#### CLASS D.—EXERCISE IN SPELLING.

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

Words to be dictated by the Supervisor: Anomalous, besiege, colossal, fusillade, homogeneous, obituary, theocracy, veterinary, posthumous, hypocrisy, irresistible, picturesque, rendezvous, chimera, worshipped, eligible, incendiary, proffered, archæology, correlative, synonymous, aerated, rhapsody, hygiene, surfeit.

#### CLASS D.—ARITHMETIC.

# Time allowed: Three hours.

1. Reduce ten millions sixty thousand and eight square feet to acres.

2. If 5 cubic feet of iron weigh 1 ton, find the volume in cubic inches of a 10lb. iron weight.

3. Multiply 5 miles 10 poles 2 feet by  $16\frac{2}{7}$ .

4. Find, by Practice, the value of 242 acres 3 roods 32 perches at £2 14s. 8d. per acre.
5. Find the average number of gallons of water falling monthly on an acre of ground at a place where the annual rainfall is 34 inches; having given that a gallon of water weighs 10lb., and that a cubic foot of water weighs 1,000oz.

6. Simplify  $\frac{(3\frac{1}{5} - 2\frac{5}{6}) \text{ of } \frac{4}{13}}{2\frac{2}{9} \text{ of } (3\frac{1}{6} - 2\frac{4}{5})} \div \frac{3}{7} \text{ of } 4\frac{1}{5}.$ 

7. Find the difference between 1.516 of 1dwt. and .028 of 2oz. 11dwt. 1gr.; and express it as the decimal of an ounce avoirdupois.

8. Divide the difference between the squares of ·26 and ·26 by the square root of ·006241.

9. Standard gold consists of 22 parts by weight of pure gold and 2 parts of an alloy worth 5s. 2d. per oz. troy, and 1lb. troy of this composition is coined into  $46\frac{29}{40}$  sovereigns. What is the value of the pure gold contained in a sovereign?

10. When the barometer stands at 30 inches the pressure of the atmosphere is 2,120lb. per square foot: hence find the pressure in dynes per square centimetre, when the height of the

barometer is 75 centimetres.

[1ft. = 30.48 centimetres; 1lb. = 453.6 grammes; weight of 1 gramme = 981 dynes.]

11. A bill of £425 falls due on the 24th August: find its value on the 16th of May preceding, allowing interest at 6 per cent.

12. Find the amount of £1,200 in two years at 8 per cent. compound interest, the interest

being payable half-yearly.

13. A person offered a section of land at an upset price which would have yielded him a profit of 24 per cent., but, being obliged to take £70 less than the upset price, he lost 16 per cent.: what did he receive for the section?

14. Brown sells his goods 20 per cent. cheaper than Black Brothers, and 20 per cent. dearer than White and Grey: how much would a customer of Black Brothers save by taking five hundred

pounds' worth of goods (1) from Brown, (2) from White and Grey?

15. What is the meaning of par of exchange and course of exchange? If a sovereign be worth 25.14 francs, and a dollar be worth 4s. 1½d., what is the rate of exchange between Paris and New York?

## CLASS D.—GEOGRAPHY.

### Time allowed: Three hours.

1. Explain the meaning of the terms "equinox," "solstice." At what periods of the year do they respectively occur?

At a place in latitude 43½° South, what is the meridian altitude of the sun at an equinox

and at each solstice?

2. Explain the principal causes which affect the climate of a place, and give illustrations.

3. Describe the situation of as many volcanic regions as you can.

- 4. Draw a map of Asia; mark the names of the chief capes, and insert the following towns:
- Batoum, Mecca, Rangoon, Bokhara, Madras, Tokio, Colombo, Shanghai, Delhi, Petropaulovski.

  5. Describe the position of each of the following towns in the United Kingdom, and mention anything for which any of them is famous: Chester, Limerick, Perth, Norwich, Shrewsbury, Galway, Berwick, Aberdeen, Lewes, Canterbury, Stirling, Cork.

6. Describe the mountain and river systems of South America.

7. Enumerate the various countries in the German Empire, and the chief towns of each country

8. Give a brief account of the main physical features of the North Island of New Zealand.

### CLASS D.—ENGLISH HISTORY.

Time allowed: Three hours.

[All the questions are to be attempted.]

1. Show how slavery disappeared in England. 2. Sketch the character and reign of Stephen.

3. What great measures did Simon de Montfort initiate?

4. Give an account of Lollardism. Had it any connection with the peasant revolt?