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International Trade and Development

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PART A

Section Id :	128206130
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Sub-Section Number:	1
Sub-Section Id:	128206202
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 1282064482 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider a Ricardian world of two countries, A and B, capable of producing two goods, steel and wheat. The labour availability and labour requirements to produce a ton of steel and a ton of wheat respectively in A and B are given below:

Country	Total labour available	Labour needed to produce:	
		Ton of steel	*Ton of wheat*
A	100	10	5
B	200	5	4

If A and B engage in free trade then the following is ***false***:

a. Country A will export wheat and import steel
b. Country B will completely specialize in the production of steel
c. Country B will be willing to import 1 ton of steel in exchange for 1 ton of wheat
d. Country A will be willing to import 1 ton of steel in exchange for 1 ton of wheat

Options :

12820617722. A

12820617723. B

12820617724. C

12820617725. D

Question Number : 2 Question Id : 1282064483 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

When a risk averse individual has to decide between two different lotteries,

a. she will *always* prefer a lottery with less risk
b. she will *always* prefer a lottery with more risk
c. she will *never* invest in a risky lottery
d. none of the above

Options :

12820617726. A

12820617727. B

12820617728. C

12820617729. D

Question Number : 3 Question Id : 1282064484 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following four models (I) efficiency wage hypothesis, (II) labour turnover model (III) Lewis model (IV) Harris-Todaro model. Two of these models assume that the rural-urban wage gap is exogenously given while the other two explain how the gap is endogenously determined. In which of the two models, the gap is assumed to be exogenously given:

a. I, II
b. II, III
c. III, IV
d. IV, I

Options :

12820617730. A

12820617731. B

12820617732. C

12820617733. D

Question Number : 4 Question Id : 1282064485 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 that X is a random variable following the Poisson distribution with parameter λ. Which of the following statements is true?

a. $E(X) = Var(X)$
b. $E(X) < Var(X)$
c. $E(X) > Var(X)$
d. None of the above

Options :

12820617734. A

12820617735. B

12820617736. C

12820617737. D

Question Number : 5 Question Id : 1282064486 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 consistent estimator is

a. Always Unbiased and always zero variance
b. Asymptotically unbiased and always zero variance
c. Asymptotically unbiased and asymptotically zero variance
d. None of the above

Options :

12820617738. A

12820617739. B

12820617740. C

12820617741. D

Question Number : 6 Question Id : 1282064487 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Assume that capital is perfectly mobile between countries. Suppose that the home country interest rate, i, is greater than the world interest rate, i*. Investors hold both home and foreign currencies. Then

a. Investors have rational expectations about exchange rates, and expect the home currency to appreciate.
b. Investors have rational expectations about exchange rates, and expect the home currency to depreciate.
c. Investors have static expectations about the exchange rate, and do not expect it to change.
d. Capital must be flowing out of the home country.

Options :

12820617742. A

12820617743. B

12820617744. C

12820617745. D

Question Number : 7 Question Id : 1282064488 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 would contribute towards an increase in debt/output ratio, all other things being equal? Assume that nominal interest rate is fixed and there is no Seigniorage.

a. Faster real output growth.
b. Decreased government spending.
c. Slower inflation.
d. None of the above.

Options :

12820617746. A

12820617747. B

12820617748. C

12820617749. D

Question Number : 8 Question Id : 1282064489 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Assume that $C = c_0 + c_1(Y - T)$. Suppose that taxes (T) increase and money supply increases in such a way that output (Y) is constant in equilibrium (assume $c_1<1$). These policy changes will produce

a. an increase in investment and a decrease in government spending.
b. a decrease in investment and an increase in public saving.
c. an increase in investment and an increase in private saving.
d. an increase in investment and a decrease in private consumption.

Options :

12820617750. A

12820617751. B

12820617752. C

12820617753. D

Question Number : 9 Question Id : 1282064490 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 researcher wants to estimate a regression model $Y_i = X_i'\beta + u_i$ where Y_i is a categorical variable indicating severity of injury of people in an accident:

$Y_i = 1$ if no injury
$Y_i = 2$ if minor injury
$Y_i = 3$ if major injury

The appropriate econometric method will be

a. Unordered Multinomial Logit
b. Sequential Logit
c. Ordered Logit
d. OLS

Options :

12820617754. A

12820617755. B

12820617756. C

12820617757. D

Question Number : 10 Question Id : 1282064491 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Admissions to a Management School is based on an intelligence test, devised in such a manner that the scores can range between 0 and 100. Admission is given to those scoring above 50. A researcher wants to model the performance of candidates at this test (measured by their score (Z)) as a function of their socio-economic profile (represented by variables $X_1, X_2, ..., X_n$). To obtain data on the **X**s, she administers a questionnaire to all newly admitted students in 2018 to estimate this model

