Choose the correct answer.

1. $\frac{1}{2}$ rotation =
   (a) 360° (b) 270° (c) 180° (d) 90°
2. One second is denoted by
   (a) 1° (b) $1'$ (c) $1''$ (d) 1 rad
3. $1^\circ =$
   (a) 0.175rad (b) 0.5rad (c) 1.5rad (d) none of these
4. π rad =
   (a) 360° (b) 180° (c) 90° (d) none of these
5. $120^\circ =$
   (a) π rad (b) $\frac{\pi}{2}$ rad (c) $\frac{\pi}{3}$ rad (d) $\frac{2\pi}{3}$ rad
6. The area of a sector of a cicular region of radius r and central angle θ radians is
   (a) $r^2\theta$ (b) $\frac{1}{2}r^2\theta$ (c) $r\theta$ (d) $\frac{1}{2}r\theta$
7. Which of the following is a quadrantal angle
   (a) 90° (b) 60° (c) 45° (d) 30°
8. $\frac{adjacent\ side}{hypotenuse} =$
   (a) $\sin\theta$ (b) $\cos\theta$ (c) $\tan\theta$ (d) $\sec\theta$
9. $\frac{1}{\csc\theta} =$
   (a) $\cos\theta$ (b) $\tan\theta$ (c) $\cot\theta$ (d) $\sin\theta$
10. $1-\sin^2\theta =$
    (a) $\cos^2\theta$ (b) $\sec^2\theta$ (c) $\tan^2\theta$ (d) $\cot^2\theta$
11. $1+\cot^2\theta =$
    (a) $\cos^2\theta$ (b) $\sec^2\theta$ (c) $\tan^2\theta$ (d) $\csc^2\theta$
12. If $\sin\theta > 0$ then θ is in
    (a) 1st and 3rd quadrant (b) 2nd and 3rd quadrant (c) 1st and 2nd quadrant (d) 2nd and 4th quadrant
13. $Cos^2 2\theta + Sin^2 2\theta =$
    (a) 0 (b) 1 (c) -1 (d) 2
14. $Cot\theta.Sin\theta =$
    (a) $Sec\theta$ (b) $Sin\theta$ (c) $Csc\theta$ (d) $Cos\theta$
15. If $Sec\theta < 0$ and $Sin\theta < 0$ then θ lies in
    (a) 1st quadrant (b) 2nd quadrant (c) 3rd quadrant (d) 4th quadrant
16. $Cot 45^\circ =$
    (a) 0 (b) $\sqrt{3}$ (c) $\frac{1}{\sqrt{3}}$ (d) 1
17. $Co\sec 60^\circ =$
    (a) $\frac{2}{\sqrt{3}}$ (b) $\frac{1}{\sqrt{3}}$ (c) $\frac{\sqrt{3}}{2}$ (d) $\frac{1}{\sqrt{2}}$
18. $Cos 5\pi =$
    (a) -1 (b) 0 (c) 1 (d) ∞

19. Through how many radians does the minute hand of a clock turn in one hour
(a) $\frac{\pi}{2}$ (b) π (c) 2π (d) $\frac{3\pi}{2}$
20. What is the circular measure of the angle between the hands of a watch at 4 O'clock
(a) $\frac{3\pi}{2}$ (b) $\frac{\pi}{2}$ (c) $\frac{\pi}{6}$ (d) $\frac{\pi}{4}$
21. The system of measurement in which the angle is measured in radians is called the
(a) circular system (b) sexagesimal system (c) CGS system (d) none of these
22. Thee system of measurement in which the angle is measured in degrees, minutes, seconds is called the
(a) circular system (b) sexagesimal system (c) CGS system (d) none of these
23. The central angle of an arc of a cicle whose length is equal to the radius of the circle is called the
(a) degree (b) radian (c) minute (d) second
24. The radian measure of the central angle of an arc 50 m long on a circle of radius 25 m is
(a) 3 (b) 1 (c) 2 (d) $\frac{1}{2}$
25. The area of a sector with central angle of 0.5 radians in a circular region whose radius is 2m is
(a) $\frac{\pi}{6}m^2$ (b) $\frac{\pi}{4}m^2$ (c) $\frac{\pi}{3}m^2$ (d) $1m^2$
26. If $Sin\theta = \frac{12}{13}$ and terminal sides of the θ is in 1st quadrant, then $Cos\theta =$
(a) $-\frac{5}{13}$ (b) $\frac{5}{13}$ (c) 0 (d) 1
27. If $Cos\theta = -\frac{\sqrt{3}}{2}$ and the terminal side of θ is in 2nd quadrant, then $Sin\theta =$
(a) 1 (b) 0 (c) $-\frac{1}{2}$ (d) $\frac{1}{2}$
28. Domain of $Sin2\theta$ is
(a) $[-\pi,\pi]$ (b) $[0,\pi]$ (c) R (d) [-1,1]
29. $Tan50^{\circ} =$
(a) $Sin40^{\circ}$ (b) $Cos40^{\circ}$ (c) $Sec40^{\circ}$ (d) $Cot40^{\circ}$
30. $\cos ec40^{\circ} =$
(a) $\sin 50^{\circ}$ (b) $\sec 50^{\circ}$ (c) $\sin 40^{\circ}$ (d) $\cos 50^{\circ}$
31. Trigonometry means measurement of
(a) line (b) square (c) hexagon (d) triangle
32. $\theta + 2k\pi$ where $k \in Z$, is an angle which is with θ
(a) coterminal (b) same (c) equal (d) unique
33. $1+\cot^2\theta = \cos ec^2\theta$ is called
(a) 1st identity (b) theorem (c) identity (d) fundamental identity
34. All trigonometric identities are negative in
(a) 1st quadrant (b) 2nd quadrant (c) 3rd quadrant (d) none of these
35. $\tan 270^{\circ} =$
(a) 1 (b) -1 (c) 0 (d) undefined

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