National Testing Agency

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Mathematical Economics

Group Number :	1
Group Id :	709597292
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Revisit allowed for edit? :	No
Break time:	0
Group Marks:	70

ALGEBRA AND APPLICATIONS IN ECONOMICS

Section Id :	709597377
Section Number :	1
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	50
Number of Questions to be attempted:	50
Section Marks:	25
Display Number Panel:	Yes
Group All Questions:	No

Sub-Section Number:	1
Sub-Section Id:	709597476
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 70959726494 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The basic difference between Cardinal numbers and Ordinal numbers is that:

1. Cardinal numbers are real while ordinal numbers are imaginary
2. Cardinal numbers are rational while ordinal numbers are irrational
3. Cardinal numbers are additive while ordinal numbers are not additive
4. There is no difference

Question Number : 2 Question Id : 70959726495 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Rational numbers
1. can be represented as ratios of two numbers.
2. are categorized as Integers and fractions
3. include the number "zero"
4. all of the above

Question Number : 3 Question Id : 70959726496 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Golden ratio
1. Rotates around 1.618
2. Is correlated to stock prices
3. When multiplied with stock prices can stop losses
4. All of the above

Question Number : 4 Question Id : 70959726497 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Kajol is a member of a group consisting of four members. How many different types of relationships will this group have?
1. 8
2. 16
3. 10
4. 5

Question Number : 5 Question Id : 70959726498 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If U is a universal set of total expenditures of a consumer, comprising of Food, Clothing, Furniture and Travel and A is a set of Outdoor Food expenditures and Indoor Food expenditures, the complement of set A is
1. Clothing, Furniture and Travel
2. Outdoor food
3. Indoor food
4. None of the above

Question Number : 6 Question Id : 70959726499 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

A bus leaves from ISBT Dehradun with 25 passengers on board. At Roorkee, 5 passengers get off and 10 passengers get on. At Muzzafarnagar, 10 get off and 5 get on. How many passengers are in the bus after crossing Muzzafarnagar?
1. 20
2. -5
3. 25
4. 10

Question Number : 7 Question Id : 70959726500 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

A firm produces 100 units of a good. The cost incurred to produce one unit is ` 1000. Each unit of the good is sold at ` 1500. If the firm is able to sell all the 100 units, the profit earned is

1. 500
2. 5000
3. 10000
4. 50000

Question Number : 8 Question Id : 70959726501 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

It is believed that pollution increases as the number of automobiles increase. The rate of change of pollution with respect to a unit change in automobile?

1. Increases at an increasing rate
2. Increases at a decreasing rate
3. Remains constant
4. Inadequate information

Question Number : 9 Question Id : 70959726502 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

A function

1. is defined as a relation that expresses the dependence of one variable on one or more other variables.
2. is a set of "ordered pairs"
3. is related to a unique value of the dependent variable
4. All of the above

Question Number : 10 Question Id : 70959726503 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

In Keynes' equation of Absolute Income Hypothesis, $C = \alpha_0 + by$, where C = consumption expenditure, α_0 is consumption expenditure when income (y) is zero, b = marginal propensity to consume (MPC), which of the following statements is false?

1. MPC is independent of level of income
2. MPC is dependent on level of income
3. APC falls as income rises
4. APC > MPC

Question Number : 11 Question Id : 70959726504 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

In a relationship between Education and Economic Development, which is the dependent variable?

1. Economic Development
2. Education
3. Both economic development and education may be dependent variable
4. Data is not sufficient to draw a conclusion

Question Number : 12 Question Id : 70959726505 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If there is no change in the dependent variable (Y) for every unit change in the independent variable (X), then the relationship between X and Y is graphically represented by _____ and the value of the ratio is ____

1. A downward sloping straight line, one
2. An upward sloping straight line, one
3. A horizontal line parallel to X-axis, zero
4. A vertical line parallel to Y- axis, infinity

Question Number : 13 Question Id : 70959726506 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

A model is

1. An imagination of the human mind
2. An artificial structure of real things
3. A mathematical representation of statements
4. All of the above

Question Number : 14 Question Id : 70959726507 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Models are useful because

1. They make complex things simple to understand
2. They save time, money and energy
3. They are accessible to all
4. All of the above

Question Number : 15 Question Id : 70959726508 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Economic models are used

1. To calculate profit
2. To predict the future
3. To calculate risk involved
4. All of the above

Question Number : 16 Question Id : 70959726509 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

An economic model may comprise of

1. Economic variables
2. Factor affecting the economic variables
3. Both 1 and 2
4. None of the above

Question Number : 17 Question Id : 70959726510 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Economic models may be

1. Diagrammatical
2. Graphical
3. Mathematical
4. All of the above

Question Number : 18 Question Id : 70959726511 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