$Z_i = X_i'\beta + u_i$

I. The model cannot be estimated by OLS as it suffers from censorship problem
II. The model cannot be estimated by OLS as it suffers from truncation problem

Please select the correct option:

a. I is true
b. II is true
c. Both I and II are true
d. Both I and II are false

Options :

12820617758. A

12820617759. B

12820617760. C

12820617761. D

Sub-Section Number:	2
Sub-Section Id:	128206203
Question Shuffling Allowed :	Yes

Question Number : 11 Question Id : 1282064492 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 aggregate supply (AS) curve which is upward sloping up to a threshold level of output (Y) and price (P), but becomes vertical beyond this threshold. This can result from

a. Adaptive expectations and a flexible nominal wage.
b. Perfect foresight and a completely rigid nominal wage.
c. Perfect foresight and a nominal wage which is only rigid downward.
d. A vertical aggregate demand (AD).

Options :

12820617762. A

12820617763. B

12820617764. C

12820617765. D

Question Number : 12 Question Id : 1282064493 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 equation:

$$\pi_t = \pi^* + \alpha(Y_t - Y^*) + \varepsilon_t$$

Here, the subscript t denotes time period, π denotes inflation, Y denotes output, Y* is the full employment level of output, π^* is core inflation, and ε is a zero-mean shock (white noise) term. Consider a model which sets core inflation equal to the previous period's inflation, π_{t-1}. Then, which of the following is ***false***?

a. This model implies that output cannot systematically differ from full employment output.
b. This model can be criticized on the grounds of irrational wage setting (the Friedman Phelps "expectations" critique).
c. This model is consistent with high unemployment and high inflation *coexisting*.
d. This model does not specify the level of inflation that prevails if output is at its full employment level and there are no shocks.

Options :

12820617766. A

12820617767. B

12820617768. C

12820617769. D

Question Number : 13 Question Id : 1282064494 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 monetary policy responds with a lag to past shocks, workers have rational expectations, but nominal wages are fixed T periods in advance of the period to which they apply (the Fischer model). Then

a. The policy irrelevance proposition holds (policy can't affect output).
b. Policy can only affect output if the monetary policy lag is less than T.
c. Policy can only affect output if the monetary policy lag is equal to T.
d. Policy can only affect output if some of the workers' wages are set T-1 periods in advance, rather than T periods in advance.

Options :

12820617770. A

12820617771. B

12820617772. C

12820617773. D

Question Number : 14 Question Id : 1282064495 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 full-employment level of output is Rs. 680, the equilibrium level of output is Rs. 600, the marginal propensity to consume is 0.80 and there is a 0.25 income tax. Full employment output can be achieved by a:

a. Rs. 20 increase in government spending.
b. Rs. 25 increase in government spending.
c. Rs. 30 increase in government spending.
d. Rs. 32 increase in government spending.

Options :

12820617774. A

12820617775. B

12820617776. C

12820617777. D

Question Number : 15 Question Id : 1282064496 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

An economy has the following production function in time period t: $Y_t = F(K_t, N_t) = B_t K_t^{\alpha} N_t^{1-\alpha}$, where $\beta < 1$. K_t and N_t are capital and labour inputs. Assume for now that B_t is constant over time (there is no technological progress in this economy, so $B_t = B$), g_N is the growth rate of N, δ is the rate of depreciation in this economy, and s is the saving rate. Then, the steady state levels of capital stock and output will be

a. $k^* = B^{\frac{1}{1+\beta}}\left(\frac{s}{g_N+\delta}\right)^{\frac{1}{1+\beta}}, y^* = B^{\frac{1}{1+\beta}}\left(\frac{s}{g_N+\delta}\right)^{\frac{\beta}{1+\beta}}$

b. $k^* = B^{\frac{1}{1-\beta}}\left(\frac{s\delta}{g_N+\delta}\right)^{\frac{1}{1-\beta}}, y^* = B^{\frac{1}{1-\beta}}\left(\frac{s\delta}{g_N+\delta}\right)^{\frac{\beta}{1-\beta}}$

c. $k^* = B^{\frac{1}{1-\beta}}\left(\frac{s}{g_N+\delta}\right)^{\frac{1}{1-\beta}}, y^* = B^{\frac{1}{1-\beta}}\left(\frac{s}{g_N+\delta}\right)^{\frac{\beta}{1-\beta}}$.

d. None of the above.

