MCQ1: Identify the generalized power function rule in differentiation if \[y=Mx^{n}\]
Answer: \[n(M)x^{n-1}\]

MCQ2: Solve the function \[y=\frac{1}{^{x4}}\] using the rule of differentiation
Answer: \[\frac{-4}{^{x5}}\]

MCQ3: If \[y=\pi\], where \[\pi\] is 3.142. Differentiate the function
Answer: 0

MCQ4: If the dependent variable is Y and the independent variable is x, find the derivative of the equation \[p=7q^{4}-3q^{3}\]
Answer: \[28q^{3}-9q^{2}\]

MCQ5: What is the \[f\left (x \right)\] of \[100+\frac{1}{4}x\]
Answer: \[\frac{1}{4}\]

MCQ6: Differentiate the \[Dx^{y}\] of \[x^{\frac{2}{4}}\]
Answer: \[\frac{1}{2}x^{-\frac{1}{2}}\]

MCQ7: Use one of the rules of differentiation to solve the equation \[y=5x^{4}\left (3x-7 \right)\]
Answer: \[75x^{4}-140x^{3}\]

MCQ8: Given \[y=\frac{8}{x}\], solve by finding its derivative
Answer: \[-8x^{-2}\]

MCQ9: Find the derivative of the equation \[y=\left (-12x^{2} \right)\]
Answer: \[-24x\]

MCQ10: The concept of Derivative is about ___
Answer: Rate of change

MCQ11: If \[y=\left (-12x^{2} \right)\], differentiate it using one of the rules of Differentiation.
Answer: \[-24x\]

MCQ12: Differentiation is a primitive function in calculus
Answer: FALSE

MCQ13: What President Obama did by tracing his origin to Kenya can be likened to ___ in calculus
Answer: Integration

MCQ14: The concept of Integration is about
Answer: area under the curve

MCQ15: If \[\frac{1}{7}x^{7}\] is \[x^{6}\] using differentiation, \[\frac{1}{7}x^{7}\] is known as
Answer: primitive function

MCQ16: \[\int x^{n}dx =\frac{1}{n+1}x^{n+1} + C\]in the rules integration is called
Answer: power function rule

MCQ17: Solve the derivative function \[x^{6}\], using the rule of integration
Answer: \[\frac{1}{7}x^{7}+dx\]

MCQ18: Identify the correct integration notation for \[y=\sqrt{x^{3}}\]
Answer: \[\int \sqrt{x^{3}}dx\]

MCQ19: Use constant rule of integration, evaluate\[\int1000dx\]
Answer: \[1000x + C\]

MCQ20: Compute the integral function \[\int_{3}^{8}6x\]
Answer: 165

MCQ21: Determine the under the curve of the function\[\int_{0}^{20}\frac{1}{2}xdx\]
Answer: 100

MCQ22: If \[q=3p^{2}-14p+5\], where\[p=4\], solve the equation to determine the functional form of the equation.
Answer: Increasing

MCQ23: Solve to identify the nature of the function \[y=z^{3}-7z^{2}+6z-2\], when \[z=4\]
Answer: Decreasing

MCQ24: Solve equation \[y=x^{4}-6x^{3}+4x^{2}-13\] when\[x=4\], and describe the state of the function.
Answer: Stationary

MCQ25: When the first derivative of an economic model is zero or undefined, the model is therefore ___
Answer: Critical

MCQ26: In an economic equation where a single variable impact the endogenous variable is called ___
Answer: a parameter function

MCQ27: Find the partial derivative of the function, \[h(p,n)=10p^{3}+6pn^{2}+7n^{3}\] w.r to p.
Answer: \[30p^{2}+6n^{2}\]

MCQ28: Determine the second derivative of function,\[q=p^{0.7}i^{0.3}\] w.r to i
Answer: \[-0.21p^{0.7}i^{\frac{1}{1.7}}\]

MCQ29: A column matrix is also known as ___ matrix
Answer: \[m by 1\]

MCQ30: The transpose of matrix \[\begin{pmatrix} -3 & 5 & 6\\ 8& -7 & 4 \end{pmatrix}\] is transformed to give matrix dimension ___
Answer: \[3bym\]

MCQ31: Find the product of the matrices ABA = 472 B = 1215
Answer: 65

MCQ32: Find the Total Value of Sales (TVS), if Y is row vector of quantities of Biros, Rulers and Pencils respectively, and Z is a column vector of the corresponding prices of the goods.Y = 2086 Z = 1.502.300.75
Answer: #52.29

MCQ33: Cramer’s rule for matrix solution states that _____
Answer: x- = AA

MCQ34: ___ is used to convert a constrained extremum problem into a form that can be resolved
Answer: Langragian Multiplier