. Assume a model of income determination of the following type:

$$C = a + bY^d$$
$$Y^d = Y - T$$
$$T = T_0 + t_1 Y$$
$$I = \bar{I}$$
$$G = \bar{G}$$
$$Y = C + I + G$$

Where C = consumption expenditure, Y = income, Y^d = disposable income, T = tax, T_0 is tax when Y = 0, t_1= marginal tax rate, I = investment expenditure, G = government expenditure, and $\bar{I}$ and $\bar{G}$ indicate these are autonomous variables, then tax multiples with respect to T_0 is:

1. $\frac{1}{1-b+bt_1}$
2. $\frac{-b}{1-b+bt_1}$
3. $\frac{1-b}{1-b-bt_1}$
4. $\frac{1}{1-b-bt_1}$

Question Number : 19 Question Id : 70959726512 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

A negative intercept in a mathematical model means that the graph starts from

1. Negative X-axis
2. Negative Y-axis
3. Positive X-axis
4. Not sufficient information to conclude

Question Number : 20 Question Id : 70959726513 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

National Income is the sum of Consumption Expenditure, Investment Expenditure and Government Expenditure is a/an

1. Definitional Equation
2. Behavioural Equation
3. Equilibrium Equation
4. All of the above

Question Number : 21 Question Id : 70959726514 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Economic models may be constructed by using

1. the concept of scatter diagrams
2. statistical data
3. symbols and numbers
4. All of the above

Question Number : 22 Question Id : 70959726515 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The budget (B) of a consumer is used to purchase units of two goods X and Y. If the price of Good X is P_x and price of Good Y is P_y, and X and Y represent the units of the goods consumed, and the consumer decides to save some amount from the budget, then the budget equation may be written as

1. $B = P_x X + P_y Y$
2. $B = P_x X - P_y Y$
3. $B \leq P_x X - P_y Y$
4. $B \geq P_x X + P_y Y$

Question Number : 23 Question Id : 70959726516 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Direct Tax is a function of the Income of consumers. If T denotes direct tax and Y denote Income, the tax model may be written as

1. $T = c + d Y$
2. $T = c - d Y$
3. $T = d Y$
4. Both 1 and 3

Question Number : 24 Question Id : 70959726517 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If a small size Pizza yields 5 Utils and a regular Masala Corn yields 10 Utils, the consumption of both Pizza and Masala Corn will give

1. 50 Utils
2. 15 Utils
3. 10 Utils
4. None of the above

Question Number : 25 Question Id : 70959726518 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The Indifference Curve theory depends on

1. The idea that utility is independent
2. Ordinal preferences
3. Cardinal measurements
4. The assumption that consumers cannot make comparisons of commodity bundles

Question Number : 26 Question Id : 70959726519 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Utility may be defined as

1. The demand for a commodity
2. The application of a commodity
3. The level of satisfaction given by a commodity
4. Technical progress

Question Number : 27 Question Id : 70959726520 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

When Total Utility is maximum,

1. Consumer is in equilibrium
2. Marginal Utility is zero
3. Marginal Utility is negative
4. None of the above

Question Number : 28 Question Id : 70959726521 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The Total Utility Curve

1. Slopes upward with a constant slope
2. First increases, reaches a maximum then decreases
3. Slopes downward
4. Cannot be determined

Question Number : 29 Question Id : 70959726522 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Marginal Utility Curve will be below the x-axis when

1. MU is positive
2. MU is constant
3. TU is negative
4. TU is maximum

Question Number : 30 Question Id : 70959726523 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

. Which one is the true statement(s)?

A. The transpose of the transposed matrix is equal to the matrix itself

B. Transpose of the sum of the two matrices is equal to the sum of the transpose

1. A, B
2. Only A1 is true
3. Only B is true
4. None of the statements is true

Question Number : 31 Question Id : 70959726524 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If R is the Revenue, P is the Price and Q is the Quantity sold, then the Revenue function can be written as

1. R= P*q
2. R= P+Q
3. R= P/Q
4. None of the above

Question Number : 32 Question Id : 70959726525 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If $f(x) = x^2 - 5x + 6$ then $f(-2)$ will be

1. 6
2. 20
3. 10
4. 12

Question Number : 33 Question Id : 70959726526 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

$f(x) = \frac{(x^2-9)}{(x-3)}$ is _____at X=3

1. Continuous
2. Discontinuous
3. Undefined
4. None of the above

Question Number : 34 Question Id : 70959726527 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If U= xy, then U is utility of consumer for the combination of two products x and y then U will be

1. Constant
2. Increasing
3. Decreasing
4. Can't be predictable

Question Number : 35 Question Id : 70959726528 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Excess demand is

1. $(\text{Demand - Supply})^2$
2. $(\text{Demand})^2 - (\text{supply})^2$
3. Demand – Supply
4. none of the above