Options :

12820617778. A

12820617779. B

12820617780. C

12820617781. D

Question Number : 16 Question Id : 1282064497 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 $Q_d = 10 - 2p$, and supply function is $Q_s = 3p - 5$. The government is concerned that the market equilibrium price of wheat is too low and would like to implement a price support policy to protect the farmers. By implementing the price support policy, the government sets a support price $p_s = 4$, and purchases the extra supply at the support price. The gain in producer surplus and the cost to the government due to the support price policy are given by, respectively,

a. 20; 21
b. 28; 10
c. 11/2; 20
d. 8/3; 16

Options :

12820617782. A

12820617783. B

12820617784. C

12820617785. D

Question Number : 17 Question Id : 1282064498 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 a small country exporting in the world sugar market. The world price of sugar suddenly increases from $200/metric ton to $500/metric ton. Following domestic protests about the rising price of sugar, the government imposes a ban on all exports, whereby under the export ban all domestic production will be sold to domestic consumers. As a result of this ban on exports, you would expect

a. The domestic price to increase
b. The domestic production to decrease
c. The domestic consumption to decrease
d. The domestic consumer surplus to decrease

Options :

12820617786. A

12820617787. B

12820617788. C

12820617789. D

Question Number : 18 Question Id : 1282064499 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

The table below gives the demand and supply schedules for computers in a small country:

Price per computer ($)	Quantity demanded	Quantity supplied
100	900	0
200	700	200
300	500	400
400	300	600
500	100	800

Under free trade the country was importing computers at a price of $100, but now imposes a quota that limits imports to 300 computers. The quota induced price increase would then be:

a. $250
b. $200
c. $150
d. $100

Options :

12820617790. A

12820617791. B

12820617792. C

12820617793. D

Question Number : 19 Question Id : 1282064500 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 Hawk-Dove game. The value of total resources to be gained is 10. Each of the players can choose to be aggressive as Hawk (H) or compromising as Dove (D). If both players choose H then they split the resources equally but each loses some pay-off from injuries of an amount equal to 6. If both choose D then they split the resources equally but each incurs a cost of 4. Finally, if player i chooses H while j chooses D then i gets all the resources with no costs while j leaves with no benefits and no costs. What are the pure strategy Nash equilibria of the game?

a. The game does not have a pure strategy Nash equilibrium
b. (H, H) and (D,D)
c. (D, D) and (D,H)
d. (H, D) *and* (D, H)

Options :

12820617794. A

12820617795. B

12820617796. C

12820617797. D

Question Number : 20 Question Id : 1282064501 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 utility function:

$$U(x_1, x_2) = \psi(x_1) + x_2$$

where $\psi' > 0$. As income increases holding prices fixed

a) the demands for both goods 1 and 2 increase
b) the demand for good 1 increases while the demand for good 2 falls
c) the demand for good 1 is constant while the demand for good 2 falls
d) the demand for good 1 is constant while the demand for good 2 does not fall

Options :

12820617798. A

12820617799. B

12820617800. C

12820617801. D

Question Number : 21 Question Id : 1282064502 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 production function:
$y = F(x_1, x_2) = \psi(f(x_1, x_2))$
where $\psi' > 0$ and f is homogeneous of degree one.
Which of the following is correct?

a. the marginal rate of technical substitution between the two inputs is a function of the ratio of the two inputs
b. the technology represented by F exhibits decreasing returns to scale
c. the technology represented by F exhibits increasing returns to scale
d. none of the above

Options :

12820617802. A

12820617803. B

12820617804. C

12820617805. D

Question Number : 22 Question Id : 1282064503 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 price vector changes from
$p^0 = (p_1^0, p_2)$ to $p^1 = (p_1^1, p_2)$ with income remaining the same at y. Suppose the indirect utility in the initial budget scenario is u^0 and in the final budget scenario is u^1. If $E(p, u)$ represents the expenditure function then consider the following two expressions:

I. $E(p^0, u^1) - E(p^0, u^0)$
II. $E(p^0, u^1) - E(p^1, u^1)$

The equivalent variation is given by

a) Only I
b) Only II
c) Both I and II
d) Neither I nor II

Options :

12820617806. A

12820617807. B

12820617808. C

12820617809. D

Question Number : 23 Question Id : 1282064504 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 p and y denote the vector of prices and income, respectively. Suppose consumption bundle x^0 is chosen in a budget scenario (p^0, y^0) and x^1 is chosen in a budget scenario (p^1, y^1) so that $p^0x^0 = y^0$ and $p^1x^1 = y^1$. Consider the following to check if these are consistent with the weak axiom of revealed preference (WARP):

I. $p^0x^1 > y^0$ and $p^1x^0 \leq y^1$
II. $p^0x^1 > y^0$ and $p^1x^0 > y^1$
III. $p^0x^1 \leq y^0$ and $p^1x^0 \leq y^1$

