S.S.L.C Mathematics 2020 (Key) Radhika Mam

1. B) equations have unique solution
2. c) 2
3. B) 1
4. D) $\frac{13}{12}$
5. A) 1:2
6. A) a tangent
7. D) $\frac{\theta}{360^\circ} \times 2\pi r$
8. c) $220 cm^3$
9. $\frac{23}{2^3 \times 5} = 1.15$ terminating
10. 3
11. 2
12. M.P $= \left[\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right]$
13. statement
14. $\angle BAC = 50^\circ$
15. $x^2+x-2=0$
16. $\pi r(r+1)$ sq. units
17. $x=3, y=5$
18. $S_{10} = 185$
19. $K=6$
20. two distinct real roots
21. $K=8$ (or) $5x+3$
22. $4\sqrt{2}$ units (or) (2,5)
23. Area of $\Delta ABC = 0$ (i.e The points are collinear)
24. (28 cm)

IV.

25. Proof (or) H.C.F (24, 40) = 8
    L.C.M = 120
26. A = 2hrs B = $1\frac{1}{2}$ hrs $\left[\frac{12}{x} - \frac{12}{x+2} = \frac{1}{2}\right]$
27. $p^2(\tan^2\theta - \sec^2\theta) + q^2(\sec^2\theta - \tan^2\theta)$
    $= -p^2 + q^2$
    $= q^2 - p^2$
28. (or)
    Proof
29. Median = 63
    (or)
    Mode = 6
30. a) $\frac{3}{16}$ b) $\frac{11}{16}$
31. Proof
32. 

    $\Delta ABC \sim \Delta A'BC'$
33. Shaded area = $142.86 cm^2$
    (or)
    area = $462 cm^2$
    length = 86 cm (42+44)
34. $x=2, y=5$
35. 3, 7, 11, 15, 19 ($a=11, d=4$)
    (or)
    $a_{10} = 29$ ($a=2, d=3$)
36. $h = 40m$
37. cost = ₹209 ($\pi = 10.44992$)
38. Proof.