Question Number : 36 Question Id : 70959726529 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If the revenue function is $R = 14x - X^2$ then AR (average revenue) will be

1. $14 - x$
2. $14 - 2x$
3. 14
4. 2

Question Number : 37 Question Id : 70959726530 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The market theory can be mathematically represented as (D is demand, S is supply and P is price)

1. $D = a - bP$
2. $S = -c + dP$
3. $S = D$
4. All of the above

Question Number : 38 Question Id : 70959726531 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If consumption function is $C = 80 + 0.6Y$; then MPS will be

1. 0.6
2. 0.4
3. 0.8
4. 80

Question Number : 39 Question Id : 70959726532 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The value of $|A|$ if $A = \begin{bmatrix} 0 & ab^2 & ac^2 \\ a^2b & 0 & bc^2 \\ a^2c & b^2c & 0 \end{bmatrix}$

1. $2a^3b^3c^3$
2. $2a^2b^2c^2$
3. 1
4. 0

Question Number : 40 Question Id : 70959726533 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If A is a matrix, A^{-1} is

1. $A^{-1} = \text{adj } A/|A|$
2. $A^{-1} = \text{adj } A*|A|$
3. $A = |A|/\text{adj } A$
4. None of the above

Question Number : 41 Question Id : 70959726534 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Condition for solving a system of simultaneous equations is

1. Number of equations = number of exogenous variables
2. Number of equations < number of exogenous variables
3. Number of equations = number of endogenous variables
4. Number of equations < number of exogenous variables

Question Number : 42 Question Id : 70959726535 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Input-output analysis is concerned with determining_____ required to sustain or achieve target levels across the entire range of _____

1. An industry's production level, final demand
2. A firm's production level, market demand
3. An industry's production level, consumer demand
4. A firm's production level, final demand

Question Number : 43 Question Id : 70959726536 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If the original function is $y = 4 + 5x$, then the inverse is

1. $x = 1.2y - 0.8$
2. $x = 0.2y - 1.8$
3. $x = 0.2y - 0.8$
4. $x = 1.2y - 1.8$

Question Number : 44 Question Id : 70959726537 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

In a basic Keynesian macroeconomic model it is assumed that $Y = C + I$ where $I = 250$ and $C = 0.75Y$, then equilibrium level of Y is

1. 1500.
2. 250
3. 2000
4. 1000

Question Number : 45 Question Id : 70959726538 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If the average revenue is equal to marginal revenue for all level of output, then the average revenue will

1. Increase
2. Decrease
3. First increase then decrease
4. Remain constant

Question Number : 46 Question Id : 70959726539 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Which is false statement about set theory?

1. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
2. $(A \cap B) \cap C = A \cap (B \cap C)$
3. $(A \cup B) \cup C = A \cup (B \cup C)$
4. $A \cap (B \cup C) = (A \cup B) \cap (A \cup C)$

Question Number : 47 Question Id : 70959726540 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Which of the following is finite set?

1. A = {men in the world}
2. B = {1,2,3,4,5}
3. C= {set of vowels}
4. All of the above

Question Number : 48 Question Id : 70959726541 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If U = {1,2,3,4,5,6,7,8,9}be the universal set with A= {1,2,3,4} and B= {2,4,6,8} then (AUB)' will be

1. {2,4}
2. {5,6,7,8,9}
3. {5,7,9}
4. {1,3,5,6,7,9}

Question Number : 49 Question Id : 70959726542 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Cramer rule for given equations $a_1x + b_1x = c_1$ & $a_2x + b_2x = c_2$ is given as

1. $\frac{x}{c_1b_2 - c_2b_1} = \frac{y}{a_1c_2 - a_2c_1} = \frac{1}{a_1b_2 - a_2b_1}$
2. $\frac{y}{c_1b_2 - c_2b_1} = \frac{x}{a_1c_2 - a_2c_1} = \frac{1}{a_1b_2 - a_2b_1}$
3. $\frac{x}{c_1b_2 - c_2b_1} = \frac{1}{a_1c_2 - a_2c_1} = \frac{y}{a_1b_2 - a_2b_1}$
4. $\frac{1}{c_1b_2 - c_2b_1} = \frac{y}{a_1c_2 - a_2c_1} = \frac{x}{a_1b_2 - a_2b_1}$

Question Number : 50 Question Id : 70959726543 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The set of N = {-3,-2,-1,0,1,2,3} is

1. Irrational number set
2. Complex number set
3. Imaginary number set
4. Rational number set

Section Id :	709597378
Section Number :	2
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	46
Number of Questions to be attempted:	46
Section Marks:	25
Display Number Panel:	Yes
Group All Questions:	No

Sub-Section Number:	1
Sub-Section Id:	709597477
Question Shuffling Allowed :	Yes

Question Number : 51 Question Id : 70959726544 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

