Miller, Isabella Agnes. Marlborough-Logan, Lily Margareth. Robinson, Herbert John. Williams, Alice Mary King. Wrigley, Annie. Nelson-Ainsworth, Lilian Ada Jane. Austin, William. Flavell, Elizabeth Anne. Gilbert, Martha Jane. Jordan, Fanny Sarah. Kennedy, John A. Lloyd, William. Murray, Alice Crawford Gordon. Street, Emily. Thorn, Eliza.

Wray, Jane.

Grey Easson, Edith Amy. Harrison, Henry. Neilley, Martha Roulston. Patrick, Charles John. Westland— Cran, Elizabeth Bell. Crowley, Annie Mechtildes Josephine. Moore, Mary Maggie. Potts, Mary Jardine. North Canterbury-Alexander, Anne Elizabeth. Barber, Minnie. Brock, Janet. Brock, Marina. Connal, Martha Elizabeth. Cook, Alice Jane. Cottrell, Fanny. Denne, Eliza. Dow, Agnes Stewart. Dumaresq, Herbert Nesbit. Dyson, Sarah Elizabeth. Edkins, Catherine Grace. Ewenson, Sara Jamieson. Flesher, Margaret Maude Elizabeth. Gilmour, Ruth. Glanville, Emily Hayward. Grainger, Martha Elizabeth. McGregor, Elizabeth Jane. McKee, Helen. O'Shaughnessy, Bernard. Peach, Constance Mary. Rutherford, Elizabeth Jane. Sinclair, David. Thompson, Ethel. Wallace, Elizabeth Annie South Canterbury— Bruce, Mary Butcher. Hawke, Frances. Mahan, Sarah Isabella. Otago, Aitchison, Louisa Mary. Alexander, Annie Macfarlane. Barnett, Annie Hamilton. Bee, John Guthrie. Bell, Ellen Hay. Eagan, Victoria Winifred. Falconer, Margaret Jane. Fowler, Eleanor Marion. Hosking, George Frederick Charles. Luscombe, Blanche. King, Jane. McCallum, Maria Menzies. MacKellar, Sarah Elizabeth. McLay, James. McLean, Grace. Martin, Donella. Millard, Mary Ann. Palmer, Ellen Harriet. Ralston, Mary. Robertson, Anna Maude. Robertson, Alexander George. Scott, Robert. Smith, William. Smyth, Wilhelmina. Stenhouse, Robert Anderson. Stewart, Harry Cornfoot. Thompson, Marion. Trayes, Catherine Isabella. Turkington, Samuel. White, Mary Eliza. Wilkinson, Elizabeth Jane. Williams, Susan Jane Hannah. Southland-Carnahan, Jessie McPherson. Elwell, Mary Isabella. Fraser, Jeanette. Hassing, George Magnus. Lea, William Samuel. Lind, Martha. McDonnell, Bedelia Mary. McKillop, David Sutherland. McKinnon, John. Macpherson, Margaret. Muray, Elizabeth. Russell, Jeanie. Stevens, Bertha Emmeline. Wilkins, Lily.

Williams, William Jones.

OBTAINED PARTIAL PASS FOR CLASS D. Auckland Bayly, Jessie J. Davies, William Charles. Dean, James. Dixon, Joseph Francis. Durham, Harry James. McKay, Norman Donald. Mitchell, Marion Gertrude Florence. Short, Arthur. Shroff, Alfred Honey. Tuthill, Mary. Walters, Amelia Jane. Wanganui— Ferguson, Richard Hay. Payne, Henry M. Watkin, Leonard James. Wellington-Jones, Ernest Broderick. Worboys, Joseph Harrison. Marlborough-Millington, Emily Helen. Pritchard, Florence. Nelson-Forsyth, Donald Eric. Warnock, Selina Maude. Grey Gloy, John Frederick. O'Flynn, Francis Edward. North Canterbury-Baldwin, Myra. Bradwell, Caroline. Brocklehurst, Lysia. Budden, Amy Hanson. Cottrell, Fanny. Cutler, Elizabeth Harriet. Dixon, Emma. Dyson, Sarah Elizabeth. Flesher, Margaret Maude Elizabeth. Howard, Lucy Alice. Kain, John. Lorimer, Elizabeth. Morrow, Jeannie Annie. Orr, Emma Amelia. O'Shaughnessy, Bernard. Petrie, Flora. Thompson, Ethel. Wood, Edith Ellis. Bruce, Elizabeth. McLeod, John (iv). Otago Chesney, Andrew. Clark, Hugh. Dench, Violet Eliza Martha. Evans, Ellen. Falconer, Margaret Jane. Gibb, Helen Cunningham. Luscombe, Blanche. McCallum, Maria Menzies. MacKellar, Sarah Elizabeth. McLay, James. McLean, Grace. Martin, Donella. Martin, Donena. Robertson, Alexander George. Robertson, James. Scott, Robert. Slater, Jemima. Smith, Edward. Thompson, Marion. Thomson, Jane Hamilton. Southland-Meiklejohn, John. McKinnon, John. Sangster, Lewis. OBTAINED PARTIAL PASS FOR CLASS E Auckland-Beale, Catherine Jane. Byles, Frank Roussel. Catran, Mary Emily. Couldrey, Florence. Cousins, Herbert Glanville. Glasson, Hedley Evans. Hudson, John Holmes. Hutchinson, Frances Sarah. Johnston, James Harvey. Jowitt, Mabel. McEnteer, Mary. Mackenzie, Flora.

Auckland—continued. Mandeno, Helen Lloyd. Masefield, Elizabeth. Mathieson, Joann. Shroff, Kate Sherwin. Taranaki-Daveney, William Alfred James. Gayne, Violet Emily. Rennell, Adelaide. Wanganui-McDonald, Isabella. McIntyre, Jessie. Martin, Donald. Mason, Frederick William. Prendergast, Alicia. Staffan, Mary McKay. Wellington-Boulcott, Henrietta. Cooper, Emily Margaret. Evans, Henrietta Mabel. Hobbs, Alice. Hutchen, Jessie Kinmond. Kean, Annie Walker. Newton, Mary, Olson, Agnes Mary. Rowntree, William Walker. Sage, Edith Mary. Scott, Eliza. Ussher, Martha Jane. Hawke's Bay wke's Bay— Caughley, Christina Jane. Denholm, Lily Harriet. Faram, Frederick Thomas. Garry, Edith Helen. Jones, Mary. Kuhtze, Miriam. Palmer, Helen. Smith, Isabel. Son— Nelson-Burnett, Isobel Alexandra. Clifford, Rose Emily. Croucher, Minnie Jane. Giblin, Elizabeth Maude. Huddleston, Herman Bruce. Maloney, John William. Martin, Annie. Salmond, Annie. Salmond, Jessie. Young, William Jonathan. Grey 9— Patrick, John Henry. Rundle, William Arthur. Westland— Crowley, Elizabeth Leo. Lamason, Barbara Mary Whelan, Elizabeth Cecilia. North Canterbury Alcorn, Ethel. Banks, Donald. Colthart, Agnes Eliza. Craig, Cecilia. Hall, Winter Amos. Howie, Isabella. Lorimer, Elizabeth. Morrow, Jeannie Annie. Mounsey, Sarah. Ormandy, Dora Bartlett. Ryan, Edith Ellen. Sayers, May. Tulley, Gertrude Emily. Weastell, John Arthur. Webb, Fanny Aurelia. South Canterbury Beattie, Annie. Colbert, James. Fifield, Amy Elizabeth. Irwin, Robert. Otago-. Birch, Annie. Falck, Henrietta. Fish, Kate Edith. Murray, Ethel May. Slater, Jemima. White, Elizabeth. Southland-Greenslade, Jessie. Hanning, Minnie Louisa. Hiddleston, Archibald Hutton. Jameson, Mary. McClure, Alfred. McLeod, Alexander George. Miller, James. Pattison, Helen.

Arithmetic-

Class D. Experimental Science-Smyth, Margaret, Otago, first prize. Bringle, John, Otago, second prize. Burke, Julia, Otago, Caughley, John, Hawke's Bay, Classes D and E. Drawing Lindsay, James, South Canterbury, first prize. Law, Henry, Taranaki, second prize. Renshaw, Mary Ellen, Auckland, third prize. IV.-SPECIAL MENTION. Class D. English-Blake, Agnes Bertha, North Canterbury. Dean, James, Auckland. Orr, Emma Amelia, North Canterbury. Arithmeticnmeuc— Blake, Agnes Bertha, North Canterbury. Brocklehurst, Lysia, North Canterbury. Darroch, Robert, Wellington. Lancaster, William, North Canterbury. Meiklejohn, John, Southland. Renshaw, Mary Ellen, Auckland. Short, Arthur, Auckland. Walters, Amelia Jane, Auckland. Geography-Douglas, Arthur, Nelson. Watkin, Leonard James, Wanganui. History-Burns, Andrew Nisbet, Wellington. Burns, Andrew Nisbet, Wellington. Gilchrist, William, Southland. Elementary Experimental Science— Burke, Julia, Otago. Burns, Andrew Nisbet, Wellington. Caughley, John, Hawke's Bay. Davies, William Charles, Auckland. Dean, James, Auckland. Donald, James, Otago. Forsyth, Donald Eric, Nelson. Gilchrist, William, Southland. Gloy. John Frederick, Grev. Gloy, John Frederick, Grey. Grand, Ellen, North Canterbury. Love, John, Otago. McIlroy, Robert Logan, North Canterbury. Martin, William George, Hawke's Bay. Menzies, Peter, North Canterbury. Pringle, John, Otago. Scott, Robert, Otago. Shore, Mary Thomson, Otago. Sinclair, Mary Anne, Otago. Sirrachan, David Anderson, Otago. Tamblyn, Joseph, Otago. Webb, Mary Flora, Hawke's Bay. in-Gloy, John Frederick, Grey. Latin Blake, Agnes Bertha, North Canterbury. Craddock, Agnes Amelia, North Canterbury. Douglas, Arthur, Nelson. Renshaw, Mary Ellen, Auckland. Warnock, Selina Maude, Nelson. Algebra-Bruce, Elizabeth, South Canterbury, Burns, Andrew Nisbet, Wellington. Cutler, Elizabeth Harriet, North Canterbury. Cartwright, Maud Jane, South Canterbury, Hill, William Wilfred, Auckland. Izett, James Millar, North Canterbury, Johnson, Amy Frances, Nelson. Meiklejohn, John, Southland. Renshaw, Mary Ellen, Auckland. Strong, Theophilus Benjamin, South Canterbury. Euclid-Meiklejohn, John, Southland. Class E. English-Alexander, Anne Elizabeth, North Canterbury. Gayne, Violet Emily, Taranaki. Gillies, Agness Wilson, Otago. Magill, Mary, Hawke's Bay.

PUPIL-TEACHERS WHO HAVE PASSED IN DRAWING IN ONE OR MORE BRANCHES.

Lindsay, James, geometrical and perspective. III.—PRIZES.

Stratford, Herbert, freehand.

O'Brien, Margaret, freehand. Seddon, Mary, freehand.

Marlborough-

South Canterbury

Westland-

Algie, Sarah Eleanor Muir, Auckland. Browne, William Frederick, Otago. Carson, Mary Desmond, Otago. Caughley, Christina Jane, Hawke's Bay. Couldrey, Florence, Auckland. Dyson, Sarah Elizabeth, North Canterbury. Ferguson, Richard Hay, Wanganui. Galland, James, Otago. Goldsworthy, Elizabeth Mary, Auckland. Grainger, Martha Elizabeth, North Canterbury. Hill, Arthur John, Auckland. Lind, Martha, Southland. Magill, Mary, Hawke's Bay. Mathieson, Joann, Auckland. Potts, Mary Jardine, Westland. Robertson, Mary Saturne, Westland. Robertson, Alexander George, Otago. Robertson, William, Otago. Shroff, Kate Sherwin, Auckland. Wilkinson, Elizabeth Jane, Otago. Geographygraphy--Brown, Edith Helen, Auckland. Caughley, Christina Jane, Hawke's Bay. Cheyne, Jemima, Wanganui. Elliott, Joseph Ernest, Auckland. Faram, Frederick Thomas, Hawke's Bay. Fifield, Amy Elizabeth, South Canterbury. Gayne, Violet Emily, Taranaki. Kay, William, Auckland. McDonald Isabella. Wanganui McDonald, Isabella, Wanganui. Magill, Mary, Hawke's Bay. Nelson, James, Otago. History Clark, Hugh, Otago. Cole, Robert, Otago. Cole, Robert, Otago. Galland, James, Otago. Gayne, Violet Emily, Taranaki. Hilgendorf, Frederick William, Otago. Hill, Arthur John, Auckland. King, Clara, Hawke's Bay. Magill, Mary, Hawke's Bay. Meek, Ellen Mary, Wellington. Pattison, Helen, Southland. Potts, Mary Jardine, Westland. Ralston, Mary, Otago. Robertson, William, Otago. Sherriff, Margaret Rosina, Otago. Sherriff, Margaret Rosina, Otago. Stewart, David, Otago. Zohrab, Ravenna Frances Marian, Wellington. Elementary Science— Hill, Arthur John, Auckland. Kay, William, Auckland. Maloney, John William, Nelson. Domestic Economy and Laws of Health-Bell, Ellen Hay, Otago. Fraser, Jeanette, Southland. King, Clara, Hawke's Bay. McCaul, Jessie, Wanganui. McIntyre, Jessie, Wanganui. Potts, Mary Jardine, Westland. Ward, Margaret, Westland. Classes D and E. The Art of Teaching and School Management-Art of Teaching and School Management— Baldwin, Myra, North Canterbury. Bower, Catherine Alborough, North Canterbury. Browne, William Frederick, Otago. Chalmer, Clara Ellen, Otago. Gibbons, Annie Langford, Auckland. Nelson, James, Otago. Strachan, David Anderson, Otago. Williams, Rees, North Canterbury. Drawing-Burns, Andrew Nisbet, Wellington, geometrical. Cooper, Emily Margaret, Wellington, model and geometrical. Herbert, Mary Elizabeth, Auckland, freehand. Jourdain, Helen Melicent, Auckland, freehand. Law, Henry, Taranaki, freehand. Lindsay, James, South Canterbury, geometrical and perspective. Renshaw, Mary Ellen, Auckland, geometrical. Rowntree, William Walter, Wellington, geometrical. Stuckey, Frederick George Albert, Wellington, geometrical. Thompson, Laura Herford, Nelson, freehand,

EXAMINATION PAPERS.

