5. A person receives £28, and is told to pay for 2 cwt. 3 qr. 4 lb. of sugar at 4½d. per lb., and 3 chests of tea, each containing 44 lb., at 2s. 10d. per lb.; and to spend the rest in coffee at 1s. 11d. per lb. How much coffee does he buy?

6. There are 365 days in the ordinary year, and leap-years contain one day more: if there are 97 leap-years in 400 years, find the average length of the year.

7. How many yards of carpet, 2 feet 3 inches wide, will be required to cover the floor of a room 35 feet 3 inches long by 22 feet 6 inches wide? and what will be its cost at 6s. 9d. a yard?

8. Explain why the numerator and denominator of a fraction may be both multiplied by the same number without altering the value of the fraction. Show that multiplying the numerator of a fraction by any number has the same effect as dividing its denominator by the same number.

9. Simplify $2\frac{2}{3}$ of $4\frac{1}{2}$ of $\frac{1\frac{1}{3} - \frac{3}{4}}{1\frac{1}{3} + \frac{3}{4}}$. Express the difference between $2\frac{2}{7}$ of half-a-guinea and $\frac{2}{5}$ of £1 14s. 2d., as the fraction of £1 11s.

10. Arrange the fractions $\frac{1}{3}$, $\frac{5}{17}$, $\frac{7}{20}$, $\frac{11}{36}$, in the order of magnitude; and find by how much the quotient of the least by the greatest exceeds the difference of the same.

11. Divide 182·4 by ·0418, and explain the rule for fixing the decimal point in the quotient.

12. If 10 lb. of sugar cost ·140625 of 16s., what will ·3125 cwt. cost?

13. Find the simple interest on £912 6s. 8d., from 21st October, 1879, to 10th January, 1881, at $7\frac{1}{2}$ per cent. per annum.

14. A merchant buys quantities of tea as follows, and mixes them:—40 cwt. at £11 18s. per cwt., 50 cwt. at £12 2s. 8d. per cwt., and 22 cwt. at £15 8s. per cwt. At what price per lb. must he sell the mixture so as to make a profit of 25 per cent.?

Class E.—Geography.

Time allowed: Three hours.

1. Explain the meaning of the expressions Arctic Circle, Torrid Zone, Equinox, Estuary, Table-land.

2. Explain the causes which affect the climate of a country.

3. What becomes of the snow which is deposited in such large quantities on the tops of high mountains?

4. Enumerate the principal islands and groups of islands which lie near the coast of Asia, beginning from the north-east.

5. Draw a map of Europe, and insert in it the principal rivers and mountain-chains.

6. Give the names and positions of four important towns in each of the following countries: Italy, China, India, United States of North America, Russia, Australia.

7. What are the British possessions which are in Africa, or which lie near its coast? Give the situation of each.

8. A ship leaves New York for Sydney, thence it goes to Newcastle (in New South Wales), thence to Lyttelton, from which place it returns to New York. Trace the course of the ship, and describe the probable nature of the cargo with which it would be loaded at the several ports at which it calls.

9. Describe briefly the more important physical features of the United States of North America.

Class E.—English History.

Time allowed: Three hours.

[Note.—Candidates must attempt Questions 9 and 10 and four others.]

1. On what points did James I. differ with his Parliament?

2. Sketch the history of the Commonwealth and of the Protectorate.

3. Characterize the foreign policy of Charles II.

4. When was the Habeas Corpus Act passed? Describe its provisions and effects.

5. What reforms are due to the Parliaments of William III.?

6. What mercantile schemes brought disaster on England during last century, and how were their evil effects met?

7. How has Portugal been connected with English history during the last two centuries?

8. In what directions did Canning liberalize the home and foreign policy of England?

9. What do you know of the Petition of Right, the Solemn League and Covenant, the Test Act, the Rye House Plot, the Peace of Ryswick, and Poyning's Law?

10. In whose reign was each of the following battles fought? Who were the victors, and who the defeated?—Bosworth, Cressy, Agincourt, Stamford Bridge, Blenheim, Dettingen, Waterloo.

Classes D and E.—Elementary Science.

Time allowed: Three hours.

[Note.—Candidates are not to attempt more than ten questions. Female candidates, if proficient in Needlework, may substitute for this paper the paper on Domestic Economy and the Laws of Health; but passing in Science will not exempt them from passing in Needlework also.]

1. Draw a section through a force-pump, and explain the use of the air-vessel that is often connected with a force-pump.

2. State the use of the pendulum of a clock. What is sometimes substituted for the pendulum in timekeepers? Can you tell how high above the earth a pendulum clock would have to be to go twice as slowly as at the surface?

3. What would be about the total pressure on the inside of a box of one foot cube filled with air at ordinary pressure, and placed inside a vacuum?