EXAMINATION PAPERS.

School Management and Art of Teaching.—For Classes D and E. Time allowed: 3 hours.

[N.B.—Only one question is to be answered in each section. *Candidates should attempt at least* FIVE *of the sections, and may not omit any one of the first three sections.*]

1. (*a.*) Construct a time-table for an upper division of a school, S.IV., S.V., S.VI., S.VII. Staff: Headmaster, and pupil-teacher of the third year.

(*b.*) Draw up a time-table for a small country school of four standard classes and an infant class. Staff: Master and sewing-mistress, or mistress unassisted except by occasional monitors.

(*c.*) [*For female candidates only.*] Plan a time-table for an infant-room of three classes—P1, P2, S.I.—under a mistress having the assistance of a monitor occasionally.

(*d.*) [*Only for candidates in sole charge of schools.*] Reproduce your own time-table, and state also (1) the name of your school, (2) the number of pupils in each class, and (3) any special circumstances bearing on the construction of your time-table.

2. (*a.*) The section of a register given you by the Supervisor is supposed to be from the register of a school with a fairly good attendance. Mark the probable attendance, providing for a very wet day, a holiday, and a half-holiday, and otherwise complete the entries so as to show the appearance of the register at the end of the fourth week of the quarter.

(*b.*) Compile the quarterly return of attendance from the following particulars: Roll-number at end of last quarter, 101 m., 80 f., of whom one boy has not attended at all this quarter; admissions, 7 m., 5 f.; withdrawals, 3 m., 4 f.; average roll for quarter, 103 m., 82 f. School open 53 mornings and 52 afternoons. Total attendances, 9,147 m., 7,116 f. Highest attendance, 96 m., 76 f.

(*c.*) From the following statistics find the class averages for the quarter: School open 11 weeks, with three occasional half-holidays; 7 pupils made full attendances, 6 others were only absent half a day, and 8 others a whole day; remaining attendances, 101, 98, 97, 84, 47, 43, 38. Roll-number for the first four weeks, 26; for next two, 25; and for rest of quarter, 27.

3. Draw up notes for one of the under-mentioned lessons, showing not only what you would teach, but how you would teach it. State also the class for which the lesson is intended, and the time to be taken in teaching it:—

A lesson on form; on a piece of string; or on a plant in flower. An *introductory* lesson on the motions of the earth; on proportion, by the unitary method; or on the circulation of the blood.

4. (*a.*) How would you teach English spelling to a child who found it exceptionally difficult?

(*b.*) Name, in order of importance, what you deem the characteristics of good penmanship. State your reasons for so placing them, and explain how you would endeavour to secure them in the penmanship of your school.

(*c.*) Explain fully how you would treat the following, as an English lesson to Standard VI.:—

"The curfew tolls the knell of parting day,
The lowing herd winds slowly o'er the lea,
The ploughman homeward plods his weary way,
And leaves the world to darkness and to me."

5. (*a.*) Show the value of geography, or of history, as a colonial school-subject.

(*b.*) How would you try to develop systematically the imaginative faculty of your pupils? Show the importance of this branch of school work.

(*c.*) How may the patriotic spirit be best cultivated in our schools, and how might our school text-books be rendered more helpful in this matter?

6. (*a.*) If, on taking charge of a school, you found the pupils rude and deceitful, how would you endeavour to raise the tone of the school in these respects?

(*b.*) How may regular attendance be promoted? Show its importance.

(*c.*) Suppose you had to select a pupil-teacher: state in order of importance the qualifications you would look for, and give your reasons.

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

1. How would you illustrate to a class the various transformations of energy?

2. Describe all the experiments you can suggest that may be made with a pair of grooved laths (used as inclined planes) and marbles.

3. Describe experiments to illustrate the principles that underlie the structure of the diving-bell.

4. Describe the experiments you could make to illustrate the fact that a sounding body vibrates, and that pitch depends on the rate of the vibrations.

5. Draw diagrams illustrating the passing of rays through a prism, and also the course of rays that, passing through a convex lens, form an image.

6. Describe the experiments you would make to illustrate heat-convection in liquids and gases.

7. Describe the more important experiments for which a gold-leaf electroscope might be used.

8. Give an account of the experiments you would make to illustrate the action of carbonic acid in nature.

9. How are nitric and hydrochloric acids made? Give an account of experiments that may be performed with them.

10. Give an outline of a lesson on potatoes and flour, and describe the experiments you would make to illustrate it.