

National Testing Agency

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REGIONAL DEVELOPMENT: Economics

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PART A

Section Id : 128206161
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Section Marks: 100
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Sub-Section Number: 1
Sub-Section Id: 128206263
Question Shuffling Allowed : Yes

Question Number : 1 Question Id : 1282065811 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

When Comparing r^2 of two regression models, the model should have the same :

- (a). X variables
- (b). Y variables
- (c). Error Term
- (d). Beta coefficients

Options :

- 12820622983. A
- 12820622984. B
- 12820622985. C
- 12820622986. D

Question Number : 2 Question Id : 1282065812 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Suppose a country produces food (F) and clothing (C) by employing the factors capital (k) and labour (l). Consider food is relatively more capital intensive and clothing is relatively labour intensive. If there is an increase in (k / l) ratio in the country due to some exogenous factor then according to *Rybczynski Theorem* -

- (a). Output of both F and C must increase
- (b). Output of F will increase and output of C will fall.
- (c). Output of F will fall and output of C will rise.
- (d). Output of F will increase and output of C will be unchanged

Options :

- 12820622987. A
- 12820622988. B
- 12820622989. C
- 12820622990. D

Question Number : 3 Question Id : 1282065813 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In a Lin-log regression model, the regression slope coefficient gives:

- (a). The relative change in Y for an absolute change in X
- (b). The percentage change in Y for a given percentage change in X
- (c). The absolute change in Y for a percentage change in X
- (d). The amount of change in Y due to unit change in X

Options :

- 12820622991. A
- 12820622992. B
- 12820622993. C
- 12820622994. D

Question Number : 4 Question Id : 1282065814 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A research that integrates theoretical framework and methodology form two or more distinct disciplines to provide a more comprehensive understanding of social problem is called

- (a) Multidisciplinary research
- (b) Transdisciplinary research
- (c) Interdisciplinary research
- (d) Social research

Options :

- 12820622995. A
- 12820622996. B
- 12820622997. C
- 12820622998. D

Question Number : 5 Question Id : 1282065815 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A firm faces the following marginal cost schedule and marginal revenue schedule respectively.

$$MC = 180 + 0.3 q^2$$

$$MR = 540 - 0.6 q^2$$

Total fixed cost is Rs. 65. Find out equilibrium output that the firm can make.

- (a) 18
- (b) 20
- (c) 15
- (d) 27

Options :

- 12820622999. A
- 12820623000. B
- 12820623001. C
- 12820623002. D

Question Number : 6 Question Id : 1282065816 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Consider the following statements :

- (A).“The structure we impose on our lives to reduce uncertainty is an accumulation of prescriptions and proscriptions together with the artefacts that have evolved as a part of this accumulation. The result is a complex mix of formal and informal constraints.”
- (B).“The prevailing inefficient property rights did not produce economic growth.”

What do you understand from the above statements?

- (a) Government is important for achieving higher economic growth
- (b) Institutions matter for understanding the differential performance of economies
- (c) Market competition removes inefficiency in production
- (d) None of the above

Options :

- 12820623003. A

12820623004. B
12820623005. C
12820623006. D

Question Number : 7 Question Id : 1282065817 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The meaning of first order serial correlation and its consequence is

- (a) Error term in period 't' is correlated with error term in the next period; downward bias in standard error
- (b) Error term in period 't' is correlated with error term in previous period; upward bias in standard error
- (c) Error term in period 't' is correlated with error term in previous period; downward bias in standard error
- (d) Error term in period 't' is correlated with error term in the next period; upward bias in standard error

Options :

12820623007. A
12820623008. B
12820623009. C
12820623010. D

Question Number : 8 Question Id : 1282065818 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The point of inflection of Normal distribution $N(\mu, \sigma)$, with mean μ and standard deviation σ , are at:

- (a). $x = \mu \pm 2\sigma$
- (b). $= \mu \pm \sigma$
- (c). $x = \mu \pm 3\sigma$
- (d). Normal distribution does not have any point of inflection

Options :

12820623011. A
12820623012. B
12820623013. C
12820623014. D

Question Number : 9 Question Id : 1282065819 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A 'footloose' industry is one which:

- (a) Has no transport costs;
- (b) Incurs higher transport costs if it is near its sources of raw materials rather than its market;
- (c) Incurs higher transport costs if it is near its market rather than its sources of raw materials;
- (d) Is not bound by considerations of transport costs to be either near its sources of raw materials or its main market.

