TEST PAPER: MATHEMATICS

Time: 50 Minutes   **Class: 10th C.B.S.E.**

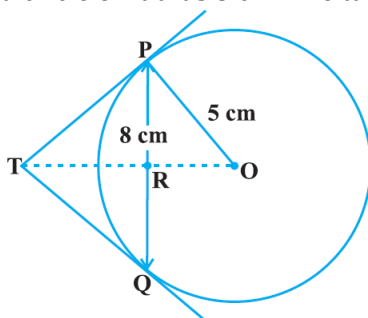**Max. Marks: 30 Marks**   **Date: 12th September, 2018**

Marking Scheme: *Three questions carry 10 marks each. Questions have 2 subparts each. Subparts (a) and (b) carry 5 marks each.*

Question 1:

a. Find the mean of the following data using assumed mean method:

Class	0-50	50-100	100-150	150-200	200-250
Frequency	15	20	35	20	10

b. PQ is a chord of length 8 cm of a circle of radius 5 cm. The tangents at P and Q intersect at a point T. Find the length TP.

Question 2:

a. The following table shows the ages of staff members in an office.

Age	18-27	27-36	36-45	45-54	54-63
Number of members	6	11	21	23	14

Find the mean using direct method and also find the mode using formula.

b. The mean of the following distribution is 50. Determine value of 'g'.

Class	0-20	20-40	40-60	60-80	80-100
Frequency	17	g	32	24	19

Question 3:

a. Given two concentric circle of radii 10 cm and 6 cm. Find the length of the chord of the larger circle which touches the other circle.

b. The percentage marks obtained by 100 students in an examination are given below: Find median using formula.

Marks	30-35	35-40	40-45	45-50	50-55	55-60	60-65
Frequency	10	16	18	23	18	8	7