54

QUESTION PAPER
SERIES CODE

A

Registration No. :

Centre of Exam. : _____

Name of Candidate : _____

_____
Signature of Invigilator

ENTRANCE EXAMINATION, 2013

M.A. ECONOMICS (with specialisation in the World Economy)

[Field of Study Code : EILM (202)]

Time Allowed : 3 hours   *Maximum Marks* : 100

INSTRUCTIONS FOR CANDIDATES

Candidates must read carefully the following instructions before attempting the Question Paper :

(i)   Write your Name and Registration Number in the space provided for the purpose on the top of this Question Paper and in the Answer Sheet.

(ii) **Please darken the appropriate Circle of Question Paper Series Code on the Answer Sheet.**

(iii) All questions are compulsory.

(iv) Answer all 25 questions in the Answer Sheet provided for the purpose by darkening the correct choice, i.e., (a) or (b) or (c) or (d) with BALLPOINT PEN only against the corresponding circle. Any overwriting or alteration will be treated as wrong answer.

(v)   Each correct answer carries 4 marks. **There will be negative marking and 1 mark will be deducted for each wrong answer.**

(vi) Answer written by the candidates inside the Question Paper will not be evaluated.

(vii) Calculators may be used.

(viii) Please use the space provided for Rough Work.

(ix) Return the Question Paper and Answer Sheet to the Invigilator at the end of the Entrance Examination. **DO NOT FOLD THE ANSWER SHEET.**

INSTRUCTIONS FOR MARKING ANSWERS

1. Use only Blue/Black Ballpoint Pen (do not use pencil) to darken the appropriate Circle.
2. Please darken the whole Circle.
3. Darken <u>ONLY ONE CIRCLE</u> for each question as shown in example below :

Wrong	Wrong	Wrong	Wrong	Correct
● ⓑ ⓒ ●	ⓐ̸ ⓑ ⓒ ⓓ	ⓐ̸ ⓑ ⓒ ⓓ̸	⊙ ⓑ ⓒ ●	ⓐ ⓑ ⓒ ●

4. Once marked, no change in the answer is allowed.
5. Please do not make any stray marks on the Answer Sheet.
6. Please do not do any rough work on the Answer Sheet.
7. Mark your answer only in the appropriate space against the number corresponding to the question.
8. **Ensure that you have darkened the appropriate Circle of Question Paper Series Code on the Answer Sheet.**

1. Kiran's utility function is $U(x_1; x_2) = 2\ln(x_1) + x_2$. Given her current income and the current relative prices, she consumes 10 units of x_1 and 15 units of x_2. If her income doubles, while prices stay constant, how many units of x_1 will she consume after the change in income?

(a) 20

(b) 5

(c) 10

(d) The information given is not enough to determine

2. Manik's utility function on goods x and y is $U(x; y) = \sqrt{x} + \sqrt{y}$. Prices of x and y are given as $p_x = 5$ and $p_y = 1$. Assume that Manik's income is equal to 60. What is his optimal consumption of the two goods?

(a) $x = 5$, $y = 35$

(b) $x = 4$, $y = 40$

(c) $x = 0$, $y = 60$

(d) $x = 2$, $y = 50$

SPACE FOR ROUGH WORK

3. A car manufacturing company wants to decide where to locate a new plant. The only inputs used in cars are steel and labour, and the production function is $f(S, L) = S^{\frac{1}{2}} L^{\frac{1}{2}}$, where S is tons of steel and L is units of labour. The company can locate its plant either in country A or in country B. In country A, steel costs Rs 70 a ton and labour costs Rs 70 per unit. In country B, steel costs Rs 80 per ton and labour costs Rs 60 per unit. In which of the two countries should the company locate its new plant?

(a) Country A

(b) Country B

(c) It is indifferent between country A and country B

(d) The information given is not sufficient to determine

4. A monopolist has constant marginal costs at Re 1 per unit, and zero fixed costs. It faces the demand curve $D(p) = \begin{cases} \dfrac{100}{p}, & p \le 20 \\ 0, & p > 20 \end{cases}$ where p is price.

What is the profit maximizing choice of output?

(a) 20

(b) 5

(c) 1/99

(d) 10

5. If the government could set a price ceiling on the above monopolist (in Question No. 4) in order to force it to act as a competitor, what price should it set?