Options :

- 12820623015. A
- 12820623016. B
- 12820623017. C
- 12820623018. D

Question Number : 10 Question Id : 1282065820 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If the nominal interest rate on a checking account is 2% and the inflation rate is 3% this year, the real interest rate is:

- (a). 5%
- (b). 2%
- (c). 2/3%
- (d). -1%

Options :

- 12820623019. A
- 12820623020. B
- 12820623021. C
- 12820623022. D

Question Number : 11 Question Id : 1282065821 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following would cause the demand curve for automobiles to shift to the left?

- (a). An increase in the price of the automobiles
- (b). An increase in the interest rate paid to borrow money to pay for the automobile
- (c). An increase in buyers' incomes
- (d). An increase in the cost of production of automobiles

Options :

- 12820623023. A
- 12820623024. B
- 12820623025. C
- 12820623026. D

Question Number : 12 Question Id : 1282065822 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A consumer consumes 2 commodities x and y. The marginal utility of commodity x is zero while that of y is positive. The indifference curve will be

- (a). Linear and downward sloping
- (b). Upward sloping
- (c). Linear and parallel to y axis
- (d). Linear and parallel to x axis

Options :

- 12820623027. A
- 12820623028. B
- 12820623029. C
- 12820623030. D

Question Number : 13 Question Id : 1282065823 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

According to the monetarist acceleration theory, in the long-run,

- (a). The actual unemployment rate will be below the natural rate of unemployment
- (b). The actual unemployment rate will be equal to the natural rate of unemployment
- (c). The actual inflation rate will be equal to the natural inflation rate
- (d). The money supply will be growing at a constant rate per year

Options :

- 12820623031. A
- 12820623032. B
- 12820623033. C
- 12820623034. D

Question Number : 14 Question Id : 1282065824 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If $Y = V + W$, then the rules of variance says :

- (a). $Var(Y) = Var(V) + Var(W)$
- (b). $Var(Y) = Var(V) + Var(W) + 2Cov(V, W)$
- (c). $Var(Y) = Var(V) + Var(W) + 2Cov(Y, V) + 2Cov(Y, W)$
- (d). $Var(Y) = Var(V) + Var(W) - 2Cov(V, W)$

Options :

- 12820623035. A

12820623036. B
12820623037. C
12820623038. D

Question Number : 15 Question Id : 1282065825 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If the Average Revenue function $AR = 10 + 5q - q^2$, then the marginal revenue (MR) function is :

- (a). Convex function
- (b). Concave function
- (c). Can be both Concave and Convex functions
- (d). None of the above

Options :

12820623039. A
12820623040. B
12820623041. C
12820623042. D

Question Number : 16 Question Id : 1282065826 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Consider a function $y = f(x_1, x_2, x_3)$. Let H_1, H_2 and $H_3 (= H)$ are the leading principal minors of the *Hessian Determinant* H . The function is having a *Saddle point* if

- (a). $H < 0$ only
- (b). $H_1 < 0, H_2 > 0$ and $H < 0$
- (c). $H_1 > 0, H_2 > 0$ and $H > 0$
- (d). $H_1 > 0, H_2 > 0$ and $H < 0$

Options :

12820623043. A
12820623044. B
12820623045. C
12820623046. D

Question Number : 17 Question Id : 1282065827 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Determine whether the function: $f(x,y) = 2x + y + 3(xy)^{1/2}$, is *homogeneous function* or not.
If so, of what degree?

