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QUESTION PAPER SERIES CODE
<b>A</b>

Centre of Examination : \_\_\_\_\_

Roll No. : \_\_\_\_\_

Name of Candidate : \_\_\_\_\_

**S A U**

**Entrance Test for MA (Development Economics)**

**[ 2013 ]**

Time : 3 hours

Maximum Marks : 100

**INSTRUCTIONS FOR CANDIDATES**

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

- (i) Write your Name and Roll Number in the space provided for the purpose on the top of this Question Paper and in the OMR/Answer Sheet.
- (ii) This Question Paper has Three Parts : Part—A, Part—B and Part—C.
- (iii) Part—A (Objective-type) has 20 questions of **1** mark each. All questions are compulsory.
- (iv) Part—B (Objective-type) has 30 questions of **2** marks each. All questions are compulsory.
- (v) Part—C (Subjective-type) has 3 questions out of which, only **two** should be answered. Each question carries **10** marks.
- (vi) **Please darken the appropriate Circle of 'Question Paper Series Code' on the OMR/Answer Sheet in the space provided.**
- (vii) Part—A and Part—B (Multiple choice) questions should be answered on OMR/Answer Sheet, and long answers for Part—C questions, should be written in the Answer Book.
- (viii) Answers written by the candidates inside the Question Paper will **NOT** be evaluated.
- (ix) Calculators and Log Tables may be used.
- (x) A page at the end has been provided for Rough Work.
- (xi) **Return the Question Paper and the OMR/Answer Sheet** to the Invigilator at the end of the Entrance Test.
- (xii) **DO NOT FOLD THE OMR/ANSWER SHEET.**

**/1-A**

**INSTRUCTIONS FOR MARKING ANSWERS IN THE 'OMR SHEET'**

1. Please ensure that you have darkened the appropriate Circle of 'Question Paper Series Code' on the OMR Sheet in the space provided.
2. Use only Blue/Black Ballpoint Pen to darken the Circle. Do not use Pencil, to darken the Circle for Final Answer.
3. Please darken the whole Circle.
4. Darken ONLY ONE CIRCLE for each question as shown below in the example.

**Example :**

Wrong ● (b) (c) ●	Wrong <del>⊗</del> (b) (c) (d)	Wrong <del>⊗</del> (b) (c) <del>⊗</del>	Wrong ● (b) (c) ●	Correct (a) (b) (c) ●
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5. Once marked, no change in the answer is allowed.
6. Please do not make any stray marks on the OMR Sheet.
7. Please do not do any rough work on the OMR Sheet.
8. Mark your answer only in the appropriate circle against the number corresponding to the question.
9. There will be no negative marking in evaluation.

**PART—A**

1. What is the missing letter in the following series?

Y E U I Q M —

- (a) N
- (b) M
- (c) X
- (d) Y

2. Statements : Some flowers are leaves. Some leaves are birds. All birds are toys.

Which of the following two conclusions **necessarily** follow from the above statements?

- (i) Some birds are flowers.
- (ii) Some toys are leaves.
- (a) Conclusion (i) follows, but (ii) does not follow
- (b) Conclusion (ii) follows but (i) does not follow
- (c) Both conclusions (i) and (ii) follow
- (d) Neither conclusion (i) nor (ii) follows

3. A study found that people who consumed one or more beetroots per day were half as likely to be diagnosed with cancer as people who did not. Hence it can be argued that eating beetroots significantly lowers the risk of cancer. Which of the following, if true, most weakens the above argument?

- (a) Participants in the first study reported consuming no vegetables others than beetroots
- (b) A second study found that cancer patients who ate one or more beetroots per day were no more likely to recover than those who ate no beetroots
- (c) A third study found that people who consumed one tablespoon of flax seed oil per day were more than four times less likely to be diagnosed with cancer as those who did not
- (d) The participants in the first study who ate beetroots were more likely to exercise regularly than those who did not eat beetroots and regular exercises lower the risk of cancer

4. Shamima bakes bread and Ajay grows vegetables. According to the theory of comparative advantage, in which of the following cases is it impossible for both Shamima and Ajay to benefit from trade?

