TEST PAPER: MATHEMATICS

Time: 50 Minutes **Class:** 9th C.B.S.E.

Max. Marks: 30 Marks **Date:** 4th July, 2018

Marking Scheme: *Four questions carry 10 marks each. Questions have 3 subparts each. Subparts (a) and (b) carry 3 marks each and subpart (c) carries 4 marks.*

Question 1:

a. Explain Euclid's fifth postulate using neat diagrams.

b. Find the area of an equilateral triangle with side 10 cm.

c. The sides of a triangular plot are in the ratio of 6:7:8 and its perimeter is 420 m. Find its area.

Question 2:

a. Multiple Choice Questions:

1. How many straight lines can be drawn through two given lines?
   I. None II. Only one III. Two IV. Three
2. What is the minimum number of lines required to make a closed figure?
   I. One II. Two III. Three IV. Four
3. Which of the following are boundaries of a surface?
   I. Lines II. Curves III. Surfaces IV. Points

a. Find the area of a triangle whose sides are 4.5 cm and 10 cm and perimeter 10.5 cm.

b. Perimeter of the rhombus is 100 m and its diagonal is 40m. Find the area of rhombus.

Question 3:

a. Prove using Euclid's axioms and theorems:
   i. an equilateral triangle can be constructed on any given line segment.
   ii. two different lines can't have more than one point in common
   iii. If a point R lies between two points P and Q such that PR=QR, then prove that PR=1/2PQ.

b. The area of a triangle is 150 cm^2 and its sides are in the ratio 3:4:5. What is its perimeter?

c. Find the area of a quadrilateral ABCD in which AB = 8 cm, BC = 6 cm, CD = 8 cm, DA = 10 cm and AC = 10 cm.