

54

QUESTION PAPER
SERIES CODE

A

Registration No. :

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Centre of Exam. : _____

Name of Candidate : _____

Signature of Invigilator

ENTRANCE EXAMINATION, 2015

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 50 (fifty) 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 2 (two) 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 ONLY ONE CIRCLE for each question as shown in example below :

Wrong ● (b) (c) ●	Wrong ⊗ (b) (c) (d)	Wrong ⊗ (b) (c) ⊗	Wrong ● (b) (c) ●	Correct (a) (b) (c) ●
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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. Technological change that increases the average and marginal productivity of labour in the classical model would cause
 - (a) labour demand, output and price level to rise
 - (b) labour demand to fall, price level to fall and output to rise
 - (c) labour demand, output and employment to rise
 - (d) output to rise but labour demand to fall

2. In the monetarist view, the long-run Phillips curve is
 - (a) horizontal
 - (b) vertical
 - (c) downward sloping but steeper than the short-run curve
 - (d) downward sloping but flatter than the short-run curve

SPACE FOR ROUGH WORK

3. In the Keynesian view
- (a) the short-run and the long-run Phillips curves are downward sloping
 - (b) the short-run Phillips curve is vertical but the long-run Phillips curve is downward sloping
 - (c) the short-run Phillips curve is downward sloping but the long-run Phillips curve is vertical
 - (d) both the short-run and the long-run Phillips curves are vertical
4. If the marginal propensity to save is equal to 0.4 in the simple Keynesian model, then a 10-unit increase in taxes will cause output to fall by
- (a) 5 units
 - (b) 10 units
 - (c) 15 units
 - (d) 40 units

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5. Using the simple Keynesian model, consider the case where taxes are a function of income such that $T = 50 + tY$, where t is the marginal tax rate. Compared to the model without taxes, the investment multiplier in this model will be
- (a) same
 - (b) larger
 - (c) smaller
 - (d) equal to 1
6. In the Keynesian model with both a variable price level and money wage, the aggregate supply function will be
- (a) upward sloping but flatter than the variable price/fixed wage version of the model
 - (b) upward sloping but steeper than the variable wage/fixed price version of the model
 - (c) vertical
 - (d) horizontal

SPACE FOR ROUGH WORK

7. Which of the following is NOT an assumption of the Harrod-Domar model?

- (a) Diminishing returns to input
- (b) Fixed proportions of inputs
- (c) Constant savings rate
- (d) Exogenous capital-output ratio

8. Which of the following is NOT an investment in human capital?

- (a) Older workers return to school to update their skills
- (b) An advertising agency replaces its secretaries' typewriters with personal computers
- (c) A precision tool company teaches all its workers how to repair all the machines in the factory
- (d) Local governments begin providing free hepatitis vaccinations to all residents

SPACE FOR ROUGH WORK

9. In the Keynesian model, if an increase in government spending of 40 units accompanied by an equal increase in taxes caused equilibrium income to rise by 40 units, the autonomous expenditure multiplier must be
- (a) 10
 - (b) 1
 - (c) 4
 - (d) not enough information given to calculate the multiplier
10. An exogenous growth may be welfare reducing if
- (a) the exportable good expands faster than the importable good
 - (b) the growth is due to technical progress
 - (c) the terms of trade deteriorates so much that the home real income declines
 - (d) the marginal propensity to consume importable is negative

SPACE FOR ROUGH WORK

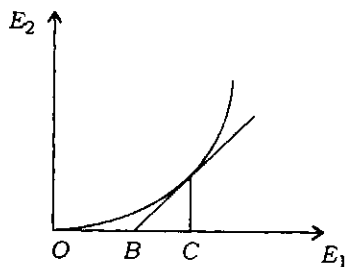
11. Compendium and Petibonum have just started to trade with each other. Compendium exports goods produced with skilled labour and imports goods made with unskilled labour from Petibonum. Overtime, we would expect that the wages of skilled labour in Compendium will
- (a) rise, and the wages of unskilled labour in Compendium will fall
 - (b) fall, and the wages of unskilled labour in Compendium will rise
 - (c) rise, and the wages of unskilled labour in Compendium will rise
 - (d) fall, and the wages of unskilled labour in Compendium will fall
12. Given all the necessary assumptions of the Heckscher-Ohlin-Samuelson theory of trade, free trade leads to complete equalization of factor prices in the two trading countries if
- (a) there is complete specialization in production in both countries
 - (b) there is no factor intensity reversals
 - (c) the two endowment ratios lie within the same cone of diversification
 - (d) there is transportation cost

SPACE FOR ROUGH WORK

13. The necessary condition for the Metzler paradox to hold in the absence of inferior goods requires that
- (a) the home marginal propensity to consume is negative
 - (b) the foreign import demand is inelastic
 - (c) the home import demand is elastic
 - (d) None of the above
14. If the production transformation satisfies the convexity properties, then some trade can be shown to be better than no trade
- (a) only for a large country
 - (b) only for a small country
 - (c) irrespective of the size of the country
 - (d) None of the above

SPACE FOR ROUGH WORK

15. Consider the offer curve below where home exports are shown in the horizontal axis and the home imports are shown in the vertical axis :



The elasticity of the import demand then is

- (a) OC/OB
 - (b) OB/BC
 - (c) OC/BC
 - (d) None of the above
16. A trade diverting custom union is necessarily welfare decreasing for a country, if the custom union formation allows for
- (a) consumption and production substitution possibilities
 - (b) only consumption substitution
 - (c) no consumption and production substitution
 - (d) only production substitution

SPACE FOR ROUGH WORK

17. Suppose that demand in the market for economics books is $Q_D = \max \{0, 3000 - 4P\}$ and supply is $Q_S = \max \{0, -1000 + 12P\}$. In market equilibrium, the values of consumer surplus (CS) and producer surplus (PS), respectively are