- (a) Shamima does not like vegetables and Ajay does not like bread
- (b) Shamima is better than Ajay at baking bread and Ajay is better than Shamima at growing vegetables
- (c) Ajay is better than Shamima both at baking bread and at growing vegetables
- (d) All of the above

5. If the price elasticity of demand is 1.5, regardless of which two points on the demand curve are used to compute the elasticity, then
- demand is perfectly inelastic and the demand curve is vertical
  - demand is elastic and the demand curve is a straight downward-sloping line
  - demand is perfectly elastic and the demand curve is horizontal
  - demand is elastic and the demand curve is something other than a straight, downward-sloping line
6. What is the definition of a corner solution in a utility maximization problem involving two goods?
- An optimal bundle of two consumer goods in which the consumer does not spend all of his/her income
  - An optimal bundle of two consumer goods in which the same amount of each good is consumed
  - An optimal bundle of two consumer goods in which only one type of good is consumed
  - None of the above
7. Consider a market where there are two firms who produce a homogeneous good. There is a competition between the firms in terms of the output that they produce, i.e., each firm takes into account the other firm's output in deciding its own level of production. Each firm takes its own decision at the same time (simultaneously) as the other firm. However, Firm 1 has a lower marginal cost than Firm 2. In the equilibrium you would expect
- Firm 1 to produce more output than Firm 2
  - Firm 1 to charge a lower price than Firm 2
  - Firms 1 and 2 to produce the same level of output
  - the information above is not sufficient to make any conclusion
8. In foreign exchange markets, buying a 'put option' provides the owner with
- a right to sell foreign currency at a specified exchange rate any time till the date of expiry
  - a right to buy foreign currency at a specified exchange rate any time till the date of expiry
  - a promise that a specified amount of foreign currency will be delivered on a specified date in future
  - a commitment that a future foreign exchange transaction will be made at a specified exchange rate
9. Lucas' critique suggests that
- large-scale macroeconomic models can be used to formulate policy
  - public's expectations about a policy will influence the results of that policy
  - statistical models are not useful for forecasting
  - statistical models should use historical data in order to predict the effects of a policy change

10. If investment is not dependent on interest rate, the slope of the LM curve would be
- (a) zero
  - (b) infinity
  - (c) negative
  - (d) unaffected
11. A real appreciation means that domestic goods relative to foreign goods
- (a) become more expensive
  - (b) become less expensive
  - (c) do not change
  - (d) Can't say
12. Which of the following are known as the Bretton Woods institutions?
- (a) The Federal Reserve Bank and the World Bank
  - (b) The Bank of England and the World Bank
  - (c) The International Fund for Agricultural Development and the International Monetary Fund
  - (d) The International Monetary Fund and the World Bank
13. Different dimensions of the Human Development Indicator are
- (a) income, nutrition and health
  - (b) income, education and health
  - (c) income, political freedom, nutrition and health
  - (d) education, health and political freedom
14. Which country among the following is ranked the highest according to the Human Development Indicator?
- (a) India
  - (b) Sri Lanka
  - (c) Bangladesh
  - (d) Pakistan
15. In international trade, dumping refers to
- (a) export of goods with higher pollution intensity
  - (b) export of goods at a price below the home market price
  - (c) export of obsolete goods
  - (d) export of labour-intensive goods

16. Which of the following measures is most likely to be influenced by extreme values in the data set is the
- range
  - median
  - mode
  - mean
17. Probability is a real-valued function  $P$  that assigns to each event  $A_i$  in the sample space, a number  $P(A_i)$ , called the probability of the event. Let  $A_1, A_2, A_3, \dots, A_n$  be the events and let us denote the complement of  $A_i$  (i.e., all events except  $A_i$ ) by  $A_i^c$ . Which of the following statements is **always** true?
- $-1 \leq P(A_i) \leq 1$
  - $P(A_i) = 1 - P(A_i^c)$
  - $P(A_i) + P(A_j) = 1 (i \neq j)$
  - $\sum_{i=1}^n P(A_i) \geq 1$
18. If the matrix  $\begin{pmatrix} -4 & 2 \\ -6 & \alpha \end{pmatrix}$  is singular, the value of  $\alpha$  is
- $-1/3$
  - 3
  - $1/3$
  - $-3$
19. Amongst 5 home owners, a committee of 2 has to be formed. How many such different committees can be formed?
- 20
  - 5
  - 10
  - 25
20. If  $M, X, Y$  and  $Y^*$  are imports, exports, domestic output and foreign output respectively for a country with the relations  $M = 0.3Y$  and  $X = 0.6Y^*$  between the variables, for what ratio of foreign output to domestic output would balanced trade hold?
- 2
  - $1/2$
  - 1
  - Can't say

