**Grade: XII MATHEMATICS**

 **3 D GEOMETRY**  **STD:XII**

**Answer the following:**

1. Find the equation of the plane passing through the points A(2, 2, -1), B(3,4,2) and C(7,0,6).

2. If a line makes angles  and  with x, y and z axes respectively, where  is acute, then find.

3. Find the sum of the intercepts cut off by the plane on the coordinate axes.

4. Find the distance between the point (-1, -5, -10) and the point of intersection of the line  and the plane 

5. The foot of the perpendicular drawn from the origin to the plane is (4, -2, -5). Find the equation of the plane.

6. Find the shortest distance between the skew lines  and.

7. The equations of a line are. Write the direction cosines of the line.

8. Find the equation of a line passing through the point (1, 2, 4) and perpendicular to two lines

 