

Section A(1x20 =20)

1.(c)	2.(c)	3.(B)	4(c)	5(d)	6(d)	7(a)	8(b)	9(d)	10(b)
11(d)	12(c)	13 (c)	14 (b)	15(a)	16 (b)	17 (d)	18 (a)	19 (c)	20 (b)

Section B (5 x 2 =10)

Q21.	Correct value of $x=-2,y=5$ 1 mark ,correct value of $m = -1$ Or correct value of zeroes are $-5,-2$ (1mark),verify the coefficient	1 1
Q22.	Fig. given ,to prove , correct proof	$\frac{1}{2}$ 1+1/2
Q23.	Correct fig mark and correct proof Or Use of correct Bpt , correct proof	$\frac{1}{2}$ 1+1/2 1 1
Q24.	$\cos A = \frac{\sqrt{7}}{4}$, $\tan A = \frac{3}{\sqrt{7}}$	1+1
Q25.	Minor sector = 78.5 cm^2 , major sector = 235.5 cm^2	1+1

Section C (6 x 3 =18)

Q26.	Let $3+2\sqrt{5}$ is rational number $3+2\sqrt{5} = p/q$ $\sqrt{5} = (p - 3q)/2q$ Contradicted our assumption and proof	1 1 1
Q27.	Correct quadratic equation x^2-2x+1 Solution of equation Or $\frac{360}{x} - \frac{360}{x+5} = 1$ $X^2 + 5x - 1800 = 0$ Solution of equation and find answer, speed = 40 km/h	2 1 1 1 1
Q28.	Correct fig mark and correct proof	1+2
Q29.	Correct solution	3
Q30.	Students can use any method correct steps ,use of correct identity ,correct proof	1+1+1
Q31.	$P(\text{red marble}) = 5/17$, $P(\text{white marble}) = 8/17$, $P(\text{not green marble}) = 13/17$	1+1+1

Section D (4x5=20)

32.	Use of Pythagoras theorem Make quadratic equation $x^2-7x-60=0$ Solution of quadratic equation and find base =12 cm, perpendicular =5cm	1 2 2
33.	The volume of cone = volume of water in the cone $\frac{1}{3}\pi r^2 h = (200/3)\pi \text{ cm}^3$ Now, Total volume of water over flown = $(\frac{1}{4}) \times (200/3) \pi = (50/3)\pi$ The volume of lead shot = $(4/3)\pi r^3$ = $(1/6) \pi$ Now, No. of lead shots = Total volume of water over flown / Volume of lead shot = $(50/3)\pi / (\frac{1}{6})\pi$ = $(50/3) \times 6 = 100$ lead shots Or	$\frac{1}{2}$ 2 2+1/2

	Volume of one gulab jamun = volume of cylindrical part +2 x volume of hemispherical part $= \pi r^2 h + 2 \times \frac{2}{3} \pi r^3 h = 13.552 + 11.498 = 25.05 \text{ cm}^3$ Solution of sugar syrup = 338.17 cm^3	2+1/2 2+1/2
34.	Finding the mode Correct formula Correct solution ,mode =36.8 Finding the mean : Correct formula Correct solution ,mean =35.3	1 1+1/2 1 1+1/2
35.	Correct figure . Given, to prove Correct proof Or Statement of BPT Correct figure . Given, to prove Correct proof	1 1/2 3+1/2 1 1 1/2 2+1/2

Section Case study

36.	(i) A.P 20,19,18... (ii) Number of rows are 16 Or for 209 logs number of rows are 19 (iii) Number of logs in top row = 5	1 2 1
37.	(i) (2,25) (ii) (8,20) (iii) In 5 th line at distance 22.5 m Or Correct solution	1 1 2
38.	(1) 30° (2) Decreases (3) $45\sqrt{3} \text{ cm}$ Or Correct solution	1 1 2