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DEPARTMENT OF MATHEMATICS

ANALYTICAL GEOMETRY

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ANALYTICAL GEOMETRY

1.The direction ratios of the line joining (1, 2, - 1) and (2 ,- 1,1) are.....

a)2,6,4 **b)1, -3, 2** c)-2,-6,-4 d)-1,3,-2

2. The direction cosines of the x-axis are .....

a)l,m,n **b)1 ,0 ,0** c) 0 ,1,1 d)cosα,cosβ, cosγ

3. The direction cosines of the y axis are....

a)1,0,0 **b)0,1,0** c)0,0,1 d)1,0,1

4. The equation of the xy plane is .....

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

5. The equation of the yz plane is.....

a) x =0 b) y=0 c)z=0 d)x=0=y

6. The equation of the zx plane is....

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

7. The direction cosines of the line joining (2,2,2)and (1,1,1) are....

a)1,1,1 b)-1,-1,-1 **c)** $\frac{1}{\sqrt{3}}, \frac{1}{\sqrt{3}}, \frac{1}{\sqrt{3}}$ d) $\frac{1}{\sqrt{3}}, \frac{1}{\sqrt{3}}, \frac{-1}{\sqrt{3}}$

8. The angle between the lines whose direction ratios are 1, 3 ,- 1 and -1, 2, 5 is.....

a)0 b)60˚ c)30˚ **d)90˚**

9. The angle between the lines whose direction ratios are 2,-1,1 and 1,1,2 is....

a) $\frac{\pi}{6}$ **b)** $\frac{\pi}{3}$ c) $\frac{\pi}{4}$ d) $\frac{\pi}{2}$

10.If l,m,n and l',m',n' are the direction cosines of two straight lines then the lines are perpendicular if....

a) ll'+mm'+nn'=0 b) ll'+mm'+nn'=1 c) $\frac{l}{l'} = \frac{m}{m'} = \frac{n}{n'}$ d)None

11. The direction cosines of the normal to the plane x+y-1=0 are.....

a) $\frac{1}{\sqrt{3}}, \frac{1}{\sqrt{3}}, \frac{1}{\sqrt{3}}$ b) $\frac{1}{\sqrt{3}}, \frac{1}{\sqrt{3}}, \frac{-1}{\sqrt{3}}$ **c)** $\frac{1}{\sqrt{2}}, \frac{1}{\sqrt{2}}, 0$ d) $\frac{1}{\sqrt{2}}, \frac{-1}{\sqrt{2}}, 0$

12. The direction cosines of the normal to the plane 2x-3y+6z+7=0 are...

a) $\frac{-2}{7}, \frac{3}{7}, \frac{-6}{7}$ b)$\frac{2}{7}, \frac{-3}{7}, \frac{-6}{7}$ c) $\frac{-2}{7}, \frac{-3}{7}, \frac{-6}{7}$ d) $\frac{2}{7}, \frac{3}{7}, \frac{6}{7}$

13.If a straight line makes 30˚, 120˚, 90˚,with the coordinate axes then the direction cosines of the line are....

a) $\frac{\sqrt{3}}{2}, \frac{1}{2}, 0$ **b)** $\frac{\sqrt{3}}{2}, \frac{-1}{2}, 0$ **c)** $\frac{\sqrt{3}}{2}, \frac{\sqrt{3}}{2}, 1$ d) $\frac{1}{2}, \frac{\sqrt{3}}{2}, 1$

14. If cosα, cosβ, cosγ are the direction cosines of a straight line then

a) $\cos^2\alpha + \cos^2\beta + \cos^2\gamma = 0$ **b)** $\boldsymbol{\sin^2\alpha + \sin^2\beta + \sin^2\gamma = 2}$

c) $\sin^2\alpha + \sin^2\beta + \sin^2\gamma = 1$ d) $\cos^2\alpha + \cos^2\beta + \cos^2\gamma = 2$

15.The distance of the point $P(x_1,y_1,z_1)$ from the origin is …….