In the equation, $C = \alpha + \beta (Y - T)$, where C is consumption expenditure, Y is income and T is direct tax, β will be greater than 1 if

1. $\frac{\Delta C}{\Delta (Y-T)} = 1$
2. $\frac{\Delta C}{\Delta (Y-T)} > 1$
3. c) $\frac{\Delta C}{\Delta (Y-T)} < 1$
4. d) α = zero

Question Number : 52 Question Id : 70959726545 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

In a function $z = f(x)$, the slope of the function is given by

1. $\frac{dz}{dx}$
2. $\frac{\Delta z}{\Delta x}$
3. Both 1 and 2
4. Only 1

Question Number : 53 Question Id : 70959726546 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

For a function with two variables, $y = f(x_1, x_2)$, $\frac{\partial^2 y}{\partial x_1 \partial x_2}$ is

1. the partial derivative of $\frac{\partial y}{\partial x_2}$ with respect to x_2
2. the partial derivative of $\frac{\partial y}{\partial x_2}$ with respect to x_1
3. the total derivative
4. None of the above

Question Number : 54 Question Id : 70959726547 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

In the elasticity of demand formula, $e_p = \frac{dQ}{dP} \times \frac{P}{Q}$, the derivative $\frac{dQ}{dP}$ is

1. The responsiveness of quantity demanded to a change in the price
2. The slope of the demand function
3. A component of the elasticity of demand
4. All of the above

Question Number : 55 Question Id : 70959726548 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Equilibrium without an objective function is called

1. Non-goal equilibrium
2. Unstable equilibrium
3. Disequilibrium
4. None of the above

Question Number : 56 Question Id : 70959726549 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If a function is decreasing at an increasing rate

1. $\frac{dy}{dx} = 0, \frac{d^2y}{dx^2} < 0$
2. $\frac{dy}{dx} < 0, \frac{d^2y}{dx^2} > 0$
3. $\frac{dy}{dx} = 0, \frac{d^2y}{dx^2} > 0$
4. $\frac{dy}{dx} < 0, \frac{d^2y}{dx^2} < 0$

Question Number : 57 Question Id : 70959726550 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If the Marginal Curve (MC) cuts the Marginal Revenue (MR) from below, then which of the following is true?

1. Slope of the MC curve is greater than the slope of the MR curve
2. $\frac{d^2(TR)}{dQ^2} < \frac{d^2(TC)}{dQ^2}$
3. $\frac{d^2(TC)}{dQ^2} > \frac{d^2(TR)}{dQ^2}$
4. All of the above

Question Number : 58 Question Id : 70959726551 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Which of the following regarding linear programming is correct?

1. Linear programming is a type of mathematical programming
2. Linear programming is goal oriented
3. Linear programming is a type optimization technique
4. All of the above

Question Number : 59 Question Id : 70959726552 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Linear programming can be used to solve which of the following problems?

1. Reduce transportation cost
2. Material efficiency
3. Plan a healthy diet
4. All of the above

Question Number : 60 Question Id : 70959726553 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Who among the following won the Nobel Prize for their work on the theory of optimum allocation of resources?

1. Charles Koopmans
2. Kantorovich
3. Both 1 and 2
4. None of the above

Question Number : 61 Question Id : 70959726554 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If $y= x^{\frac{1}{4}}$ then dy/dx =?

1. 4x
2. $4x^{1/3}$
3. $¼ (x)^{-3/4}$
4. 2x

Question Number : 62 Question Id : 70959726555 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If y= (x-1)(2x-1) then dy/dx

1. 2x-1
2. x-1
3. 4x-3
4. 1

Question Number : 63 Question Id : 70959726556 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If $x^2 + y^2 =1$; then dy/dx =

1. x/y
2. $-(x/y)$
3. $-(x/y)^2$
4. $(x/y)^2$

Question Number : 64 Question Id : 70959726557 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The expression for Price elasticity of demand is

1. $E_d = -p/q\ (dq/dp)$
2. $E_d = -(dq/dp)$
3. $E_d = -p/q$
4. None of the above

Question Number : 65 Question Id : 70959726558 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

For demand function $Q = 200 - 4P$, the inverse demand function will be

1. $P = 50Q - 0.25$
2. $P = 50 - 1.25Q$
3. $P = 50Q - 1.25$
4. $P = 50 - 0.25Q$

Question Number : 66 Question Id : 70959726559 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If the goods are necessary then income elasticity e_i will be

1. $e_i > 0$
2. $e_i > 1$
3. $0 < e_i < 1$
4. $e_i < 0$

Question Number : 67 Question Id : 70959726560 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If MR = marginal revenue, AR = Average revenue and e_p is Price elasticity of demand then which one is representing the relationship among these three

