MTH301 KON HEY BEY DIANASOUR

UPDATED QUIZZES SOLUTION 2021

WE'RE ARE DAVID WORRIORS

1. **Two vectors are opposite vectors if they have _____.**

   (d) both (a) and (c)

2. If two dogs are pulling a bone with force=20 Newtons in opposite direction, the resultant force is _____

Zero Newton

2. **If the velocity (VI) of a car is 20m/s and velocity (V2) of bike is 40m/s, where both velocities are southward then which of the following would be the dot product of these velocities?**

-800

3. **Limit of a function may exist at the point where it not defined**

False

4 Limit of a function may exist at the point where it not defined

False

5 A_____of continuous functions is continuous

(d) All (a), (b) and (c)

6 A quotient of continuous function is continuous, expect where the denominator is _____

Zero

7 Intersection of two surfaces is a _____ in three dimensional space

Curve

8 Face the parabola (y=ax^2 + bx + c) is opening downward when

A<0

9 Which coordinate system uses two distance and one angle?

Cylindrical

10 Which of the following is a two dimensional coordinate system

Polar coordinate system

11 Limit of a function exist may exist at the point where it not defined

False

12 The number square root of 2 is

Irrational

13 A plane z=3 is _____ to XY plane.

Parallel

14 Value of the function f(x,y,z)=xyz at point (2,2,2) is

8

15 The number 3/11 is

Rational

16 In rectangular coordinate system the point (-3,2) is in

Second quadrant

17 Which of the following function is not the function of one variable.

m=g(s) + content

18 XZ- Plane consists of all points where

X=0

19 Value of the function f(x,y,z)=x^2+ y^2 + z^ 2 at the point (0,1,0) is

1

20 If w=f(x,y,z) where x=g(t), z=h(T) then

Dw/dt=@wdz/@xdt + @wdy/@ydt + @wdz/@zdt

21. If f and its partial derivatives of the first, second and third orders are continuous on an open set, then at each point of the set_____

$$@^2f/@y^2@x = @^2f/@y@x@y = @^2f/@x@y^2$$

22 . If $\lim_{(x,y,z)\to(x0,y0,z0)} f(x,y,z) = L_1$ **then**

$\lim_{(x,y,z)\to(x0,y0,z0)} cf(x,y,z) = cL_1$ **If c is constant**

23. if $\lim_{(x,y)\to(x0,y0)} F(x,y) = L_1$ $\lim_{(x,y)\to(x0,y0)} g(x,y) = L_2$

$\lim_{(x,y)\to(x0,y0)} f(x,y)/g(x,y) = L_1/L_2$ **; L_2 not equal to 0**

24. If w = f(x) where x=g(r,s) then @w/@s=

@w/@s = dw@r/dr@s

25. The partial derivative with respect to x of $f(x,y) = 3x^2y+2y^2$ is _____

$6xy + 2y^2$

26. Spherical coordinate @ is related to the cylindrical coordinate as_____

@=@

27. How many real numbers exist between 1 and 5

Infinity

28. Value of the function f(x,y,z)= square root $x^2+y^2+z^2$ at the point (0,3,0) is _____

3

29. The number pi is.

Irrational

30. The product of continuous functions is continuous

True

31. Length of magnitude of a unit vector is _____

1

32. F(x,y,z)= square root $x^2+y^2+z^2$

[0, +infinity)

33. The product of continuous function is continuous

True

34. Range of the function $y=3x^2-2$ is

All real numbers with $y \geq -2$

35. if the partial derivative (w,r,t 'x' or 'y') at any point on the surface "z=f(x,y) is zero, than tangent plane at that point will be _____ to XY- plane

parallel

36. Two vectors A and B are _____ if and only if their scalar is equal to zero.

Perpendicular

37. The partial derivative with respect to x of $f(x,y)= 3x^2y + 2y^2$ is _____

6xy

38. The chain rule can be taken as the derivative of the order function and multiplying it items the derivative of the _____

The inner function

39. Two vectors are opposite vectors if they have_____

Both (A) and (c)

40. Magnitude of the force vector F = -30 Newton, is _____

30 newton

41. Two vectors A and B are _____ if and only if their social product is equal to zero

Perpendicular

42. Which of the following should be the scalar multiple (A) such that force ; F_1=20N and F_2 = -60N satisfy the

A=-1/3

43. A zero vector has magnitude equal to zero and _____direction

Arbitrary

44. The chain rule states that the derivative of f(g(x)) is _____

f(g(x))-g(x)

45. The order of differentiation in an nth order partial derivative can be change without affecting the final result whenever the function and all its partial derivatives of order less than or equal to 'n' are_____