a)$\sqrt{{x_1}^2 - {y_1}^2 + {z_1}^2}$ b)$\sqrt{{x_1}^2 - {y_1}^2 - {z_1}^2}$ **c)$\sqrt{{x_1}^2 + {y_1}^2 + {z_1}^2}$**
d)$\sqrt{{x_1}^2 + {y_1}^2 - {z_1}^2}$

16.The distance between the following pair of points (4,-2,3)and (2,-3,1) is…
a)2 **b)3** c)4 d)5

17.If a line is equally inclined with the coordinate axes then the angle is ….
a)$cos^{-1}\left(\frac{1}{3}\right)$ b) $cos^{-1}(\sqrt{3})$ c) $cos^{-1}(3)$ **d) $cos^{-1}\left(\sqrt{\frac{1}{3}}\right)$**

18.find the direction cosines of the lines whose direction ratios are 3,-4,5
a)$\frac{3}{\sqrt{50}}, \frac{-4}{\sqrt{50}}, \frac{5}{\sqrt{50}}$ b)$\frac{3}{\sqrt{50}}, \frac{4}{\sqrt{50}}, \frac{5}{\sqrt{50}}$ c)$\frac{-3}{\sqrt{50}}, \frac{-4}{\sqrt{50}}, \frac{5}{\sqrt{50}}$ d) $\frac{-3}{\sqrt{50}}, \frac{-4}{\sqrt{50}}, \frac{-5}{\sqrt{50}}$

19.The triplet which represents the direction cosines of a straight line is….
a)$\frac{\sqrt{3}}{2}$, 0 , $\frac{1}{\sqrt{2}}$ b) $\frac{-1}{2}, \frac{-\sqrt{3}}{2}$, 0 **c) $\frac{\sqrt{3}}{2}, \frac{1}{2}$, 0** d) $\frac{1}{2}, \frac{1}{4}, \frac{1}{2}$

20. The triplet which will not represents the direction cosines of a straight line is….
a)$\frac{\sqrt{3}}{2}$, 0 , $\frac{1}{2}$ b) $\frac{-1}{2}, \frac{-\sqrt{3}}{2}$, 0 c) $\frac{1}{\sqrt{2}}$, 0 , $\frac{1}{\sqrt{2}}$ **d) $\frac{1}{\sqrt{3}}, \frac{1}{\sqrt{2}}$, -1**

21.The plane 2x-3y+z+2=0 has the intercepts with the co-ordinate axes…..
a) 1, $\frac{2}{3}$, 2 b) 1, $\frac{-2}{3}$, 2 **c) - 1, $\frac{2}{3}$, - 2** d) 1, $\frac{2}{3}$, - 2

22.The equation of the plane having x,y,z intercepts 2, $\frac{3}{2}, \frac{4}{3}$ is …..
a)6x+8y+9z+12=0 **b)6x+8y+9z-12=0** c)6x+8y+9z-24=0
d)6x+8y+9z+24=0

23.The equation of the plane ax+by+cz=1 has the intercepts with the co--ordinate axes…..
a)1,1,1 b)a,b,c c)-a,-b,-c **d) $\frac{1}{a}, \frac{1}{b}, \frac{1}{c}$**

24.The equation of the plane through (a,0,0),(0,b,0),(0,0,c) is …..
a)$\frac{x}{a} + \frac{y}{b} + \frac{z}{c} = 1$ b) $\frac{x}{a} + \frac{y}{b} + \frac{z}{c} = 0$ c)ax+by+cz=1 d)ax+by+cz=0

25.For the plane x+3y-2z=8 ,the points origin and (1,5,1)…….
a)lie on the same side **b)lie on different sides** c)lie on the plane
d)lie on a line parallel to the plane

26.For the plane x+2y-4z=-5 the two points (1,2,-3)and(2,1,-3)……
a)lie on the same side b)lie on different sides c)lie on the plane
d)lie on a line parallel to the plane

