Question FBQ1 : A \_\_\_ is a phenomenon that relates one variable or quantity to other variables or quantities

Answer: Function

Question FBQ2 : The\_\_\_ of the function is the set of all values taken on by the dependent variable

Answer: range

Question FBQ3 : In the equation, y=4x2+3, x is the \_\_\_ variable

Answer: Independent

Question FBQ4 : To decide whether an equation defines a function, it is helpful to isolate the \_\_\_on the left

Answer: Dependent variable

Question FBQ5 : The equation y=±1-x2 indicates that y=+1 or y= ­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_

Answer: -1

Question FBQ6 : The solution of x2+y2=4 when x=1 is \_\_\_

Answer: ±3

Question FBQ8 : The value of fx=2x3-4x+1 when x=0 is \_\_\_

Answer: 1

Question FBQ9 : If p is a polynomial function and c is any real number, then limx?c?p(x)=\_\_\_

Answer: p(c)

Question FBQ10 : In sketching the graph of a function, we allow the horizontal axis represent the \_\_\_ variable

Answer: Independent

Question FBQ11 : A function is \_\_\_ if every horizontal line intersects the graph of the function at most once

Answer: One to one

Question FBQ12 : If two values of y corresponds to an x value, then it is said that \_\_\_

Answer: y is not a function of x

Question FBQ13 : The function given by f.gx=f(g(x)) is the \_\_\_ of f with g

Answer: Composite

Question FBQ14 : If fx=2x+1 and gx=x2+2 the value of g(f(x)) is \_\_\_

Answer: 4x2 + 4x + 3

Question FBQ15 : Given that fx=x and gx= x2-1, f(g(1)) = \_\_\_

Answer: 0

Question FBQ16 : In an inverse function, the domain of f must be equal to the range of f-1, and the range of f must be equal to the domain of \_\_\_

Answer: f-1

Question FBQ17 : The inverse function of fx=x3 is \_\_\_

Answer: x3

Question FBQ18 : f has no inverse if does not pass the \_\_\_\_\_\_\_\_ test

Answer: Horizontal

Question FBQ19 : For a continuous function limx?x0?f(x0) =

Answer: f(x0)

Question FBQ20 : limx?-2?5x+2=\_\_\_

Answer: ?

Question FBQ21 : Let c be a real number and fx=g(x) for all x?c. If the limit of gx exists as x?c, then the limit of fx also exists and limx?2?fx=limx?2?g(x). This theorem is known as the \_\_\_

Answer: Replacement theorem

Question FBQ22 : Evaluating limx?1?x3-1x-1 gives \_\_\_

Answer: 2

Question FBQ23 : A polynomial function is continuous at every real \_\_\_

Answer: Number

Question FBQ24 : There are \_\_\_ categories of discontinuities

Answer: 2

Question FBQ25 : A function is said to be continuous if and only if it is continuous at every point of its \_\_\_

Answer: Domain

Question FBQ26 : The function fx=3-x is continuous in the interval \_\_\_

Answer: (-?,3]

Question FBQ27 : Continuity of a function is expressed some times by saying if the x value are closed together, then the \_\_\_values of the function will also be close

Answer: Y

Question FBQ28 : Derivative is often described as the “\_\_\_ rate of change”

Answer: Instantaneous

Question FBQ29 : The process of finding a derivative is called \_\_\_

Answer: Differentiation

Question FBQ30 : \_\_\_ is defined as the ratio of the vertical distance the line rises or falls between two points P and Q to the horizontal distance between P and Q

Answer: Gradient

Question FBQ31 : \_\_\_ theorem can be used to find the derivative of y=xn

Answer: Binomial

Question FBQ32 : The derivative of cot?x is \_\_\_

Answer: -cosec2x

Question FBQ33 : The derivative of cosec x is \_\_\_

Answer: –cosec x.cot?x

Question FBQ34 : If we differentiate ax, we get \_\_\_

Answer: ax.lna

Question FBQ35 : If y=uv, then the product rule is given as dydx \_\_\_

Answer: udvdx+vdudx

Question FBQ36 : The quotient rule for differentiation is given as dydx \_\_\_

Answer: dydx=vdudx-udvdxv2

Question FBQ37 : The chain rule of differentiation is given as\_\_\_ dydx

Answer: dydu.dudx

Question FBQ38 : The derivative of y=tan?(3x+2) is \_\_\_

Answer: 3sec2(3x+2)

Question FBQ39 : The derivative of y=sin?(4x+3) is \_\_\_

Answer: 4cos?(4x+3)

Question FBQ40 : xy+cosy=5 is an example of an\_\_\_ function

Answer: Implicit

Question FBQ41 : If y= x5ex, dydx gives \_\_\_

Answer: x4exx+5

Question FBQ42 : The c in integration is called an \_\_\_ constant

Answer: Arbitrary

Question FBQ43 : The general formula for integration ?xndx is given as \_\_\_

Answer: xn+1n+1+c

Question FBQ44 : ?-11-x2dx

Answer: cos-1x+c

Question FBQ45 : ?1x2-1dx=

Answer: cosh-1x+c

Question FBQ46 : ?1x2+1dx=

Answer: Sinh-1x + c

Question FBQ47 : ?f'(x)f(x)dx=

Answer: ln{f(x)} + c

Question FBQ48 : The volume of a cone Vcone=\_\_\_

Answer: 13?r2h

Question FBQ49 : The volume of a sphere is given as Vx= \_\_\_

Answer: 4?r33

Question FBQ50 : ?axdx=

Answer: axlnx+c

Question FBQ7 : The equation of the tangent at x = 2 on the curve x2+ y2- 2x+y=6 is \_\_\_

Answer: 5y + 2x – 14 = 0

Question MCQ1 : Which of the equation below define y as a function of x?