**PART—B**

21. Six sitar students—*U*, *V*, *W*, *X*, *Y* and *Z*—are to give a recital, and their instructor is deciding the order in which they will perform. Each student will play exactly one solo piece. In deciding the order of performance, the instructor must observe the following restrictions :

*X* cannot play first or second

*W* cannot play until *X* has played

*Z* cannot play sixth

*Y* or *Z* cannot play until *W* has played

*V* must play either immediately after or immediately before *U* plays

If *V* plays first, which one of the following must be true?

- (a) *Z* plays fourth
- (b) *Y* plays fifth
- (c) *X* plays third
- (d) *Y* plays immediately after *W*
22. Rahut and Atapattu are two carpenters who both make tables and chairs. In one month, Rahut can make 4 tables or 20 chairs, while Atapattu can make 6 tables or 18 chairs. Given this, we know that
- (a) Rahut has a comparative advantage in tables
- (b) Atapattu has an absolute advantage in chairs
- (c) Rahut has an absolute advantage in tables
- (d) Atapattu has a comparative advantage in tables
23. In an economy, two goods, *A* and *B*, are produced using labour and capital. The production possibilities frontier for the economy will be a straight line, if
- (a) increasing the production of one good by  $x$  units entails no opportunity cost in terms of the other good
- (b) increasing the production of one good by  $x$  units entails a constant opportunity cost in terms of the other good
- (c) the economy is producing efficiently
- (d) the economy is not autarkic and is engaged in trade

24. Bishen and Suzanne are competitors in a local market. Each is trying to decide if it is better to advertise on TV, on radio, or not at all. If they both advertise on TV, each will earn a profit of Rs 5,000. If they both advertise on radio, each will earn a profit of Rs 7,000. If neither advertises at all, each will earn a profit of Rs 10,000. If one advertises on TV and the other advertises on radio, then the one advertising on TV will earn Rs 8,000 and the other will earn Rs 3,000. If one advertises on TV and the other does not advertise, then the one advertising on TV will earn Rs 15,000 and the other will earn Rs 2,000. If one advertises on radio and the other does not advertise, then the one advertising on radio will earn Rs 12,000 and the other will earn Rs 4,000. If both follow their dominant strategy (i.e., the strategy in their best interest), then Bishen will
- advertise on TV and earn Rs 5,000
  - advertise on radio and earn Rs 7,000
  - not advertise at all and earn Rs 10,000
  - Bishen and Suzanne do not have dominant strategies
25. Suppose for a monopolistically competitive firm in long-run equilibrium, the average total cost is minimized at  $Q_1$  units of output. Then,  $Q_1$
- is also the level of output at which marginal cost equals average total cost
  - exceeds the level of output at which there is a point of tangency between the demand curve and the average total cost curve
  - exceeds the level of output at which marginal revenue equals marginal cost
  - All of the above
26. Consider the market for shoes. If one of the following statements is true, we can conclude that it is not perfectly competitive. Which statement, if true, is evidence against perfect competition?
- There are low transaction costs in searching for the lowest shoe price
  - Demand for a given firm's output is perfectly elastic
  - Entry into the shoe market is restricted because a government permit is required
  - Supply of a given firm's input is perfectly elastic
27. X enjoys playing football and tennis, but claims that, if given the choice, he would play football rather than play tennis. He enjoys playing football and cricket equally well and tennis and swimming equally well. One group of friends asks him to play a game of cricket and another group asks him to go for swimming. He chooses to go for swimming. His preferences are
- transitive
  - nontransitive
  - Cannot say
  - incomplete