- (a). Homogenous of degree 2
- (b). Homogenous of degree 1
- (c). Homogenous of degree $\frac{1}{2}$
- (d). Not a homogenous function

Options :

- 12820623047. A
- 12820623048. B
- 12820623049. C
- 12820623050. D

Question Number : 18 Question Id : 1282065828 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Indirect Utility function is the

- (a). Utility function after optimization of Utility maximization problem
- (b). Utility function after optimization of Expenditure minimization problem
- (c). Utility function with prices and income as its arguments
- (d). Both (a) & (c) are correct

Options :

- 12820623051. A
- 12820623052. B
- 12820623053. C
- 12820623054. D

Question Number : 19 Question Id : 1282065829 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A Public good can be broadly characterized as

- (a). Excludable and Non Rival
- (b). Non - Excludable and Non Rival
- (c). Club Goods
- (d). Excludable and Rival

Options :

- 12820623055. A
- 12820623056. B

12820623057. C

12820623058. D

Question Number : 20 Question Id : 1282065830 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A Compensated demand function :

- (a). Can be negatively sloped, positively sloped or vertical straight depending upon the nature of the commodity.
- (b). Always negatively sloped irrespective of the nature of commodity
- (c). Can be negatively sloped for a Giffen commodity, positively sloped for inferior commodity
- (d). Rectangular hyperbola for a normal commodity.

Options :

12820623059. A

12820623060. B

12820623061. C

12820623062. D

Sub-Section Number:	2
Sub-Section Id:	128206264
Question Shuffling Allowed :	Yes

Question Number : 21 Question Id : 1282065831 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following results is referred to as the *Todaro paradox*?

- (a) In equilibrium, the average of various urban wages weighted by the probability of employment in formal and informal sectors is equal to the agricultural wages.
- (b) The surplus labour displaced from agriculture, instead of getting absorbed in the modern industrial sector are largely employed in the urban informal sector.
- (c) It is not the wages, but the *expectations of wages* that are equalised across sectors.
- (d) An expansion of the formal employment leads to an enlargement of the informal sector as it raises the expectations of migrants.

Options :

12820623063. A

12820623064. B

12820623065. C

12820623066. D

Question Number : 22 Question Id : 1282065832 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following statements are consistent with the *lender's risk hypothesis* associated with rural credit markets?

1. There is substantial risk of default in the rural credit markets as the borrower might default on repayment of loans.
2. The risks of default might be involuntary, when it is because of factors such as crop failure.
3. There is the possibility of voluntary default on the part of the borrower, when the borrower simply refuses to pay back the loan.
4. Weak contract enforcement and slow functioning of the legal machinery increases such risk.

Options

- (a). 1, 2 and 3
- (b). 1, 2 and 4
- (c). Only 1
- (d). All of the above.

Options :

12820623067. A
12820623068. B
12820623069. C
12820623070. D

Question Number : 23 Question Id : 1282065833 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

The limit of the function $f(x) = \lim_{x \rightarrow 0} \frac{|x|}{x}$:

- (a). The limit of $f(x)$ exists at $x = -1$
- (b). Exists at $x = 0$
- (c). Does not exist at $x = 0$
- (d). All the statements are wrong.

Options :

12820623071. A
12820623072. B
12820623073. C
12820623074. D

Question Number : 24 Question Id : 1282065834 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Find the possible maximum and minimum for : $f(x) = \sqrt{(x-5)} - 100 ; x \geq 5$

- (a). The function $f(x)$ reaches maximum at $x = -5$, and minimum at $x = 5$
- (b). The function $f(x)$ reaches maximum at $x = 0$, and minimum at $x = 5$
- (c). The function $f(x)$ has no maximum or minimum.
- (d). The function $f(x)$ has minima at $x = 5$, but has no maxima.

Options :

12820623075. A

12820623076. B

12820623077. C

12820623078. D

Question Number : 25 Question Id : 1282065835 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

For what values of β the matrix A is a symmetric matrix :

$$\begin{matrix} \beta & \beta^2 - 1 & -3 \\ \beta + 1 & 2 & \beta^2 + 4 \\ -3 & 4\beta & -1 \end{matrix}$$

- (a). $\beta = 2$
- (b). $\beta = 1$
- (c). $\beta = -2$
- (d). $\beta = 0$

Options :

12820623079. A

12820623080. B

12820623081. C

12820623082. D

Question Number : 26 Question Id : 1282065836 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following statements are among the key arguments of the *Prebisch-Singer hypothesis*?

