SECTION VI.

1. What faults in teaching tend to create a habit of guessing? Show the bad effects of such a habit on education, and give illustrations if possible from your own experience as a teacher.

2. What are the different purposes of questioning in education? What classes of questions are objectionable, and why?

3. On what grounds is catechetical teaching preferable to continuous lecturing for young children?

SECTION VII.

1. What do you understand by "good discipline"? What personal qualities are required in a teacher to secure good discipline? How would you deal with a child's first instance of disobedience?

2. Show the vital importance of good order in school, and illustrate if possible from your own experience.

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

1. What experiments would you make with a view to impressing upon children the fact that matter is capable of existing in three different states?

2. Describe some simple form of Attwood's machine. If supplied with such an instrument for class purposes, what would you do with it?

3. How would you show to a class the varying viscosity of different liquids?

4. What is "resonance"? How would you exhibit the phenomenon?

5. Define "latent heat," and state exactly how you would show to a class that the latent heat of steam is much greater than that of other vapours.

6. How would you make a fairly sensitive galvanometer? Let your answer be such that it would serve as a definite guide to any one wishing to make an instrument of the kind.

7. Give a brief description of the element sulphur, and describe the changes which it undergoes when its temperature is gradually raised.

8. What experiments would you select when endeavouring to convey to a class the meaning of the word "acid"? How would you show that hydrochloric and nitric acids are totally distinct substances?

9. What bearing have the phenomena of oxidation and reduction upon common life? Describe an experiment which would prove that rust is a compound of oxygen and iron.

10. Give an explanation of the use of yeast in making bread, and mention any experiments which might serve to illustrate your explanation.

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

[NOTE.—Female candidates for E, 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. A ball rolling downhill gains velocity: explain this.

2. Explain the action of the different kinds of balloons. If a gas were twice as light as hydrogen, what would be its relative lifting-power?

3. Explain the flight of a rocket. Will it take longer for the rocket to rise than for the stick to fall?

4. Describe various experiments to illustrate the production of a musical note.

5. Draw a diagram to show how you would project a spectrum on a screen. Describe any means of showing complementary colours.

6. Give examples of the use of expansion in the arts, and show how expansion is corrected for in timekeepers.

7. Describe any simple form of electric machine, and explain its action.

8. What are the chief differences between acids and bases? Give several examples of each class, with formulæ.

9. Draw a diagram representing the action of the heart, name the several parts, and describe the course of a blood-corpuscle in passing from the right ventricle to the left auricle.

10. Contrast the modes of life of animals and vegetables, and explain the balanced aquarium.

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

[NOTE.—This paper is for female candidates for E 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.)]

1. Describe the various uses to which eggs are applied in cookery. What is the use of yeast?

2. Give a general account of the kind of food suitable for invalids.

3. What are the precautions you would take to prevent a contagious disease from spreading? Name the chief disinfectants.

4. Describe the kind of site most suitable for a house, and make a sketch of the best kind of arrangement for the disposal of house-slops, &c.

5. Why is ventilation necessary? Describe some of the best methods of ventilation.

6. Classify the various kinds of food, and state the function of each.

7. State what you know of the heredity of disease. Do recent discoveries suggest that consumption is hereditary, or do they suggest that it is contagious?