School Management and Art of Teaching.—For Classes D and E. Time allowed : 3 hours. [N.B.-One question in each section must be answered.]

SECTION I.

1. When, according to regulation, should the class registers be marked? What method would you adopt, both morning and afternoon, to secure accuracy in marking the attendance? 2. Suppose the class register to be marked according to regulation, and that a child leave

before the two hours for instruction have expired, how would you deal with the case?

SECTION II.

1. By what rules would you be guided in drawing up a time-table? Illustrate the same by reference to questions 2 and 3 of this section. Would you make any modification in your time-table owing to the locality of the school—i.e., whether it be in a manufacturing town, in a mining town, or in the centre of an agricultural district?

2. Draw up a time-table for an infant-room with classes P1, P2, P3, and Standard I.; staff-a teacher and two pupil-teachers. Show by special marks and notes how the teacher arranges her time.

3. Draw up a time-table for a small country school with four standard classes and two below Standard I. A master is supposed to be in charge, and a sewing-mistress is engaged for sewing only.

SECTION III.

1. Draw up notes of an object-lesson to an infant class on "an apple."

2. Draw up notes of an object-lesson to Standard III. on "a stalk of wheat."

3. Name any piece of poetry you would consider specially suitable for Standard IV .: give a few lines, and write notes on the same.

4. Draw up notes of a lesson on "climate" to a class in Standard VI.

SECTION IV.

1. What are the chief difficulties in giving a reading lesson to a class below Standard I.? How would you attempt to overcome these difficulties? 2. There are peculiarities in the English language which make spelling a rather severe task to

a child. Name these difficulties, and state how you would attempt to overcome them.

3. Name the advantages and disadvantages of transcription and dictation respectively. How would you guard against these defects?

SECTION V.

What use would you make of the blackboard in giving a geography lesson?
 "Biography is of great importance in teaching history." Illustrate this fact.

3. What method would you adopt in teaching composition to a class in Standard III.?

SECTION VI.

1. Show that what is called stupidity in children may proceed from the faults of the teacher. State what these faults are, with special reference to the answering of questions.

2. Fitch says, "We may be fitly reminded that the art of putting questions is one of the first and most necessary arts to be acquired by a teacher." Fully discuss this statement.

Section VII.

Write a short essay on one of the following statements :---

1. "As is the master so is the school."

2. "The best method of teaching is that which approaches most nearly to investigation."

3. "At every part of a school course provision should be made for instruction in matters of fact which lie outside of the domain of the regular book-subjects."

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

1. An explanation of mass and inertia may be illustrated by means of a balanced lath loaded with different weights. How would you carry out the experiments?

2. Give an exact description of the experiments which you would make when dealing with the specific gravity of liquids.

 Bescribe minutely how you would prepare and fill a barometer-tube.
 By what simple experiments would you illustrate an explanation of the physical cause of the variation of pitch of sounds?

5. Draw up a list of the apparatus which you would require in order to give a course of elementary lessons on heat.

6. How would you make a gold-leaf electroscope, and what would you do with it when it was made?

7. Describe the visible changes which take place when mercuric oxide is heated in a test-tube. 8. How would you show that water is formed when hydrogen is burnt in air? Sketch an

apparatus by means of which a quantity of water, formed in this manner, could be collected. 9. What happens when turpentine is introduced into chlorine gas? How would you make the experiment? What property of chlorine is illustrated by it?

10. How would you obtain a small quantity of starch from potatoes, and how would you show that this starch is turned into sugar by heating with an acid?

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

[Women that are proficient in needlework may substitute for this paper the paper on Domestic Economy.]

1. Describe the experiments you could make by rolling marbles down inclined planes, and state some of the principles the experiments will illustrate.

2. What are the chief mechanical powers? Make a sketch of two distinct arrangements in each of which a gain of six times may be obtained.

3. Describe a sound-wave, and give experiments by which the pitch of a musical note may be illustrated.

4. Draw a diagram representing the production of a solar spectrum. Of what constituents may white light be made up?

5. Draw diagrams to illustrate the formation of an image by a lens, and to show how it is that a convex lens magnifies an object.

6. How would you prove that heat is a mode of motion?

7. Describe fully the properties of a bar-magnet.

8. How would you make experiments to illustrate the fundamental properties of electricity?

9. Describe various ways of making hydrogen, and state its properties.

10. Explain what is meant by shortsightedness, and illustrate your answer by a diagram. Let the diagram show the kind of lens required to correct the defect.

Domestic Economy.-For Class E. Time allowed: 3 hours.

[Alternative with Elementary Science,-for Women only.]

1. Yeast and various other substances are used to give lightness to bread : explain fully how

they act. 2. Describe the effect of heat upon albumen. What are the best methods of boiling a leg of

3. Describe fully the purposes of ventilation. What are the chief difficulties in providing efficient ventilation?

4. Describe all the purposes that physical exercise serves.

5. Traps of several kinds are used to prevent the ingress of sewer-gas: represent some of these by diagram, and discuss their merits.

6. Mention some of the more common disinfectants, and indicate their respective merits and inconveniences.

7. Draw a diagram showing the course of the blood through the body.

8. Describe how the nutritive elements in our food find their way into the blood.

9. What are the chief advantages of complete mastication? Why is "sipping" at meals a bad habit?

10. Describe the skin, and state its functions; and explain how it is that the blood remains at a constant temperature.

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

1. Write grammatical notes on the words in italics in the following sentences: Full fathom five thy father lies; two of a trade can never agree; the old gentleman was long past his dancing days; I could not overtake them though I ran my fastest; I liked him none the less on that account; a mile or so from London town; so out went the candle and we were left *darkling*. 2. "Parsing, in English, is an exercise in syntax." Explain what this means, and why it is

so in English more than in Latin, or in any other language with which you are acquainted. 3.

From twice a hundred thousand throats

Rushes the Yorkshire roar;

And the name of the winner proudly floats

A league from the course and more.

What is the construction of "a hundred thousand throats"? Compare the phrases a great many men, many a man.

Parse the words twice, league, more.

Write the meaning of the verse in plain prose.

4. Punctuate the following passage, and put capital letters where required :---

Well when he came in I found he was a stranger a grave businesslike stranger mr. Westlock said he that is my name said I the favour of a few words with you said he pray be seated said I here John stopped for a moment to glance towards the table where Tom's sister listening atten-tively was still busy with the pudding which by this time made a noble appearance then he resumed the pudding having taken a chair what cried Tom having taken a chair you said a pudding no no replied John colouring rather a chair the idea of a stranger coming to my rooms at half-past eight o'clock in the morning and taking a pudding having taken a chair Tom a chair amazed me by opening the conversation thus I believe you are acquainted sir with Mr. Thomas Pinch no cried Tom his very words I assure you.

5. Correct anything you see amiss in the following :-

(a.) There are certain things which a bank should not touch, as the saying is, with a pair of tongs as a security.

(b.) It had never before occurred to that good woman to treat a new customer, arriving in a coroneted carriage with liveries that lighted up the whole street, with indifference.

(c.) Twenty balls were bowled and twenty runs made, so that each ball averaged one run.(d.) The rain came down and continued during the time the cyclists had their competition, clearing off about half-past twelve, and continuing fine the remainder of the day.

(e.) Mrs. Brown presents her compliments to Mrs. Robinson. She has been referred to her by Miss Jones. She states that she has been in her service for three years. She would be obliged if she would tell her whether she found her efficient.

*6. Criticize the following extracts, noting and commenting on any characteristics of style, and any use, accurate or otherwise, of metaphorical illustration :--

(a.) I can assure your lordships that if we had considered our own ease and comfort, if we had considered anything but the imperative calls of duty, if we had not been prepared to sacrifice our private convenience to the public interest, there was not one of my colleagues who would not with me have joyfully accepted the alternative I have pointed out, who would not have embraced with satisfaction the opportunity of relieving himself from the cares, labours, and responsibilities of office, and who would not contentedly have withdrawn into the retirement of private life.

(b.) He that goeth about to persuade a multitude that they are not so well governed as they ought to be shall never want attentive and favourable hearers; because they know the manifold defects whereunto every kind of regiment⁺ is subject, but the secret lets and difficulties, which in public proceedings are innumerable and inevitable, they have not ordinarily the judgment to consider.

(c.) He had never heard such sparkling and vivacious talk as went on round this particular table. It never paused or flagged. There was Amory, all alight and stirred by every conversational ripple which passed him; there was Miss Varien, scintillating and casting off showers of sparks in the prettiest and most careless fashion; there was Laurence Arbuthnot doing his share without any apparent effort; there was Mrs. Sylevestre, her beautiful eyes making speech almost superfluous, and Mrs. Merrian occasionally casting into the pool some neatly weighted pebble, which sent its circles to the shore; and, in the midst of the coruscation, Blundel found himself, somehow, doing quite his portion of the illumination.

*7. The following passage, as here written, is miserably feeble; re-write it so as to give it vigour and animation. Begin "High above these," and end with "name" :— The stately monument of Chatham towers high above these venerable graves, and his effigy from above, which is graven by a cunning hand, seems still to bid England to be of good cheer, and to hurl defiance at the foes of England, with eagle face and arm stretched out. The generation has disappeared which reared that memorial of him, and the time has come when history may calmly revise the judgments, formed with rashness and without discrimination, which were passed on him by those who lived at the same time as he did; and while history notes his many errors for the warning of natures that are vehement and daring, she will yet pronounce, not without deliberation, that scarcely one of the eminent men whose bones lie near his bones has left a more stainless name, and that none has left a more splendid one.

8. Write an essay describing the influence of associates and circumstances upon character, illustrated by reference to any one of Shakspeare's plays or any considerable work of fiction;

or, upon esprit de corps, how it is developed, and its advantages or defects.

9. As a test of spelling, write words dictated by the Supervisor.

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

9. The Supervisor will be so good as to read through and then slowly dictate to the Candidates the following words :-

Reconnoitre, circuit, mimicry, anthracite, hyperbolical, interstices, schismatic, anachronism, yachting, exorbitant, indictment, avoirdupois, armistice, synonymous, hydraulics, chandelier, anonymous, ecstatic, chagrin, giraffe, rhapsody, chrysalis.

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

1. As a test of spelling, write the words and sentences dictated by the Supervisor. 2. "The castle royally is manned, my lord,

Against thy entrance.'

"Thy thrice-noble cousin,

Harry Bolingbroke, doth humbly kiss thy hand."

"His coming hither hath no further scope

Than for his lineal royalties.'

"Cut off the heads of too-fast-growing sprays,

That look too lofty in our commonwealth.

* These are alternative questions. Either 6 or 7 must be attempted, but not both.

† Regiment=government.

Remark upon the adverbs in the above sentences: include adverbs forming parts of compound words, and adverbial clauses. Remark also upon any adjectives that might be mistaken for adverbs.

3. Parse the words printed in italics in the following sentences, and indicate their syntactical connections:

Thus repulsed, our final hope is flat despair.

He ended frowning, and his look denounced desperate revenge. The scheme was of his devising.

Notwithstanding this, they were all good friends in general.

" Tell Bolingbroke-for yond', methinks, he stands-

That every stride he makes upon my land

Is dangerous treason."

Assign each of the subordinate sentences in the above quotation to its proper class, and give your reasons.

5. What inflexions of the verb are still retained in the English language? Indicate their origin, and point out any which show a tendency to become obsolete.

6. Mention briefly some reasons for inferring that our language is essentially of Anglo-Saxon origin.

7. Punctuate the following passage, and put capitals where required :-

At length one of the lieutenants seeing me inquired what that young english dog did there and why they did not turn him on shore I heard him and partly understood what he meant though not what he said and began then to be in a terrible fright for I knew not where to get a bit of bread when the pilot of the ship an old seaman seeing me look very dull came to me and speaking broken english to me told me I must begone whither must I go said I where you will said he home to your own country if you will how must I go thither said I why have you no friend said he no said I not in the world but that dog pointing to the ship's dog which having stolen a piece of meat just before had brought it close by me and I had taken it from him and eaten it for he has been a good friend and brought me my dinner well well says he you must have your dinner will you go with me yes says I with all my heart in short the old pilot took me home with him and used me tolerably well though I fared hard enough.

8. Write an essay on one of the following subjects :---

(a.) Habit.(b.) The exports of New Zealand.

(c.) A borrowing policy.