Select the correct option:

a) Only I
b) Only II
c) Only III
d) Both I and II

Options :

12820617810. A

12820617811. B

12820617812. C

12820617813. D

Question Number : 24 Question Id : 1282064505 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 X be a random variable with pdf

$$f(x) = \begin{cases} \frac{1}{6}x + k; if\ 0 \leq x \leq 3; k\ being\ a\ scalar \\ 0; \qquad\qquad otherwise \end{cases}$$

Then the $\Pr\{1 \leq X \leq 2\}$ is

a. 1/3
b. 2/3
c. 1/2
d. 1

Options :

12820617814. A

12820617815. B

12820617816. C

12820617817. D

Question Number : 25 Question Id : 1282064506 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

According to the labour turnover model, profit maximising urban employers will pay a higher wage than the prevailing rate even when there is unemployment,

a. Because they are "forced" by the trade unions
b. Because they want to retain their workers as they are emotionally attached to them, even if they realise that this is not a profit maximising action
c. Because they want to retain their workers as they realise that this will spare them the costs of training new workers and integrating them into the production process.
d. Because they want to retain their workers as they realise that this could increase their profits as loyal workers may work harder.

Options :

12820617818. A

12820617819. B

12820617820. C

12820617821. D

Question Number : 26 Question Id : 1282064507 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

The demand for labour for seasonal casual tasks in agriculture is subject to the vagaries of nature creating uncertainties about labour demand and consequent wage earnings. Under such situations, a permanent labour contract to smoothen out the wage fluctuations

I. Can never be beneficial for the employer as he has to pay a pre-determined wage even if there is crop failure.
II. Can be mutually beneficial if employers are risk neutral and workers are risk averse.
III. Can be mutually beneficial if employers are risk averse and workers are risk loving
IV. Can rarely be implemented as it must be based on trust and reciprocity

a. Only I and III are correct
b. Only II and III are correct
c. Only I and IV are correct
d. Only II and IV are correct

Options :

12820617822. A

12820617823. B

12820617824. C

12820617825. D

Question Number : 27 Question Id : 1282064508 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

Find the absolute maximum and absolute minimum values of $f(x) = \frac{x^2-4}{x^2+4}$ on the interval $[-4, 4]$

a. f achieves its absolute minimum of -1 at $x = 0$ and its absolute maximum of 3 at $both$ $x = -4$ and $x = 4$.

b. f achieves its absolute minimum of -1 at $x = 1$ and its absolute maximum of $^3/_5$ at $x = -4$.

c. f achieves its absolute minimum of -1 at $x = 1$ and its absolute maximum of 3 at $x = 4$.

d. f achieves its absolute minimum of -1 at $x = 0$ and its absolute maximum of $^3/_5$ at $both$ $x = -4$ and $x = 4$.

Options :

12820617826. A

12820617827. B

12820617828. C

12820617829. D

Question Number : 28 Question Id : 1282064509 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

$\lim_{x\to 0} \frac{a^x}{x}$ is equal to

a. $Log\ a$

b. $Log\ x$

c. 1

d. 0

Options :

12820617830. A

12820617831. B

12820617832. C

12820617833. D

Question Number : 29 Question Id : 1282064510 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

Which of the following is a unit vector that is orthogonal to the vector $a = (1, -1, 2)$?

a. $(1, -1, 1)$

b. $(\frac{1}{\sqrt{3}}, -\frac{1}{\sqrt{3}}, -\frac{1}{\sqrt{3}})$

c. $(-\frac{1}{\sqrt{3}}, -\frac{1}{\sqrt{3}}, \frac{1}{\sqrt{3}})$

d. $(\frac{1}{\sqrt{2}}, -\frac{1}{\sqrt{2}}, -\frac{1}{\sqrt{2}})$

Options :

12820617834. A

12820617835. B

12820617836. C

12820617837. D

Question Number : 30 Question Id : 1282064511 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 0

Define $Tf(x)$ as the n-th degree Taylor series polynomial for $f(x)$ centered at $x = a$. The third-degree Taylor series polynomial for $f(x) = ln\ x\ at\ a\ =\ 1$ is given by:

a. $(x-1) - \frac{1}{2}(x-1)^2 + \frac{1}{3}(x-1)^3$

b. $(x-1) - \frac{1}{2}(x-1)^2 + \frac{2}{3}(x-1)^3$

c. $(x-1) - (x-1)^2 + 2(x-1)^3$

d. $\ln x - \frac{(x-1)}{x} - \frac{(x-1)^2}{2x^2} + \frac{(x-1)^3}{2x^3}$

Options :

12820617838. A

12820617839. B

12820617840. C

12820617841. D