OBJECTIVE TYPE (1 Mark)

Q.1 The linear equation $3x - 7y = 5$ has

A	A unique solution	B	Two solutions	C	Infinitely many solutions	D	No solutions

Q.2. If a linear equation has solutions (-2, 2), (0, 0) and (2, -2), then it is of the form

A	y- x = 0	B	x+ y = 0	C	-2x + y = 0	D	-x + 2y = 0

Q.3. Equation of a line which is 5 units distance above the x-axis

A	x = 5	B	x + 5 = y	C	y = 5	D	x − y = 0

Q.4. Graph of $x = -7$ is a line

A	Parallel to y-axis	**B**	Parallel to x-axis	**C**	Passes through the origin	**D**	None of these

Q.5. The graph of the line $x + y = 7$ intersect the x-axis at

A	(7, 0)	B	(0, 7)	C	$(-7, 0)$	D	$(0, -7)$

Q.6. Find out which of the following has $x = 2$, $y = 1$ as a solution

A	7x − 2y = 3	B	5x + 3y = 14	C	4x = 3y − 7	D	2x + 5y = 9

Q.7. If present age of son and father are expressed by x and y respectively and after ten years father will be twice as old as his son. Write the relation between x and y

A	2x - y =10	**B**	y = 2x + 10	**C**	10 - 2y = x	**D**	x − 2y=10

Q.8. To which equation does the graph represent?

A	$3x - 7y = 10$	**B**	$y - 2x = 3$	**C**	$8y - 6x = 4$	**D**	$5x + \dfrac{35}{2}y = 25$

	SECTION B (2mark)
Q9	If (2, 5) is a solution of the equation 2x + 3y = m, find the value of m
Q10	Express $\sqrt{3} = 2x + \sqrt{3}y$ in the form of ax + by + c = 0 and indicate the values of a, b and c.
Q11	Solve the equation $\frac{x}{3} + 2 = 2x - 3$ and represent the solution on the Cartesian plane
Q12	Express y in terms of x, given that 2x - 5y = 7. Check whether the point (-3, -2) is on the given line.
	SECTION C (3 MARKS)

Q13	Given the equation, 2x + y = 7
	    (i) What is the value of x, when the value of y is 3?
	    (ii) What is the value of y, when the value of x is 4?
	    (iii) Find one more solution of the above equation?

Q14	Find three different solutions of the equation 3 = 2x − 5y.
Q15	For what value of k, the linear equation 2x + ky = 8 has x = 2 and y = 1 as its solution? If x = 4, then find the value of y.
	SECTION D (4 marks)
Q16	Draw the graph of the equation 3x + 2y = 12. At what points does the graph cut the x axis and y axis.

Q17	Plot the graph of the following linear equation $2(x + 3) - 3(y - 1) = 0$. Also answer the following questions:
	    i) Shade the triangular region formed by the line and the axes.
	    ii) Write the vertices of the triangle so formed.

Q18	An auto rickshaw is a motorized version of the pulled rickshaw or cycle rickshaw. Most have three wheels and do not tilt. They are known by many terms in various countries including auto, auto rickshaw, baby taxi, moto taxi, pigeon, jonny bee, Bajaj, Chand gari, lapa, tuk-tuk, tum-tum and tukxi. The auto rickshaw is a common form of urban transport, both as a vehicle for hire and for private use, in many countries around the world.

A man hires an auto rickshaw to cover a certain distance. The fare is ₹ 10 for first kilometer and ₹ 7 for subsequent kilometers. Taking total distance covered as x km and total fare as ₹ y.

i) Write a linear equation for this information and draw its graph.
ii) The man covers a distance of 16 km and gave ₹ 120 to the auto driver. Auto driver said. "It is not the correct amount" and returned him the balance. Find the correct amount paid back by the auto driver.

Answers

<table>
<tr><td>1</td><td>C</td><td>2</td><td>B</td><td>3.</td><td>C</td><td>4</td><td>A</td></tr>
<tr><td>5</td><td>A</td><td>6</td><td>D</td><td>7</td><td>B</td><td>8</td><td>C</td></tr>
<tr><td>9</td><td>19</td><td>10</td><td>$2, \sqrt{3}, -\sqrt{3}$</td><td>11</td><td>$x = 3$</td><td>12</td><td>NO</td></tr>
<tr><td>13</td><td>X=2
Y=-1</td><td>15</td><td>k=4, y=0</td><td>16</td><td>(4,0), (0,6)</td><td>18</td><td>i)y=7x+3
ii)₹5</td></tr>
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