27.The equation of the plane through (1,0,2) and parallel to the plane 2x+3y-4z=0 is
a)3x+2y-3z+6=0 b)3x+2y-3z-6=0 **c)2x+3y-4z+6=0** d)2x+3y-4z-6=0

28.The equation of the plane through(1,2,3) with the direction ratios of its normal

(2,1,-2) is ……

a)2x-y+2z+6=0 **b)2x+y-2z+2=0** c)2x-y+2z=0 d)2x+y+2z-6=0

29.The planes 2x+6y+6z-9=0 and 3x+4y-5z-9=0 are ……

a)parallel **b)perpendicular** c)neither parallel nor perpendicular d)passing through the origin

30.The length of the perpendicular from the origin to the plane x+y+z=1 is ……..

a)1 b)$\sqrt{3}$ **c)$\frac{1}{\sqrt{3}}$** d)0

31.The perpendicular distance from the origin to the plane $\frac{x}{a}+\frac{y}{b}+\frac{z}{c}=1$ is …..

a)$\frac{1}{\sqrt{\sum a^2}}$ **b)$\frac{1}{\sqrt{\sum \frac{1}{a^2}}}$** c)$\frac{1}{\sqrt{\sum a}}$ d) $\frac{1}{\sqrt{\sum\left(\frac{1}{a}\right)}}$

32.The distance between the parallel planes 2x-3y+6z+12=0 and 2x-3y+6z-2=0 is ……..

a)2 b)1 c)4 d)3

33.The equation of the plane through (1,1,1) and parallel to the plane 2x-y+z-6=0 is …..

a)2x-y+z=0 b)2y-x+z+6=0 c)4x-2y+2z+5=0 **d)2x-y+z-2=0**

34.The equation of the plane through the line of intersection of the planes 3x- y+2z-4=0 and x+y+z-2=0 and passing through the origin is …….

a)x+3y+z=0 **b)x-3y=0** c)2x-y+z=0 d)x-3y+z=0

35.The acute angle bisector of the xy - plane and the yz - plane is ……

a)x+z=0 b)x-z=0 c)y+z=0 d)x+y=0

36.The angle bisector of the coordinate planes z=0 and x=0 are ……

a)z=$\pm x$ b)z=$\pm y$ c)x=$\pm y$ d)x+y=$\pm z$

37.The angle bisectors of the coordinate planes y=0 and z=0 are ……

a) y = z and y = - z b)x=y and x=-y c)x=z and x=-z d)x=2z and x=-$\frac{z}{2}$

38.The incorrect statement from the following choices is ……. The acute angle bisector of the coordinate plane is

a)x+y=0 b)z+x=0 c)y+z=0 **d)x+y+z=0**

39……..is the normal form of the equation of a plane.

a)lx+my+nz=1 b) lx+my+nz=0 c) lx+my-nz= 1 **d) lx+my+nz=p**

40.If the equations of two palnes differ only in the constant term,they are …..

a)Parallel b)perpendicular c)collinear d)anti-parallel

41.The direction cosines of the line $\frac{x-1}{4}=\frac{y-2}{2\sqrt{2}}=\frac{z+1}{-1}$ are….

a)4,2,-1 **b)$\frac{4}{5}, \frac{2\sqrt{2}}{5}, \frac{-1}{5}$** c)1,2,-3 d) $\frac{-4}{5}, \frac{-2\sqrt{2}}{5}, \frac{-1}{5}$

42.The equation of the line through (1,2,-3) and(3,-2,4) is …..

a) $\frac{x-1}{2} = \frac{y-2}{-4} = \frac{z+3}{7}$;b) $\frac{x-1}{2} = \frac{y-2}{4} = \frac{z+3}{7}$; c) $\frac{x-3}{2} = \frac{y-2}{4} = \frac{z-4}{7}$;d) $\frac{x-3}{-2} = \frac{y+2}{-4} = \frac{z-4}{-7}$

43.The equation of the straight line through (1,2,3) and having the direction ratios (3,-2,1) is…..

