

Answer Ex-I**SINGLE CORRECT (OBJECTIVE QUESTIONS)**

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|-------|-------|-------|-------|-------|-------|-------|
| 1. C | 2. A | 3. A | 4. B | 5. C | 6. B | 7. A |
| 8. B | 9. B | 10. D | 11. D | 12. C | 13. A | 14. A |
| 15. B | 16. B | 17. C | 18. B | 19. B | 20. B | |

Answer Ex-II**MULTIPLE CORRECT (OBJECTIVE QUESTIONS)**

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|------|----------|-----------|---------|------|------|------|
| 1. A | 2. A,C,D | 3. A | 4. A | 5. C | 6. C | 7. C |
| 8. C | 9. A | 10. A,B,D | 11. A,B | | | |

Answer Ex-III**SUBJECTIVE QUESTIONS**

1. (a) $20x^2 + 45y^2 - 40x - 180y - 700 = 0$; (b) $3x^2 + 5y^2 = 32$

8. $x + y - 5 = 0$, $x + y + 5 = 0$

9. 16

10. 24 sq. units

11. $\frac{1}{\sqrt{2}}$, $\frac{1}{\sqrt{2}}$

14. $55\sqrt{2}$ sq. units

16. $\frac{18a}{17}$

20. 85

Answer Ex-IV**ADVANCED SUBJECTIVE QUESTIONS**

4. 186

5. $bx + a\sqrt{3}y = 2ab$

6. (A) Q; (B) S; (C) P; (D) R

8. 80

9. (b) $\frac{8}{3}$, (c) 4

12. $\sqrt{r^2 - b^2}$

13. $12x + 5y = 48$; $12x - 5y = 48$

15. 19

Answer Ex-V**JEE PROBLEMS**

1. (a) A; (b) B, D; (c) $25y^2 + 4x^2 = 4x^2y^2$ 2. $(x-1)^2 + y^2 = \frac{11}{3}$

4. Locus is an ellipse with foci as the centres of the circles C_1 and C_2 .

5. $a^2p^2 + b^2q^2 = r^2 \sec^2 \frac{\pi}{8} = (4 - 2\sqrt{2})r^2$

7. (a) C; (b) A

8. C 9. (a) A, (b) $AB = \frac{14}{\sqrt{3}}$

10. B, C

11. D

12. C

13. D

14. C 15. A