**11/04/2020 ATHAVALE CLASSES**

 **Line, Plane\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1) If OP = 14 and direction of OP are 2, - 3, 6 then co – ordinates of P are a) (28, - 42, 84) b) c) (14, - 21, 42) d) (4, - 6, 12)

2) The angle between the lines 2x = - 3y = - z and 6x = - y = - 4z is a) 00 b) 300 c) 450 d) 900

3) The linesare a) skew lines b) parallel lines c) intersecting lines d) none

4) Line lies in yz – plane and makes an angle of 300 with y-axis. Then its inclination with z – axis is . a) b) c) d)

5) Position vectors of the point of intersection of the lines  is a)  b) c)  d) 

6) The direction cosines of the normal to the plane are

a)  b)  c)  d) 

7) The angle between the planes and is

a) 00 b) 300 c) 600 d) 900

8) The acute angle between the planes and is

a)  b)  c) d) 

9) If the acute angle between the planes 2x + y – z = 5 and mx + 2y + z = 7 is, then m = -

a) 1 or  b) -1 or c)  d)  10) The equation of plane which passes through the point of intersection of linesandand at greatest distance from origin is a) b) c)  d)

11) A plane S1 makes intercepts 2, – 4, 6 and another plane S2 makes intercepts 4, 6, –2 on the axes of x, y and z respectively. Then measure of the angle between them is

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

12) The parametric equation of the plane passing through the points  is a) b)  c)  d) 

13) Equation of the plane through the points ( 1, –2, 4) and (1,– 4, 5) and perpendicular to yz plane is a) x = 1 b) 2y + z = 0 c) y + z = 1 d) y + 2y = 6

14) The plane and the line are related as: a) lies in the plane b) at rt. angle to plane c) parallel to plane d) meets the plane obliquely.

15) The distance between the parallel planes:is a) b)  c)  d) None of these

16) The length of the perpendicular from origin to the lineis: a)  b) 2 c)  d) 6

17) The image (or reflection) of the point ( 1,2,- 1) in the plane is a) b)  c) d) None of these 18) Let the line lie in the plane Then equals: a) ( 6, - 17) b) ( - 6, 7) c) ( 5, - 15) d) ( - 5,5 )

19) The passing through the points ( 5, 1, a) and ( 3, b,1) crosses the yz-plane at the point . Then: a) b)  c) d) 20) A line with positive direction cosines passes through the point P ( 2, - 1, 2 ) and makes the plane at point Q. The length of the line segment PQ equals: a) 1 b) c)  d) 2

21) A tetrahedron has vertices O (0,0,0), A ( 1, 2, 1), B ( 2, 1, 3) and C ( - 1, 1,2). The angle between the faces OAB and ABC will be: a)  b)  c) d)

22) The p.v. of the points of intersection of the line  and XOY- plane is a)  b)  c)  d) 

23) Equation of the plane containing the straight lineand perpendicular to the plane containing the straight linesand is : a)  b) c)  d)

24) If the angle between the line and the plane is , then equals: a)  b)  c)  d)

25) If the straight line and are coplanar, then the plane containing these two lines is (are): a)  b)  c)  d)

26) The distance of the point (1, - 5, 9) from the plane measured along the line is a)  b)  c)  d)

27) The st. lines whose direction cosines satisfy: and are perpendicular if:

a) b) c) d)