ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

FOR GOD AND COUNTRY

WORKSHEET-14

SUBJECT – MATHEMATICS

1st - Term

Chapter: Co-ordinate Geometry **Class: XI**

Topic: Straight Lines 3 **Date: 15.08.2020**

Choose the correct option (1 x 15=15)

1. **If the straight lines 2x – 3y + 5 = 0 and px +2y – 6 = 0 be parallel to each other , state which of the following is the value of p –**
   a. **4/3**
   b. **3/4**
   c. **– 4/3**
   d. **– 3/4**

2. **If the straight lines 5x – 9y - 12 = 0 and px +10y – 2 = 0 be perpendicular to each other , state which of the following is the value of p –**
   a. **18**
   b. **– 9**
   c. **9**
   d. **– 18**

3. **The angle between the lines x = a and y = b is –**
   a. **0**
   b. **90 degree**
   c. **180 degree**
   d. **None of these.**

4. **The st. lines joining the points (3 , -5) and (-3 , -5) is parallel to the –**
   a. **Y – axis**
   b. **X – axis**
   c. **Line 3x + 5y = 0**
   d. **Line 3x = 5y**

5. **Which of the following is the slope of any line parallel to the line ax + by + c = 0 (a & b are non zero) ?**
   a. **a/b**
   b. **– a/b**
   c. **b/a**
   d. **– b/a**

6. **Which of the following is the slope of any line perpendicular to the line ax + by + c = 0 (a & b are non zero) ?**
   a. **a/b**
   b. **– a/b**
   c. **b/a**
   d. **– b/a**

7. **The st. lines joining the points (2 , -4) and (2 , 6) makes an angle of 90 degree with the –**
   a. **Y – axis**
   b. **X – axis**
   c. **Line y = 3x**
   d. **Line x = 3y**

8. **The perpendicular distance of the st. line 6x – 8y = 25 from the point (-2 , -4) is –**
   a. **0.5 units**
   b. **0.25 units**
   c. **1 unit**
   d. **2 units**

9. If the distance between the lines 5x + 12y = 1 and 10x + 24y + k = 0 be 2 units then the value of k is –

a. – 54
b. 50
c. 25
d. 100

10. The perpendicular distance of the point (4 , -1) from the st. line through the points (1 , 1) & (-11 , -4) is –

a. 1 unit
b. 2 units
c. 3 units
d. 4 units

11. The distance between two parallel lines 3x + 4y + 9 = 0 and 3x + 4y + 7 = 0 is –

a. 1/2 unit
b. 2/3 unit
c. 2/5 unit
d. 1/5 unit

12. A(4, 6) , B(-1 , 3) and C(2, -2) are three given points. The length of the perpendicular from B on AC is –

a. $\sqrt{6}\,unit$
b. $\sqrt{3}\,unit$
c. $\sqrt{\frac{2}{3}}\,unit$
d. $none\ of\ these.$

13. The distance between the lines x = a and x = b (where b>a) is-

a. $\sqrt{(a^2 - b^2)}$
b. $\sqrt{(b^2 - a^2)}$
c. $b - a$
d. $a - b$

14. The distance of the st. line $a(x-a)+b(y-b)=0$ from the origin is –

a. $a\ unit$

b. $b\ unit$

c. $\sqrt{(a^2+b^2)}\ unit$

d. $\sqrt{(a^2-b^2)}\ unit$

15. The equation of the st. line mid way between the lines 2x + 3y = 5 and 2x + 3y + 1 = 0 is –

a. 2x + 3y = 1

b. 2x + 3y = 2

c. 3x + 2y = 3

d. 2x + 3y = 4

Prepared by :-

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