Class 10   Time : 1 hr.
14-5-2015   Formative Assessment I in MATHEMATICS   M. Mark20

SECTION - A   (1 x 4 = 4 marks)

1.   Check if the following pair of linear equations are consistent or not. Give reasons.

$$6x - 3y + 10 = 0$$
$$12x - y + 9 = 0$$

2.   Find the value of k such that the following pair of linear equations

$$8x + 5y = 9$$
$$kx + 10y = 15 \quad \text{are inconsistent.}$$

3.   Find the type of solution for the following pair of linear equations

$$x + 2y - 8 = 0$$
$$2x + 4y = 16.$$

4.   Given linear equation $3x - 2y = 4$. Write another linear equation in two variable such that the geometrical representation of the equation is a pair of intersecting lines.

SECTION – B   (2 x 3 = 6 marks)

5.   Solve the following pair of linear equations by substitution method

$$x + y = 7$$
$$5x + 12y = 7.$$

6.   The sum of digits of a two digit number is 15. The number obtained by reversing the order of

digits exceeds the original number by 9. Find the number.

7.   Solve the following pair of linear equations by cross multiplication method

$$3x + 2y = 8$$
$$2x + 3y = 1$$

SECTION – C   (3 x 2 = 6 marks)

8.   Solve : $\dfrac{1}{3x + y} + \dfrac{1}{3x - y} = \dfrac{3}{4}$.

$\dfrac{1}{2(3x + y)} - \dfrac{1}{2(3x - y)} = \dfrac{-1}{8}$.

9.   If 10 students are transferred from section A of a class to section B the number of students in each section become equal. But if 10 students are transferred from section B to section A the number of students in section A becomes three times that of section B.
Find the number of students in each section.

SECTION – D   (4 x 1 = 4 marks)

10. 10 students of class X took part in a Mathematics Quiz. If the number of girls is four more than the number of boys, find the number of girls and boys by forming a pair of linear equation in two variable and solving them by graphical method.

-x-x-x-x-x-x-x-