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 and sentences, afterwards reading the whole of them again to afford opportunity for correction :-

Reminiscence, recommend, complacency, annexation, substantially, acquisitive, prescience, parallel, similar, proboscis, aristocracy, dilapidation, perspicuity. I perceive that the story is too mythical.

He believed his judgment to be immaculate.

They acquiesced in the scheme of retrenchment.

The legislation of Parliament occasionally errs by excess.

We address our part of the correspondence to the principal of the establishment, on the principle that it is the most judicious plan to avoid transactions with subordinates.

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

PAPER No. 1.—Composition and Précis.

1. Write an essay on the effect produced by the receipt of benefits on generous and ignoble minds, illustrated from "King Lear" and "The Tempest";

or, on the literature of the Commonwealth, showing in what manner and to what extent it was influenced by the political and religious movements of the time.

2. Rewrite the following passage, with slight amendments, so as to break it up into several sentences :-

I recommend it to the charity of all good people to look back and reflect duly upon the terrors of the time, and whoever does so will see that it was not an ordinary strength that could support it; it was not like appearing at the head of an army, or charging a body of horse on the field, but it was charging Death itself on his pale horse: to stay was indeed to die, and it could be esteemed nothing less; especially as things appeared at the latter end of August and the beginning of September, and as there was reason to expect them at that time; for no man expected, and I dare say believed, that the distemper would take so sudden a turn as it did, and fall immediately two thousand a week, when there was such a prodigious number of people sick at that time as it was known there was; and then it was that many shifted away that had stayed most of the time before.

3. Make an abstract of the accompanying correspondence. [An abstract serves the purposes of an index. It should give, with respect to each letter, the date, the writer, the person addressed,

and, in as few words as possible, the subject.] 4. Make a *précis* of the same correspondence. [The *précis* should give the substance of the correspondence in narrative form, so that any one who had not read the letters might get full information from the précis. Nothing immaterial should be inserted, but great care must be taken not to omit anything of any consequence. The merits of a précis consist of a combination of brevity, distinctness, and completeness.]

2-E. 1A.

My Lord,-

CORRESPONDENCE FOR ABSTRACT AND PRÉCIS.

No. 1.

Sir W. F. D. JERVOIS to the Right Hon. Lord KNUTSFORD.

Government House, Wellington, 24th January, 1889.

I have the honour to enclose herewith a copy of a memorandum which I have received from my Government urging that, for the sake of the conservation of the seal-fisheries of the colony, Macquarie Island and the islands adjacent thereto should be annexed to New Zealand. This small group lies to the south of New Zealand, between the latitude of 54° and 55° S., and longitude 159° and 160° E. The other islands in that region—namely, the Campbell, Antipodes, and Auckland Island—already form part of this colony, and I think it desirable that Macquarie Island, with its adjacent islets, should also be included.

The Right Hon. Lord Knutsford, &c.

I have, &c., W. F. DRUMMOND JERVOIS.

Enclosure.

MEMORANDUM for His Excellency.

IT being desirable, in connection with the conservation of the seal-fisheries belonging to the colony, that Macquarie Island and the islands adjacent thereto should form part of this colony, His Excellency the Governor is respectfully advised to move the Secretary of State for the Colonies to cause the necessary steps to be taken to have the British flag hoisted and the Queen's sovereignty proclaimed over these islands, with a view of their being annexed to New Zealand.

> H. A. ATKINSON, Premier.

Government Buildings, Wellington, 16th January, 1889.

No. 2.

The Right Hon. Lord KNUTSFORD to the Right Hon. the Earl of ONSLOW.

My Lord,-Downing Street, 7th May, 1889. In reply to Sir William Jervois's Despatch No. 2, of the 24th of January last, respecting the proposed annexation of the Macquarie Islands, I have the honour to transmit to you, for communication to your Government, a copy of a letter which I caused to be addressed to the Admiralty on the subject, and of their Lordships' reply.

Her Majesty's Government are willing that the annexation should be effected; and the most convenient mode of carrying out this object would probably be for the Colonial Government to despatch a vessel with one of their officers on board to hoist the British flag at the islands, and to proclaim Her Majesty's sovereignty over them; and on your report that this has been done, and when the New Zealand Parliament has adopted a joint address praying for the annexation of the islands to the colony, steps shall be taken for issuing the necessary letters patent for the purpose.

I accordingly authorise you to propose this course to your Government, and, when adopted by them, to give instructions to some suitable officer of the Government to declare Her Majesty's sovereignty over the islands in question, subject to the condition that no evidence is found on the spot of the islands being claimed by any foreign Power.

You should cause a notification of the annexation to be inserted in the Government Gazette. I have, &c.,

Governor the Right Hon. the Earl of Onslow, G.C.M.G., &c.

No. 3.

The Right Hon. the Earl of ONSLOW to the Right Hon. Lord KNUTSFORD.

My Lord,-Government House, Dunedin, New Zealand, 1st January, 1890.

In accordance with your Lordship's Despatch No. 8, of the 7th May, 1889, the Colonial Government steamship "Hinemoa" was prepared to start, with provisions, and a wooden house for the accommodation of any persons who might land on the Macquarie Islands, having on board Mr. S. Percy Smith, the Surveyor-General, to whom I was about to issue a warrant directing him to make a proclamation declaring Her Majesty's sovereignty over the islands in question, when I received a telegram from the Governor of Tasmania stating that he had read of my intention in the newspapers, and informing me that the Macquarie Islands were included in the letters patent constituting the office of Governor of Tasmania.

Under the circumstances, I have directed the captain of the "Hinemoa" to refrain from exercising any act which may be deemed to denote an intention on the part of the Government of this colony to assume any rights over those islands, until I hear further from your Lordship. I have, &c.,

The Right Hon. Lord Knutsford, &c.

ONSLOW.

No. 4.

The Right Hon. Lord KNUTSFORD to the Right Hon. the Earl of ONSLOW.

Downing Street, 28th February, 1890.

My Lord,-I have the honour to acknowledge the receipt of your Lordship's Despatch No. 1, of the 1st ultimo, reporting the steps which your Government was about to take with the view of declaring the Queen's sovereignty over the Macquarie Island previous to the receipt of a telegram from the Governor of Tasmania.

KNUTSFORD.

I regret that in the previous correspondence the fact of the inclusion of the Macquarie Island in the letters patent of the Governor of Tasmania of 1880 should have been overlooked in this department.

Should the Government of New Zealand wish to come to any arrangement with that of Tasmania for the transfer of this island or group of islands, no objection would be raised on the part of Her Majesty's Government to such a course. I have, &c.,

Governor the Right Hon. the Earl of Onslow, G.C.M.G., &c.

KNUTSFORD.

No. 5.

The Hon. E. MITCHELSON to the Hon. the PREMIER, Tasmania.

Sir,—

Premier's Office, Wellington, 2nd June, 1890. Referring to the recent action of this Government, which led to the discovery that the Macquarie Islands belonged to Tasmania, I have now the honour to inform you that in a despatch from the Right Honourable the Secretary of State for the Colonies, dated the 28th February last, it is stated that, "should the Government of New Zealand wish to come to any arrangement with that of Tasmania for the transfer of this island or group of islands, no objection would be raised on the part of Her Majesty's Government to such a course."

The reason which induced this Government to apply for the annexation of these islands to New Zealand was in the interest of the seal-fisheries, to prevent their being used as a centre for poaching on the Auckland and other islands now under our jurisdiction, which is known to have happened on more than one occasion. I am not aware of the circumstances under which these islands were included in the letters patent of the Governor of Tasmania in 1880, or whether the Tasmanian Government have any predilection in favour of retaining them; but, if not, and they were added to this colony, this Government would at once be in a position to take the necessary steps to put a stop to the poaching now carried on. I shall be glad to receive your views on the subject, and to learn that they are favourably disposed to the transfer.

I have, &c.,

E. MITCHELSON, For the Premier.

The Hon. the Premier, Hobart, Tasmania.

No. 6.

The Hon. the PREMIER, Tasmania, to the Hon. the PREMIER, New Zealand.

Premier's Office, Hobart, 19th June, 1890.

Sir,---I have the honour to acknowledge the receipt of your letter of the 2nd instant on the subject of Macquarie Island, and its use as a base of operations for poachers on the seal-fisheries of the Auckland and other islands.

This Government will be happy to meet your wishes as to the transfer of this island to New Zealand; indeed, your request anticipated my intention to address you with that object.

I have referred the matter to the law officers of the Crown for their opinion as to the best course to pursue in arranging for the transfer of this island to your Government. I have, &c.,

The Hon. the Premier of New Zealand.

No. 7.

The Hon. E. MITCHELSON to the Hon. the PREMIER, Tasmania.

Premier's Office, Wellington, 4th July, 1890.

SIR,-I have the honour to acknowledge the receipt of your letter of the 19th June, in reply to mine of the 2nd, on the subject of the Macquarie Islands. I thank you for your courtesy, and shall wait with interest for the opinion of your legal advisers as to the best course to pursue for I have, &c., E. MITCHELSON, arranging the transfer.

The Hon. the Premier, Tasmania.

Premier's Office, Hobart, 7th August, 1890.

For the Premier.

P. O. Fysh.

P. O. Fysh.

No. 8.

The Hon. the PREMIER, Tasmania, to the Hon. the PREMIER, New Zealand.

SIR,-

In reference to our recent correspondence on the subject of the transfer of Macquarie Island, I have the honour to enclose herewith a copy of a printed paper which has been prepared for the information of Parliament in connection with an address to Her Majesty, the adoption of which I propose to move this evening in the Legislative Council, praying that the necessary steps may be taken by the Imperial authorities to effect such transfer. I will keep you informed of the progress of this matter. I have, &c.,

The Hon. the Premier of New Zealand.

Enclosure.

MR. FYSH to move, That the following address be presented to Her Most Gracious Majesty the Queen, praying that the necessary steps may be taken to cause Macquarie Island, now a dependency of Tasmania, to be transferred to and become part of the Colony of New Zealand, viz. :---

MOST GRACIOUS SOVEREIGN,-

We, your Majesty's most dutiful and loyal subjects, the members of the Legislative Council of the Colony of Tasmania, in Parliament assembled, beg leave to approach your Majesty with feelings of the deepest loyalty and attachment.

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Whereas by letters patent made the 17th day of June, in the 43rd year of your Majesty's reign, and constituting the office of Governor and Commander-in-Chief of the Colony of Tasmania and its dependencies, your Majesty did constitute, order, and declare that there should be a Governor and Commander-in-Chief in and over your Colony of Tasmania and its dependencies, comprising, among other islands and territories, "Macquarie Island, lying to the south-east of the said Island of Tasmania:"

And whereas the said Macquarie Island still is a dependency of the Colony of Tasmania :

And whereas it is deemed expedient that the said Macquarie Island should no longer be a dependency of the said colony, but that the same should be annexed to and form portion of the Colony of New Zealand:

Now, therefore, we, the members of the Legislative Council of the Colony of Tasmania, in Parliament assembled, do humbly pray that your Majesty will be pleased to take such steps as to your Majesty shall seem meet in order that the said Macquarie Island may be annexed to and be made to form portion of the said Colony of New Zealand.

And on the same being agreed to, to move, That the foregoing address be transmitted to the House of Assembly for its concurrence.

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

PAPER NO. 2.-LITERATURE AND BOOKS.

1. Discuss the supernatural machinery introduced into "The Tempest," and say how far you think it essential to the real objects of the play. 2. What differences may be observed in Shakespeare's representation of real madness in the

person of Lear, and of feigned madness in Edgar?

3. What purposes does the fool serve in the play of "King Lear"? Can you suggest any reason for his non-appearance in the later scenes?

4. Explain the following passages. By whom and on what occasions were they uttered ?-

(a.) And pat he comes like the catastrophe of the old comedy; my cue is villanous melancholy, with a sigh like Tom o' Bedlam. O, these eclipses do portend these divisions. (b.)

Renege, affirm, and turn their halcyon beaks

With every gale and vary of their masters,

Knowing of nought, like dogs, but following.

A plague upon your epileptic visage !

Smile you my speeches, as I were a fool?

Goose, if I had you upon Sarum Plain,

I'd drive ye cackling home to Camelot.

Here lies your brother, No better than the earth he lies upon,

If he were that which now he's like; whom I

With this obedient steel, three inches of it,

Can lay to bed for ever; whiles you, doing this,

To the perpetual wink for aye might put This ancient morsel, this Sir Prudence.

(d.) Were I in England now, as once I was, and had but this fish painted, not a holiday-fool there but would give me a piece of silver; there would this monster make a man. (e.)

Which now we find

Each putter-out on five for one will bring us

Good warrant of.

5. "During the Commonwealth and Protectorate, theology was cultivated with general alacrity." Name some eminent theological writers who lived during this time, with some mention of their principal works.

6. What was "Eikon Basilike"? What controversies followed its publication?

7. What are the chief characteristics of Milton's prose style? Which of his poetical works were published before the Restoration? Are any references observable in them to the state of public affairs?

8. Who were the authors of the following works? State briefly the purport of each: "Leviathan," "Defensio pro Populo Anglicano," "Hydriotaphia," "The Worthies of England," "Thoughts in a Garden," "Oceana."

9. Can you identify any of the following passages? If so, say from what work they are taken and by whom written :-

He nothing common did or mean

Upon that memorable scene,

But with his keener eye

The axe's edge did try;

Nor called the gods with vulgar spite

To vindicate his helpless right;

But bowed his comely head

Down as upon a bed.