1. $MR = AR/ e_p$
2. $MR = AR\ (1- 1/e_p)$
3. $MR = e_p /AR$
4. $MR = e_p * AR$

Question Number : 68 Question Id : 70959726561 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If the total variable cost function is $TVC = 2x^3-500x^2 -1000x$; then the slope of average variable cost

1. 500-4x
2. 4x-500
3. 500
4. 4x

Question Number : 69 Question Id : 70959726562 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Marginal propensity to consume (MPC) is represented by (if C= Consumption; Y= income)

1. MPC = C/Y
2. MPC = dC/dY
3. MPC= Y/C
4. MPC = dY/dC

Question Number : 70 Question Id : 70959726563 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The following will be the marginal rate of substitution of the utility function $u= 5x_1x_2$

1. $-x_1+x_2$
2. x_1x_2
3. x_1/x_2
4. $-x_1/x_2$

Question Number : 71 Question Id : 70959726564 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The following is the first order condition for the maxima and minima

1. $dy/dx > 0$
2. $dy/dx < 0$
3. $dy/dx = 0$
4. $dy = dx > 0$

Question Number : 72 Question Id : 70959726565 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The point elasticity of demand for the demand schedule $P = 60 - 0.2\ Q$, where price is zero

1. 300
2. 100
3. 1
4. 0

Question Number : 73 Question Id : 70959726566 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The slope of the function $y = 4x^2$ when x is 8

1. 60
2. 64
3. 67
4. 68

Question Number : 74 Question Id : 70959726567 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Which of the following is not the assumption of LPP (linear programming problem)

1. Linearity
2. Additivity
3. Divisibility
4. Negative variables

Question Number : 75 Question Id : 70959726568 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Optimum solution is based on

1. Optimizing the Objective function
2. Optimizing the constraint
3. Optimizing the decision variables
4. None of the above

Question Number : 76 Question Id : 70959726569 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Dual of the dual of LPP is _____of the LPP

1. Dual form
2. Primal form
3. New objective function
4. None of the above

Question Number : 77 Question Id : 70959726570 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

In maximization LPP, optimal solution at corner point provides the

1. Lowest Z value
2. Highest Z value
3. Average of Z value
4. All of the above

Question Number : 78 Question Id : 70959726571 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

$e^{logA} =$

1. A
2. Log A
3. e^{logA}
4. None of the above

Question Number : 79 Question Id : 70959726572 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Which of the following are the components of a linear programming problem?

1. Performance variable
2. Choice variables
3. Non-negativity constraints
4. All of the above

Question Number : 80 Question Id : 70959726573 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The graphical solution cannot be applied if

1. The objective function and inequalities are non-linear
2. There are more than two choice variables
3. Quantities are not divisible
4. All of the above

Question Number : 81 Question Id : 70959726574 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

For an Optimum solution to exist

1. The number of constraints must be equal to the number of choice variables
2. At least two constraints must intersect
3. A minimum of two constraints is required
4. All of the above

Question Number : 82 Question Id : 70959726575 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Who proposed the theory of duality in linear programming?

1. John von Neumann
2. Leonid Khachiyan
3. T. C. Koopmans
4. George B. Dantzig

Question Number : 83 Question Id : 70959726576 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The arbitrary constant "c" in the integration $\int f'(x)dx = f(x) + c$ is important because

1. the same derivative may be obtained from the differentiation of different functions.
2. An original function may have different constants
3. Both 1 and 2 are correct
4. Only a is correct

Question Number : 84 Question Id : 70959726577 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The expression $\int 2x\ dx$ is known as

1. Indefinite integral
2. Definite Integral
3. Antiderivative
4. All of the above

Question Number : 85 Question Id : 70959726578 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Which of the following regarding definite integral is correct?

1. Definite integral is used to find the area under a curve
2. Definite integral is the sum of infinite number of rectangles under a curve
3. Definite integral is the difference between the values of an antiderivative at the upper limit and the lower limit.
4. All of the above

Question Number : 86 Question Id : 70959726579 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Slack variables are

1. Variable required to "less than" type of inequality
2. Variable required to "greater than" type of inequality
3. In both condition
4. None of the condition

Question Number : 87 Question Id : 70959726580 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

A firm recycles paper bags and sells at Rs. 55 each. A monthly production of that firm is 10000 unit and have cost of 50 Rs for each bag. What will be the monthly profit of that firm?

1. 10000
2. 50000
3. 550000
4. 500000

Question Number : 88 Question Id : 70959726581 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

When demand elasticity $e_d < 1$ then demand is known as

1. Inelastic
2. Elastic
3. Unit elastic
4. None of the above

Question Number : 89 Question Id : 70959726582 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

For the given cost function $MC = 2-4q+3q^2$ what will be the total variable cost at $q=4$

1. 50
2. 60
3. 40
4. 20

Question Number : 90 Question Id : 70959726583 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

For the given demand function $p = 20 - D - D^2$, what will be the consumer surplus when demand is 3

1. 20
2. 45
3. 45/2
4. 24/3

Question Number : 91 Question Id : 70959726584 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

What will be the producer surplus for the given supply curve $Q = \sqrt{-4 + 4P}$ at market price of Rs.10.?