(a) 10

(b) 20

(c) 1

(d) None of the above

6. The rank of the matrix $C = A'B'$, where

$$A = \begin{pmatrix} 3 & 1 & 2 \\ 1 & 1 & 0 \\ 2 & 1 & 3 \end{pmatrix} \text{ and } B = \begin{pmatrix} 0 & 1 & 0 \\ 4 & 2 & 3 \end{pmatrix}$$

is

(a) 0

(b) 1

(c) 2

(d) 3

SPACE FOR ROUGH WORK

7. If the matrix

$$\begin{pmatrix} -4 & 2 & 0 \\ -6 & a & 1 \\ 0 & 1 & 1 \end{pmatrix}$$

is singular, the value of a must be

(a) 1

(b) 2

(c) 3

(d) 4

8. $\lim\limits_{x \to 0}\left(\dfrac{e^x - 1}{x}\right)$ is equal to

(a) 1

(b) 0

(c) Does not exist

(d) Cannot be calculated

SPACE FOR ROUGH WORK

9. Let
$$f(x) = \begin{cases} x+4, & x < 0 \\ x^2, & 0 \le x < 5 \\ 7, & x \ge 5 \end{cases}$$

The area from $x = -6$ to $x = 8$ under the graph $f(x)$ is

(a) 130/3

(b) 206/3

(c) 206

(d) 106

10. If flour is an inferior good; then

(a) an increase in income will decrease the demand for flour

(b) the demand for flour is negatively related to income

(c) the income elasticity of flour is negative

(d) All of the above

SPACE FOR ROUGH WORK

11. Consider five urns numbered 1 to 5, where each urn contains 10 balls. Urn 1 has i defective balls and $(10 - i)$ nondefective balls. In an experiment, an urn is selected at random, and then a ball is selected at random from that urn. What is the probability that a defective ball is selected? If the ball is defective, what is the probability that it came from urn 2?

(a) 7/10; 2/5

(b) 3/10; 2/15

(c) 1/5; 3/25

(d) 3/5; 2/5

12. The probability density function of a continuous random variable is given as

$$f(x) = \begin{cases} x, & 0 \le x < 1 \\ 2 - x, & 1 \le x < 2 \end{cases}$$

Then the probability of $p\left(\dfrac{1}{3} \le x \le \dfrac{5}{3}\right)$ and $p(x \ge 1)$ are

(a) 7/18; 0

(b) 8/9; 1

(c) 8/9; 1/2

(d) 5/9; 1/2

SPACE FOR ROUGH WORK

13. A card is selected at random from an ordinary deck of cards. If an ace is drawn, you win Rs 100; if a king is drawn, you win Rs 75; if a queen is drawn, you win Rs 50; and if a jack is drawn, you win Rs 25. What is the probability of winning at least Rs 25? What would you expect to win on average?

(a) 1/4; Rs 62·50

(b) 4/13; Rs 62·50

(c) 1/13; Rs 19·23

(d) 4/13; Rs 19·23

14. The probability mass function of a discrete random variable is given as $f(x) = \dfrac{1}{5}$ for $x = 1, 2, 3, 4, 5$ and zero elsewhere. The mean and variance of the distribution are

(a) 3; 2

(b) 3; 11

(c) 3; 9

(d) 3; 3

15. A worker's utility is increasing in wages received and decreasing in the effort exerted. What is the shape of the indifference curve in the wage-effort space?

(a) Upward sloping

(b) Downward sloping

(c) Straight line parallel to the X-axis

(d) Straight line parallel to the Y-axis

SPACE FOR ROUGH WORK

16. When there is a Keynesian aggregate supply curve, an increase in aggregate demand results in proportional increase in

(a) the price level, as long as output is below its full employment level

(b) real output, as long as output is below its full employment level

(c) real output, once output is at its full employment level

(d) the cost of producing real output, as long as output is below its full employment level

17. An increase in aggregate demand results in an increase in output

(a) and in the price level, when there is a Keynesian aggregate supply curve

(b) and no change in the price level, when aggregate supply curve is vertical

(c) and in the price level, when aggregate supply curve is positively sloped

(d) and no change in the price level, when aggregate supply curve is positively sloped

18. In the flexible version of quantity theory of money

(a) changes in the velocity of money are closely associated with changes in the money supply

(b) changes in the price level are closely associated with changes in the money supply

(c) changes in nominal GDP are proportional to changes in velocity

(d) changes in nominal GDP are closely associated with changes in money supply

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SPACE FOR ROUGH WORK

19. Suppose full employment level of output is Rs 680, the equilibrium level of output is Rs 600 and the marginal propensity to consume is 0·80. Full employment output can be achieved by Rs 16 increase in government spending. Which of the following changes in net lump sum tax revenues result in full employment output?

