VELAMMAL MATRICULATION HIGHER SECONDARY SCHOOL, CHENNAI-37

HIGH SCHOOL COMPARTMENT

X STD OBJECTIVES QUESTIONS – PART II

**I. Choose the correct answer:**

1. The square root of is equal to \_\_\_\_\_\_\_\_.

a) b) c) **d)**

1. Which of the following should be added to make a perfect square \_\_\_\_\_\_\_\_\_.

a) 4 **b) 16** c) 8 d) -8

1. The solution of is equal to \_\_\_\_\_\_\_\_\_\_.

a) -1 b) 2 **c) 1, 2**  d) none of these

1. The values of a and b if is a perfect square are \_\_\_\_\_\_\_\_\_.

a) 100, 120 b) 10, 12 **c) -120, 100** d) 12, 10

1. If the roots of the equation are the squares of the roots of the

equation then q, p, r are in \_\_\_\_\_\_\_\_\_\_\_.

a) A. P **b) G.P** c) both A.P and G.P d) none of these

1. Graph of linear equation is a \_\_\_\_\_\_\_\_\_\_\_\_.

**a) straight line** b) circle c) parabola d) hyperbola

1. The number of points of intersection of the quadratic polynomial x2 + 4x + 4 with

the X axis is

a) 0 **b) 1** c) 0 or 1 d) 2

1. The area of triangle formed by the points (-5,0), (0,-5) and (5,0) is \_\_\_\_\_\_\_\_\_.

a) 0 sq. units **b) 25 sq. units** c) 5 sq. units d) none of these

1. A man walks near a wall, such that the distance between him and the wall is 10 units.

Consider the wall to be the y axis. The path travelled by the man is \_\_\_\_\_\_\_\_\_\_.

**a) x = 10** b) y = 10 c) x=0 d) y=0

1. The straight line given by the equation x=11 is \_\_\_\_\_\_\_\_\_\_.

a) parallel to x axis **b) parallel to y axis**

c) passing through origin d) passing through (0,11)

1. If (5,7), (3,p) and (6,6) are collinear then p is \_\_\_\_\_.

a) 3 b) 6 **c) 9** d) 12

1. Point of intersection of 3x-y=4 and x + y = 8 is \_\_\_\_\_\_\_\_.

a) (5,3) b) (2,4) **c) (3,5)** d) (4,4)

1. The slope of the line joining (12, 3), (4,a) is 1/8. The value of a is \_\_\_\_\_\_\_\_\_.

a) 1 b) 4 c) -5 **d) 2**

1. The slope of the line which is perpendicular to a line joining the points (0,0) and (-8,8)

is \_\_\_\_\_\_\_\_.

a) -1 **b) 1** c) 1/3 d) -8

1. If slope of the line PQ is then slope of the perpendicular bisector of PQ is \_\_\_\_\_\_\_.

a) b) **c) -**  d) 0

1. If A is a point on the Y axis whose ordinate is 8 and B is a point on the X axis whose

abscissae is 5 then the equation of the line AB is

**a) 8x + 5y = 40** b) 8x – 5y = 40 c) x = 8 d) y = 5

1. A straight line has equation 8y = 4x + 21. Which of the following is true

**a) The slope is 0.5 and the y intercept is 2.6**

b) The slope is 5 and the y intercept is 1.6

c) The slope is 0.5 and the y intercept is 1.6

d) The slope is 5 and the y intercept is 2.6

1. When proving that a quadrilateral is a trapezium, it is necessary to show

a) The slopes of two sides **b) Two parallel and two non-parallel sides**

c) The lengths of all sides d) All sides are of equal lengths

1. When proving that a quadrilateral is a parallelogram by using slopes you must find

a) The slopes of two sides **b) The slopes of two pair of opposite sides**

c) The lengths of all sides d) Both the lengths and slopes of two sides

1. (2, 1) is the point of intersection of two lines.

a) x – y – 3 = 0; 3x – y – 7 = 0 **b) x + y = 3; 3x + y = 7**

c) 3x + y = 3; x + y = 7 d) x + 3y – 3 = 0; x – y – 7 = 0

1. If the ratio of the height of a tower and the length of its shadow is :1, then the

angle of elevation of the Sun has measure \_\_\_\_\_\_\_\_\_.

a) 450 b) 300 c) 900 **d) 600**

1. The electric pole subtends are angle of 300 at a point on the same level as its foot. At

a second point ‘b’ metres above the first, the depression of the foot of the tower is 600.

The height of the tower (in metres) is equal to \_\_\_\_\_\_\_.

a) b **b)**  c) d)

1. A tower is 60m height. Its shadow is metres shorter when the sun’s altitude is 450

than when it has been 300, then x is equal to \_\_\_\_\_\_\_\_\_.

a) 41.92m **b) 43.92m** c) 43m d) 45.6m

1. The angle of depression of the top and bottom of 20m tall building from the top of a

multistoried building are 300 and 600 respectively. The height of the multistoried

building and the distance between two buildings (in metres) is \_\_\_\_\_\_\_.

a) 20, 10 **b) 30, 5** c) 20, 10 d) 30, 10

1. Two persons are standing ‘x’ metres apart from each other and the height of the first

person is double that of the other. If from the middle point of the line joining their feet an observer finds the angular elevations of their tops to be complementar then the height of the4 shorter person (in metres) is \_\_\_\_\_\_\_\_\_\_.

a) **b)**  c) d)

1. The angle of elevation of a cloud from a print h metres above a lecke is . The angle

of depression of its reflection in the alke is 450. The height of location of the cloud from the lake is \_\_\_\_\_\_\_\_\_.

**a)**  b) c) h(tan450 - ) d) none of these

1. Which of the following is incorrect \_\_\_\_\_\_\_\_\_\_.

**a) P(A)>1** b) O P (A) 1 c) P()=0 d) P(A) + (P())=1

1. A page is selected at random from a book. The probability that the digit at units place

of the page number chose is less than 7 is \_\_\_\_\_\_\_\_\_\_.

a) 3/10 **b) 7/10** c) 3/9 d) 7/9

1. The probability a red marble selected at random from a jar containing p red, q blue

and r green marbles is

a) **b)**  c) d)

1. The probability of getting a job for a person is x/3. If the probability of not getting the job is 2/3 then the value of x is

a) 2 **b) 1** c) 3 d) 1.5

1. Kamalam went to play a lucky draw contest. 135 tickets of the lucky drawn were sold.

If the probability of kamalam winning is 1/9, then the number of tickets bought by kamalam is

a) 5 b) 10 **c) 15**  d) 20

1. If a letter is chosen at random from the English alphabets {a,b,…,z}, then the probability that the letter chosen precedes x

a) 12/13 b) 1/13 **c) 23/26** d) 3/26

1. A purse contains 10 notes of 2000 rupees, 15 notes of 500 rupees and 25 notes of 200 rupees. One note is drawn at random. What is the probability that the note is a 500 rupees note?

a) 1/5 **b) 3/10** c) 2/3 d) 4/5