

MULTIPLE CHOICE QUESTIONS (MCQ'S)

- If $\sin\theta = \frac{-3}{5}$ and $\cos\theta = \frac{4}{5}$ then $\rho(\theta)$ lies in the _____ quadrant.
(a) 1st (b) Second (c) third (d) fourth
- The conversion of $10^\circ 30'$ in radian measure is _____.
(a) 56π (b) $\frac{7\pi}{120}$ (c) 30° (d) 210°
- What is the value of θ , if $S = 30.2$ cm and $r = 2$ cm.
(a) 15.1 rad (b) $\frac{\pi}{5}$ (c) 30° (d) 210 cm
- The value of $2\sin\frac{\pi}{3}\cos\frac{\pi}{6}$ is?
(a) $\frac{3}{2}$ (b) $\frac{3}{4}$ (c) 3 (d) 12
- If the $\operatorname{Cosec}\theta = \sqrt{2}$ and $\rho(\theta)$ is in the first quadrant then $\sin\theta =$ _____.
(a) 56π (b) 30° (c) $\frac{1}{\sqrt{2}}$ (d) $\frac{\sqrt{3}}{2}$
- In which quadrant does $\rho(\theta)$ lie if $\cos\theta > 0$ and $\tan\theta < 0$?
(a) Second (b) third (c) fourth (d) first
- Two rays with a Common Starting point form _____.
(a) Angle (b) Side (c) Unit (d) Ray
- One of the rays of angle is called _____ Side and the other as _____ side.
(a) Initial Side (b) Terminal Side
(c) Initial and terminal side (d) None of these
- The _____ is identified by showing the direction of rotation from the initial side to the terminal Side.
(a) Angle (b) Ray (c) Side (d) Initial Side
- An angle is said to be positive if the rotation is _____.
(a) Clockwise (b) Horizontal
(c) Vertical (d) Anti-Clockwise
- An angle is said to be negative if the rotation is _____.
(a) Clockwise (b) Horizontal
(c) Vertical (d) Anti-Clockwise

- The greek letters $\alpha, \beta, \gamma, \theta$ are used to denote
(a) Set (b) Angle
(c) Side (d) None of these
- 2π radian is equal to _____.
(a) 3 right angles (b) 2 right angles
(c) 4 right angles (d) None of these
- An angle Subtended at the Centre of a circle by an arc equal to its radius is _____.
(a) Degree (b) Radian
(c) Angle (d) None of these
- If an arc of the circle of radius r has length " S " and subtended an angle " θ " then S will be _____.
(a) $\frac{r}{\theta}$ (b) $\frac{\theta}{r}$ (c) $\theta = \frac{1}{r}$ (d) $r\theta$
- 300° angle in radian is equal to _____.
(a) $\frac{\pi}{6}$ (b) $\frac{3\pi}{8}$ (c) $\frac{5\pi}{3}$ (d) $\frac{13\pi}{8}$
- A full circle is equal to 2π radian and also equal to 360° then _____.
(a) $360^\circ = 2\text{rad}$ (b) $360^\circ = \frac{\pi}{3}\text{rad}$
(c) $360^\circ = 2\pi\text{rad}$ (d) $360^\circ = 4\pi\text{rad}$
- 1° is equal to _____.
(a) 0.01475 rad (b) 0.01754 rad
(c) 0.01745 rad (d) 0.01545 rad
- The degree measure of one radian is approximately equal to _____.
(a) 57° (b) 57.1° (c) 57.2° (d) 57.3°
- One degree is equal to _____ radian.
(a) $\frac{180^\circ}{\pi}$ (b) $\frac{3\pi}{180}$
(c) $\frac{\pi}{180}$ (d) None of these
- One radian is equal to _____ degree.
(a) $\frac{\pi}{180}$ (b) $\frac{180}{\pi}$ (c) $\frac{3\pi}{180^\circ}$ (d) $\frac{4\pi}{180^\circ}$
- The branch of Mathematics dealing with Solution of Sides and angles of a triangle is known as _____.
(a) Trigonometry (b) Algebra
(c) Geometry (d) None of these