(c.)

(a.)

(b.) He that can apprehend and consider vice with all her baits and seeming pleasures, and yet abstain, and yet distinguish, and yet prefer that which is truly better, he is the true warfaring Christian. I cannot praise a fugitive and cloistered virtue, unexercised and unbreathed, that never sallies out and sees her adversary, but slinks out of the race where that immortal garland is to be run for, not without dust and heat.

(c.) But the iniquity of oblivion blindly scattereth her poppy, and deals with the memory of men without distinction to merit of perpetuity. Who can but pity the founder of the pyramids? Herostratus lives that burnt the temple of Diana: he is almost lost that built it. Time hath spared the epitaph of Adrian's horse, confounded that of himself. In vain we compute our felicities by the advantage of our good names, since bad have equal durations, and Thersites is like to live as long as Agamemnon.

(d.)

Fame is the spur that the clear spirit doth raise

(That last infirmity of noble mind)

To scorn delights and live laborious days;

But the fair guerdon when we hope to find,

And think to burst out into sudden blaze,

Comes the blind Fury with the abhorrèd shears,

And slits the thin-spun life.

Yet this inconstancy is such

As you too shall adore;

I could not love thee, dear, so much,

Loved I not honour more.

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

1. Calculate correct to five places of decimals the value of-

 $\frac{1}{2} + \frac{1 \times 3}{2 \times 4} \times \frac{1}{4} + \frac{1 \times 3 \times 5}{2 \times 4 \times 6} \times \frac{1}{4^2} + \frac{1 \times 3 \times 5 \times 7}{2 \times 4 \times 6 \times 8} \cdot \frac{1}{4^3} + \&c.$

2. The parallel of latitude which passes through a certain place may be taken to be 17,675 miles long: calculate the number of inches per second through which the place travels by reason of the diurnal motion of the earth.

3. Given a vulgar fraction to be reduced to a decimal, how can you tell, before trial, whether it will terminate, whether it will be a pure recurring decimal, or whether it will be a mixed recurrer? If the decimal terminate, how do you know the number of digits there will be in the decimal? Give examples to illustrate your answer.

4. In going a mile the larger wheel of a bicycle makes 915 revolutions fewer than the smaller wheel, whose diameter is 15 in. : find the diameter of the larger wheel, having given that the length of the circumference of a circle is found by multiplying the diameter by 3.1416.

of the circumference of a circle is found by multiplying the diameter by 3.1416. 5. A bought a piece of land, and sold it to B at an advance of 20 per cent. on the purchasemoney; B sold it to C, making an advance of 30 per cent. on his bargain: if C paid £1,950 for the land, what was the cost price to A?

6. A person by selling an article which cost £14 per cwt. at 2s. $9\frac{3}{4}$ d. per pound makes 5 per cent. more profit than if he had sold the whole for £55 15s. $3\frac{3}{4}$ d.: what was the amount sold?

7. If the discount on a bill of £824 5s. 8d. due $2\frac{1}{4}$ years hence be £93 15s., find the rate per cent. simple interest.

8. At what times between 2 and 3 o'clock are the hands of a watch at right angles?

9. A bookseller buys French books at their published price, and in selling them to a customer charges a shilling for every franc in their published price: if 25.17 frances are equivalent to a pound of English money, what gain per cent. does the bookseller make?

10. If we were to assume that there is no change in the density of the atmosphere as we ascend in it, the height of the mercurial barometer would be to the height of the atmosphere in the inverse ratio of the densities of mercury and air. It being observed that the barometer is 30in. high, find the height to which the atmosphere would extend on the assumption made, it being given that mercury is $13\frac{1}{2}$ times, and atmospheric air 00125 times, as dense as water.

11. A rectangular field of $4\frac{1}{2}$ acres has two adjacent sides in the ratio of 5 to 9. Find the number of yards in each side, and the cost of surrounding the field with a wire fence at 2s. $3\frac{1}{2}$ d. a yard.

12. Two trains are travelling on parallel lines of rails; one train is 60 yards long, and is travelling at the rate of thirty miles an hour; the other is 50 yards long, and travels at the rate of twenty miles an hour. Find how many seconds will be occupied in their passing one another when they are travelling (a) in opposite directions, (b) in the same direction.

travelling (a) in opposite directions, (b) in the same direction.
13. Three men are employed on a work, and when they work respectively 8, 9, and 10 hours a day they receive the same daily wage; after working three days at this rate they each work an hour a day more, and the job is finished in three days more. If the total sum paid in wages be £9 10s. 1d., how much should each receive?

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

[N.B.—The working must be shown. Simplicity and directness of method, clearness of explanation, and neatness of work, will be taken into account.]

1. What number multiplied by 87542 will give 28 times the difference between 119845689 and 43002572 ?

2. Find, by Practice, the value of 5 tons 19cwt. 2qr. at £7 18s. 9d. per ton.

3. Simplify 8 +
$$\frac{1}{2 + \frac{5}{7 + \frac{1}{2}}}$$
;
and $\frac{1 - \frac{4}{2}}{3\frac{1}{4} + 1\frac{1}{2} + \frac{1\frac{2}{5}}{62}} \times \left\{\frac{1 + \frac{1}{2}}{1 - \frac{1}{2}}\right\}^{2}$.

4. If 0583 of 1cwt. cost 428571 of 31 guineas, what will be the cost of 38 5lb.?
5. A sum of £24 13s. 4d. is made up of half-sovereigns, half-crowns, and fourpenny-pieces. There are twice as many half-crowns as half-sovereigns, and the number of half-sovereigns bears to the number of fourpenny-pieces the ratio of 3 to 13. How many are there of each coin?

6. If I lose 16 per cent. by selling a horse for £21, how much did I give for it; and at what

price should it have been sold to gain 12 per cent.?. 7. If $\frac{3}{5}$ of a stack of hay sold for £15 2s. 6d. when hay was at £4.4 per ton, what would $\frac{1}{25}$ of the same stack fetch, the price having risen to $\pounds 7.5$ a ton?

8. A passenger train starts from A towards B at 8 o'clock, and a goods train and a coal train from B towards A at 8.30 and 9 respectively. The goods train travels 30 and the coal train 20 miles an hour. The passenger train meets the goods train at $9.55\frac{5}{7}$, and the coal train at 10.20. Find the rate per hour of the passenger train, and the distance between A and B.

9. A person received £5 5s. as interest for one year on two sums of money, one of which was double of the other, at the rate of 5 per cent. on the larger and 4 per cent. on the smaller sum. Find their amounts.

10. The breadth of a room is 16ft.; the cost of papering the walls at 6d. a square yard is £2 3s. 4d.; and that of carpeting the floor at 6s. a square yard is £9 6s. 8d. : find the height and length of the room.

11. Find the greatest number that will divide 638443 and 34093, leaving remainders 11 and 13 respectively.

12. Divide 73.8 by .0018, and multiply the quotient by $\frac{3}{19}$ of .0009747.

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

1. What number must three hundred and seventy-one be multiplied by in order that the product may be the same as the quotient of one thousand and nine million ten thousand one hundred and eighty-four by nine thousand and ninety-six?

2. What is the cost of 41 dozen silver spoons, each weighing 3oz. 1dwt. 10gr., at 4s. 2d. per ounce?

3. Find, by Practice, the value of 36cwt. 3qr. 18lb. at £47 10s. per ton.

4. A rectangular block, which is twice as long as broad, contains 5 acres: if a person walks round it in $7\frac{1}{2}$ minutes, what is the rate of walking in miles per hour?

5. Find to five decimal places the value of-

$$3 + \frac{1}{7 + \frac{1}{15 + \frac{1}{1 + \frac{1}{26}}}}$$

6. Express $\frac{.09318}{.5681}$ of 5.2083 days as the decimal of 3 days 10 hours.

7. If 5 men or 8 women can do a piece of work in 10 days, how many days will 2 men and 4 women take to do the work?

8. Express a pressure of 1 ton per square foot in dynes per square centimetre. [1ft.=30.48cm.; 11b.=453 6 grammes; weight of 1grm.=981 dynes.]
9. Extract the cube root of 3 to three decimal places.
10. Define "interest" and "discount." Show that the interest on the discount is the same as

the discount on the interest.

11. What sum will amount to £926 2s. in 3 years at 5 per cent., compound interest? 12. A merchant buys 30 hectolitres of Bordeaux wine at 1 franc 40 centimes the litre, and 50 hectolitres at 1fr. 92c. the litre, and mixes them; the freight is $14\frac{1}{2}$ francs per hectolitre, and the import duty 5s. per gallon. Find the price per gallon, in English money, at which he must sell the mixed wine to make a profit of 40 per cent. on his outlay. [1 hectolitre=100 litres; 1 litre=0.22gal.; $\pounds 1 = 25.5$ francs.]

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

1. Find the value of
$$\frac{x}{y} - \sqrt{\frac{1+x}{1-y}}$$
 when $x = \frac{1}{4}$, $y_i = \frac{1}{5}$.

 Multiply x^m + yⁿ - 2z^p by x^m - yⁿ + 2z^p; and divide a - 81b by a^t - 3b^t.
 Find the highest common measure and the lowest common multiple of 3x^t + 14x^s + 9x + 2 and $2x^4 + 9x^3 + 14x + 3$.

 $2x^{4} + 9x^{-} + 1 \dots$ 4. Simplify-(a.) $\frac{a+b}{b} - \frac{2a}{a+b} + \frac{a^{3}-a^{2}b}{b^{8}-a^{2}b};$ (b.) $\left\{\frac{1}{1+\sqrt{x}} + \frac{\sqrt{x}}{1-\sqrt{x}}\right\} \div \left\{\frac{1}{1-\sqrt{x}} - \frac{\sqrt{x}}{1+\sqrt{x}}\right\}.$

5. Show that the sum of the cubes of any three consecutive integers is divisible by three times the middle integer.

6. Extract the cube root of-

 $8x^6 + 48cx^5 + 60c^2x^4 - 80c^3x^3 - 90c^4x^2 + 108c^5x - 27c^6.$

7. Solve the equations,-

(a.) $\frac{x}{a} + \frac{\ddot{x} - a}{b - a} = 0;$

(b.) $\begin{array}{c} x + ay = b, \ ax - by = c; \\ (c.) \ x + 2 \ 4 - x \ - 21. \end{array}$

$$\frac{1}{x-1} - \frac{1}{2x} = 2\frac{1}{3};$$

(d.) $x^2 + xy = 15$, $x^2 - y^2 = 5$. 8. A can do a piece of work in *a* days, and B can do the same in *b* days : in how many days will they do it working together?

9. A person, having finished a journey, calculated that if he had not travelled so fast by 2 miles an hour he would have been 8 hours longer on the way, but if he had travelled 2 miles an hour faster he would have arrived 4 hours sooner. Find his rate of travelling.

Geography.-For Class D. Time allowed ; 3 hours.

1. What is meant by "the North and South Poles"? What is the Equator? What is meant

by a "great circle" of the earth? 2. The mean annual rainfall of Wellington is 50in.: what is meant by this statement? State approximately the mean annual rainfall of any two localities in the colony.

3. Name the principal lakes in New Zealand, state their approximate position and altitude, and show how their discharge-waters reach the sea.

4. State the position and the chief characteristics of the following New Zealand districts: The Hanmer Plains, the Spencer Mountains, the Kaipara, Stewart Island, and the Taupo Plains.

5. Draw an outline-map of England and Wales; indicate the position of Manchester, Birkenhead, Berwick-on-Tweed, Dover, Birmingham, Chester, Holyhead, Portsmouth, Bristol, Cardiff, Caernarvon, London, York, Oxford, Bangor, Cambridge, Leicester, and Nottingham.

6. Write a short description of the course of the Danube, with notes on six of the most important cities on its banks.

7. Describe the course of the North-west Passage between the Atlantic and Pacific Oceans.

8. Name the colonies included in the Dominion of Canada; state their chief characteristics and their principal exports.

9. What countries outside the British Empire yield gold, diamonds, and petroleum? State the position of the principal districts in which each mineral is obtained, and describe their chief characteristics.

10. Name the chief food-plants of the northern hemisphere and the countries in which each is most extensively used.

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

1. The latitude of Antipodes Island is 49° 40' S., its longitude 178° 43' E.: what is meant by this? Is the longest day on Antipodes Island longer or shorter than the longest day in Auckland, and why?

2. Draw a sketch-map of the North Island of New Zealand. Insert the most important harbours, the chief towns, the principal rivers and lakes, and the chief mountain-ranges.

3. What is the difference between a creek and an estuary? State the position of the Kaipara

Estuary, and name the principal rivers which discharge into it. 4. What is a mountain-chain? Give examples from the Asia. State the height of the loftiest peaks. Give examples from the mountain-systems of Europe and

5. Name the chief deserts and table lands of Asia and Africa. State the approximate position and altitude of each.

6. What is a cataract? Name remarkable cataracts in New Zealand, North and South America, and Africa. State the approximate position and altitude of each.

7. Name the chief ports of Hindostan, state their respective positions, and name the chief products exported.

8. Describe the great system of lakes which discharges into the Gulf of St. Lawrence. Name the chief Canadian cities in the immediate vicinity of the lakes.

9. State the approximate position of six of the most important cities on the Italian peninsula. Write a short note on each.

10. Write a brief note on each of the following places : Glasgow, Warwick, Derby, Lancaster, the Menai Strait, Dundee, Snowdon, Dublin, Galway, Leicester, Edinburgh, Lincoln, Birmingham, Hull, Londonderry, Limerick, Gloucester. State the approximate position of each.

