

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

1. A 2. C 3. B 4. A 5. C 6. D 7. B 8. B
 9. B 10. D 11. A 12. A 13. B 14. C 15. C 16. D
 17. B 18. B 19. B 20. A 21. D 22. B 23. B 24. B
 25. C 26. C

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

1. A,B 2. A,B,C 3. B,C,D 4. A,C,D 5. B,C,D 6. B,C 7. A,B,C,D

Answer Ex-III**SUBJECTIVE QUESTIONS**

1. (i) ${}^{11}C_5 \frac{a^6}{b^5}$ (ii) ${}^{11}C_6 \frac{a^5}{b^6}$ (iii) $ab = 1$ 2. $r = 6$ 3. $r = 5$ or 9
 4. (a) $T_3 = \frac{5}{12}$, (b) $T_6 = 7$ 5. $\frac{(2^{mn} - 1)}{(2^n - 1)(2^{mn})}$ 7. (i) 3^n , (ii) 1 , (iii) a_n 9. $x = 0$ or 1
 10. $x = 0$ or 2 11. (a) 101^{50} (Prove that $101^{50} - 99^{50} = 100^{50} + \text{some +ive qty}$)
 12. $1 + \sum_{k=1}^5 {}^{11}C_{2k} \cdot {}^{2k}C_k \cdot 7^k$ 14. (i) 990 , (ii) 3660 15. (i) $T_7 = \frac{7 \cdot 3^{13}}{2}$, (ii) 455×3^{12}
 18. $\frac{17}{54}$ 19. $n = 2$ or 3 or 4 23. (a) $\frac{n^2 + n + 2}{2}$
 24. (a) $84b^6c^3 + 630ab^4c^4 + 756a^2b^2c^5 + 84a^3c^6$, (b) $-1260 \cdot a^2b^3c^4$, (c) -12600
 26. ${}^nC_r (3^n - r - 2^{n-r})$ 27. (a) $n = 12$, (b) $\frac{5}{8} < x < \frac{20}{21}$ 29. (a) 8016 , (b) 500

Answer Ex-V**JEE PROBLEMS**

1. C 2. D 4. ${}^{12}C_6$ 5. B 6. -22100
 7. C 8. (a) A 9. D 10. A 11. C
 12. D 13. A 14. B