23. Conversion of $\frac{3\pi}{4}$ rad to degree is equal to _____.
 (a) 135° (b) 180° (c) 270° (d) 360°
24. The word trigonometry has _____ Origin.
 (a) British (b) Greek (c) Russian (d) Indian
25. Circular measure of 75° is _____.
 (a) Segment (b) Radius (c) diameter (d) Sector
26. In degree $\frac{1}{2}$ rotation (anti clock wise) = _____.
 (a) 90° (b) 180° (c) -180° (d) 360°
27. In degree $\frac{1}{4}$ rotation (anti-clockwise) = _____.
 (a) 90° (b) 180° (c) -180° (d) 360°
28. 1° is divided into _____.
 (a) $30'$ (b) $3600'$ (c) $60'$ (d) $60''$
29. $1'$ is divided into _____.
 (a) $60''$ (b) $60'$ (c) 60° (d) $\frac{1}{60}$
30. _____ is measure of the angle subtended at the Centre of the Circle by an arc, whose length is equal to the radius of the circle.
 (a) Degree (b) Radian (c) Minute (d) Second
31. In a triangle the side opposite to 90° is called _____.
 (a) opposite (b) base (c) perpendicular (d) Hypotenuse
32. four quadrant angles are _____.
 (a) $30^\circ, 60^\circ, 90^\circ, 180^\circ$ (b) $90^\circ, 180^\circ, 270^\circ, 360^\circ$
 (c) $90^\circ, 120^\circ, 180^\circ, 270^\circ$ (d) $90^\circ, 180^\circ, 240^\circ, 360^\circ$
33. The Side opposite to an angle is called _____.
 (a) Hypotenuse (b) Opposite (c) Adjacent (d) Perpendicular
34. The adjacent Side to an angle is called _____.
 (a) Hypotenuse (b) Opposite (c) Base (d) Perpendicular
35. The trigonometric ratio $\frac{\text{Perp}}{\text{Hyp}}$ = _____.
 (a) $\cos\theta$ (b) $\tan\theta$ (c) $\cot\theta$ (d) $\sin\theta$
36. The trigonometric ratio $\frac{\text{perp}}{\text{base}}$ = _____.
 (a) $\sin\theta$ (b) $\tan\theta$ (c) $\cot\theta$ (d) $\sec\theta$

37. If θ lies in fourth Quadrant then a point P (x, y) on it's terminal side has _____.
 (a) $+v E x, +v E y$ (b) $-v E x, +v E y$
 (c) $+v E x, -v E y$ (d) $-v E x, -v E y$
38. In Second quadrant $\sin\theta$ is _____.
 (a) $-v E$ (b) 0 (c) $+v E$ (d) ∞
39. In third quadrant $\sec\theta$ is _____.
 (a) $-v E$ (b) 0 (c) $+v E$ (d) ∞
40. If $\sin\theta < 0$ and $\cos\theta < 0$ then $\rho(\theta)$ lies in _____ quadrant.
 (a) first (b) third (c) second (d) fourth
41. Find the Sign of $\cot 121^\circ$ _____.
 (a) $+v E$ (b) $-v E$ (c) True (d) None of these
42. Find the Sign of $\cos(-19^\circ)$ _____.
 (a) $+v E$ (b) $-v E$ (c) True (d) None of these
43. Find the sign of $\tan\left(-\frac{\pi}{4}\right)$ _____.
 (a) $+v E$ (b) $-v E$ (c) False (d) None of these
44. Find the sign of $\operatorname{cosec}\left(-\frac{\pi}{3}\right)$ _____.
 (a) $+v E$ (b) $-v E$ (c) False (d) None of these
45. The value of $\sin\frac{\pi}{4}\cos\frac{\pi}{6} - \cos\frac{\pi}{3}\sin\frac{\pi}{6}$ _____.
 (a) $\frac{1}{2}$ (b) $-\frac{1}{2}$ (c) $\sqrt{3}$ (d) $\frac{1}{\sqrt{3}}$
46. The word "Trigonometry" has been derived from three _____.
 (a) Greek words (b) Egyptians words (c) latin words (d) Arabic words
47. One rotation (anti-clockwise) = _____.
 (a) 270° (b) 180° (c) 90° (d) 360°
48. An angle " θ " is called a straight angle if $\theta =$ _____.
 (a) 270° (b) 90° (c) 360° (d) 180°

49. The amount of rotation is called the measure of the _____.

- (a) angle (b) Degree
(c) radians (d) Minutes

50. A complete revolution is a measure of an arc of a circle equal to its _____.

- (a) Radius (b) Diameter
(c) Circumference (d) π^2

51. $\frac{1}{360}$ of a complete revolution around a point is called _____.

- (a) 1° (one degree) (b) one radian
(c) one minute (d) one second

52. $\frac{1}{60}$ of 1° is called _____.

- (a) one radian (b) one second
(c) $\frac{1}{60}$ radian (d) one minute

53. $\frac{1}{3600}$ of 1° is called _____.

- (a) one radian (b) one minute
(c) one second (d) $\frac{1}{60}$ radian

54. one degree is denoted by _____.

- (a) 1° (b) $1'$
(c) $1''$ (d) None of these

55. one minute is denoted by _____.

- (a) 1° (b) $1'$
(c) $1''$ (d) None of these

56. one second is denoted by _____.

- (a) 1° (b) $1'$
(c) $1''$ (d) None of these

57. A circle is called Unit circle, if $r =$ _____.

- (a) 2 Units (b) Zero Units (c) π Units (d) 1 Units

58. Area of Unit Circle is _____ Square Units.

- (a) $\frac{\pi}{2}$ (b) 2π (c) $2\pi r$ (d) π

59. A circumference of Unit circle is _____ units.

- (a) π (b) 2π (c) $\frac{\pi}{2}$ (d) $2\pi r$

60. The angle θ is in the standard position if the vertex of an angle is at Origin and it's initial side on _____.

- (a) Positive side of the x-axis
(b) Negative side of the x-axis
(c) Positive side of the y-axis
(d) Negative Side of y-axis

61. The measure of the angle subtended at the centre of the circle by an arc, whose length is equal to the radius of the circle is called _____.

- (a) one degree (b) one minute
(c) one second (d) one radian

62. For Unit circle arc-length $S =$ _____.

- (a) θ (b) r (c) $\frac{r}{\theta}$ (d) $\frac{\theta}{r}$

63. If $\theta = 1$ radian then $S =$ _____.

- (a) $\frac{1}{r}$ (b) r (c) $2r$ (d) $3r$

64. A radian is independent of the length of the _____ of a circle.

- (a) Radius (b) Arc-length
(c) Diameter (d) None of these

65. The length of an arc in a circle is directly proportional to the measure of its _____.

- (a) Radius (b) Central angle
(c) Diameter (d) None of these

66. $30^\circ =$ _____ radians.

- (a) $\frac{\pi}{2}$ (b) $\frac{\pi}{3}$ (c) $\frac{\pi}{4}$ (d) $\frac{\pi}{6}$

67. $45^\circ =$ _____ radians.

- (a) $\frac{\pi}{2}$ (b) $\frac{\pi}{3}$ (c) $\frac{\pi}{4}$ (d) $\frac{\pi}{6}$

68. $60^\circ =$ _____ radians.

- (a) $\frac{\pi}{2}$ (b) $\frac{\pi}{3}$ (c) $\frac{\pi}{4}$ (d) $\frac{\pi}{6}$

69. $100^\circ =$ _____ radians.

- (a) $\frac{\pi}{2}$ (b) $\frac{\pi}{3}$ (c) $\frac{5\pi}{6}$ (d) $\frac{5\pi}{9}$

70. $120^\circ =$ _____ radians.

- (a) π (b) $\frac{2\pi}{3}$ (c) $\frac{3\pi}{2}$ (d) $\frac{3\pi}{4}$

71. $135^\circ =$ _____ radians.
 (a) π (b) $\frac{2\pi}{3}$ (c) $\frac{3\pi}{2}$ (d) $\frac{3\pi}{4}$
72. $180^\circ =$ _____ radians.
 (a) π (b) $\frac{2\pi}{3}$ (c) $\frac{3\pi}{2}$ (d) $\frac{3\pi}{4}$
73. $200^\circ =$ _____ radians.
 (a) π (b) 2π (c) $\frac{10\pi}{9}$ (d) $\frac{9\pi}{10}$
74. $270^\circ =$ _____ radians.
 (a) π (b) 2π (c) $\frac{3\pi}{2}$ (d) $\frac{2\pi}{3}$
75. $150^\circ =$ _____ radians.
 (a) π (b) 2π (c) $\frac{6\pi}{5}$ (d) $\frac{5\pi}{6}$
76. $300^\circ =$ _____ radians.
 (a) π (b) 2π (c) $\frac{5\pi}{3}$ (d) $\frac{3\pi}{5}$
77. $1^\circ =$ _____ minutes.
 (a) $\frac{\pi}{180}$ (b) $\frac{180}{\pi}$ (c) 3600 (d) 60
78. $1^\circ =$ _____ seconds.
 (a) $\frac{\pi}{180}$ (b) $\frac{180}{\pi}$ (c) 3600 (d) 60
79. $2^\circ =$ _____ minutes.
 (a) 120 (b) 7200 (c) $\frac{\pi}{180}$ (d) $\frac{180}{\pi}$
80. $2^\circ =$ _____ seconds.
 (a) 120 (b) 7200 (c) $\frac{\pi}{180}$ (d) $\frac{180}{\pi}$
81. $0^\circ =$ _____ radians.
 (a) $\frac{\pi}{180}$ (b) $\frac{18}{\pi}$ (c) Zero (d) π
82. Zero radian _____ degree.
 (a) 180° (b) 200° (c) Zero (d) 90°
83. $0' =$ _____ degree.
 (a) $\frac{\pi}{180}$ (b) $\frac{180}{\pi}$ (c) Zero (d) π