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

[Candidates are expected to attempt all the Questions.]

1. Trace the development of Ministerial government in England, and characterize (a) the Walpole Ministry, (b) the first Pitt Ministry, (c) the Ministry of All the Talents, and (d) the Grey Ministry.

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2. Account historically for the difference in character between Cavalier and Puritan, and analyse the elements in it that belong permanently to human nature, and trace its perpetuation in English history during the last two centuries.

3. Show how the Civil War of the seventeenth century was inevitable. 4. Why did Charles I., with Laud and Strafford, fail in the attempt to govern England absolutely, whilst Cromwell became absolute ruler? Outline the degeneration of the Long Parliament.

5. Sketch the great changes in the foreign policy of England during the seventeenth and eighteenth centuries. Why did France take the place of Spain as the traditional enemy?

6. Give a brief history of the development of means of internal communication in Britain during the eighteenth century and the early part of the nineteenth; explain the new demand for them, and their effect upon English civilisation. 7. What were the chief causes that brought about the extension of the English empire during

the latter part of last century and the first quarter of this? Sketch its history during this period.

8. Give the history and meaning of (a) the Five Articles of Perth, (b) the Grand Remonstrance, (c) the Exclusion Bill, (d) the South Sea Bubble, and (e) the Manchester Massacre.

9. Sketch the life of each of the following, and determine his place in history: Wentworth, Montrose, Clarendon, Marlborough, Wilkes, Canning.

10. State chronologically the main events in the reigns of Alfred, Stephen, Henry IV., Henry VII., and Mary.

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

1. By what right did the following Sovereigns of England hold the Crown: Alfred, Stephen, Edward III., Henry IV., Elizabeth, William III., and George I.?

2. Give the names of the English Sovereigns whose reigns have been brought to an end by the action of their subjects, and assign the cause in each case.

3: Describe the feudal system, its introduction into England, and the causes of its decay.
4. Give an account of Compurgation, Benevolences, Impositions, Ship-money, Dispensing Power; and explain what is meant by the Cabinet.
5. What were the causes of the Seven Years' War? State the chief events of the war and its

results.

6. What were the chief improvements made during the last century and the early part of the present century in the manufacture and carriage of goods? What have been the effects on the condition of the people?

7. Give an account of the colonisation of Ulster, and of the condition of Ireland before the Parliamentary Union with England.

8. Sketch the career of (a) Chatham, (b) Hyde, (c) Burke.

9. Explain the purpose and show the importance of-Test Act, Toleration Act, Schism Act, Habeas Corpus Act, Reform Act of 1832.

10. Why were the following battles fought: Bannockburn, Crecy, Naseby, Boyne, Blenheim, Culloden, Plassey, Salamanca, Navarino?

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

[Candidates are expected to attempt all the Questions.]

1. Was the Revolution of 1688 a mere coup d'état? Discuss the question, and prove your answer from history.

2. Is there anything in the fact that the English ruler was a woman to account for the literary outburst in the Queen Anne age, and for the qualities of its literature? Discuss other causes that may have contributed.

3. Trace the development of Ministerial government in England, and characterize (a) the Walpole Ministry, (b) the first Pitt Ministry, (c) the Ministry of All the Talents, and (d) the Grey Ministry.

4. Can you discover any unity of policy in the English wars of the eighteenth century? Give the general outline and issue of each.

5. Who were the most prominent English sympathizers with the French Revolution (a) in its earlier stages, (b) in its later course; and how did it affect the English literature and politics of the last ten years of last century? Did it influence England in any permanent way?

6. Give a brief history of the development of means of internal communication in Britain during the eighteenth century, and the early part of the nineteenth, and explain the new demand for rapid transit and its effect upon English civilisation.

7. What were the chief causes that brought about the extension of the English empire during the latter part of last century and the first quarter of this? Outline its history.

8. Sketch the history of the English navy from 1688 to 1837, and account for its growth and success during that period.

9. Briefly determine the place of the following in English history: Harley, Walpole, Wilkes, Cauning, Lord Melbourne. 10. What is the historical significance of (a) the Darien Scheme, (b) the Methven Treaty,

(c) Bishop Atterbury's Plot, (d) the Lord George Gordon Riots, (e) Emmett's Rebellion, (f) the Manchester Massacre, (g) the Tamworth Manifesto?

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

1. Decline-meus filius, alba nubes, aliud iter, ignobile vulgus, bina castra.

2. Name the demonstrative pronouns, and distinguish their uses.

3. What participles has a Latin verb?

Translate—(1.) I saw him while he was going to Rome. (2.) The news of his arrival alarmed the enemy when they were on the point of attacking the city. (3.) Having made this promise, he was freed. (4.) Having disembarked his forces, he marched to the city. (5.) Having returned home, he was carried off by disease.

4. Explain the use of impersonal verbs in Latin.

Translate—(1.) He was sorry for his anger. (2.) You will not be allowed to be present. (3.) It is raining heavily. (4.) We ought to revere the wise. (5.) The citizens were tired of the war. (6.) There was a fierce combat. (7.) The temple was reached. (8.) An advance must be made. (9.) Indulgence was shown to you.

5. Translate into English-

Nec vero neglegenda est fama, nec mediocre telum ad res gerendas existimare oportet benevolentiam civium, quam blanditiis colligere turpe est. Sed—saepe enim redeo ad Scipionem, cujus omnis sermo erat de amicitia—querebatur quod omnibus in rebus homines diligentiores essent; capras et oves quot quisque haberet dicere posse, amicos quot haberet non posse dicere; et in illis quidem parandis adhibere curam, in amicis eligendis neglegentes esse, nec habere quasi signa quaedam, et notas, quibus eos qui ad amicitiam essent idonei judicarent. Sin erunt aliqui reperti qui pecuniam praeferre amicitiae sordidum existiment, ubi eos inveniemus qui honores, magistratus, imperia, potestates, opes non amicitiae anteponant? Imbecilla enim natura est ad contemnendam potentiam. Itaque verae amicitiae difficillime reperiuntur in eis qui in honoribus reque publica versantur.

6. Translate the following sentences, and explain the construction of the words in italics :-

(1.) His rebus conjectis, in Aeduos proficiscitur.
(2.) Respondit se esse iturum.
(3.) Quod utinam ne faciatis.
(4.) Certior factus est tres jam partes copiarum Helvetios id flumen traduxisse.
(5.) Quid mihi opus verbis est?
(6.) Quantum voluptatis cepit?

7. Translate into Latin-

(1.) He is not a sailor, he says. (2.) I went away very unwillingly. (3.) He was persuaded not to sell the slave for so low a price. (4.) When you reach England, write me a letter. (5.) If you want to go, go. (6.) If you were to go, you would regret it.

French.—For Class D, and for Junior and Senior Civil Service. Time allowed : 3 hours. 1. Translate into English—

Vers 1837, Wellington, qui sortait un soir d'Apsley House, fut abordé par deux messieurs dont le visage lui était inconnu. Ils lui annoncèrent qu'ils étaient les exécuteurs d'un testament fait par un ami d'un tour d'esprit fort excentrique, et qui avait laissé cinq cents livres sterling à l'homme le plus brave de l'armée anglaise. Le duc les remercia, mais refusa le legs, donnant pour raison qu'il connaissait dans l'armée anglaise beaucoup d'hommes aussi braves que lui. Après avoir bien cherché, il nomma le major-général Sir James Macdonnell. Ce dernier commandait en 1815, à Hougoumont, un poste qui avait été la clef de la bataille de Waterloo. Les exécuteurs testamentaires se rendirent chez Sir James Macdonnell, et, après lui avoir fait connaître le choix du duc, lui présentèrent l'argent. Sir James répondit qu'il ne discuterait pas une décision si honorable pour lui, mais qu'il connaissait un homme dont la conduite avait été pour le moins aussi méritoire que la sienne dans cette journée : c'etait un sergent-major des Coldstream Guards, un certain Fraser. Au moment où les Français s'étaient élancés sur Hougoumont avec une telle furie que les portes de la ferme s'ouvrirent et que la position était menacée, ce sergent avait aidé le général à refermer, par un prodige de force et d'audace, les portes sur l'ennemi. Sir James déclara en conséquence qu'il recevait les cinq cents livres sterling, mais qu'il en remettrait deux cent cinquante au brave sergent avec lequel il entendait partager la récompense comme il avait partagé le péril.—Alph. Esquiros.

2. Translate into French-

O King, who doubtless believed, with the tyrant Lysander, that truth was no stronger than falsehood, and that men must be amused with oaths as we amuse children with playthings; who pretended to love the laws, only to preserve the power which would enable you to defy them; the Constitution, only that it might not hurl you from the throne where you wished to remain in order to destroy it (the Constitution): the nation, only to assure the success of your perfidies by inspiring it with confidence! Do you think to abuse us now by hypocritical protestations? Do you think to put us off the track about the cause of our misfortunes by the artifice of your excuses and the audacity of your sophistries? Was it to defend us that you opposed to foreign soldiers forces whose inferiority left not even a doubt of their defeat?

3. Translate into English-

Il se frappe la poitrine sur le dos d'un autre.

Tout mal arrive avec des aîles, et s'en retourne boîtant.

On peut tout ce qu'on veut : il faut vouloir.

Pas à pas on va loin.

C'est un bien lourd fardeau qu'un nom trop fameux.

4. What difference is there between—la justice and la justesse; la foudre and le foudre; la côte and le côté; la trompette and le trompette ?

5. What are the diminutives of la fille, la tour, l'ile, le lion, le manteau, la carafe, la côte, l'agneau, la chêvre, la perdrix ?

3—E. 1A.

6. Write down the third person of the present indicative, the preterite, and the present subjunctive of tenir, pouvoir, falloir, vivre, faire, dire, peindre, conduire, aller, rire.

7. What difference does the use of a capital initial make in the meanings of the following: Français, français; Dieu, dieu; Pierre, pierre; État, état; Porte, porte?

8. Give the corresponding feminine form of s'il a peur; ils ne sont pas chez eux; tout citoyen ; le roi voyage sous un nom de comte ; n'a-t-il pas sa maison à lui ; juif ou chrétien : ni l'un ni l'autre.

9. Give the French for—

Open (thou) the door.

Who has introduced her?

I shall tell them all.

I was complaining.

You have offered him some money !

10. What are the genders of these nouns : arbre, carnage, garde, image, légende, légume, ongle, poire, pouce, silence ?

 $1\overline{1}$. Give the second persons (singular and plural) of the imperative of *remplir*, *craindre*, *mourir*, croire, and venir.

12. Give the present and past participles of devoir, écrire, geindre, revoir, coudre, moudre, partir, séduire, mettre, perdre.

13. Show that the pronunciation of the final er in hiver is exceptional, and give four other words with the same exceptional sound.

14. What parts of a verb are formed—(a) from the infinitive; (b) from the present participle; (c) from the present indicative?

15. Write in French words—Chapter ccc.; 8 times 25 are 200; at 20 minutes to eleven; Mohammed II. took Constantinople in 1453; she was born on the 25th of April.

16. State all you know about the formation of the plural of French adjectives.

NOTE.—The following Questions are not to be answered by Junior Civil Service candidates :---

17. Which of these participles in italics are correct, and which are not? Give full reasons in each case :--

Les amazones se sont *rendues* célèbres par le courage, la valeur qu'elles ont montrée.

Autant d'ennemis on lui a suscité, autant il en a vaincu.

Les hommes que l'on a vus abuser des plaisirs sont ceux qui s'en sont lassés le plus facilement.

La plupart de ceux qui ont crus qu'une intrigue froide pourrait soutenir leurs pièces, les ont vu tomber.

Quelles sont les gens qui craignent le plus de mourir, si ce n'est ceux qui ont mal vécus?

La plus heureux vie n'a pas autant de plaisirs comme elle a de peine.

Quel que mauvais qu'est un livre, on y trouve toujours quelque chose qui mérite d'être lue.

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

1. Give the nominative plural of der Knabe, der Herr, das Tuch, die Kuh, die Feder, die Maus, das Jahr, das Weinglas, der Kaufmann, das Mineral.

2. Decline in full the pronouns ich, du, er, sie, es.

3. Give the German for-

I am in the house. Are you going into the country? It lies upon the table. Put my book on chair. He stood behind the door. Place my work behind the window. the chair.

4. Give in full the present indicative of sich rühmen.

5. Give the first person of the imperfect indicative and the past participle of heissen, bitten, fliegen, schnauben, rufen, schiessen, thun, gehen, ziehen, graben.

6. By examples (one of each) illustrate the meaning of hin and of her.

7. What conjunctions do not alter the construction of a sentence?

8. From the following words form adverbs : kurz, blind, hoffend, Tag, Anfang.

9. What words (simple, compound, and derivative) designating a female are neuter in German?

10. What is the difference between kennen, können, and wissen? 11. Translate into English—

Kälte waren. In einer alten Schürze hielt sie eine Menge Schwefelhölzer und ein Bund trug sie in der Hand. Niemand hatte ihr während des ganzen Tages etwas abgekauft, Niemand hatte ihr auch nur einen Dreier [halfpenny] gegeben; hungrig und halberfroren schlich sie einher und sah sehr gedrückt aus, die arme Kleine! Die Schneeflocken fielen in ihr langes, gelbes Haar, welches sich schön über den Hals lockte, aber an Pracht dachte sie freilich nicht.

