

Name:		Roll No.		Subject	Math
Test Type	Only MCQs	Class	12 th	Date	
Chapter	04 Straight Line & Linear Inequality & Linear Programming	Unit	04	Time	

Q. No. 1 Tick the best option

- The distance of point $\left(\frac{1}{2}, -\frac{\sqrt{3}}{2}\right)$ from origin.
 - 1
 - $\frac{1}{2}$
 - $\frac{\sqrt{3}}{4}$
 - $\frac{\sqrt{3}}{2}$
- The point which divides the segment joining (4,2) and (2,-2) in ratio 2 : 1 is.
 - (3,0)
 - (4,-1)
 - $\left(\frac{8}{3}, -\frac{2}{3}\right)$
 - $\left(\frac{10}{3}, \frac{2}{3}\right)$
- If (2, 2) is the midpoint of the segment joining points (4,6) and (a,b) then.
 - a = 0, b = 0
 - a = 2, b = 1
 - a = 0, b = -2
 - a = -2, b = 0
- If α is the Inclination of a non-horizontal line than.
 - $0 \leq \alpha \leq 180^\circ$
 - $-90^\circ \leq \alpha \leq 90^\circ$
 - $-90^\circ < \alpha < 90^\circ$
 - $0 < \alpha < 180^\circ$
- The angle between line $x + y + 3 = 0$ and x-axis is.
 - 45°
 - 90°
 - 135°
 - 60°
- The angle between the x-axis and line $x - \sqrt{3}y + 1 = 0$ is.
 - 60°
 - 30°
 - 45°
 - 120°
- The angle between the lines $x + y = 0$ and $x - y = 0$ is
 - 0°
 - 90°
 - 60°
 - 45°
- If the lines $3x + ky + 5 = 0$ and $2x - y + 5 = 0$ are parallel then value of k is
 - $\frac{3}{2}$
 - $\frac{2}{3}$
 - $-\frac{2}{3}$
 - $-\frac{3}{2}$
- If the lines $2x + 3y = 1$ and $px - 2y = 1$ are perpendicular, then value of p is
 - $-\frac{4}{3}$
 - $\frac{3}{4}$
 - 3
 - 3
- If the lines $x+1=0$, $x + y + 1 = 0$ and $Px + 2y + 3 = 0$ are concurrent then the value of p is
 - 0
 - 1
 - 3
 - 2
- The distance of the point (1, -2) from lines $2x - y + 1 = 0$ is.
 - $\sqrt{5}$
 - $\frac{1}{\sqrt{2}}$
 - $\frac{1}{\sqrt{5}}$
 - $\frac{2}{\sqrt{5}}$
- If the distance between points (1, 2) and (2, 5) is $\sqrt{a+1}$ then value of a is
 - 0
 - ± 9
 - 9
 - 3

