Class : 7

**Group A: (1\*5=5)**

1. Choose the correct answer from the following.
2. 1 ,2 ,3 ,4 ,5 and so on are the set of ……………. Numbers.

i) Real number ii) rational number iii) whole number

1. The opposite side of right angle is called …………..

i)Base ii) perpendicular iii) hypotenuse

1. The product of cosꝊ and secꝊ is …………….

i) tanꝊ ii) 1 iii) 0

1. The rectangular arrangement of numbers or elements is called ………..

i) Row matrix ii) null matrix iii) equal matrix

1. When a point p(x, y) is reflected in x-axis it changes to p’…………

i) P’(x, -y) ii) P’(-x, -y) iii)P’(-x,y)

1. Match the following. (1\*5=5)

Group A Group B

√2 1/cosecꝊ

Beta Irrational number

sinꝊ ꞵ

Pythagoras theorem A\*B = {(1,2)}

In cartesian Product h2= p2 + b2

**Group B (2\*10=20)**

1. If A= {a, b, c} and B= {1, 2} find A\*B and B\*A.
2. Find the unknown values of x and y from the following equal ordered pairs.

(3x-1, y+2) = (2, 6)

1. Find the distance between the points E (1, 3) and F (4, 7).

6) Find the median from the set of data given data.

3, 7, 9, 10, 15

7) The average of18, 11, 14, p, 17 is 14. Find the value of p.

8) Construct a matrix with the order specified below.

a) H2\*2 b)E3\*1

9) If P = and S = , Find P + S and P –S.

10) State the type of matrices given below.

a) b) [2 4]

11) Rationalize the denominator,

a) 5/√3 b)

12) Multiply:

a)(1+sinꞵ) (1- sinꞵ) b) 2cos2ꞵ\*sinꞵ\*5 sin2ꞵ\*2cosꞵ

**Group C (5\*4=20)**

Write any 5 question only.

13) Find all six trigonometric ratio with respect to reference angle.

A

B

C

4 cm

5

Z

14) Prove that:

15) Simplify:

16) Calculate the mean from the following data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Marks | 20 | 40 | 60 | 80 | 10 |
| No of students | 5 | 10 | 2 | 5 | 3 |

17) A (3, 6), B (2, 4) and C (5, 7) are the vertices of . Plot or the graph paper. Find the coordinates of its image is under the reflection about

a) x- axis

b) Y-axis.

Also mention the co-ordinate of the vertices of images in both the cases.

18) Find the value of a, b, c and d from the pair of equal matrices given below,

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