MCQ35: If A = 050622713, find A
Answer: -20

FBQ1: The difference between the definite and the indefinite integral is that,___
Answer: definite integral has limits

FBQ2: Using one of the rules of integration, an evaluation of $\int 9e^{-3x}dx$ is ___
Answer: $-3e^{13x}+C$

FBQ3: If demand function is $p=40-8q$, the marginal revenue (MR) of the function will be ___
Answer: $40-8q$

FBQ4: The derivative of
any power function is determined by multiplying the coefficient of the function by the ___
Answer: $#8$

FBQ5: A function that is to the power of one is termed
a ___ function.
Answer: Linear

FBQ6: An evaluation of the marginal expenditure of$p=Q^{3}+4Q+3$ equals to ___
Answer: $4Q^{3}+8Q+3$

FBQ7: The marginal propensity to consume (MPC) of the equation $C=1000+0.88y$ is ___
Answer: 0.88

FBQ8: A matrix with all its elements as zero is termed a ___ matrix
Answer: Zero

FBQ9: If MPC is 0.6, and consumption is 85, the consumption function 'C' is ___
Answer: $0.6y+85$

FBQ10: If Marginal cost (MC) is$=\frac{dTC}{dQ},$ the total cost (TC) shall be ___
Answer: $\int MCdQ=VC+C$

FBQ11: Study the function carefully: F(x, y, ƛ) is the _____
Answer: Lagrange function

FBQ12: Study the function , the _____
Answer: Objective function

FBQ13: In the same function , is the _____
Answer: Constraint function

FBQ14: If g = 4w3 + 10wxy3 - y2 +x4 . With respect to ‘x’, the partial derivative of this function is_____
Answer: 10wy3 + 4x3

FBQ15: Two matrices are equal if they possess the same ___
Answer: Dimension

FBQ16: A matrix where the number of rows equal the
number of columns is known as ___
Answer: square matrix

FBQ17: When the substitution method becomes useless as a result constraint, _____ becomes effective.
Answer: Lagrange multiplier

FBQ18: In matrix operation, any matrix of 2 by 3 order means _____
Answer: 2 rows and 3 columns

FBQ19: When the second derivative of any function equals zero, the _____ occurs
Answer: inflection point

FBQ20: The first among the rules of differentiation is the _____
Answer: Constant rule

FBQ21: Use Lagrange multiplier to optimize q = 〖8x〗^2 – 4xy + 〖12y〗^2 subject to x + y = 36. Therefore, q = 〖8x〗^2 – 4xy + 〖12y〗^2 + ƛ (36 – x – y). The value of ‘y’ is_____
Answer: 15

FBQ22: Use Lagrange multiplier to optimize q = 〖8x〗^2 – 4xy + 〖12y〗^2 subject
to x + y = 36. Therefore, q = 〖8x〗^2 – 4xy + 〖12y〗^2 + ƛ (36 – x –y). the value of x in the equation is ____
Answer: 21

FBQ23: Given that q = 5p +
45, find the derivative of q-1
Answer: 1/5

FBQ24: A rectangular array of numbers, parameters, or
variables is known as a ___
Answer: Matrix

FBQ25: The Marginal Revenue (MR) of the function Q = 46 – 2p is _____
Answer: 23 – Q

FBQ26: e derivative of a constant function like p = k, or f(t) is ___
Answer: Zero

FBQ27: The ___ derivative measures the direct effect of
p on q, plus the indirect influence of p on q through i,
Answer: Total

FBQ28: From the consumption function C = 2500 + 0.75Yd, the Marginal Propensity to Consume (MPC) is _____
Answer: 0.75

FBQ29: The Marginal
Propensity to Save (MPS) is _____ given the consumption function in question 28.
Answer: 0.25

FBQ30: ___ measure the rate of change in the endogenous variable occasioned by a little change in the individual exogenous variables
Answer: Total differentials

FBQ31: Given the Average Cost function AC = 2.5Q + 6 + 56/Q , the Marginal Cost (MC) is _____
Answer: 5Q + 6

FBQ32: ___ is used to convert a constrained extremum
problem into a form that can be resolved
Answer: Lagrange multiplier

FBQ33: ___ is used to convert a constrained extremum
problem into a form that can be resolved
Answer: Lagrange multiplier

FBQ34: If MC = 70 + 90Q – 30Q2, and fixed cost is 100. The TC equation from the MC function is _____
Answer: 70Q + 45Q2 – 10Q3 + 100

FBQ35: The value of TC is X in absolute term when Q is

5. What is X?
Answer: #325.00