84. $-\frac{\pi}{3}$ radians = _____ degree
 (a) 60° (b) -60° (c) 30° (d) -30°
85. If θ is an angle then general angle is _____ radians.
 (a) $\theta + \frac{\pi}{2}$ (b) $\theta + \pi$
 (c) $\theta + 2\pi$ (d) $\theta + 2n\pi; \forall n \in \mathbb{Z}$
86. If the terminal side of an angle fall on x-axis, then angle is called _____ angle.
 (a) quadrantal (b) Acute (c) Obtuse (d) general
87. If the terminal side of an angle falls on y-axis, then angle is called _____ angle.
 (a) Vertical (b) Quadrantal
 (c) General (d) Obtuse
88. $\sin \theta =$ _____
 (a) $\frac{\text{perpendicular}}{\text{Hypotenuse}}$ (b) $\frac{\text{Base}}{\text{Hypotenuse}}$
 (c) $\frac{\text{perpendicular}}{\text{Base}}$ (d) $\frac{\text{Hypotenuse}}{\text{Perpendicular}}$
89. $\cos \theta =$ _____
 (a) $\frac{\text{Perpendicular}}{\text{Hypotenuse}}$ (b) $\frac{\text{Base}}{\text{Hypotenuse}}$
 (c) $\frac{\text{Perpendicular}}{\text{Base}}$ (d) $\frac{\text{Hypotenuse}}{\text{Perpendicular}}$
90. $\sec \theta =$ _____
 (a) $\frac{\text{Base}}{\text{Hypotenuse}}$ (b) $\frac{\text{Hypotenuse}}{\text{Base}}$
 (c) $\frac{\text{Perpendicular}}{\text{Hypotenuse}}$ (d) $\frac{\text{Hypotenuse}}{\text{Perpendicular}}$
91. $\csc \theta =$ _____
 (a) $\frac{\text{Base}}{\text{Hypotenuse}}$ (b) $\frac{\text{Hypotenuse}}{\text{Base}}$
 (c) $\frac{\text{Perpendicular}}{\text{Hypotenuse}}$ (d) $\frac{\text{Hypotenuse}}{\text{Perpendicular}}$
92. $\tan \theta =$ _____
 (a) $\frac{\text{Perpendicular}}{\text{Base}}$ (b) $\frac{\text{Base}}{\text{Perpendicular}}$
 (c) $\frac{\text{Perpendicular}}{\text{Hypotenuse}}$ (d) $\frac{\text{Hypotenuse}}{\text{Perpendicular}}$

93. $\cot \theta = \frac{\text{Perpendicular}}{\text{Base}}$
 (a) $\frac{\text{Perpendicular}}{\text{Base}}$ (b) $\frac{\text{Base}}{\text{Perpendicular}}$
 (c) $\frac{\text{perpendicular}}{\text{Hypotenuse}}$ (d) $\frac{\text{Hypotenuse}}{\text{Perpendicular}}$
94. All trigonometric functions are positive in _____ quadrant.
 (a) 1st (b) 2nd (c) 3rd (d) 4th
95. In a right-triangle the measurement of the Side opposite to 30° is half of the _____.
 (a) Perpendicular (b) Base
 (c) Altitude (d) Hypotenuse
96. A value of trigonometric functions depend only on the _____.
 (a) Angle (b) Side of triangle
 (c) Area of triangle (d) None of these
97. Trigonometry has been derived from Greek letters _____.
 (a) 2 (b) 3
 (c) 4 (d) None of these
98. There are _____ methods used measurement of angles.
 (a) 2 (b) 3 (c) 4 (d) 6
99. The Vertex of Standard position angles is at _____.
 (a) (1, 1) (b) (-1, 1) (c) (2, 1) (d) (0, 0)
100. Quadrantal angle is _____.
 (a) 90° (b) 120° (c) 150° (d) 210°
101. If the diameter of wheel is 28 cm, how far it would travel in 5 revolutions?
 (a) 140π (b) 28π
 (c) 280π (d) None of these
102. The area of a circle is 49π . Find its circumference in term of π .
 (a) 14π (b) $\frac{49}{2}\pi$ (c) 49π (d) 98π
103. If the circumference of a circle is divided into 360 congruent (equal in length) parts, the angle subtended by one part at the centre of the circle is called the _____.
 (a) Angle (b) Radian (c) Degree (d) Minute