(a) A Rs 20 decrease

(b) A Rs 20 increase

(c) A Rs 16 increase

(d) A Rs 16 decrease

20. The fixed labour requirements per unit of wine and clothing production before trade for England and Portugal are given below :

	Wine	Clothing
England	6	10
Portugal	3	5

If trade opens up between England and Portugal, what will be the pattern of trade according to comparative advantage?

(a) England exports clothing and Portugal exports wine

(b) England exports wine and Portugal exports clothing

(c) Neither country will trade in any good

(d) Cannot say

21. If the home marginal propensity to consume exportable is greater than the elasticity of the foreigner's offer curve, then in the absence of inferior goods, a tariff

(a) lowers the domestic prices of importable

(b) increases the domestic prices of importable

(c) No impact on domestic prices

(d) Cannot say

SPACE FOR ROUGH WORK

22. "The average income of the people in province *A* is greater than the average income of the people in province *B*. Some people migrate from province *A* to province *B* and as a result the average income of both the provinces rise." Is the statement feasible?

(a) This can never happen

(b) This will always happen

(c) This is possible if the richer people of province *A* migrate to province *B*

(d) None of the given options

23. "All those who have a good voice are good singers." This statement logically implies

(a) all those who do not have a good voice are not good singers

(b) all those who are not good singers do not have a good voice

(c) all those who are good singers have a good voice

(d) All of the given options

24. There are two countries *A* and *B* with their currencies denoted as 'A$' and 'B$' respectively. Their nominal exchange rates in terms of US Dollars (USD) are as follows :

A$ 50 = USD 1; B$ 1 = USD 1·5

The nominal prices of petrol per litre in the two countries are A$ 75 per litre and B$ 1 per litre respectively. It is reported that in purchasing power parity (PPP) terms, petrol prices are three times higher in country *A* than in country *B*. Compare a resident of country *A* earning A$ 50,000 per month with a resident of country *B* earning B$ 2,000 per month. In PPP terms

(a) resident of country *A* is better off than resident of country *B*

(b) resident of country *A* is at par with resident of country *B*

(c) resident of country *A* is worse off than resident of country *B*

(d) Cannot say

SPACE FOR ROUGH WORK

25. The equation for the IS curve is given as

$$Y = \frac{c_0 + b_0 + \overline{G}}{1 - c_1(1 - t)} - \frac{b_1}{1 - c_1(1 - t)}i$$

and that for the LM curve is given as

$$i = \frac{1}{m_2}\left(m_0 - \frac{M^S}{P} + m_1 Y\right)$$

where Y is income, i is the rate of interest, P is the price level, M^S is money supply and $\overline{G}$ denotes government spending.

Further, let $\dfrac{1}{1 - c_1(1 - t)} = \lambda$. Then the expression for the aggregate demand function and its slope will be

(a) $Y = \dfrac{m_2\lambda}{m_1 + \lambda b_1 m_2}(c_0 + b_0 + \overline{G}) - \dfrac{b_1\lambda}{m_1 + \lambda b_1 m_2}\left(m_0 - \dfrac{M^S}{P}\right)$; negative

(b) $Y = \dfrac{m_1\lambda}{m_2 + \lambda b_1 m_1}(c_0 + b_0 + \overline{G}) - \dfrac{m_1\lambda}{m_2 + \lambda b_1 m_1}\left(m_0 - \dfrac{M^S}{P}\right)$; positive

(c) $Y = \dfrac{m_2\lambda}{m_2 + \lambda b_1 m_1}(c_0 + b_0 + \overline{G}) - \dfrac{b_1\lambda}{m_2 + \lambda b_1 m_1}\left(m_0 - \dfrac{M^S}{P}\right)$; negative

(d) $Y = \dfrac{b_1 m_2\lambda}{m_2 + \lambda b_1 m_2}(c_0 + b_0 + \overline{G}) - \dfrac{b_1 m_2\lambda}{m_2 + \lambda b_1 m_2}\left(m_0 - \dfrac{M^S}{P}\right)$; positive

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SPACE FOR ROUGH WORK

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