Also-

Bald verzog sich das Gewitter, und der Himmel klärte sich wieder auf. Die Vögel begannen von neuem ihre Lieder, der Landmann seine Arbeit. Die Luft war reiner und kühler geworden, und eine süsse Ruhe und Stille herrschte im Thal und auf den Hügeln. Dem neugetränkten Gefilde entquoll Stärkung und Wohlgeruch. Alles schien erneuet und verjüngt, als käme die Natur so eben erst aus den Händen ihres liebevollen Schöpfers, und die Bewohner des Feldes blickten mit dankbarer Freude zu dem Gewölk empor, das ihren Fluren Segen und Gedeihen gebracht hatte.

12. Translate into German-

(1.) At whose house are you living ?(2.) Is your brother at home ?

Da ging nun das arme Mädchen auf den blossen kleinen Füssen, die ganz roth und blau vor

(3.) He says he has no more money.

(4.) Do you find what you are looking for?

(5.) I am sorry that you play instead of working.

(6.) Will the concert take place this evening?
(7.) Your cousin (fem.) understands me when I speak German.
(8.) It is a lovely day to-day, neither too hot nor too cold.
(9.) Give me back my book and my letters.

(10.) It is raining hard; lend me your umbrella until to-morrow morning.

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

1. Express in algebraical symbols—"The quotient obtained by dividing the difference of the fourth powers of two numbers by the sum of the numbers is equal to the product obtained by multiplying the difference of the squares of the numbers by the difference of the numbers."

Express in words $\left(\frac{5a-3b}{4c+3}\right)^2 - \left(\frac{2a-b}{3c+4}\right)^2$; and calculate its value when a = 4, b = 3, c = 2. 2. Prove the truth of the identities a - (b+c) = a - b - c, and a - (b-c) = a - b + c. 3. If $s = \frac{1}{2}(a+b+c)$, prove that $s^3 - \frac{s}{2}(a^2+b^2+c^2) - abc = (s-a)(s-b)(s-c)$.

Find the continued product of a+b+c, a+b-c, a-b+c, -a+b+c, and show that if $c^2 = a^2 + b^2$ it reduces to $4a^2b^2$.

4. Resolve into elementary factors $8a^3 - \frac{b^3}{27}$; $(3x - 2y + z)^2 - (x - 3y - z)^2$; $21y^2 + 11y - 2$; $9a^2 + 6ab + 2bc - c^2.$

- 5. Simplify $2\left\{x \left[y + 2(x z) + 3(y 2x)\right] 5(y 2z)\right\}$. $\frac{2}{3}\left(2x \frac{y}{4}\right) \frac{1}{2}\left(3y \frac{2x 3y}{6}\right) + \left\{\frac{2}{3}x \frac{1}{2}\cdot\frac{3y 5x}{2}\right\}$. 6. Simplify $\frac{2x^3 4x^2 2x + 4}{5x^3 8x^2 + 5x 2}$;

$$5x^3 - 8x^2 + 5x - 2$$

$$\frac{\frac{2}{1-x} - \frac{3}{1-x^2} + \frac{4x}{1+x^2}}{2 + \frac{x-1}{1-x+x^2} - 6x}$$

7. Solve the equations,- $\frac{\frac{2}{x-2} + \frac{3}{x-3} = \frac{5}{x-5};}{\frac{x+3a+b}{x-a+b} + \frac{3x+a-2b}{x+a-b} = 4.}$

8. Two trains whose lengths are respectively a and b yards, and which are travelling at the rate of x and y miles an hour respectively, pass one another in p seconds when they are travelling in the same direction, and in q seconds when they are travelling in opposite directions: write down the equations which express these facts.

9. After I have given one-fifth of my money and lost two-thirds of the remainder, I find that one-quarter of what is still left is less by £10 than one-seventh of what would have remained from the original sum after I had paid away one-third of it. How much money had I at first?

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

Define the terms—surface, plane, hypothenuse, diameter, diagonal, polygon, perimeter.
 Explain the distinction between a direct and an indirect demonstration, giving instances

from the First Book of Euclid. 3. If the three sides of one triangle be respectively equal to the three sides of another triangle, the two triangles shall be equal in every respect.

A, B, C, are three points in the circumference of a circle. If the straight lines joining A,B, and

B,C, are equal, show that they subtend equal angles at the centre of the circle.
4. If two angles and a side in one triangle be respectively equal to two angles and the corresponding side in another triangle, the two triangles shall be equal in every respect.

If this proposition were deferred till the three angles of a triangle had been proved to be together equal to two right angles, show that it would be reduced to one case, which might be proved by superposition.

5. On a given straight line to describe a parallelogram which shall be equal to a given triangle and have one of its angles equal to a given angle.

6. Draw a line DE parallel to the base BC of a triangle ABC, so that it shall be equal to the sum of the segments BD and CE, which it cuts off from the sides of the triangle.

7. If a straight line be bisected and produced to any point, the rectangle contained by the whole line thus produced and the part of it produced, together with the square of half the line bisected, is equal to the square of the straight line which is made up of the half and the part produced.

8. To divide a given straight line into two parts so that the rectangle contained by the whole and one of the parts shall be equal to the square of the other part.

If a straight line be divided in medial section, show that the rectangle contained by the whole line and the difference of its segments is equal to the rectangle contained by the two segments.

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

1. Show how to bisect a given rectilineal angle. In the construction why is the triangle described on the side of the base-line remote from the given angle?

If ABC be the given angle, and if CB be produced to D, and the angles ABC, ABD, be bisected, prove that the bisectors are at right angles to one another.

2. Given three lines, any two of which are together greater than the third, construct a triangle with its sides severally equal to the three given lines.

Explain where, in your construction, the necessity for the limitation of the lengths of the given straight lines comes in. Illustrate your answer by figures showing what may happen if the limitation be removed.

3. If the square described on one side of a triangle be equal to the sum of the squares on the other two sides, the angle contained by these sides is a right angle.

4. If a straight line be divided into any two parts the square on the whole line is equal to the sum of the squares on the parts together with twice the rectangle contained by those parts. Prove this proposition also by showing that it can be deduced at once from the two preceding

propositions.

5. If a quadrilateral can be inscribed in a circle the opposite angles are together equal to two right angles.

Any two circles cut one another in A and B: if through A and B two parallel straight lines PAQ, XBY, be drawn, terminated by the circles, these lines are equal to one another.

6. If a straight line touch a circle, and from the point of contact a straight line be drawn cutting the circle, the angles made by this line with the line touching the circle shall be equal to the angles in the alternate segments of the circle.

7. Prove that any equiangular pentagon inscribed in a circle is equilateral.

Trigonometry.-For Senior Civil Service. Time allowed: 3 hours.

1. What are the different units employed in measuring angles? Investigate equations connecting the measures of the same angle in terms of these units.

A piece of string is laid along the circumference of a circle a yard in diameter, and subtends at the centre an angle of 25°: find its length.

2. Define the tangent of an angle, and trace the changes in its value as the angle increases from zero to two right angles.

Prove from a figure that Sec $(A - 90^\circ) = \text{Cosec A}$.

3. Prove the following relations:---

$$\begin{array}{l} \sin \ 60^{\circ} - \sin \ 45^{\circ})(\cos \ 30^{\circ} + \cos \ 45^{\circ}) = \sin^{2} \ 30^{\circ}.\\ \frac{\sin \ A}{1 + \cos \ A} + \frac{1 + \cos \ A}{\sin \ A} = 2 \ \text{Cosec A}.\\ \frac{\cot^{2} x - \cos^{2} x}{\operatorname{Tan}^{2} x - \sin^{2} x} = \operatorname{Cot}^{6} x. \end{array}$$

4. Prove that-

(Sec 3A+Sin A) Sin A+(Cos 3A-Cos A) Cos A=0. $\frac{\operatorname{Sin}^{8}A-\operatorname{Cos}^{8}A}{1} \operatorname{Sin} (A-45^{\circ})$

$$\frac{\sin^{\circ}A - \cos^{\circ}A}{2 + \sin^{\circ}A} = \frac{1}{\sqrt{2}} \sin (A - 45^{\circ}).$$

5. Explain how logarithms may be employed to abridge the labour of raising a number to a power, giving the necessary proof.

Write down the following : $\text{Log}_{\sqrt{2}}8$; Log_84 ; $\text{Log}_{25}125$.

6. Prove that, in any triangle ABC, $\cos C = \frac{a^2 + b^2 - c^2}{2ab}$; and, assuming similar formulæ for the cosines of the other two angles, deduce

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}.$$

Prove also that $a \cos A + b \cos B + c \cos C = 2a \sin B \sin C$.

7. The elevation of a tower due north of a station at A is a, and at a station B due west of A is β : prove that the altitude is $\frac{c \sin \alpha \sin \beta}{\sqrt{\sin^2 \alpha - \sin^2 \beta}}$ where c is the distance between A and B.

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

1. Define acceleration, work, momentum, moment, couple, poundal, level, specific gravity.

2. Give the rules for compounding two uniform rectilinear velocities. Two trains, 250ft. and 300ft. long, are travelling at 15 and 30 miles an hour in opposite directions. How long do they take to pass one another?

3. Enunciate Newton's Laws of Motion.

4. A bullet is fired vertically upwards with an initial velocity of 1,600ft. per second. Find its height and velocity after 20 seconds.

5. Define centre of gravity. Show how the centre of gravity of a body may be determined experimentally. Explain the states of stable, unstable, and neutral equilibrium, giving the conditions of each state.

6. A thin rod, 6ft. long, has balls weighing 8lb., 10lb., and 12lb. attached to it at distances of 2ft., 4ft., and 6ft. respectively from one end. Find the position of the point at which the rod must be supported, the weight of the rod itself being neglected.

7. Find the relation of the power to the weight in the system of pulleys in which all the cords are attached to the weight.

8. What force would be required to roll a cask weighing a ton up an inclined plane 12ft. long and 4ft. high, neglecting friction, and what would be the pressure on the plane? 9. Show how to find the pressure at any point in a fluid at rest.

Having given that the specific gravity of mercury is 13.6, and that the weight of a cubic foot of water is 1,000oz., find the pressure per square inch at the depth of 20in. in mercury

10. Explain the method of finding the specific gravity of a liquid by means of the hydrostatic balance.

A piece of glass weighs 180 grammes in vacuo, 108 grammes in water, and 99 grammes in a solution of copper sulphate. Find the specific gravity of the glass and of the solution.

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

1. Mention the chief effects produced on substances by heat. Indicate the effects which are suitable respectively for measuring change of temperature and quantity of heat.

2. Give the law of the expansion by heat of a gas which is kept at constant pressure. A gas occupies 350 cubic inches at the temperature of 7° C. What is the temperature when its volume has increased to 375 cubic inches under the same pressure?

3. Define unit quantity of heat. How much heat will be absorbed in raising 50 grammes of water from 20° C. to the boiling-point and evaporating it at that temperature?
4. Describe the sonometer, and state the laws which the instrument is used to verify.

5. Give a full account of some method of comparing the intensities of two sources of light.

6. An object is placed on the axis of a concave mirror between the principal focus and the centre of curvature ; draw a diagram illustrating the formation of the image. A bright object stands at a distance of Sin. in front of a concave mirror of 12in. focal length ;

what is the character, position, and relative magnitude of the image?

7. State the characteristic properties of a magnet.

8. Explain how you would charge an insulated metal ball with positive and with negative electricity (1) by friction, (2) by induction.

9. Mention some different modes (1) of producing, (2) of detecting, an electric current.

10. A Daniell's cell gives a current of 2 ampere through an external resistance of 5 ohms. Taking the E.M.F. of the cell as 1.08 volt, find its internal resistance.

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

1. Write down the names and formulæ (symbols) of all the known oxides of each of the nonmetallic elements.

2. State what you know of ozone, under the following heads: (a) How it exists in nature; (b) how it can be made; (c) how it resembles and differs from dioxide of hydrogen; (d) the tests for it.

3. For what purposes is sulphuric acid used in the arts and manufactures?

4. Describe the process for the manufacture of sulphuric acid on the large scale, giving equations to show the chemical changes.

5. Give the names and formulæ (symbols) of all the acids that contain the following elements : (a) Chlorine; (b) nitrogen; (c) sulphur; (d) phosphorus; (e) bromine.

6. For what reasons are chlorine, bromine, fluorine, and iodine classed together as one family? 7. In what respects do the three allotropic forms of carbon differ from each other? What is there to prove that they are really the same element?

8. How many gallons of atmospheric air are required for the complete combustion of 100 gallons of (a) hydrogen, (b) marsh gas or firedamp, CH₄? Show the working-out of this question.

9. Write down as many equations as you can to show how the following gases are made: Oxygen, hydrogen, chlorine, sulphur-dioxide.

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

[Candidates are requested to answer questions in one subject only.]

ANIMAL PHYSIOLOGY.

1. What is the composition of the blood? Describe the corpuscles found in the blood, and give some account of their functions.

2. What are the chief kinds of food required to nourish the body? To which classes of food-

stuffs do starch and white of egg (albumen) belong, and how are they digested?3. What is lymph, and in what parts of the body is it found? What are the functions of the lymphatic system?

4. Explain how air is drawn into the lungs. What would happen if an opening were made in the left wall of the thorax in a living animal?

5. Give an account of the structure of the kidneys. What is their function?

6. Write an account of the structure of the ear, and explain how the various parts aid in producing the sensation of sound.