- I. Trade relations between the centre and the periphery reinforce higher levels of development in the centre countries, while perpetuating a low level of development and poverty in the periphery countries.
- II. The relationship between the centre and the periphery are complementary and harmonious.
- III. The advanced countries, dominated by oligopolistic industries are generally price-makers and the economies of the peripheries, specialising on primary products, are essentially price-takers, which causes the terms of trade of primary-product-based economies to deteriorate in the long-run.
- IV. In places where the European colonisers faced high mortality rates, they could not settle permanently, and they were thus more likely to establish extractive institutions, which persisted after independence; in places where they could settle permanently, they established more development-minded institutions.

Options

- (a). I
- (b). I and II
- (c). I and III
- (d). I, III and IV

Options :

- 12820623083. A
- 12820623084. B
- 12820623085. C
- 12820623086. D

Question Number : 27 Question Id : 1282065837 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

A simultaneous reduction in both taxes and the money stock in the short run will always

- (a). Increase the interest rates but its impact on income is ambiguous.
- (b). Lower income and raise the interest rate.
- (c). Raise income and raise the interest rate.
- (d). Increase the income but its impact on interest rates is ambiguous

Options :

- 12820623087. A
- 12820623088. B
- 12820623089. C
- 12820623090. D

**Question Number : 28 Question Id : 1282065838 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

Correct Marks : 2 Wrong Marks : 0

Agrarian relations might act as impediments to technical change. The landlord whose income is partly derived from rent paid by his tenant and partly from the interest on the loans that the needy sharecropper takes to overcome the consumption shortfall. The landlord may not be interested in technological improvement, as an increase in output is likely to increase the total earnings of the sharecropper as well. This idea is associated with which of the following theories?

- (a) Marshallian inefficiency
- (b) Bhaduri's model of semi-feudalism
- (c) Mellor's theory of agricultural development
- (d) Chayanov's model of peasant household decision-making

Options :

- 12820623091. A
- 12820623092. B
- 12820623093. C
- 12820623094. D

**Question Number : 29 Question Id : 1282065839 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

Correct Marks : 2 Wrong Marks : 0

The solution for the set of following linear equations is :

$$2x_1 + x_2 = 5$$

$$3x_1 + 6x_2 + x_3 = 1$$

$$5x_1 + 7x_2 + x_3 = 6$$

- (a) $x_1 = 1, x_2 = 2$ and $x_3 = -11$
- (b) $x_1 = 3, x_2 = 1$ and $x_3 = -10$
- (c) $x_1 = 2, x_2 = 1$ and $x_3 = -11$
- (d) x_1, x_2, x_3 have infinite number of solutions

Options :

12820623095. A

12820623096. B

12820623097. C

12820623098. D

Question Number : 30 Question Id : 1282065840 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

What would be the confidence interval for the regression coefficient β_2 for the regression result of price inflation (P) on wage inflation given below (W). The standard errors are shown in parenthesis, sample size $n = 20$, the t value at the $\alpha = 0.05$ is $t_{0.05} = 2.10$:

$$\hat{P} = -1.21 + 0.82 W$$

(0.05) (0.10)

- (a). $0.61 \leq \beta_2 \leq 1.03$
- (b). $0.96 \leq \beta_2 \leq 1.88$
- (c). $0.63 \leq \beta_2 \leq 2.13$
- (d). $0.87 \leq \beta_2 \leq 1.09$

Options :

12820623099. A

12820623100. B

12820623101. C

12820623102. D

Question Number : 31 Question Id : 1282065841 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Suppose the true relation between Y and X is : $Y_i = \beta_1 + \beta_2 X_i + u_i$, and the fitted model is : $\hat{Y}_i = \hat{\beta}_1 + \hat{\beta}_2 X_i$. If $X_i^* = \mu_2 X_i$, and Y is regressed on X^* . What would be the relation between the two estimated slope coefficients $\hat{\beta}_2$ and $\hat{\beta}_2^*$:

- (a). $\hat{\beta}_2^* = \frac{\hat{\beta}_2}{\mu_2}$
- (b). $\hat{\beta}_2^* = \mu_2 \hat{\beta}_2$
- (c). $\hat{\beta}_2^* = \mu_2 X_i \hat{\beta}_2$
- (d). $\hat{\beta}_2^* = \hat{\beta}_2$

Options :