a) $\frac{x-1}{2} = \frac{y-2}{2} = \frac{z+3}{7}$;**b)** $\frac{x-1}{3} = \frac{y-2}{-2} = \frac{z-3}{1}$; c) $\frac{x-3}{2} = \frac{y-2}{4} = \frac{z-4}{7}$;d) $\frac{x-3}{-2} = \frac{y+2}{-4} = \frac{z-4}{-7}$

44.The equation of the straight line through (0,0,0) and parallel to the line Joining the points (1,2,3) , (2,3,4) is……

a) $\frac{x}{2} = \frac{y-2}{2} = \frac{z+3}{7}$ b) $\frac{x+1}{2} = \frac{y-2}{3} = \frac{z+3}{7}$ **c)x=y=z** d) $\frac{x-1}{2} = \frac{y-2}{2} = \frac{z+3}{7}$

45. The equation of the straight line through (1,1,1) and parallel to the line Whose equations are $\frac{x-2}{2} = \frac{2y+1}{3} = \frac{3z-1}{1}$

a) $\frac{x-1}{2} = \frac{y-1}{\frac{3}{2}} = \frac{z-1}{\frac{1}{3}}$; b) $\frac{x-1}{2} = \frac{y-1}{3} = \frac{z-1}{1}$; c) $\frac{x-3}{2} = \frac{y+2}{5} = \frac{z-4}{7}$;d) $\frac{x+3}{2} = \frac{y-2}{4} = \frac{z-4}{9}$

46. The equation of the straight line through (3,4,0) and perpendicular to the Plane 2x+4y+7z=8

a) $\frac{x-1}{2} = \frac{y-1}{3} = \frac{z-1}{1}$; b) $\frac{x-1}{2} = \frac{y+1}{3} = \frac{z+1}{1}$; c) $\frac{x-3}{2} = \frac{y+2}{5} = \frac{z-4}{7}$;**d)** $\frac{x-3}{2} = \frac{y-4}{4} = \frac{z}{7}$

47.A line is parallel to the planes3x-5y-2z+6=0,4x+y+3z-7=0.Find it's direction ratios

a) -17,13,23 b) 17,-17,6 **c)13,17,-23** d)23,13,17

48.The following lines are parallel : x+2y+3z+1=0=2x+y+3z+2 and x-3y+2z+3=0=3x+y-4z+4. Find the direction ratios

a)2,-2,2 ; 2,-2,2 b)3,3,-3 ; 3,3,-3 **c)1, 1, -1 ; 1, 1, -1** d)4,4,4 ; 4,4,4

49.A line through(1,2,3) and parallel to the line whose equations are x+y+2z-1=0, 2x+y+3z+2=0 . Find the direction ratios.

a)3,5,7 **b)1,1,-1** c)1,0,-1 d)1,0,1

50. Find the equation of the line through(2,2,2) and parallel to the planes x-2y+z+3=0 and 2x-y-8z+5=0 .

a) $\frac{x-1}{2} = \frac{y-2}{-1} = \frac{z+3}{-8}$;b) $\frac{x-1}{1} = \frac{y-2}{-2} = \frac{z-3}{1}$; **c)** $\frac{x-2}{17} = \frac{y-2}{10} = \frac{z-2}{3}$;d) $\frac{x-2}{-2} = \frac{y-2}{-4} = \frac{z-2}{-7}$

51.The following lines are perpendicular : x-y+z-1=0=3x-y-z+1 and x+4y-z-1=0=x+2y+z+1. Find the direction ratios.

a)2,-1,2 ; 3,-2,-4 b)3,3,-4 ; 3,1,-3 **c)1, 2, 1 ; 3, -1, -1** d)1,4,5 ; 4,-4,3

52.Find the value of k so that the lines $\frac{x-1}{-3} = \frac{y-2}{2k} = \frac{z-3}{2}$ and $\frac{x-1}{3k} = \frac{y-5}{1} = \frac{z-6}{-5}$ may be perpendicular to each other.