28. X is planning to go on a weekend trip and he has a few places in mind. However, he has two criteria on the basis of which he is going to decide at which place he wants to go. The primary (the most important) criterion is how safe (s) the place is and the secondary criterion is how far it is from his home (d). He would prefer to go to a place which is safer and ignore the distance. However, in comparing two destinations which he thinks are equally safe, he would prefer the one which requires him to travel a lesser distance. The indifference curves in (s, d) domain are
- horizontal
  - vertical
  - negatively sloped
  - Do not exist
29. Suppose a Phillips curve relation is given by  $\pi_t - \pi_{t-1} = -0.8(u_t - 6.5\%)$ . The sacrifice ratio is
- 0.8
  - 1.25
  - 6.5
  - 7.5
30. Consider a model of consumption where in each time period, the consumers choose their consumption based on their expectations about lifetime or 'permanent' income. Further assume that the consumers use all the available information in forming their expectations about permanent income, i.e., they do not make any systematic errors. Changes in consumption, in this case
- will be determined by changes in current income
  - will be determined by change in income with a lag
  - will be unpredictable, determined by a random process
  - might be estimated by considering both income and wealth
31. Consider a basic Solow's model of growth, where the output is determined by a linearly homogeneous, increasing and concave production function satisfying the Inada conditions, with not technological progress. The rate of growth of population, the rate of depreciation and the propensity to save are constant. The golden rule of capital accumulation corresponds to a rate of savings which maximizes the per capita consumption in the steady state. If an economy begins from a steady state which is below the golden rule of capital accumulation, reaching the golden rule will involve
- lower per capita consumption at all times in future
  - higher per capita consumption at all times in future
  - a reduction in per capita consumption initially, followed by an increase to a level above initial per capita consumption
  - an increase in per capita consumption initially, followed by a decrease to a level below the initial per capita consumption

- 32.** If the agents formulate their expectations according to adaptive expectation hypothesis, under which of the following circumstances are they most likely to make systematic errors?
- (a) When prices are constant
  - (b) When prices fluctuate randomly
  - (c) When prices depend only on the monetary policy of the Central Bank which is announced beforehand
  - (d) When prices depend only on the monetary policy of the Central Bank which is not announced beforehand

Answer question nos. **33** and **34** based on the following system of IS-LM model ( $i = 10$  means 10%) :

$$\begin{aligned}
 C &= 200 + 0.25(Y - T) \\
 I &= 150 + 0.25Y - 10i \\
 G &= 250, T = 200 \\
 M / P^d &= 2Y - 80i \\
 i &= 10
 \end{aligned}$$

- 33.** What is the LM curve for the above system?
- (a)  $1500 = 2Y - 80i$
  - (b)  $M / P^d = 2Y - 800$
  - (c)  $i = 10$
  - (d) Can't say
- 34.** The equilibrium for the above system is
- (a)  $M / P = 1000; i = 10$
  - (b)  $Y = 2000; i = 10$
  - (c)  $M / P = 1600; i = 5$
  - (d) indeterminate
- 35.** If the expectations-augmented Phillips curve is given by  $\pi(t) = \pi(t - 1) + (5\% - u(t)) + a$ , what is the nonaccelerating inflation rate of unemployment ( $u$ )?
- (a) 5%
  - (b) 0%
  - (c)  $5\% + a$
  - (d)  $a$

36. For the following system of IS-LM, what would be the equilibrium?

$$IS : 2Y = 600 - 3i$$

$$LM : 2i = Y - 500$$

- (a)  $i = 0; Y = 250$
- (b)  $i = 0; Y = 100$
- (c)  $i = 0; Y = 300$
- (d)  $i = 300; Y = 0$

37. Suppose India's inflation rate is 12 percent over one year but the inflation rate over the same period in Sri Lanka is only 6 percent. According to relative PPP, what should happen over the year to the exchange rate between Indian and Sri Lankan rupee?

- (a) It will decrease by 6 percent
- (b) It will increase by 6 percent
- (c) It will decrease by 18 percent
- (d) It will increase by 18 percent

38. In a country experiencing 'jobless' growth

- (a) productivity and employment elasticity both fall
- (b) productivity and employment elasticity both increase
- (c) productivity increases but employment elasticity falls
- (d) productivity decreases but employment elasticity increases

39. Consider a country whose savings rate is 30 percent, the capital-output ratio is 3, population growth rate is 1% and depreciation is zero. Due to frequent power outage, a quarter of existing capital stock goes unused every year. Using Harrod-Domar model, the growth rate of per capita output is calculated as