1. 66
2. 36
3. 43
4. 34

Question Number : 92 Question Id : 70959726585 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

$\frac{d}{dx} logx = ?$

1. x
2. 1/x
3. x^2
4. 1

Question Number : 93 Question Id : 70959726586 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

. If $y = 14x + 3z^2$, find the partial derivatives of this function with respect to x and z.

1. 14 & 6z
2. 12 & 3z
3. 10 & 2z
4. 14 & 3z

Question Number : 94 Question Id : 70959726587 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

An expression for the slope of the function $y = 6 + 3x - 0.1x^2$.

1. 2x
2. 3x
3. $3 - 0.2x$
4. 6

Question Number : 95 Question Id : 70959726588 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

For total revenue TR = $80q - 2q^2$, a function for MR (Marginal revenue) will be

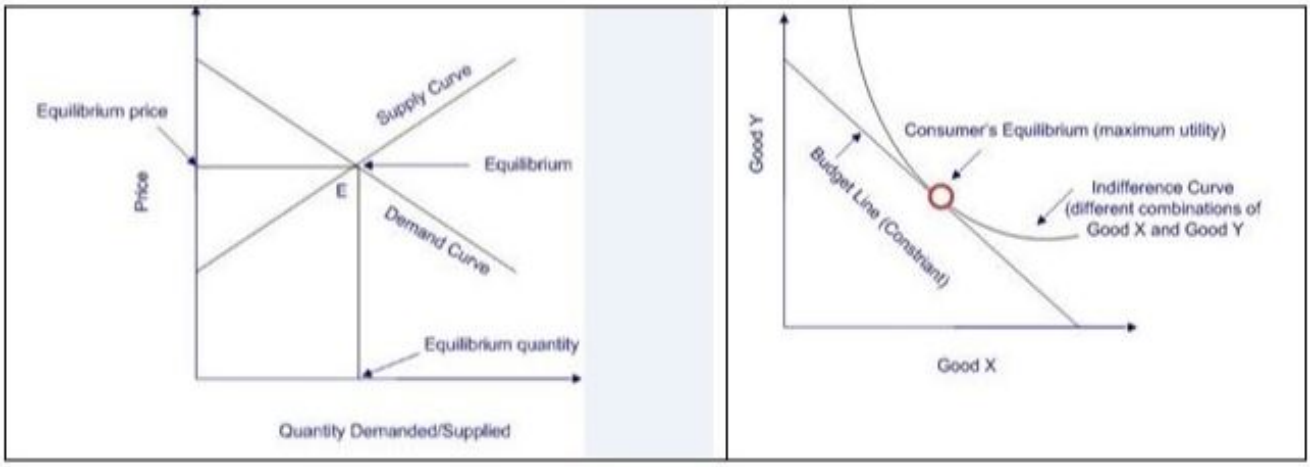
1. $80 - 4q$
2. $4q$
3. 80
4. None of the above

Sub-Section Number:	2
Sub-Section Id:	709597478
Question Shuffling Allowed :	Yes

Question Id : 70959726589 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (96 to 100)

Question Label : Comprehension



Sub questions

Question Number : 96 Question Id : 70959726590 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Which of the statements are true?

1. Fig A is a case of goal equilibrium
2. Fig B is a case of non-goal equilibrium
3. Both 1 and 2 are wrong
4. Both the figures is a case of optimization

Question Number : 97 Question Id : 70959726591 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If the indifference curve passes through two points on the budget line. This means

1. The utility is less than the optimum utility

2. There is a tendency for the consumer to increase the utility and move to a higher indifference curve

3. There is not enough budget with the consumer

4. Both 1 and 2 are correct

Question Number : 98 Question Id : 70959726592 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

What is the slope of the indifference curve and the budget line at the point of equilibrium?

1. Slope of indifference curve is equal to the slope of the budget line

2. Slope of indifference curve is greater than the slope of the budget line

3. Slope of the budget line is greater than the slope of the indifference curve

4. Cannot say as there is not enough information

Question Number : 99 Question Id : 70959726593 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If the slope of the Demand curve increases, slope of supply curve remaining the same, which of the following will be true?