104. The System of measurement in which the angle is measured in degrees and it's sub-Units, minutes and Second is called the _____.
 (a) Circular System (b) Sexagesimal System
 (c) MKS System (d) CGS System
105. θ° is measured in _____.
 (a) Circular System (b) Sexagesimal System
 (c) MKS System (d) CGS System
106. The System of measurement in which the angle is measured in radians is called the _____.
 (a) Circular System (b) Sexagesimal System
 (c) MKS System (d) CGS System
107. A radian is the measure of the Central angle of an arc of a circle whose length is equal to the _____.
 (a) half of radius of the circle (b) Diameter of the circle
 (c) radius of the circle (d) one-third of radius of the circle
108. The Central angle of an arc of a circle whose length is equal to the radius of the circle is called the _____.
 (a) degree (b) Radian (c) Minute (d) Second
109. If S and r are in cms, then the Unit of θ is in _____.
 (a) Radians (b) Degrees (c) cm^2 (d) m^2
110. In one hour, the minutes hand of a clock turns through _____.
 (a) $\frac{5\pi}{6}$ rad (b) $\frac{4\pi}{9}$ rad (c) 2π rad (d) $\frac{\pi}{4}$ rad
111. In 30 minutes, the minutes hand of a clock turns through _____.
 (a) $\frac{5\pi}{6}$ rad (b) $\frac{4\pi}{9}$ rad (c) $\frac{\pi}{4}$ rad (d) π rad
112. The area of a Sector of a Circular region of radius r and the central angle of the sector θ radians is _____.
 (a) $\frac{1}{2}r\theta^2$ (b) $\frac{1}{2}r^2\theta$ (c) $\frac{1}{2}r\theta$ (d) $r^2\theta$
113. Value of $\sin 60^\circ =$ _____.
 (a) $\frac{2}{\sqrt{3}}$ (b) $\frac{\sqrt{3}}{2}$
 (c) $2\sqrt{3}$ (d) None of these

114. If $\cos \theta = \frac{1}{\sqrt{2}}$ then θ is _____.

(a) 30° (b) 45° (c) 60° (d) 90°

Answers

1.	d	2.	b	3.	a	4.	a	5.	c
6.	c	7.	a	8.	c	9.	a	10.	d
11.	a	12.	b	13.	c	14.	b	15.	d
16.	c	17.	c	18.	c	19.	d	20.	c
21.	b	22.	a	23.	a	24.	b	25.	d
26.	a	27.	a	28.	d	29.	a	30.	b
31.	d	32.	b	33.	d	34.	c	35.	d
36.	b	37.	c	38.	c	39.	a	40.	b
41.	b	42.	a	43.	b	44.	b	45.	a
46.	a	47.	d	48.	d	49.	a	50.	c
51.	a	52.	d	53.	c	54.	a	55.	b
56.	c	57.	d	58.	d	59.	b	60.	a
61.	d	62.	a	63.	a	64.	b	65.	d
66.	c	67.	b	68.	d	69.	b	70.	d
71.	a	72.	c	73.	c	74.	d	75.	c
76.	d	77.	c	78.	a	79.	b	80.	c
81.	c	82.	c	83.	b	84.	d	85.	a
86.	a	87.	b	88.	b	89.	b	90.	d
91.	a	92.	b	93.	a	94.	d	95.	a
96.	b	97.	a	98.	d	99.	a	100.	a
101.	a	102.	c	103.	b	104.	b	105.	a
106.	c	107.	b	108.	a	109.	c	110.	d
111.	b	112.	b	113.	b	114.	b		