a)k = $\frac{10}{7}$ **b) k = $\frac{-10}{7}$** c) k = $\frac{20}{7}$ d) k = $\frac{-20}{7}$

53.The straight lines in space with are not coplanar are called ……

a)Parallel lines **b)skew lines** c)perpendicular lines d)intersecting lines

54. The shortest distance between..... skew lines if the length of the common perpendicular drawn to the lines

a)2 b)3 c)4 d)5

55. The shortest distance between the two lines

$\frac{x-1}{2}=\frac{y-2}{-3}=\frac{z-1}{2}$ and $\frac{x-1}{1}=\frac{y-2}{-1}=\frac{z-1}{3}$ is ……..

a)$\sqrt{5}$ b))$\frac{1}{\sqrt{5}}$ **c)0** d)1

56. The shortest distance between the two lines $\frac{x}{1}=\frac{y}{2}=\frac{z}{3}$ and $\frac{x}{-1}=\frac{y}{-4}=\frac{z}{7}$ is ……

a)$\sqrt{5}$ b))$\frac{1}{\sqrt{5}}$ **c)0** d)1

57.The line $\frac{x-3}{2}=\frac{y-4}{3}=\frac{z-5}{4}$ and the plane 4x+4y-5z=0 are…….

a)parallel b)perpendicular c)coplanar d)intersecting

58.The line is parallel to the plane if al + bm + cn = 0 and …….

a)ax_1+by1+cz1+d=0 b) ax_1-by1-cz1+d=0 **c) ax_1+by1+cz1+d≠0**

d) ax_1-by1-cz1+d≠0

59. If the line lies in the plane , then al + bm + cn = 0 and …….

a)ax_1+by1+cz1+d=0 b) ax_1-by1-cz1+d=0 c) ax_1+by1+cz1+d≠0

d) ax_1-by1-cz1+d≠0

60.If the line is parallel to the plane then …….

a)$\theta = 45^\circ$ b) $\theta = 90^\circ$ **c) $\boldsymbol{\theta = 0^\circ}$** d) $\theta = 30^\circ$

61. The equation of the sphere which has the centre at (1,-2,3) and passing through (2,1,2) is…..

a) $(x-1)^2 + (y+2)^2 + (z-3)^2 = 11$ b) $(x-2)^2 + (y-1)^2 + (z-2)^2 = 11$

c) $(x-2)^2 + (y+3)^2 + (z-3)^2 = 121$ d) $(x-1)^2 + (y+2)^2 + (z+3)^2 = 121$

62.The equation of the sphere which has the centre at (a,b,c) and radius r is….

a) $x^2 + y^2 + z^2 + 2ax + 2by + 2cz + r = 0$ b) $(x+a)^2 + (y+b)^2 + (z+c)^2 = r^2$

c) $(x-a)^2 + (y-b)^2 + (z-c)^2 = r^2$ d) $x^2 + y^2 + z^2 + ax + by + cz + r = 0$

63. If the equation of the sphere is given by $x^2 + y^2 + z^2 + ax + by + cz + d = 0$ then its centre is……

a) (-a,-b,-c) b) (a,b,c) c) $(\frac{a}{2}, \frac{b}{2}, \frac{c}{2})$ **d)** $(\frac{-a}{2}, \frac{-b}{2}, \frac{-c}{2})$

64. The volume of this sphere whose equation is $x^2+y^2+z^2=4$ is….

a) $\frac{8\pi}{3}$ cubic units **b) $\frac{32\pi}{3}$ cubic units** c) $\frac{4\pi}{3}$ cubic units d)64 cubic units

65 .The volume of the sphere $x^2+y^2+z^2-2x-2y-2z-1=0$ is….

a) $\frac{8\pi}{3}$ cubic units b) $\frac{16\pi}{3}$ cubic units c) $\frac{4\pi}{3}$ cubic units **d) $\frac{32\pi}{3}$ cubic units**