1. Equilibrium will shift down

2. Equilibrium Price will fall

3. Both 1 and 2 are correct

4. Equilibrium will shift up

Question Number : 100 Question Id : 70959726594 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If the budget of the consumer increases, prices of both the goods remaining the same,

1. The budget line will shift down and will be parallel to the original budget line

2. The budget line will shift up and will be parallel to the original budget line

3. The budget line will become steep

4. The budget line will become flat

DYNAMIC ECONOMICS AND COMPUTATIONAL ECONOMICS

Section Id :	709597379
Section Number :	3
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	40

Number of Questions to be attempted:	40
Section Marks:	20
Display Number Panel:	Yes
Group All Questions:	No

Sub-Section Number:	1
Sub-Section Id:	709597479
Question Shuffling Allowed :	Yes

Question Number : 101 Question Id : 70959726595 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

. The simple interest on an amount of 600 rupees for one year at the rate of 5% per annum.

1. 30
2. 40
3. 50
4. 60

Question Number : 102 Question Id : 70959726596 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Which of the following are characteristics of Economic Statics?

1. Equilibrium is timeless
2. Economic variables are studied at one point of time
3. Tastes and preference remain same
4. All of the above

Question Number : 103 Question Id : 70959726597 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

If money is measured in Rupees, income is measured in

1. Rupees per unit of Time
2. $\frac{Rupees}{Time}$
3. Both 1 and 2 are correct
4. Rupees x Time

Question Number : 104 Question Id : 70959726598 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Comparative Statics is a method

1. for comparing two equilibrium states
2. for showing how the equilibrium changes when parameters are changed
3. Both 1 and 2 are correct
4. For comparing two economic variables

Question Number : 105 Question Id : 70959726599 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Growth rate of $y=Ae^{rt}$ is

1. e
2. r
3. e^{rt}
4. rt

Question Number : 106 Question Id : 70959726600 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Growth rate of a continuous function $f(t) = 2+3t+t^2$ is defined as

1. $2t+3$
2. $3t+2$
3. $(3+2t)/(2+3t+t^2)$
4. $3t+2t^2$

Question Number : 107 Question Id : 70959726601 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Which one is a partial differential equation?

1. $\frac{dy}{dx} = 2x + 3$
2. $\frac{d^2y}{dx^2} - 4y = 6$
3. $x\frac{\partial u}{\partial x} + y\frac{\partial u}{\partial y} = f(x, y)$
4. *all of the above*

Question Number : 108 Question Id : 70959726602 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The order of a differential equation is

1. The order of the highest derivative occurring in the differential equation
2. The order of the lowest derivative occurring in the differential equation
3. The sum of all derivative occurring in the differential equation
4. The average of all derivative occurring in the differential equation

Question Number : 109 Question Id : 70959726603 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Which of the following is representing the linear differential equation of first order

1. $\frac{dy}{dx} + py = Q$
2. $\frac{d^2y}{dx} + py = Q$
3. $\frac{dy}{dx} + px^2 = Q$
4. All of the above

Question Number : 110 Question Id : 70959726604 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The necessary and sufficient conditions that the equation Mdx+Ndy = 0 may be exact is

1. $\frac{\partial M}{\partial y} = \frac{\partial N}{\partial x}$
2. $\frac{\partial M}{\partial y} \neq \frac{\partial N}{\partial x}$
3. $\frac{\partial M}{\partial y} \leq \frac{\partial N}{\partial x}$
4. $\frac{\partial M}{\partial y} \geq \frac{\partial N}{\partial x}$

Question Number : 111 Question Id : 70959726605 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

An exact equation is

1. Independent of the time
2. Independent of the path
3. Dependent on the path
4. Dependent on the time

Question Number : 112 Question Id : 70959726606 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

An inexact differential equation can be made exact

1. By adding a constant to the equation
2. By adding 1 to each term on the left hand side
3. by multiplying every term of the equation by "integrating factor"
4. by multiplying the constant with 100

Question Number : 113 Question Id : 70959726607 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Which of the following is/are example(s) of a state function?

1. Temperature
2. Density
3. Pressure
4. All of the above

Question Number : 114 Question Id : 70959726608 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The letter 'e'

1. Was named after Leonhard Euler
2. Is used as base on natural logarithm
3. Is a constant equal to 2.71824..
4. All of the above

Question Number : 115 Question Id : 70959726609 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Instantaneous growth rate

1. Is the measured at discrete time
2. Is a constant growth
3. is measured by the ratio of a marginal function to the total function
4. is measured by the ratio of the total function to the marginal function

Question Number : 116 Question Id : 70959726610 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Which of the following are examples of differential equations?

1. To calculate rate of change of GDP with time
2. To calculate the distribution of income or wealth
3. To calculate economy's growth rate
4. All of the above

Question Number : 117 Question Id : 70959726611 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Which of the following is/are example(s) of a path function?

