THE SCHRAM ACADEMY, CHENNAI

WORKSHEET- 3 DIMENSIONAL GEOMETRY

NAME : DATE:
CLASS : XI SUBJECT : MATHEMATICS

1. Name the octants in which the following points lie:
   a) (1,2,3) b) (-4,2,5)
   c) (-3,-1,6) d) (4,-2,3)
   e) (-2,-4,-7) f) (4,-2,-5)
   g) (4,3,-6) h) (-3,4,-6)

2. Write the co-ordinates of the foot of the perpendicular drawn from the point (2,4,5) on
   a) x-axis b) y-axis
   c)-z-axis d) xy – plane
   e) yz – plane f) xz – plane

3. Find the distance between the following pairs of points:
   a) (1,-3,4) and (-4,1,2)
   b) (-3,7,2) and (2,4,-1)
   c) (-1,3,4) and (1,-3,4)
   d) (2,-3,1) and (-2,5,1)

4. Fill in the blanks:
   a) The x-axis and the y-axis taken together determine a plane is known as _____
   b) The co-ordinates of points in the xy – plane are of the form _____
   c) Co-ordinate planes divide the space into _____ octants
   d) The mid-point of the line segment joining the points (1,3,4) and (3,5,0)

5. Find the co-ordinates of the point which divides the line segment joining The points (-2,3,5) and (1,-4,6) in the ratio 2:3 internally

6. Find the ratio in which the yz-plane (ie, x co-ordinate becomes zero) divides the line segment formed by joining the points (-2,4,7) and (3,-5,8)