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13. The pair of lines represented by $ax^2 + 2hxy + by^2 = 0$ are perpendicular if
 (a) $a + b = 1$ (b) $a - b = 0$ (c) $h^2 = ab$ (d) $a + b = 0$
14. For $b > 0$, the point (x_1, y_1) lies above the line $ax + by + c = 0$ then
 (a) $ax_1 + by_1 + c > 0$ (b) $ax_1 + by_1 + c = 0$ (c) $ax_1 + by_1 + c \leq 0$ (d) $ax_1 + by_1 + c < 0$
15. The pair of lines represented by $ax^2 + 2hxy + by^2 = 0$ are coincident lines of
 (a) $ab = 0$ (b) $h^2 = -ab$ (c) $h^2 - ab = 0$ (d) $h^2 + ab = 0$
16. If the line $(2x + y + 3) + k(x + y + 2) = 0$ passes through $O(0,0)$ then value of k is
 (a) $3/2$ (b) $-3/2$ (c) -3 (d) $-2/3$
17. The symmetric form of equation of line through point (x_1, y_1) and having Inclination α is
 $\frac{x + x_1}{\cos \alpha} = \frac{y - y_1}{\sin \alpha}$ (b) $\frac{x - x_1}{\sin \alpha} = \frac{y - y_1}{\cos \alpha}$ (c) $\frac{x - x_1}{\cos \alpha} = \frac{y - y_1}{\sin \alpha}$ (d) $\frac{x - x_1}{\tan \alpha} = \frac{y - y_1}{\cot \alpha}$
18. The point of intersection of all the perpendicular bisector of the sides of a triangle is called
 (a) Circumcentre (b) In-Centre (c) Orthcentre (d) Centroid
19. The point of intersection of altitudes
 (a) Circumcentre (b) Centroid (c) In-Centre (d) Orthocentre
20. The centroid of a triangle with vertices $A(2, 3)$, $B(-1, 6)$ and $C(7, 5)$ is
 (a) $\left(\frac{1}{3}, \frac{2}{7}\right)$ (b) $\left(\frac{2}{5}, \frac{7}{3}\right)$ (c) $\left(\frac{8}{3}, \frac{14}{3}\right)$ (d) $\left(\frac{7}{3}, \frac{11}{3}\right)$
21. The points $A(7, 9)$, $B(3, -7)$ and $C(-3, 3)$ are the vertices of
 (a) A right triangle (b) An isosceles triangle
 (c) An equilateral triangle (d) A right angle isosceles triangle
22. The point $(-5, 3)$ is the centre of circle and $P(7, -2)$ lies on the circle. Then the radius of circle is
 (a) 2 (b) 13 (c) 7 (d) 8
23. Centroid is a point which divides each
 (a) Median in $1 : 2$ (b) Altitude in $1 : 2$
 (c) Right bisector in $1 : 2$ (d) None of these
24. Slope of y-axis is
 (a) 0 (b) 1 (c) -1 (d) Undefined
25. The inclination of any line parallel to y-axis is
 (a) 0 (b) $\frac{\pi}{2}$ (c) $\frac{\pi}{4}$ (d) $\frac{3\pi}{2}$

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26. The inclination of x-axis is
 (a) 180° (b) 0° (c) 90° (d) 150°
27. The point which is three-fifth of the way along the line segment from A(-5,8) to B(5,3) is
 (a) (5, -1) (b) (1,5) (c) (6,-1) (d) (-1,6)
28. The angle from first line to the second line having slopes 0 and 3 respectively is
 (a) $\tan^{-1}3$ (b) $\tan^{-1}(1/3)$ (c) $\frac{1}{2} \tan^{-1}7$ (d) $2\tan^{-1}3$
29. The point which divides the segment joining the points (4, -2) and (8, 6) in the ratio 7 : 5 externally is
 (a) $\left(\frac{8}{3}, \frac{19}{3}\right)$ (b) $\left(\frac{19}{3}, \frac{8}{3}\right)$ (c) $\left(\frac{-8}{3}, \frac{-19}{3}\right)$ (d) (18, 26)
30. The medians of a triangle are.
 (a) Collinear (b) Parallel (c) perpendicular (d) concurrent
31. The slope of line with inclination 60° is
 (a) 0 (b) $\frac{1}{\sqrt{3}}$ (c) 1 (d) $\sqrt{3}$
32. If slope of l_1 is $-\frac{1}{2}$ and $l_1 \perp$ to l_2 , then slope of l_2 is
 (a) 0 (b) -1 (c) -2 (d) 2
33. If m is slope of line passing through origin, then its equation is
 (a) $y = mx + c$ (b) $y = mx - c$ (c) $y = x$ (d) $y = mx$
34. If $a \neq 0$, $b \neq 0$ then slope of line $ax + by + c = 0$ is
 (a) $\frac{b}{a}$ (b) $-\frac{a}{b}$ (c) $\frac{c}{b}$ (d) $-\frac{b}{c}$
35. The lines represented by $ax^2 + 2hxy + by^2 = 0$ are parallel if
 (a) $h^2 - ab = 0$ (b) $h^2 - ab < 0$ (c) $h^2 - ab > 0$ (d) $h^2 + ab = 0$