7. What are the general physiological properties of nerves? Distinguish between sensory and motor nerves. Explain clearly what you understand by the term "reflex-action." 8. What is the general form and structure of the brain? What do you know of the arrange-

ment of the white and the grey matter of the brain, and of the difference between the two? What are the chief functions of the brain?

BOTANY.

1. Distinguish between single and compound leaves. Describe some of the chief modifications of leaves for various purposes. What kinds of plants are without foliage-leaves?

2. What elements are essential to the growth of plants, and from what sources are they derived? Describe experiments which support your statements. 3. What do you understand by osmosis? What part does osmosis play in the nutrition of the

plant?

4. For what different purposes is water required in the plant? What do you understand by transpiration, and how does it take place? What is the purpose of transpiration?

5. What is nectar, and in what parts of the flower may it be found? What useful purpose does it serve?

6. Give an account of the influence of light on the growth and nutrition of the plant.

7. Describe fully the structure of any dicotyledonous flower, and show how the fruit is formed from the flower. Distinguish between true and spurious fruits, and give examples of both kinds.

8. In what respects do the Monocotyledons differ from the Dicotyledons?

Maori.-For Junior Civil Service. Time allowed: 3 hours.

1. Translate into English the following :-

Na, ko tenei wahine, ko Te Huhuti, i pera tahi ano ia me Hinemoa. Ko Hinemoa, nana i kau te roto o Rotorua. Na, ko Te Huhuti nana i kau tahoe te roto o Te Roto-a-tara. No Ngatikahungunu tenei wahine a Te Huhuti, te tupuna wahine o Te Hapuku; te tikanga i kau-tahoetia ai e ia te roto o te Roto-a-tara, he kawenga na te humarietanga o Te Whatui-apiti; no konei i kautahoetia ai e ia taua moana; no reira kihai ia i tawhitawhi kia whakaaroaro ranei, kia aha ranei, kao! ko tana whakaaro i penei na, "Ahakoa nui te moana, me aha? engari me whakamatau! a mana ka totohu, he ahakoa? a mana e u, e pai ana."

Na, titiro ra, e hoa ma, ki te whakaaro o tenei wahine, kihai hoki i tawhitawhi tana whakaaro, notemea, kua whakaarorangi noa ake tona ngakau ki te atahuatanga o Te Whatui-apiti, te kuku o tona manawa. Na, ka kau ia, a ka u ki te kainga o Te Whatui-apiti; e u kau atu ana ano ia, inamata kua kitea ia e te whaea o Te Whatui-apiti. Na, oho whakarere taua ruruhi; katahi ia ka titiro atu ki a Te Huhuti, ano te kiri! me he pari-tea, ko te turanga mai ki uta o te wai, ka haere atu ki te kuia ra, te ahunga atu; heoi ra, ka titiro atu te ruruhi ra ki te atahua mai o te wahine raka, ana na! me he haeata e toea ana i te taka a rangi—koia ia ko te rite o tuawahine.

2. Translate into Maori the following :-

-Sir George Grey's Legends.

When the maiden arrived at the brink of the fountain and was about to dip her calabash into it, she heard some one behind her and, turning suddenly round, ah ! there stood a man close behind it, she heard some one behind her and, turning suddenly round, ah! there stood a man close behind her; yes, there was Ponga himself. She stood quite astonished for some time, and at length asked, "What can have brought you here?" He answered, "I came here for a draught of water." But the girl replied, "Ha, indeed! Did not I come here to draw water for you? Why, then, did you come? Could not you have remained at my father's house until I brought the water for you?" Then Te Ponga answered, "You are the water I thirsted for." And, as the maiden listened to his words, she thought within herself, "He then has fallen in love with me," and he sat down, and placed himself by her side, and they conversed together, and to each of them the words of the other seemed most pleasant and engaging. Why need more be said? Before they separated they arranged a time when they might escape together. and each of them returned to the village to wait arranged a time when they might escape together, and each of them returned to the village to wait for the occasion they had agreed upon.-Sir George Grey's Legends.

3. Put the following into Maori:-

They could not cook their food for want of firewood.

If we start early we should reach the settlement in the evening.

What is the matter with that dog? See, he is limping on one leg.

What is the price of potatoes now by the kit?

Thomas went by land to Foxton, and George went by ship.

Although it was very late, he saw me across the ford: was he not very kind? A great many people have been ill this season with the new sickness; it is very weakening, and persons attacked with it have to take great care of themselves.

4. Put the following into English :-

Ahakoa nui noa toku ngenge, tohe tonu au ki te haere.

He nui te mate o taku tamaiti inanahi, a kua pai haere te mate inaianei.

I ui mai ia ki au, ko ahea rawa koe haere ai ki Tauranga.

I haere maua ko Tamati.

Kua ora ake a Ani inaianei.

Ka mea atu a Ihenga, "Haere mai kia kite."

Kowai ra tona hoa?

Kahore he oranga mo nga tamariki, ka mate i te kai.

Mawai au e whakawhiti atu ki tawahi?

Pewhea to raua nohoanga ki Whakatu?

5. Give the passive forms of the following verbs, illustrating the same with examples, accompanied with translations: A, i, ka, oro, u, wawa; and give the imperative forms of the following, supplying examples with translations: Kake, o, oma, haere, epa.

6. Write a letter in Maori, giving the general news of the place, stating how the relatives and people of the village are, and how the stock and crops are progressing, and asking for information as to the condition, &c., of the persons to whom the letter is addressed. Give rendering of same in English.

Shorthand-Senior.-For Senior Civil Service. Time allowed; 3 hours.

INSTRUCTION TO SUPERVISORS.

1. Inform candidates before the time for taking up this subject that they may use pen or pencil as they please for taking notes, which should be written on ruled paper, but that they must transcribe those notes into longhand with pen and ink.

2. Inform candidates that when once you have commenced to dictate you cannot stop until the passage is finished.

(a.) 80 words per minute. (b.) 120 " 3. Dictate the passages at the following rates of speed :---

(c.) 150

N.B.—It will be well to practise reading these aloud some time beforehand, looking at a watch or clock, so as to accustom yourself to reading in each minute the exact number of words indicated.

4. Candidates are at liberty to take down the three passages, if they choose. If they do so, all the passages are to be dictated to them before they commence transcribing. If a candidate takes only one or two of the passages he is to commence transcribing as soon as he has finished taking notes.

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.

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.

PASSAGES FOR DICTATION.

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

POPULAR FALLACIES.

Two hundred years ago that quaint old writer Sir Thomas Browne filled two large volumes with an account of what he conceived to be "Vulgar Errors;" and, although modern science has done much to diffuse sound knowledge in regard to the phenomena around us, yet popular fallacies have not, as yet, quite disappeared. Even our text-books of popular science and many of our so-called scientific papers continue to propagate and perpetuate mistakes which may be classed with the "vulgar errors" of Dr. Browne. Thus, nothing is more common than to hear of the tubular character of hair; indeed, almost any one that we meet will, if asked, tell us that the hairs of our heads are very fine tubes. And yet every hair is a good solid cylinder—a fact which has been published hundreds of times, but which seems to have no effect upon the popular belief. It is true that a hair, when examined under the microscope, looks something like a tube; but then so does a solid metallic wire—a fine needle, for example. That which gives rise to the tubular appearance is simply the bright line which is always seen on every cylinder—a stove-pipe, for example, or even a common black-lead pencil. When we take the hair, however, and, having cut a slice off at the end, examine this slice, we find that it is not a ring, as it would be if cut from the end of a tube, but a solid disc.

Another singular idea, which has gained very general ground, is that the moons of Jupiter can be seen in a looking-glass; and if, some bright night, we try the experiment, we shall actually see Jupiter in the looking-glass, accompanied by a very faint star which constantly maintains the same distance from the planet. Further examination will show us that every bright star presents the same appearance; and, if we reflect a little upon the phenomenon, we shall see that the so-called moon is only the faint image of the star or planet reflected from the surface of the glass, while the bright image reflected from the surface of the mercury is what we call the star itself. A lamp or candle held before a thick mirror will present precisely the same appearance. Simple though the explanation be, however, there are few errors that have taken a deeper hold on the minds of the pseudo-scientific than this.

Amongst popular fallacies, a prominent place must be given to those which arise from the actual deception of the senses; for neither our eyesight nor our sense of touch is to be absolutely depended on. Thus, the beautiful phenomenon known as "the sun drawing water" is caused simply by the rays of the sun piercing a rift in the clouds, and rendered more intense by the prevailing gloom. Few people would believe that actual measurement of the sun and moon, when near the horizon at rising or setting, would fail to show that they are then much larger than at other times; and yet, allowing for the difference caused by refraction, and which is too slight to be measured by any but the finest instruments, actual measurement does show that not only their real but their apparent sizes are precisely the same at all times.

BRONCHITIS-CONSUMPTION.

Though these affections are often confounded, they are really very distinct. Bronchitis, as I have just described it, is a chronic inflammation of the air-tubes and -cells, and may continue a long time without destroying the patient. Consumption, called *Phthisis pulmonalis*, is disease of the whole substance of the lungs, produced by the retention of morbific matter in the cells, which accumulates and hardens into small bodies called tubercles. These, whether hereditary or the These, whether hereditary or the retained secretions, increase in size and number to such an extent as to press upon the tissues and stop the circulation, when chemical affinity, always resident in them under the control of the vital force, asserts its prerogative, destroys the tissues, softens the tubercles and mingles with them the *débris* of the tissues, producing what is called pus. This is coughed up, leaving a cavity through which the air passing rapidly causes a wheezing, scratching noise. This process continues till the lungs are so far destroyed that there is not enough left to vitalise the blood and support the system, when the patient dies.

If the morbific matter is retained in only small parts of the lungs, this process is slow, and the healing of the cavities is, in some cases, so rapid that the patient recovers. If the matter is, at the same time, extensively deposited, and it commences all at once the destruction of the tissues, the whole work is done.

(b.) At the rate of 120 words per minute. Takes 10 minutes. DEAR SIR,-

I am obliged for yours with dividend warrant for 16s. 8d. on Pilsens duly received; also for wires of to-day, to which I replied advising sales of 10 and 20 Quebradas Mines at $3\frac{1}{5}$ and 20 at $3\frac{2}{5}$. I now enclose contract, and retain to sell 20 at $3\frac{2}{5}$, and 20 each $\frac{1}{4}$ up. You do not say in your wire how many in all I am to sell.

Americans looking dull and heavy, but the Yankees seem to have been buying pretty freely. Ι don't quite understand the market. Yours faithfully, E. BARTON.

To John Rattray, Esq.

DEAR SIR,-

I am in receipt of your favour of yesterday. Please carry forward to next account on best possible terms the following stocks, namely :-

Bought. 40 shares Denvers.

20"

Milwaukee. Wabash Preference. 20

11 As to the stocks sold you will please note as under :-

I will deliver 125 shares Quebradas and £200 North British, and I will also deliver the other 25 shares Quebradas unless at least 3d. per share Contango can be obtained on them; but if 3d. or more can be got, then these 25 shares will be carried forward to next account. Please note selling order in Northumberlands is not renewed for new time.

I have had no wire prices from you for two or three days. I should be glad to have such once or twice a day. Lay any open stocks, a few Americans in general, and also Ohio and Mississippi, about which especially one of our friends is always inquiring.

To E. Barton, Esq.

Yours very truly,

WILLIAM HUTCHINSON.

DEAR SIRS,-

16 North Bridge Street, Edinburgh, 23rd February, 1888.

We are in receipt of your letter of yesterday's date. We think a marriage settlement might be prepared in some such terms as these: That, on the one hand, Captain Field should pledge himself (whenever he is in a position to do so) to convey to trustees, to be named, a certain sum—it is not for us to suggest the amount—to be held by the trustees for behoof of the captain himself while he survives in the first place, and thereafter for behoof of his promised spouse in liferent, should he predecease her, and the children of the marriage, if any, in fee; and, failing children, then for behoof of the captain's own heirs or assignees: and that, on the other hand, Miss Fry, with consent of her father for himself, should assign to the trustees the whole property to which she may ultimately succeed or become entitled to be held for her own behoof, in the first place in life-rent, and thereafter for behoof of her husband in life-rent, should she predecease him and the children of the marriage, in fee; and, failing children, then for behoof of her own heirs or assignees, subject to provisions in the event of her entering into a second marriage, &c.

So far as we are aware, Miss Fry has not at present any fortune. But, as agents for the trustees of her mother's marriage settlement, we may state that they hold considerable funds, an equal share of which, along with her brothers and sisters (five or six in number), she will receive on the death of the longest liver of her father and mother.

By our law an ante-nuptial contract has very important privileges which a post-nuptial settlement has not, and we have no doubt the law of England confers similar privileges. It is of importance, therefore, that if any settlement is to be entered into it should be ante-nuptial, and, in view of the marriage taking place in the beginning of the year, that it should be prepared at once. We shall be glad to hear from you at your early convenience.

And we remain, yours faithfully,

To Messrs. Haynes and Sons, 17 Bedford Row, London. Douglas and Nicol.