12820623103. A

12820623104. B

12820623105. C

12820623106. D

Question Number : 32 Question Id : 1282065842 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Suppose the true relation between Y and X is : $Y_i = \beta_1 + \beta_2 X_i + u_i$, and the fitted model is : $\hat{Y}_i = \hat{\beta}_1 + \hat{\beta}_2 X_i$. If $X_i^* = \mu_2 X_i$, and Y is regressed on X^* . What would be the relation between the t statistics of the two estimated slope coefficients

- (a). t statistics of the estimated slope coefficients (β_2) is increased by μ_2
- (b). t statistics of the estimated slope coefficients (β_2) is increased by μ_2 percentage points
- (c). t statistics of the estimated slope coefficients (β_2) are unaffected by the transformation
- (d). t statistics of the estimated slope coefficients (β_2) is decreased by μ_2

Options :

12820623107. A

12820623108. B

12820623109. C

12820623110. D

Question Number : 33 Question Id : 1282065843 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true for the *Ryotwari system of Land Revenue collection*?

- (i). Under this system the land revenue settlement was made directly with the individual 'ryot' or the Cultivator.
- (ii). The land revenue was not fixed and was equal to the money value of a share of estimated average annual output from a cultivator land.
- (iii). The share varied depending across soil types and overtime as land productivity changed.
- (iv). The 'ryot' could decide not to pay the land revenue for a particular year, if his/her production was insufficient in any given year.

Options:

- (a). (i) and (ii) are correct
- (b). (ii) and (iii) are correct
- (c). (i), (ii) and (iii) are correct
- (d). All of the above are correct

Options :

- 12820623111. A
- 12820623112. B
- 12820623113. C
- 12820623114. D

Question Number : 34 Question Id : 1282065844 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following statements regarding the poverty lines are correct ?

- (a). Both Tendulkar and Lakdawala poverty lines are based on a minimum calorie norm.
- (b). Both Tendulkar and Lakdawala poverty line are both normatively decided without being pegged to a calorie norm.
- (c). Tendulkar poverty line is normative while Lakdawala poverty line was pegged to a calorie norm.
- (d). Tendulkar poverty line is pegged to a calorie norm while Lakdawala poverty line was normatively decided.

Options :

- 12820623115. A
- 12820623116. B
- 12820623117. C
- 12820623118. D

Question Number : 35 Question Id : 1282065845 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

If the total monthly household expenditure of a family with 5 members in one month is rupees 1500, in urban region of the state of Rajasthan and the urban poverty line for Rajasthan is rupees 285, then the number of household members who can be called '*Poor*' are :

- (a). 2 members
- (b). 3 members
- (c). All the 5 members
- (d). None

Options :

- 12820623119. A
- 12820623120. B
- 12820623121. C
- 12820623122. D

Question Number : 36 Question Id : 1282065846 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

If there are two upper outliers present in the data, then which of the following must hold.

- (a). Data is positively skewed, which means mean is more than median.
- (b). Data is negatively skewed, which means mean is more than median.
- (c). Data is positively skewed, which means median is more than mean.
- (d). Data is negatively skewed, which means median is more than mean.

Options :

12820623123. A

12820623124. B

12820623125. C

12820623126. D

Sub-Section Number: 3
Sub-Section Id: 128206265
Question Shuffling Allowed : Yes

Question Number : 37 Question Id : 1282065847 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

A consumer has the following utility function: $u(x, y) = \min\{\alpha x, \beta y\}$, where $\alpha, \beta > 0$. The price of x is normalized to 1 and the price of y is p. The consumer's income is M. What would be the ordinary demand functions for x and y.

(a). $x(p, M) = \frac{\beta M}{\beta + \alpha p}$, $y(p, M) = \frac{\alpha M}{\beta + \alpha p}$

(b). $x(p, M) = \beta M + \alpha p$, $y(p, M) = \alpha M + \beta p$

(c). $x(p, M) = \frac{\alpha \beta M}{\beta + \alpha p}$, $y(p, M) = \frac{\alpha \beta M}{\alpha + \beta p}$

(d). $x(p, M) = (\alpha + \beta)M / \alpha p$, $y(p, M) = (\alpha + \beta)M / \beta p$

Options :

12820623127. A

12820623128. B

12820623129. C

12820623130. D

Question Number : 38 Question Id : 1282065848 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

Consider the following Slutsky matrix (or Substitution matrix) for a consumer in a three good world with prices: $P_1 = 1$, $P_2 = 2$, $P_3 = 6$. Supply the missing numbers. For what values of a , b , c , d , e and f the resulting matrix possesses all the properties of a Substitution Matrix?