1. Heat
2. Density
3. Pressure
4. Temperature

Question Number : 118 Question Id : 70959726612 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The "Cobweb Theory" was first coined by _____in the year_____

1. Saint Nicholas, 1934
2. Nicholas Kaldor, 1934
3. Nicholas Christakis, 1944
4. Harold Nicholas, 1938

Question Number : 119 Question Id : 70959726613 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The time path of price will be convergent if

1. the slope of the supply curve is steeper than that of the demand curve.
2. the slope of the demand curve is steeper than that of the supply curve.
3. the slope of the demand curve is equal to that of the supply curve.
4. None of the above

Question Number : 120 Question Id : 70959726614 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Harrod's Model of economic growth has been developed by

1. Sir R.F. Harrod
2. Nicholas Harrod
3. Benjamin Harrod
4. Charles Harrod

Question Number : 121 Question Id : 70959726615 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Data on stock prices are collected

1. Quarterly
2. Daily
3. Monthly
4. Quinquennially

Question Number : 122 Question Id : 70959726616 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

.Which of the following organization started to survey and publish monthly unemployment data for the first time in India in 2016?

1. National Sample Survey Office (NSSO)
2. The Centre for Monitoring Indian Economy (CMIE)
3. Employees' Provident Fund Organization (EPFO)
4. International Labour Organization (ILO)

Question Number : 123 Question Id : 70959726617 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

.The Investment in period t, is the excess of the current income over the income in the previous period is mathematically expressed as

1. $I_t = \alpha(Y_t - Y_{t-1})$
2. $I_t = \alpha(Y_{t-1} - Y_t)$
3. $I_t = \alpha(Y_{t-2} - Y_t)$
4. $I_t = \alpha(Y_t / Y_{t-1})$

Question Number : 124 Question Id : 70959726618 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

.The time path of income for the Harrod model is given as $Y_t = A(\frac{\alpha}{\alpha-\delta})^t$. The time path will depend on

1. A
2. t
3. $\left(\frac{\alpha}{\alpha-\delta}\right)$
4. α

Question Number : 125 Question Id : 70959726619 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

.When price rises, workers demand high wages. But employers do not increase the wage immediately. This is a type of

1. Price lag
2. Wage lag
3. Action lag
4. Operational lag

Question Number : 126 Question Id : 70959726620 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

$x_{t+1} = \frac{ax_t+b}{cx_t+d}$ is an example of

1. An exact equation
2. Inexact equation
3. Non- Linear Difference equation
4. Rational Difference equation

Question Number : 127 Question Id : 70959726621 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Continuous Time is used to study which of the following models?

1. Autoregressive (AR) models
2. Vector autoregression (VAR)
3. Autoregressive Moving Average (ARMA) models.
4. None of the above

Question Number : 128 Question Id : 70959726622 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

. $\Delta y_{t+1} = y_{t+2} - y_{t+1}$ is a

1. First order difference equation
2. Second order difference equation
3. First order differential equation
4. Second order differential equation

Question Number : 129 Question Id : 70959726623 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

.The final solution for a difference equation is given by

1. Integrating factor
2. The homogenous part of the difference equation
3. The non-homogenous part of the difference equation
4. The sum of complementary solution and particular solution

Question Number : 130 Question Id : 70959726624 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The interaction of the multiplier and the accelerator is an example of a

1. Second order difference equation
2. State function
3. Convergent path of income
4. Divergent path of income

Question Number : 131 Question Id : 70959726625 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

MS-Excel is an example of _____

1. An operating system
2. A processing device
3. Application software
4. An input device

Question Number : 132 Question Id : 70959726626 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Microsoft Office is an example of a

1. Commercial software
2. Free Open source software
3. Both a & b
4. None of the above

Question Number : 133 Question Id : 70959726627 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

The first mechanical computer designed by Charles Babbage was called?

1. Super Computer
2. Abacus
3. Calculator
4. Analytical Engine

Question Number : 134 Question Id : 70959726628 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

All of the logic and mathematical calculations done by the computer happen in/ on the

1. system board
2. central control unit
3. central processing unit
4. mother board

Question Number : 135 Question Id : 70959726629 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

.Computational economics is a discipline at the interface of

1. Computer Science
2. Economics
3. Management Science
4. All of the above

Question Number : 136 Question Id : 70959726630 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

R functionality is divided into a number of _____

1. Packages
2. Functions
3. Domains
4. All of the above

Question Number : 137 Question Id : 70959726631 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

.Advanced users can write ___ code to manipulate R objects directly.

1. C
2. C ++
3. Java
4. None of the above

Question Number : 138 Question Id : 70959726632 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

Bitcoin is a

1. Currency
2. Property
3. Commodity
4. All the above

Question Number : 139 Question Id : 70959726633 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

.What is the advantage of using SPSS instead of manual calculations?

1. much faster and more efficient than mental arithmetic
2. complex statistical data analysis within seconds
3. high-quality results
4. All of the above

Question Number : 140 Question Id : 70959726634 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 0.5 Wrong Marks : 0

EViews is a

1. Statistical package for Windows
2. Used mainly for time-series
3. Used in econometric analysis
4. All of the above