My client, Mr. James Walker, has consulted me with reference to the serious damage to several bales of silk stored in his warehouse, occasioned in consequence of the overflowing of water from the cistern on the first floor. I am instructed that the overflow is due solely to the defective condition of the ball-tap, to which your attention has been repeatedly called. A large portion of the goods on my client's premises has been completely spoiled by being saturated with water, and he will hold you responsible for all the loss that he may sustain on this account. The damaged stock must be quickly removed, and I write you now to suggest that you should at once appoint some person to inspect the goods on your behalf, so that you may be satisfied as to their actual condition. If you should feel inclined to purchase them at their selling price before the damage occurred, my client will be glad to settle the matter on that basis; but, if not, he will dispose of them for the best price he can obtain, and sue you for the difference. Your prompt attention and reply are desired. To James Lowe, Esq. Yours truly,

WILLIAM JAMES STIFF.

DEAR SIR,-

THOMAS WALKER'S PROPOSAL.

The Board think it strange Mr. Walker knows so little as to his brothers and sisters, for he does not even state whether they were older or younger than himself. It may be that he left home at an early age, and has had very little communication with his family since; but, if so, my Board think that the circumstance should have been stated in the papers, say in your own agency report. They also think it strange that he can give no information as to the disease for which he was formerly in St. George's Hospital for three months. Will you therefore make further parti-cular inquiry upon these points? It would be desirable also to learn how long ago it is since his father died, and to obtain, if possible, more precise particulars as to the cause of his father's death. Yours truly,

To Mr. S. Wilkinson, Gravesend.

Yours faithfully,

Yours truly,

DEAR SIR,-

DEAR SIR,-

This person's family history is so unfavourable that he cannot possibly be accepted at the ordinary rate of premium. I cannot say positively what the extra premium would probably be if he should be personally found a good life; but I should think it would not be less than from ten to fifteen years additional, and I could hold out no prospect of the premium being reduced after the lapse of a few years if he should keep in good health. I have written to Mr. Adams to this effect.

To Mr. S. Wilkinson, Gravesend.

KING STREET HOUSES.

By the instructions of Mr. James, who has, we understand, consulted you, we beg to hand you herewith proof poster and also proof of proposed particulars, for your approval. Kindly return these at your early convenience, together with draft conditions of sale.

To Wm. Green, Esq.

WALTERS AND HOLMES.

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

GENTLEMEN OF THE JURY,-The prisoner at the bar has been indicted by a grand jury of Cortland County for one of the gravest crimes that can be committed in our land-that of taking the life of a fellow-man without authority of law. His liberty, yes, his life is here in question; the protection and security of society may be in question. It is incumbent upon you, therefore, to give to this case the most serious and the most thorough consideration, in order that you may find where the truth lies.

I need hardly say to you, gentlemen, that you are to approach this case without fear or favour, without prejudice and without sympathy. It is not your province to temper justice with mercy. You are sworn here to decide this case well and truly upon the evidence that has been given, and if, upon that evidence, under the rules of law which I shall lay down to you, the people have not shown that this defendant has been guilty of a crime, then, gentlemen, your oaths will compel you to set him free. If, on the other hand, under the rules of law which I shall give you, the evidence shall establish that the prisoner is guilty of a crime, then your verdict must so state, and you must leave to the Court and to the law the responsibility of its punishment.

There are certain facts which stand here upon undisputed evidence, to wit: that on the 24th day of September, 1889, in the town of Preble, in the County of Cortland, in the State of New York, this defendant, Robert W. Griswold, shot one Dennis O'Shea, and that upon that day he died by reason of the wound. To answer for this act he is here charged by criminal indictment, and his answer is, gentlemen, that his acts were without guilt; and the trial of the issue raised by this charge and this answer you are now about to close.

In determining the guilt or innocence of this defendant I will submit to you five questions for your consideration. First, was the defendant legally responsible for his act? Second, was his act justifiable? Third, was there an intent to kill? Fourth, was the deed done in the heat of passion and with a dangerous weapon? Fifth, was there premediation and deliberation?

Recurring, then, to the first question, "Was the defendant legally responsible for his act?" section 20 of the Penal Code reads that "an act done by a person who is an idiot, imbecile, lunatic, or insane, is not a crime." That section is modified by the next section, which reads that 4-E. 1A.

Sir,-

JAMES BAKER.

JAMES MILLSON, Secretary.

JAMES MILLSON, Actuary and Secretary.

"a person is not excused from criminal liability as an idiot, imbecile, lunatic, or insane person except upon proof that at the time of committing the alleged criminal act he was labouring under such a defect of reason as either, first, not to know the nature and quality of the act he was doing, or, second, not to know that the act was wrong." You will notice, therefore, that there may be a pretty broad difference between what a layman may call insanity, or between what medical men may term insanity, and legal irresponsibility. No matter how insane a man may be, no matter to what extent his reason may be dethroned, if he has knowledge of the nature and quality of his act, and has knowledge that it is wrong, then, gentlemen of the jury, he is responsible for that act, and, if that act constitutes a crime, then he must suffer the punishment which the law prescribes.

In determining whether this man is responsible legally for his acts, I will call your attention to section 17 of the Penal Code, which reads, that "a person is presumed to be responsible for his acts, and the burden of proof that he is irresponsible is upon the accused person, except as otherwise prescribed in this code."

Now, I will call your attention summarily to the claims of the different counsel on the question of the sanity or insanity of this defendant. The defendant's counsel claims that he is insane, and, more than that, he claims that he did not know the difference between right and wrong; that he did not know the nature and quality of his act. He alleges that the defendant was predisposed to insanity; that his father has been shown here to have been insane.

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

INSTRUCTION TO SUPERVISORS.

1. Inform candidates before the time for taking up this subject that they may use pen or pencil as they please for taking notes, which should be written on ruled paper, but that they must transcribe those notes into longhand with pen and ink.

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.) 50 words per minute.

- (b.) 80 "
- (c.) 100 "

N.B.—It will be well to practise reading these aloud some time beforehand, looking at a watch or clock, so as to accustom yourself to reading in each minute the exact number of words indicated.

4. Candidates are at liberty to take down the three passages, if they choose. If they do so, all the passages are to be dictated to them before they commence transcribing. If a candidate takes only one or two of the passages he is to commence transcribing as soon as he has finished taking notes.

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.

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.

PASSAGES FOR DICTATION.

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

I have only a few remarks to make touching matters that may have been already discussed -one cannot hear all that is said—but which, even if already discussed, may have some freshness, coming from an independent standpoint. I hardly realise my position at this moment. I have been in this House before, but for the first time I find myself with a majority. Now, to a man like myself, who has all his days been battling in a humble way against class and plutocratic privileges, and for such a measure of justice as shall enable all sorts and conditions of men to live amicably together-for such a man to be in a majority is quite a novelty, and, for myself, I am not sure that I shall know how to shape my course properly. I am glad of the onward march of progress-I positively revel in the new era on which we have entered-but, considering the ruts and pitfalls that lie before us, I shall walk as softly as possible. I have said one cannot hear all the speakers. Even if the spirit were willing the flesh is weak. But I had the pleasure the other evening of listening to the honourable member for Hawke's Bay. He began by telling us that the debate had been very dreary,—which was but a poor compliment to his comrade in arms, my honourable friend the member for Wellington City (Mr. Duthie), who on that same evening had kept the House in a state of gentle somnolency for two stricken hours. The honourable member for Hawke's Bay had felt it to be dreary—perhaps some others had been similarly affected—there is no accounting for these things. For instance, I thought the speech of the leader of the Opposition, which was to smite an unhappy Government hip and thigh, was rather dreary. I thought that raw potato of his, which he munched so frequently, and which he rolled like a sweet morsel under his tongue, was very inappropriate, very far-fetched, and just the least little bit vulgar. occurred to me that his potato, like that of Te Whiti, whom he pursued so vindictively; was cooked, and for all practical purposes eaten and done with for ever. Well, the honourable member for Hawke's Bay, at all events, was bored, and when he rose to speak he gave us to understandif he did not say so in so many words—that he meant to put a new face on things. Now you shall hear what you shall hear. Like a well-known character, who need not be named, he would not only roar like a lion, but also speak to us as gently as a sucking dove. His first attack was directed against my honourable friend the member for Egmont. Because that honourable

gentleman differs from the Government in a variety of details, the honourable member for Hawke's Bay cannot understand how the honourable member can support the Government.

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

Mr. GLADSTONE, who was received with loud cheers, said: Ladies and gentlemen, it has been my habit to address a few words to you on the occasion of this gathering. Last year I detained you for a considerable time, for various persons had brought before me very interesting aspects of the subject in which you are concerned, and therefore I made an inroad upon your patience which I do not think I shall repeat this year, for there is a rule in politics, or, at any rate, if not a rule there is a precept, which some people think would be better if it were a rule. When you have got nothing to say the best way is to say nothing. (Laughter.) Unfortunately, that precept, which has a great deal in it, in the spirit if not in the letter, is not universally observed, either in politics or anywhere else. (Laughter.) Well, having not much occasion to delay you to-day, I will endeavour not to delay you much; and that is approaching to the spirit of the excellent maxim to which I have referred. (Laughter.) There is one thing, however, that ought always to be introduced—that is to say, the main question of the day, whether we are gaining ground or losing ground. (Hear, hear.) You are aware that this institution, which I hope is gradually acquiring solidity and a prospect of permanence in consequence of the increasing interest that is felt in itthis institution was founded for one single purpose in the main, namely, the promotion of cottage gardening. (Hear, hear.) That was the main object, and if we failed in that, or if we were going backwards in that respect, it would be a very poor consolation to think that we were making ground in any other directions; and the first thing, therefore, is to consider how we stand with regard to cottage gardening. Well, now, on the authority of those who are most competent to judge, I am rejoiced to be able to say that this year again has been a year of decided progress, and that the exhibits which have been sent in are considerably more numerous and more important than on any former occasion. (Cheers.) I hope therefore that you will consider that there is a very great encouragement to persevere in a course of effort such as has heretofore been made, and that we may, as we hope, be able to record as each season comes round that the feeling which has been stirred up in the minds of the cottagers of the country is a feeling that gains strength instead of losing it; because recollect that we are not now speaking of anything merely abstract: we are now speaking of the extension both of a sentiment and of a practice which tells in the most direct and in the most important manner upon the comforts of the people and upon enabling them to live in tolerable abundance as regards the necessaries and some of the conveniences of life. ("Hear, hear," and cheers.) However, the plan when it was founded did not exclude what lies beyond cottage gardening—namely, what is commonly called fruit-farming at large. Nay, it even goes beyond fruit-farming. But the great distinction which marks this extension of the original plan is that it brings in another and a very different class-namely, the farmers of the country; and I respectfully venture to say again to the farmers of the country that, although I know it is a very difficult thing to modify traditional practices, and although especially the first steps, the preparatory and initial measures, in a new course are attended with much difficulty and often with but comparatively moderate results, yet I do venture to say with regard to fruit-farming and with regard to all the minor branches, not merely the question of fruit, but with regard to all the minor branches of production that are connected with this great and important profession-I do believe it will be immensely for the benefit of the country, and especially for the benefit of that class, if they continue to introduce a more systematic and more permanent regard to those branches into the pursuit that they follow with so much advantage to us all. (Hear, hear.) You know, gentlemen, that in other countries, in Belgium especially, perhaps in France more than in any other country of Europe, and in certain parts of Italy, this most beneficial practice of following what is called the small culture in all its branches is very extensively pursued, and forms a very considerable element in the general industry and general prosperity of the country. (Cheers.) As far as I know the fruitfarming which has heretofore been pursued in England-

(c.) At the rate of 100 words per minute. Takes 5 minutes. DEAR SIR,-KING STREET HOUSES.

We beg to remind you that the sale of the above-mentioned property will take place at the Auction Mart on Wednesday next, the 16th inst., at one o'clock. We have asked your solicitor to meet us there a quarter of an hour before that time, to fix reserves. Please attend also. Yours truly,

WALTERS AND HOLMES.

Sir,-

In reply to your favour, we beg to inform you that we have disposed of the lease of 7 Salisbury Park, but can offer you the lease of No. 9, the next-door house, which has $9\frac{1}{2}$ years to run, at a rent of £125 per annum, and a premium of £2,000, which includes the furniture (except ornaments), or a premium of £1,000 including the fixtures but not the furniture. Should you like to view the house we shall be glad to make an appointment for you to do so, and any further information you may require we shall be most happy to supply you.

We are, Sir, your obedient servants,

Gentlemen,-

37 Pall Mall, London, S.W., 3rd February, 1888.

In reply to your letter, we are instructed to let or sell some shops with premises over, now in the course of erection opposite Norfolk Terrace, a short distance from Queen's Road. They will be completed about June next, and we recommend them to your favourable consideration, as the

position is very suitable for the business you name. The rents are £140 and £160 respectively, and we will endeavour to let you see the plans if desired.

We have also some business premises to let in Hanover Street, Westbury Road, which is an exceedingly central position. The rent in this case is $\pounds 225$ per annum, which, though somewhat high, would be recouped several times by the more extensive and better class of business that the premises will command.

If you require any further details or particulars, we shall be glad to give them, if you can make it convenient to call at this office to-morrow or the next day.

We are, gentlemen, yours faithfully,

DEAR SIRS,-

RS,— *Re* W. T. ABEL. In reply to your letter, I beg to say there is a sum of money now in Court out of which a dividend will be paid to the creditors, and, unless the trustee moves in the matter in that direction in the course of a few days, I shall be compelled to take further proceedings in the matter, and

make an application to the Court to compel him to do so. I will let you know later on what further steps I have been forced to take, if I am really compelled to take any; but rest assured, until the amount now in the hands of the Court be distributed among the creditors I shall not let the matter rest. Yours truly,

To Messrs. Williams and Collins.

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