66. The surface area of the sphere $x^2+y^2+z^2-2x-2y-2z-1=0$ is….

a)4π square units b)8π square units **c)16π square units** d)32π square units

67. The equation of the sphere passing through the points (0,0,0),(1,0,0),),(0,1,0), (0,0,1) is…..

a) $x^2+y^2+z^2=1$ **b) $x^2+y^2+z^2-x-y-z=0$** c) $x^2+y^2+z^2-2x-2y-2z+1=0$

d) $x^2+y^2+z^2-x-y-z-1=0$

68. The plane section of a sphere is……

a)a straight line b) a plane **c) a circle** d)a sphere

69.The curve of intersection of two spheres is …..

a)a circle b)an ellipse c)a plane d)a parabola

70. The yz plane section of the sphere $x^2+y^2+z^2=1$ is.....

a) $x^2+y^2=1,z=0$ b) $x^2+z^2=1,y=0$ **c)$x=0, y^2+z^2=1$** d)$x=y, x^2+y^2=2$

71.The xz plane section of the sphere $x^2+y^2+z^2=25$ is.....

a) $x^2+y^2=5,z=0$ **b) $x^2+z^2=25,y=0$** c)$x=0, y^2+z^2=25$ d)$x=y, x^2+y^2=25$

72.The xy plane section of the sphere $x^2+y^2+z^2=a^2$ is.....

a) **$x^2+y^2=a^2,z=0$** b) $x^2+z^2=1,y=0$ c)$x=0, y^2+z^2=1$ d)$x=y, x^2+y^2=2$

73. The Equation of the tangent plane at the origin to the sphere $x^2+y^2+z^2+8x- 6y+4z=0$ is.....

a)4x+3y-2z=0 b)4x-3y-2z=0 **c)4x-3y+2z=0** d)-4x+3y+2z=0

74.The equation of the tangent plane at (1,0,0) to the sphere $x^2+y^2+z^2-x-y-z=0$ is.....

a)x-y-z=1 b)2x=1 c)x+y+z=1 d)x=1

75.The equation of the tangent plane at (1,1,1) to the sphere $x^2+y^2+z^2=3$ is....

a)x-y-z=0 b)x=1 **c)x+y+z=3** d)y=1

76.The equation of the tangent plane at (a,0,0) to the sphere $x^2+y^2+z^2=a^2$ is....

a)y=a **b)x=a** c)x+y+z=a d)z=a

77.The equation of the tangent plane at (0,0,1) to the sphere $x^2+y^2+z^2=1$ is....

a)x=0 b)y=0 c)x+y+z=1 **d)z=1**

78. The equation of the tangent plane at (0,2,0) to the sphere $x^2+y^2+z^2=4$ is....

a)x=0 **b)y-2=0** c)x+y+z=1 d)z=1

79.Find the equation of the sphere which has the line joining the the points(2,7,5) and (8,-5,1) as diameter.

a)$x^2+y^2+z^2-10x-2y-6z-14=0$ b)$x^2+y^2+z^2+10x+2y+6z-14=0$

c)$x^2+y^2+z^2-10x-2y-6z+14=0$ d)$x^2+y^2+z^2+10x+2y-6z-14=0$

80. Find the equation of the sphere with centre(1,-1,2) and radius 3

a)$x^2+y^2+z^2-2x+2y+4z-3=0$ b)$x^2+y^2+z^2+2x+2y+4z-3=0$

c)$x^2+y^2+z^2+2x+2y-4z-3=0$ **d)$x^2+y^2+z^2-2x+2y-4z-3=0$**

81. The equation of the right circular cone whose vertex is the origin axis is the z axis and semi vertical angle is α,

a)$x^2+y^2=z^2\tan^2\alpha$ b)$x^2-y^2=z^2\tan^2\alpha$ a)$x^2-y^2=a^2\tan^2\alpha$ a)$x^2+y^2=a^2\tan^2\alpha$