-10	a	b
c	-4	d
3	e	f

- (a). $a = c = -4$, $b = 3$, $d = e = 2$, $f = -7/6$
- (b). $a = 5$, $c = 5$, $b = 3$, $d = e = 4$, $f = -11/6$
- (c). $a = 5$, $c = 3$, $b = 2$, $d = e = 5$, $f = -9/6$
- (d). $a = 3$, $b = 2$, $c = 3$, $d = 6$, $e = 4$, $f = 9$

Options :

12820623131. A
12820623132. B
12820623133. C
12820623134. D

Question Number : 39 Question Id : 1282065849 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

Suppose the Cost function is $C(w, y) = y(w_1 + \sqrt{w_1 w_2} + w_2)$, where w_1 and w_2 are the input prices for the two inputs used in the production. Which one of the following properties of cost function $C(w, y)$ is correct ?

- (a). Cost function $C(w, y)$ is monotone, concave function and continuous in w
- (b). Cost function $C(w, y)$ is a non-monotone, convex function and continuous in w
- (c). Cost function $C(w, y)$ is continuous in w .
- (d). None of the above.

Options :

12820623135. A
12820623136. B
12820623137. C
12820623138. D

Question Number : 40 Question Id : 1282065850 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

Suppose the demand function for wheat is $Q = 100 - 10P$, and the supply function is $Q = 10P$. Suppose the government gives a per unit subsidy of $s = 1$ on supply. What is the market equilibrium quantity (\bar{Q}) and the equilibrium price (\bar{P}) in the post subsidy scenario?

What are the effects of a subsidy of $s = 1$ per unit on the equilibrium, government subsidy costs, consumer surplus, producer surplus and total welfare?

- (a). $\bar{Q} = 58, \bar{P} = 4.5$
- (b). $\bar{Q} = 55, \bar{P} = 4.5$
- (c). $\bar{Q} = 62, \bar{P} = 5$
- (d). $\bar{Q} = 60, \bar{P} = 4$

Options :

12820623139. A

12820623140. B

12820623141. C

12820623142. D

Question Number : 41 Question Id : 1282065851 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

A monopolist has two customers with the following demand functions: $Q_1 = 10 - P_1$ (Demand of customer 1), $Q_2 = 12 - P_2$ (Demand of customer 2). Here P_i is the price charged to customer i , $i \in \{1, 2\}$. The monopolist has a constant marginal cost of 1, and no fixed costs. What would be the equilibrium price and quantity?

- (a). $Q_1 = 6, P_1 = 8$ and $Q_2 = 4, P_2 = 6$
- (b). $Q_1 = 8, P_1 = 2$ and $Q_2 = 8, P_2 = 4$
- (c). $Q_1 = 4, P_1 = 6$ and $Q_2 = 6, P_2 = 8$
- (d). $Q_1 = 6, P_1 = 4$ and $Q_2 = 6, P_2 = 6$

Options :

12820623143. A

12820623144. B

12820623145. C

12820623146. D

Question Number : 42 Question Id : 1282065852 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

Consider an economy described by the following equations:

$$\text{Aggregate consumption: } C = 400 + 0.2(Y - T)$$

$$\text{Aggregate investment: } I = 120 - 10i$$

$$\text{Government sector: } \bar{G} = \bar{T} = 100$$

Calculate the equilibrium level of income at any given level of interest rate and what is the effect of an increase in the interest rate on the equilibrium level of income?

