

- 7 Upon what does the pitch of a musical note depend? If two notes of almost exactly the same pitch be sounded together, what effect does the combination produce?
8. Explain one method of comparing the intensity of two lights.
9. How may light be decomposed? How would you show the decomposition to a class?
10. The inside of an iron roof is often found to be wet in frosty weather explain this.
11. Describe some of the methods used to produce a freezing-mixture.
12. Describe the various modes of formation of clouds.
13. Describe an electro-magnet, and state some of its uses.
14. How may a magnet be made to produce a current of electricity?
15. Describe how you would make experiments to illustrate terrestrial magnetism.
16. Describe the ordinary process of combustion.
17. State as fully as you can the action of carbonic acid in water.
18. Describe the skin, and state its functions.
19. What changes take place in the blood during circulation?
20. Give a general account of the mode of growth of a tree.

#### CLASSES D AND E.—DOMESTIC ECONOMY AND LAWS OF HEALTH.

*Time allowed Three hours.*

[NOTE.—This paper is for female candidates who are proficient in Needlework, and, in consideration of this, are allowed, if they prefer it, to be examined in Domestic Economy and the Laws of Health, instead of in the general subject of Elementary Science. See the note on the Elementary Science paper.]

- How is it that a house or school is generally so much more healthy if placed on a slight rise than if placed in a hollow?
- What are the respective advantages of open grates and hot-water pipes?
- When is water said to be hard? How may hard water be softened?
- What are the chief purposes for which eggs are used in cooking? What are the most suitable methods of cooking them for invalids?
- State what you know about the effect of stimulants upon the system.
- Children in schools often suffer from shortsightedness what steps should be taken to prevent this?
- Why are bad ventilation and draughts injurious? How would you obviate these evils?
- Explain the process of digestion. Why is warm cooked food generally better than cold raw food?
- Which are the best known disinfectants? What is the especial use of each?
- Explain how it is that the temperature of the blood is the same on the hottest day of summer and the coldest day of winter.

#### CLASS D.—ENGLISH GRAMMAR AND COMPOSITION.

*Time allowed Three hours.*

[All the sections of this paper must be attempted.]

##### I.

[One question may be omitted in this section.]

- State exactly the grammatical functions of the italicized words in the following sentences  
(a) *As* for such *as* turn aside to crooked ways (b) *Could* this be undone, I would not have it so,  
(c) A *few* departed (d) They are both of *a* size, (e) You have had *enough* worldly care; (f) Homer is remarkably precise, *which* renders him lively and agreeable, (g) I say, knock *me* at this gate,  
(h) Have you *never* a son? (i) A noun is the name of a person or thing, *as* James, ship, (j) He does not like *paying* his debts, (k) *Up* to the stars she turned her face.
- Point out any error you notice in each of the following sentences, correct it, and explain why the writer has fallen into it (a) Were he still where he was when he wrote to me, I shall, I may tell you, start at once, (b) I never was so industrious over any task as this—bending all my energies to it too—and gain so little by my work (c) It had been my purpose to have gone thither at once (d) You will congratulate him, as you have, according to your critics, on all other occasions, (e) Being a great lover of books, the burglar was extremely disappointed in finding nothing but a library in the house, (f) It was just the fact of the procession coming into view at this very moment that surprised them most, (g) In so familiar, nay, even commonplace a point of view, these deeds, which are in their essence so noble, seem sordid and selfish.
- Point out any words that are inaccurately used in the following sentences, substitute the correct word, and distinguish the two words (a) The cardinal, after this confession, exonerated the chief conspirator from all his sins, and only inflicted a severe penance, (b) He mounted the rostrum and addressed the assembly, and his harangue was so moderate and just that it convinced even his enemies (c) The actor was at his very best in this character, and made it a splendid parody of the Premier, (d) In this work of fiction the plot and incidents are invented, and the characters, of course, chimerical (e) It was a most valuable prize with which he recompensed the children for their industry and attention to his orders, (f) He took care to expunge the inscription on all the medals, that there should live no memorial of the deed amongst men, (g) He made them a kindly salute in a few well-chosen expressions, and bade them welcome to the country

##### II.

Break up the following sentence into short sentences, and rewrite it in such a way as to avoid its obscurities, ambiguities, inelegances, and inaccurate or obsolete usages "Hitherto the Parliament had raised their vast sums of money for the support of their army (which could only be