## Model Question Paper

## Coordinate geometry - Part IV

10th Standard

## Maths

Reg.No. $\square$
I.Answer all the questions.
II.Use Blue pen only.

Time : 01:15:00 Hrs

## Section-A

1) If the points $(2,5),(4,6)$ and ( $a$, a) are collinear, then the value of $a$ is equal to
$\begin{array}{llll}\text { (a) }-8 & \text { (b) } 4 & \text { (c) }-4 & \text { (d) } 8\end{array}$
2) If a straight line $y=2 x+k$ passes through the point (1,2), then the value of $k$ is equal to
(a) $0 \quad$ (b) 4
(c) 5
(d) -3
3) The equation of a straight line having slope 3 and $y$-intercept -4 is
(a) $3 x-y-4=0$
(b) $3 x+y-4=0$
(c) $3 x-y+4=0$
(d) $3 x+y+4=0$
4) The point of intersection of the straight lines $y=0$ and $x=-4$ is
(a) $(0,-4)$
(b) $(-4,0)$
(c) $(0,4)$
(d) $(4,0)$
5) The value of $k$ if the straight lines $3 x+6 y+7=0$ and $2 x+k y=5$ are perpendicular is
$\begin{array}{llll}\text { (a) } 1 & \text { (b) }-1 & \text { (c) } 2 & \text { (d) } \frac{1}{2}\end{array}$

## Section-B

6) Find the equation of the straight line whose $x$ and $y$-intercepts on the axes are given by $-\frac{1}{3}$ and $\frac{3}{2}$
7) Find the equation of the straight line whose $x$ and $y$-intercepts on the axes are given by $\frac{2}{5}$ and $-\frac{3}{4}$
8) Find the $x$ and $y$ intercepts of the straight line $2 x-y+16=0$
9) Find the $x$ and $y$ intercepts of the straight line $3 x+10 y+4=0$
10) Find the slope of the straight line $y=7 x+6$
11) Find the slope of the straight line $4 x=5 y+3$
12) Find the slope of the straight line passing through the points (2, -4) and origin
13) Find the slope of the straight line passing through the points $(1+\sqrt{3}, 2)$ and $(3+\sqrt{3}, 4)$
14) Find the equation of the straight line perpendicular to the straight line $x-2 y+3=0$ and passing through the point (1, -2$)$.

## Section-C

15) Using the concept of slope, show that each of the following set of points are collinear. $(4,1),(-2,-3)$ and $(-5,-5)$
16) Using the concept of slope, show that each of the following set of points are collinear. $(4,4),(-2,6)$ and $(1,5)$
17) By using the concept of the equation of the straight line, prove that the given three points are collinear. ( 1,4 ), ( $3,-2$ ) and $(-3,16)$
18) Find the equation of the median from the vertex $R$ in a $3 P Q R$ with vertices at
$P(1,-3), Q(-2,5)$ and $R(-3,4)$.
19) By using the concept of the equation of the straight line, prove that the given three points are collinear.
(i) $(4,2),(7,5)$ and $(9,7)$
