Model Paper-1 Answer Key

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1. A) 1
2. C) 4
3. A) $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$
4. D) 5, 9, 13, 17, ---
5. C) 20-30
6. D) 30°
7. B) (-4, 0)
8. B) $x^2 - 5x - 6 = 0$

II

9. No Solution
10. $\frac{1}{4}$
11. $250 cm^2$
12. 1
13. $d = 4$
14. T.S.A $= (2\pi r^2 + \pi r l)$ Sq units
    $= \pi r (2r + l)$ Sq. units
15. $\angle P = 60°$
16. $K = 1$

III

17. $a = 3$ (or) $n = 33$
18. $x = 3, y = 2$
19. $D = 65, D > 0$ (Two real & distinct roots)
    (or)
    $x^2 + 3x - 1 = 0$
20. $\sqrt{5}$ proof
21. $P(x, y) = (2, 5)$
22. $\tan p = \frac{5}{12}$, $\cos R = \frac{5}{13}$
23. Proof of per $\Delta ABC = 2CP$
24. other number $= 48$
    HCF $(42, 48) = 6$

IV

25. Centre coordinate $\left(\frac{-1}{2}, \frac{-1}{2}\right)$
26. Theorem proof
27. $x = 33 Km/h \left(\frac{132}{x} - \frac{132}{x+11} = 1\right)$
    (or)
    5 years $((x+19)(x+15) = 480)$
28. Proof (or) Proof
29. $x^2 - 2x - 8$
    zeroes are -2 & 4
    (or)
    i) -3 $(\alpha + \beta = -3, \alpha\beta = 1)$
    ii) -3
30. Proof
31. Area swept $= 594 cm^2$
    length of arc $= 66 cm$
32. i) $\frac{6}{65}$ ii) $\frac{13}{65} = \frac{1}{5}$ iii) $\frac{12}{65}$
33. Mean $= 27.6$ (or) Mode $= 27.5$

V

34. $x = 4, y = 1$ (Graph)
35. Theorem (or) Theorem
36. $a_n = a_{sq} = 353$ $(a = 5, d = 11)$
    last 10 terms Sum
    $S_{10} = 3260$
37. Height of tower $= 20\sqrt{3} m$
    Distance $= 20\sqrt{3} m$
    angle of depression $= 60°$
    (or)
    $CD = h = 40 m$

VI

38. Vol of water $= 1694 cm^3$
    Amount of water required
    $= 616 cm^3$
    (or)
    $r = 0.5 cm$, Vol $= 0.584 cm^3$