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CLASS 10 MATH TEST PAPER 18

Class 10 - Mathematics

Time All	lowed: 45 minutes		Maximum Marks	: 25								
Section A												
1.	. The area of the sector of a circle of radius 10.5 cm is 69.3 cm ² . Find the central angle of the sector.											
	a) 85°	b) ₇₂ 0										
	c) 70º	d) ₂₆ 0										
2.	2. In a circle of radius 21 cm, an arc subtends an angle of 60^0 at the centre. The length of the arc is											
	a) 18.16 cm	b) 23.5 cr	n									
	c) 22 cm	d) 21 cm										
3.	3. If the area of a sector of a circle is $\frac{1}{8}$ of the area of the circle, then the central angle of the sector is:											
	a) 45°	b) 90°										
	c) ₆₀ 0	d) 30°	Y									
4.	4. Consider the frequency distribution of the heights of 60 students of a class:											
	Height (in cm)	No. of Students	Cumulative Frequency									
	150-155	16	16									
	155-160	12	28									
	160-165	9	37									
	165-170	7	44									
	170-175	10	54									
	175-180	6	60									
The sum of the lower limit of the modal class and the upper limit of the median class is												
	a) 320	b) 315										
	c) 330	d) 310										
5.	If the mean of a frequency distr	ibution is 8.1 and \sumf_ix_i = 132 +	5k, $\sum f_i$ = 20 then k =	[1]								
	a) 3	b) 4										
	c) 5	d) 6										
6.	If the difference of mode and median of a data is 24, then the difference of median and mean of the same data is:											
	a) 8	b) 12										
	c) 34	d) 24										
7.	In the given figure, a circle touc	thes the side BC of $ riangle ABC$ at P and $ riangle ABC$ at P and $ riangle ABC$	nd touches AB and AC produced at Q and R	[1]								

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respectively. If AQ = 5 cm, then find the perimeter of \triangle ABC.



a) Both A and R are true and R is the correct explanation of A.

b) Both A and R are true but R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true.

Section B

- 11. The minute hand of a clock is 10 cm long. Find the area of the face of the clock described by the minute hand [2] between 9 A.M. and 9.35 A.M.
- 12. Calculate the mode from the following data:

Monthly Salary(in Rs)	Number of employees
0 - 5000	90
5000 - 10000	150
10000 - 15000	100
15000 - 20000	80
20000 - 25000	70
25000 - 30000	10

[2]

13. In two concentric circles, the radii are OA = r cm and OQ = 6 cm, as shown in the figure. Chord CD of larger [2] circle is a tangent to smaller circle at Q. PA is tangent to larger circle. If PA = 16 cm and OP = 20 cm, find the length CD.



Section C

14. A square OABC is inscribed in a quadrant OPBQ of a circle. If OA = 20 cm, find the area of the shaded region. **[3]** [Use π = 3.14]



15. The mean of the following frequency distribution is 25. Find the value of f.

Class:	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	
Frequency:	5	18	15	f	6	

16. 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 [3] length TP.