- a. Equilibrium $Y = 600 + 12.5i$ and $\frac{\partial Y}{\partial i} = 12.5$
- b. Equilibrium $Y = 750 + 12.5i$ and $\frac{\partial Y}{\partial i} = 12.5$
- c. Equilibrium $Y = 750 + 10i$ and $\frac{\partial Y}{\partial i} = 10$
- d. Equilibrium $Y = 600 + 12i$ and $\frac{\partial Y}{\partial i} = 12$

Options :

12820623147. A

12820623148. B

12820623149. C

12820623150. D

Question Number : 43 Question Id : 1282065853 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

For what value of a will the function : $f(x) = ax; x = 1, 2, 3, \dots, n$; be the probability mass function of a discrete random variable x .

- (a). $a = n(n + 1)/2$
- (b). $a = \frac{2}{n(n+1)}$
- (c). $a = \frac{2n+1}{3}$
- (d). $a = n(n + 1)/2n$

Options :

12820623151. A

12820623152. B

12820623153. C

12820623154. D

Question Number : 44 Question Id : 1282065854 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

Given $P(A) = 3/8$; $P(B) = 5/8$; and $P(A+B) = 3/4$. Find the conditional probabilities $P(A/B)$ and $P(B/A)$.

- (a). $P(A/B) = 3/5$; $P(B/A) = 1/4$
(b). $P(A/B) = 1/4$; $P(B/A) = 2/3$
(c). $P(A/B) = 2/3$; $P(B/A) = 3/5$
(d). $P(A/B) = 2/5$; $P(B/A) = 2/3$

Options :

12820623155. A
12820623156. B
12820623157. C
12820623158. D

Question Number : 45 Question Id : 1282065855 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 0

Let A, B, C, D and E are the events with some probabilities. Use the information in the table below of cases favourable to the events, to calculate the probability $P(C \cap D)$.

-	<u>A</u>	<u>C</u>	<u>E</u>	<u>Total</u>
<u>B</u>	13	4	54	71
<u>D</u>	24	23	43	90
<u>Total</u>	37	27	97	161

- (a). $(23/90) * (23/27)$
(b). $23/90$
(c). $23/27$
(d). $23/161$

Options :

12820623159. A
12820623160. B
12820623161. C
12820623162. D

Question Number : 46 Question Id : 1282065856 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 0

Suppose the (inverse) demand function in a market is given by $P = 20 - 2Q$, and the (inverse) supply curve is $P = 2 + Q$. Suppose the government imposes a per-unit tax of $t = 6$ on suppliers. What is the consumer surplus (CS), producer surplus (PS), and the deadweight loss (DWL) from the imposition of tax.

- (a). CS = 36, PS = 18, DWL = 12
- (b). CS = 8, PS = 6, DWL = 4
- (c). CS = 16, PS = 6, DWL = 8
- (d). CS = 16, PS = 8, DWL = 6

Options :

12820623163. A

12820623164. B

12820623165. C

12820623166. D

Question Number : 47 Question Id : 1282065857 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

. Consider the following income determination model. Let,

$$Y = C + I,$$

$$C = C_o + b Y_d,$$

$$T = T_o + tY,$$

$$Y_d = Y - T.$$

Where $I = I_o = 30$, $C_o = 85$, $b = 0.75$, $t = 0.2$ and $T_o = 20$. Find the effect on the multiplier if proportional income tax (t) is incorporated in the model.

- (a). 4.0
- (b). 2.5
- (c). 5.0
- (d). 3.5

Options :

12820623167. A

12820623168. B

12820623169. C

12820623170. D

Correct Marks : 4 Wrong Marks : 0

Consider the following regression equation from a survey data, where the hourly earnings of 570 fresh graduates of 1999 is being regressed on years of schooling (S) measured at highest grade completed. Which option holds correct for the statistical significance of the regression coefficients :

$$\widehat{Earning} = -1.39 + 1.07S$$

$$Std\ Errors: (1.8203), (0.13245)$$

- (a). Both the intercept and the slope coefficients are insignificant at the level of significance $\alpha = 0.05$.
- (b). Both the intercept and the slope coefficients are significant at $\alpha = 0.10$.
- (c). Both the intercept and the slope coefficients are significant at $\alpha = 0.05$.
- (d). The intercept coefficient is insignificant (both at $\alpha = 0.01$ and $\alpha = 0.05$) and the slope coefficient is significant at $\alpha = 0.01$.

Options :

12820623171. A

12820623172. B

12820623173. C

12820623174. D