- (a) 7.5 percent
- (b) 6.5 percent
- (c) 9 percent
- (d) 12.33 percent

40. Countries *A* and *B* have the same levels of income inequality according to Gini ratio. What does this imply about the share of total income accruing to the bottom 50 percent of the population in these two countries?
- The share will be same in both the countries
  - The share will be same and equal to 50 percent for both the countries
  - It cannot be determined without additional information
  - The share is larger for the larger country
41. In the period 2005 to 2010, country *X* experienced 25 percent growth in income and 5 percent reduction in income poverty. In the same period, country *Y* experienced 20 percent growth in income and 4 percent reduction in income poverty. In which country was growth more efficient in reducing poverty?
- Country *X*
  - Country *Y*
  - It was equally efficient in both the countries
  - Cannot be determined
42. Consider Lewis model with a traditional, subsistence sector characterized by surplus labour and a modern capitalist sector with wage-labour. The transfer of labour from the traditional to the modern sector is 'costless', if
- other family members put more labour effort to compensate for the migrated member
  - no non-labour resources are removed from the traditional sector
  - productivity in the subsistence sector doesn't go up
  - All of the above
43. In a dual economy with a rural and an urban sector, workers migrate from the rural to the urban sector based on expected incomes. Workers are assured of a rural job. In the urban sector, the migrant may get a job, failing which she remains unemployed.

$$W(u) \frac{L(u)}{L - L(r)} = W(r), \text{ where } W(u) > W(r)$$

$L(u)$  and  $L(r)$  are urban and rural labourers and  $L$  is the total labour force

$W(u)$  and  $W(r)$  are the urban and rural wage rates which stand at \$ 60 and \$ 40 respectively

If urban employment increases by one unit, urban unemployment

- decreases by 0.5 unit
- increases by 0.5 unit
- decreases by 0.33 unit
- increases by 0.33 unit

44. The aggregate production function for an economy is  $Y = K^{0.4}L^{0.6}$ . Growth rates of output, capital and labour are 5 percent, 8 percent and 2 percent respectively over a certain period. Growth rate accounted for by factor accumulation is
- (a) 4.4 percent
  - (b) 0.06 percent
  - (c) 1 percent
  - (d) None of the above
45. The weights (in grams) of the contents of several small bottles are 4, 2, 5, 4, 5, 2 and 6. What is the sample variance?
- (a) 6.92
  - (b) 4.80
  - (c) 1.96
  - (d) 2.33
46. The number of students at a local university increased from 2500 to 5000 in 10 years. Based on a geometric mean, the university grew at an average percentage rate of
- (a) 2500 students per year
  - (b) 1.071 percent per year
  - (c) 7.1 percent per year
  - (d) 10 percent per year
47. A monopolist faces the demand schedule  $p = 460 - 2q$  and the cost schedule  $TC = 20 + 0.5q^2$ . How much quantity should it sell to maximize profit?
- (a) 102
  - (b) 92
  - (c) 114
  - (d) 82

48. When will average variable cost be at its maximum value for the TC function  $TC = 40 + 82q - 6q^2 + 0.2q^3$ ?
- (a) 20
  - (b) 17
  - (c) 15
  - (d) 25
49. The determinant of matrix  $A = \begin{pmatrix} 2 & 4 & 3 \\ 3 & 5 & 0 \\ 4 & 2 & 5 \end{pmatrix}$  is
- (a) - 62
  - (b) - 52
  - (c) - 55
  - (d) 62
50. A firm's demand function is  $P = 60 - 0.5Q$ . If fixed cost is 10 and variable costs are  $Q + 3$  per unit, then the maximum profit is
- (a) 651.5
  - (b) 421.5
  - (c) 231.5
  - (d) 531.5

**PART—C**

1. In a country, demand for food was equal to supply of food during 2010. However, there was large-scale famine in the country in the same year. How do you reconcile these two facts?
2. What is the role of agriculture in a country's industrial development?
3. Consider a model of open economy where the output in the short run is demand-determined. Further, assume that the prices of goods are sticky in the short run but flexible in the long run. Prices of assets, on the other hand, adjust instantaneously. Asset markets consist of both the money and the foreign exchange markets. Further assume that the uncovered interest rate parity condition holds. Examine the effect of a permanent monetary expansion on equilibrium foreign exchange rate in both short run and long run. Which specific assumption is responsible for the short run outcome to differ from that in the long run?

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SPACE FOR ROUGH WORK

/1-A

16

ET13—500×2