Answer: x2+y=1

Question MCQ2 : Find f(-1) for the equation y=2x2-4x+1

Answer: 7

Question MCQ3 : Find the value of fx=1-5x+x2 for x=4

Answer: -3

Question MCQ4 : Let fx=x2-4x+7, find fx+?x-f(x)?x

Answer: 2x+?x-4

Question MCQ5 : Division by Zero is...

Answer: Undefined

Question MCQ6 : A function is said to be one to one if...

Answer: To each value of the dependent variable in the range, there corresponds exactly one value of the independent variable

Question MCQ7 : If fx=2x-4 and gx=x2+3, find f(g(x))

Answer: 2(x2-1)

Question MCQ8 : If f-1x=x-8, then f(x)=?

Answer: x+8

Question MCQ9 : Let f x=1x , then f-1x is given as...

Answer: x

Question MCQ20 : Which of the following conditions does NOT determine the continuity of f at point c?

Answer: limx?c?fc=f(x)

Question MCQ21 : fx=(x2-1)(x-1) is continuous on the interval ...

Answer: -?,1and (1,?)

Question MCQ22 : Discontinuities fall into two categories namely ...

Answer: Removable and non-removable

Question MCQ23 : The representation limx?b-?fx=f(b) shows that ...

Answer: f is continuous from the left at b

Question MCQ24 : Which of the following statements is true about the continuity of fx=3-x

Answer: f is continuous on the interval (-?,3]

Question MCQ25 : Which of the following about the continuity of gx=5-x, -1?x?2x2-1, 2<x?3 is NOT correct?

Answer: limx?2?gx is continuous on the interval [-?,?]

Question MCQ26 : Differentiate y=x3+5x2-4x+2 with respect to x

Answer: 3x2+10x-4

Question MCQ27 : Find the value of dydx at x=2, if y=x4+6x3-4x2+7x-2

Answer: 95

Question MCQ28 : The derivative of sinx+cosx=…

Answer: cosx-sinx

Question MCQ29 : What is the derivative of ln?(x)?

Answer: 1/x

Question MCQ30 : If the derivative of sec?x=sec?xtan?x, find the derivative of cosec x.

Answer: –cosec x .cot x

Question MCQ31 : If we differentiate ex, we get ...

Answer: ex

Question MCQ32 : Find the derivative of y=x3sinx

Answer: x(x2cosx+3sinx)

Question MCQ33 : Differentiate y=x2(2x-5)4 with respect to x yields ...

Answer: 2x2x-53(6x-5)

Question MCQ34 : Differentiate with respect to x if y=sinxx2

Answer: xcosx-2sinxx3

Question MCQ35 : The gradient of a curve is found ...

Answer: At a point on the curve

Question MCQ36 : In differentiation, the chain rule technique is used when differentiating ...

Answer: A function of a function

Question MCQ37 : Find ?(s3+4s)ds

Answer: s44+2s2+c

Question MCQ38 : Evaluate ?(3x-2)6dx

Answer: (3x-2)721+c

Question MCQ39 : Evaluate ?cos?(6x+4)dx

Answer: sin?(6x+4)6+c

Question MCQ40 : Evaluate ?(sec28x)dx

Answer:

tan8x8+c

Question MCQ41 : Find ?2x-5x2-5x+6dx

Answer: ln?x2-5x+6+c

Question MCQ42 : Find ?cotxdx

Answer:

ln?sinx+c

Question MCQ43 : Evaluate ?xe2xdx using integration by parts

Answer: e2x2 x-12+c

Question MCQ44 : Definite integrals can also be used to calculate ...

Answer: Volume of solids

Question MCQ45 : The infinitesimal volume of a cylinder representing an element of integration revolving around the x axis is given by ...

Answer: Vx=?-?aby2dx

Question MCQ46 : The infinitesimal volume of a cylinder representing an element of integration revolving around the y axis is given by ...

Answer: Vy=??abx2dx

Question MCQ47 : Find the volume of a sphere generated by a semicircle y=r2-x2 revolving around the x-axis.

Answer: 4 ?r2/3

Question MCQ48 : Find the volume of a right circular cone generated by the line (segment) passing through the origin and point (h,r), where h denotes the height of the cone and r is the radius of its base revolving around the x-axis.

Answer: Vcone=13?r2h

Question MCQ49 : Find the value of dy/dx for y=(2x+5)3 at x=4

Answer: 1014

Question MCQ50 : What is the value of ?cosxdx at x=30?

Answer: 12

Question MCQ15 : If limx?c?fx=L and limx?c?gx=K, then limx?c?bfx=bL is called...

Answer: Scalar multiple

Question MCQ16 : Find limx?2?(x2+2x-3)

Answer: 5

Question MCQ17 : Evaluate limx?1?f(x) if fx= x3-1x-1

Answer: 3

Question MCQ18 : Find limx?0?f(x) if fx= x+1-1x

Answer: 12

Question MCQ19 : Let limx?c?fx=9 and limx?c?gx=12 , then f(x)g(x) = ...

Answer: 18

Question MCQ10 : Find the inverse function of fx=2x-3

Answer: x2+32

Question MCQ11 : Find the domain and range of fx=4-x2, leaving your result in interval notation.

Answer: 4,?, [0,?]

Question MCQ13 : Find the limit: limx?1?f(x) if fx= x2-1x-1

Answer: 2

Question MCQ14 : Evaluate limx?1?(x2+1)

Answer: 1

Question MCQ12 :

Answer: