1. The maximum rate of CGST is
   (a)   28   (b)   12   (c)   18   (d)   20
2. If $\frac{1}{2}$ is a root of the equation $x^2 + kx - \frac{5}{4} = 0$, then the value of k is
   (a)   2   (b) -2 (c) $\frac{1}{4}$ (d) $\frac{1}{2}$
3. If $\sec A - \tan A = k$, then the value of $\sec A - \tan A$ is
   (a) $1 - \frac{1}{k}$ (b) $1 - k$ (c) $1 + k$ (d) $\frac{1}{k}$
4. Taxes that are levied on any Intra – State purchase are ?
   (a)   IGST   (b)   only CGST   (c)   only SGST   (d)   CGST and SGST
5. $(\cos\theta - \sin\theta)^2 + (\cos\theta + \sin\theta)^2$ is equal to
   (a) -2 (b)   0   (c)   1   (d)   2
6. Which of the following equations has no real roots?
   (a) $x^2 - 4x + 3\sqrt{2} = 0$ (b) $x^2 + 4x - 3\sqrt{2} = 0$
   (c) $x^2 - 4x - 3\sqrt{2} = 0$ (d) $3x^2 - 4\sqrt{3}x + 4 = 0$
7. The value of $3\tan^2 26° - 3\csc^2 64°$
   (a)   0   (b)   3   (c) -3 (d) -1
8. What does I in IGST stands for
   (a)   Internal   (b)   Integrated   (c)   Inter   (d)   Intra
9. If the equation $2x^2 - 5x + (k + 3) = 0$ has equal roots, then the value of k is
   (a) $\frac{9}{8}$ (b) $-\frac{9}{8}$ (c) $\frac{1}{8}$ (d) $-\frac{1}{8}$
10. $\sqrt{\frac{1 - \sin\theta}{1 - \sin\theta}}$ is equal to
   (a) $\sec\theta + \tan\theta$ (b) $\sec\theta - \tan\theta$ (c) $\sec^2\theta + \tan^2\theta$ (d) $\sec^2\theta - \tan^2\theta$
11. GST rates applicable on goods and services are :
   (a)   0%, 5%, 12%, 18%, 26%   (b)   0%, 6%, 12%, 18%, 28%
   (c)   0%, 5%, 12%, 18%, 28%   (d)   0%, 5%, 12%, 16%, 28%
12. $\sec^4 A - \sec^2 A$ is equal to
   (a) $\tan^2 A - \tan^4 A$ (b) $\tan^4 A - \tan^2 A$ (c) $\tan^4 A + \tan^2 A$ (d) $\tan^2 A + \tan^4 A$
13. The quadratic equation $2x^2 - \sqrt{5}x + 1 = 0$ has
   (a)   two distinct real roots   (b)   two equal real roots
   (c)   no real roots   (d)   more than two real roots
14. If $\sec\theta + \tan\theta = x$, then $\sec\theta$ is
   (a) $\frac{x^2 + 1}{x}$ (b) $\frac{x^2 + 1}{2x}$ (c) $\frac{x^2 - 1}{2x}$ (d) $\frac{x^2 - 1}{x}$
15. The maximum rate applicable for SGST/UTGST is ?
   (a)   28   (b)   14   (c)   20   (d)   30
16. The value(s) of k for which the quadratic equation $2x^2 - kx + k = 0$ has equal roots is (are)
   (a)   0 only   (b)   4   (c)   8 only   (d)   0, 8
17. $(\csc\theta - \sin\theta)(\sec\theta - \cos\theta)(\cot\theta + \tan\theta)$ is equal to
   (a)   0   (b)   1   (c) -1 (d)   None of these

18. If the equation $(k + 1)x^2 - 2(k - 1)x + 1 = 0$ has equal roots, then the value of k are

(a) 1, 3 (b) 0, 3 (c) 0, 1 (d) $0, \frac{3}{4}$

19. The rate of IGST is equal to the rate of

(a) CGST (b) SGST (c) SGST + UTGST (d) CGST + SGST

20. Which of the following is not a quadratic equation? If $a + b + c = 0$, then the value of is

(a) $(x + 2)^2 = 2(x + 3)$ (b) $x^2 + 3x = (-1)(1 - 3x)$

(c) $(x + 2)(x - 1) = x^2 - 2x - 3$ (d) $x^3 - x^2 + 2x + 1 = (x + 1)^3$

21. $(\sec A + \tan A)(1 - \sin A)$ is equal to

(a) $\sec A$ (b) $\sin A$ (c) $\csc A$ (d) $\cos A$

22. If the equations $2x^2 - 6x + p = 0$ has real and different roots, then the values of p are

(a) $p < \frac{9}{2}$ (b) $p \le \frac{9}{2}$ (c) $p > \frac{9}{2}$ (d) $p \ge \frac{9}{2}$

23. The value of $\frac{\sin(90° - \theta)\sin\theta}{\tan\theta} - 1$ is

(a) $-\cot\theta$ (b) $-\sin^2\theta$ (c) $-\cos^2\theta$ (d) $-\csc^2\theta$

24. Which of the following equations has two distinct real roots?

(a) $2x^2 - 3\sqrt{2}x + \frac{9}{4} = 0$ (b) $x^2 + x - 5 = 0$

(c) $x^2 + 3x + 2\sqrt{2} = 0$ (d) $5x^2 - 3x + 1 = 0$

Answers :

1. (d)	**2.** (a)	**3.** (d)	**4.** (d)	**5.** (d)	**6.** (a)
7. (c)	**8.** (b)	**9.** (c)	**10.** (a)	**11.** (c)	**12.** (c)
13. (c)	**14.** (b)	**15.** (c)	**16.** (d)	**17.** (b)	**18.** (b)
19. (d)	**20.** (c)	**21.** (d)	**22.** (a)	**23.** (b)	**24.** (b)