

to the square described upon the third side, the angle opposite the third side is a right angle. (20)

5. Show that one circle cannot cut another circle in more points than two, and cannot touch another in more points than one. (20)

6. Describe a square equal to a given rectilineal figure; and a parallelogram equal to a given triangle. (20)

7. Prove that the opposite sides and angles of a parallelogram are equal. (20)

8. Prove that the rectangles contained by the segments of two intersecting chords in a circle are equal; or prove that if from any point without a circle two straight lines be drawn, one of which cuts the circle and the other touches it, the rectangle contained by the whole secant and the segment without the circle is equal to the square of the tangent. (20)

Book-keeping.

1. Draw out a D-y-Book containing ten *different* transactions, and trace them to the Cash-Book, Ledger, Journal, Bill-Book, &c. (20)

2. Which do you consider the more satisfactory system of Book-keeping, single or double entry? Give your reasons in full. (20)

3. Explain the following terms as used in Book-keeping:—*Bills Payable, Stock, Shipment, Consignment, Account Sales, Acceptance, Drawee, Protest, Endorsement, Debit.* (20)

4. What is the object of the Profit and Loss account? When do you debit and credit it? (20)

5. Describe the steps you would take in closing a set of books. What is meant by a trial balance? (20)

**Use of the Globes.*

1. Describe the various parts of a properly equipped globe, and state explicitly for what purposes they are used. (20)

2. How is the latitude and longitude of a place found on the globe, and how is the same found on an ordinary map? (20)

3. Explain the problem of finding the longest day and the shortest night at any given place. (20)

4. How can you find from the globe when twilight begins and ends at any particular place on any given day? (20)

5. Given the day and hour at any place, to find where the sun is then vertical. (20)

**Linear Drawing.*

(The lines by which each problem is solved must be shown.)

1. Trisect a given straight line. (10)

2. Draw a straight line parallel to a given straight line from a given point without the given line. (10)

* N.B. It is optional with candidates to take either use of the Globes or drawing.