Continuous

46. For which of the following values of 'y' the partial derivative of z=2/y(x-1) EXIST

R-{ 1,0}

47. IF y = sin t and t= e^{xu} then which of the following is partial derivative of w.r.t.x

ut cost

48. To find the limit of f(x,y) = x^2+y/x^2 at (0,0) if we approach (0,0) through the line x-axis, we get the value

1

49. Value of money is an example of _____ quantity

Scalar

50. The function z=F(x,y) represents a _____ in space

Line

51. If two dogs are pulling with force=20Newtons in opposite direction, then the resultant force is_____

Zero Newton

52. Limit of a function may exist at the point where it not defined

False

53. A_____ of continuous function is continuous

All options

54. The function e^{xy} is continous

In whole region of xy plane

55. A quotient of continuous function is continuous, expect where the denominator is _____

Zero

56. if the partial derivative (w,r,t 'x' or 'y') at any point on the surface "z=f(x,y) is zero, than tangent plane at that point will be parallel to _____

XY plane

57. Two determine the position of any object in a room we need how many coordinates.

3(3 dimension)

58. Which of the following is a two dimensional coordinate system

Cylindircal coordinate system

59. Domain of the following function y= x/ 3x-4

All real numbers

60. Which of the following is the representation of spherical coordinates

(p,θ, φ)

61. In cartesian coordinate system all axes are at _____degree to each other

90

62. intersection of two surfaces is a ____ in three dimensional space

Curve

63. The function f(x,y,z) = $(x^2 + yz)/ (xy+z)$

Xy+z=0

64. For which of the following values of 'y' the partial derivative of z=2/y(x-1)

R-{1,0}

65. YZ- plane of all points where

X=0

66. Cylindrical coordinate system is used to the position of any object is

Any dimension

67. To express the location of any object on earth which coordinate system is used

Cylindrica coordinate system

68. Face of the parabola (y-ax^2 + bx+ c) is opening downward when

A<0

69. Cylindrical coordinate "y" is related to the Cartesian coordinate as

R= cos0

70. Which coordinate system uses two distances and one angle?

Rectangular

71. Which of the following function is not the function of one variable

y= f{x,y}

72. Which of the following is a two dimensional coordinate system

Cylindrical coordinate system

73. The chain rule can be taken as the derivative of the outer function and multiplying it times the derivative of the _____

The inner function

74. The rule is called the chain rule because we use it to take derivatives of ____ by changing together their derivative

Composite function

75. If the velocity (V) of a car 20m/s east north and making angle 60 m/s with east then the component of velocity in the direction of east is _____

-10

76. The partial derivative at any point on the surface represents the slope of tangent _____ at that point

Line

77. Partial derivative $f(x,y) = x^2+y^2+xy$ with respect to y is

None options

78. Spherical coordinate 0 is related to the cylindrical coordinate as _____

@=@

79. Which coordinate system uses two distance and one angle?

Cylindrical

80. Which of the following is a two dimensional coordinate system

Polar coordinate system

81. A plane z=3 is _____ to XY-plane

Parallel

82. Which of the following function is not the function of one variable

M=g(s)+ constant

83. XZ-plane consists of all points where

x=0

84. A zero vector has magnitude equal to zero and _____ direction

No

85. Which condition is necessary for a function to be continuous at any point (x,y)

All options

86. If we = x + y while x=r + sandy = r-s then which of the following is partial derivative of w w.r.tr?

1

87. If g and h are continuous functions of one varialble, then f(x,y) = g(x) h(y) is a _____ function of x and y.

Continuous

88. The function of the form $f(x,y) = 3x^2x^5$ is _____ in the domain

Continous everywhere

89. If the velocity (v1) of a car is 20m/s eastward and velocity (v2) of bike is 40 m/s northward then which of the following would be the dot product of these velocities

zero

90. If the velocity (v1) of a car is 20m/s eastward and velocity (v2) of bike is 40 m/s southward then which of the following would be the dot product of these velocities

-800

91. Suppose that z=(x,y) is a function of two variable x and y, then partial derivative of function z with respect to x represents the _____ of the tangent of the curve

None OPTIONS

92. The product of continuous functions is continuous

True

93. The function e^{xy} is continuous

In whole region of xy plane

94. The partial derivative of $f(x,y)=x^2y^{-2}$ with respect to x is _____

X^2e^{-y}

95. Let $f(x,y) = e^{2y}\cos x$ then $f_x(x,y)=$

e^{2y} sinx

96. If y=f(x) and x=g(t) then by chain rule dy/dt=

Dy/dx*dx/dt

97. The partial derivative with respect to y of $f(x,y) = x^2+2y^2+xy$ is _____

4y+x

98. A function is not continuous at a point if its graph has a hole or blank at that point

True

99. The chain rules help us to differentiable_____

Composition function

_____