82.The degree of the equation of a cone depends on the degree of the equation of the

a)fixed point b)quadric cylinder c)circle **d)guiding curve**

83. ……is a ruled surface generated by a moving straight line which passes through a fixed point and intersects a fixed curve

a)cylinder **b)cone** c)circle d)ellipse

84.The cone generated by a line which moves passing through a fixed point and making a constant angle with a fixed line through the fixed point is called a….

a) right circular cone b) cylinder c)generator d)vertex

85.Every section of a right circular cone by a plane perpendicular to its axis is a

a)cylinder b)cone **c)circle** d)ellipse

86. Find the general equation to a cone which touches the co-ordinate planes

a)$\sqrt{fx}+\sqrt{gy}-\sqrt{hz}=0$ **b)$\sqrt{fx}+\sqrt{gy}+\sqrt{hz}=0$**

c)$\sqrt{fx}-\sqrt{gy}-\sqrt{hz}=0$ d)$\sqrt{fx}-\sqrt{gy}+\sqrt{hz}=0$

87. If a right circular cone has three mutually perpendicular generators then

a)$a+b+c\neq0$ b)$a+b-c=0$ c)$a-b-c=0$ **d)$a+b+c=0$**

88.The curved surface area of a cone is 1980 cm^2 and iss radius is 21cm,what is the slanted height of a cone?

a)25 cm b)28 cm **c)30 cm** d)35 cm

89.The total surface area of a cone of base radius ‘r’ and slanted height ‘l’ is equal to

a)$\pi rl+2\pi r^2$ b) $2\pi rl+2\pi r^2$ c) $\pi rl-\pi r^2$ **d) $\pi rl+\pi r^2$**

90.What is the total surface area of a cone of radius 7 cm and height 24 cm?

a)710 cm^2 b)700 cm^2 c)705 cm^2 **d)704 cm^2**

91. ……is ruled surface generated by a moving straight line which is parallel to a fixed direction and intersects a fixed curve

a)cylinder b)cone c)circle d)ellipse

92.A cylinder whose equation is of second degree is called a …….

a)cone b)circle c)ellipse **d) quadric cylinder**

93.The cylinder generated by a line which moves being parallel to a fixed line and being at the constant distance from that fixed line is called a…..

a) right circular cylinder b)cone c)circle d)ellipse

94.The equation ……represents a right circular cylinder of radius ‘a’ with axis along OZ

a) $x^2-y^2=a^2$ **b) $x^2+y^2=a^2$** c)$x^2+y^2=-a^2$ $x^2+y^2=r^2$

95.The equation …… represents a elliptic cylinder of axis along OX.

a) $\frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$ a) $\frac{x^2}{a^2} + \frac{z^2}{c^2} = 1$ a) $\frac{x^2}{a^2} + \frac{y^2}{c^2} = 1$ a) $\frac{y^2}{b^2} - \frac{z^2}{c^2} = 1$

96. The normal to the plane of the guiding circle passing through its centre is called as the …….

a) axis of the cylinder b) right circular cylinder c) quadric cylinder d)radius of the cylinder

97. The straight lines which generate the cylinder is called as the ……..of the cylinder and the given curve is called as the guiding curve.

a)vertex **b) generators** c)cone d)circle

98. The general equation of the quadratic cone with the vertex at the origin and passing through the three coordinate axes.

a) fyz-gzx-hxy = 0. b) fxy+gzx+hxz = 0. **c) fyz+gzx+hxy = 0**. d) fyz+gzy-hxy =0

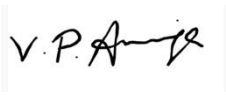
99. Calculate the volume of a given cylinder having height 20cm and base radius of 14 cm.

a)12420 cm^3 b)12220 cm^3 **c)12320 cm^3** d)11320 cm^3

100. The volume and height of a cylindrical container are 440m^3 and 35m respectively.Calculate its radius of the base.

a)3m **b)2m** c)5m d)7m

Signature of the HoD with Seal



Staff in charge