- (a) CS = 5000; PS = 5000
- (b) CS = 40000; PS = 40000 / 3
- (c) CS = 500000; PS = 500000 / 3
- (d) CS = 4000000; PS = 4000000

18. Suppose that the government imposed a ₹ 100 ceiling on economics books in the above question. The 'deadweight-loss' from this policy is

- (a) 500000/3
- (b) 620000/3
- (c) 700000/3
- (d) None of the above

19. If the matrix $A = \begin{pmatrix} 2 & 3 & 5 \\ \alpha & 0 & \alpha \\ 7 & 1 & \alpha \end{pmatrix}$ is singular, then

- (a) $\alpha = 1$
- (b) $\alpha = 7$ or $\alpha = 0$
- (c) $\alpha = 8$
- (d) $\alpha = 0$ or $\alpha = 8$

SPACE FOR ROUGH WORK

20. The geometric mean of the numbers 4, 12, 20, 7, 0, 5 is
- (a) 6.8
 - (b) 0
 - (c) undefined
 - (d) infinity
21. A continuous random variable X has the p.d.f., $f(x) = 3x^2; 0 \leq x \leq 1$. The value of a constant λ that satisfies the relation $\Pr\{X \leq \lambda\} = \Pr\{X > \lambda\}$ is
- (a) $\left(\frac{1}{3}\right)^{\frac{1}{2}}$
 - (b) $\left(\frac{1}{2}\right)^{\frac{1}{3}}$
 - (c) $\left(\frac{2}{3}\right)^{\frac{1}{2}}$
 - (d) $\left(\frac{2}{3}\right)^{\frac{1}{3}}$
22. The random variable X takes values 0, 1 and 2 with $\Pr\{X = 0\} = \Pr\{X = 2\} = p$ and $\Pr\{X = 1\} = 1 - 2p$, where $0 \leq p \leq 0.5$. For which of the following values of p does X attain the maximum variance?
- (a) 0
 - (b) 0.3
 - (c) 0.1
 - (d) 0.5

SPACE FOR ROUGH WORK

23. The average score of 100 students in a subject was given to be 40. It was later found that a score 53 was recorded as 83 by mistake. What is the corrected average score?
- (a) 49.7
 (b) 40
 (c) 39.7
 (d) 39
24. If A , B and C are mutually exclusive and exhaustive events associated with a random experiment, and if $\Pr(B) = \frac{3}{2} \Pr(A)$ and $\Pr(C) = \frac{1}{2} \Pr(B)$, then $\Pr(A)$ is
- (a) $\frac{4}{13}$
 (b) $\frac{13}{4}$
 (c) $\frac{1}{13}$
 (d) $\frac{2}{13}$
25. Suppose a home firm competes with a foreign firm in the domestic market. The two firms produce homogenous products and compete in quantities. The demand function faced by the firms is $Q = 200 - 2P$, where Q is the total quantity and P is the price. Each firm has a constant marginal cost of production given by $MC = 10$. In addition, the home country government imposes a per unit tariff of 10 on imports. The quantity produced by the home country, q_H ; quantity produced by the foreign firm, q_F ; and market price, P ; are
- (a) $q_F = 190/3$; $q_H = 190/3$; $P = 110/3$
 (b) $q_F = 200/3$; $q_H = 140/3$; $P = 130/3$
 (c) $q_F = 150/3$; $q_H = 160/3$; $P = 145/3$
 (d) None of the above

SPACE FOR ROUGH WORK

26. Suppose the supply of apples is given by $S = (10 + 4P)$ and the demand for apples is given by $D = (100 - 6P)$. Suppose the government institutes a subsidy of $t = \$3$ per unit of apples sold. Calculate Q , the equilibrium quantity of apples sold after the subsidy is imposed and R , the tax revenue needed to pay for the subsidy.
- (a) $Q = 46, R = 138$
 - (b) $Q = 50, R = 150$
 - (c) $Q = 53.2, R = 159.6$
 - (d) None of the above
27. In country X , cigarettes are forbidden, so people trade cigarettes in a black market. The cigarette demand is $Q_D = 12 - P$ and the cigarette supply is $Q_S = 2P$. The government becomes aware of the black market and reinforces the police so that half of the cigarette supply would be seized and destroyed. How does the consumer's surplus change between the two situations?
- (a) Remains the same
 - (b) Decreases by 10
 - (c) Decreases by 14
 - (d) None of the above

SPACE FOR ROUGH WORK

28. Anand consumes two goods, X and Y . His utility function is $U = X^2Y$. The price of X is 1 and the price of Y is 2, while Anand's income is 100. Now, let the price of Y fall to 1, while the price of X and income stay constant. Anand is exactly as well off (in utility terms) after the price change as he was before it if he chooses

(a) $X = 200/3, Y = 100/3$

(b) $X = 2(500000)^{1/3}/3, Y = (500000)^{1/3}/3$

(c) $X = 100/3, Y = 200/3$

(d) $X = (500000)^{1/3}/3, Y = 2(500000)^{1/3}/3$

29. In question no. **28** above, the Slutsky compensating variation is

(a) $-50/3$

(b) $100/3$

(c) 0

(d) $-100/3$

30. In question no. **28** above, the Slutsky equivalent variation is

(a) $-50/3$

(b) $100/3$

(c) 0

(d) $-100/3$

SPACE FOR ROUGH WORK

31. Which of the following is true of a monopolist?

- (a) He does not face a demand curve.
- (b) He does not face a supply curve
- (c) He produces at the point, where $P = MC$ (marginal cost)
- (d) The consumer's surplus in a monopoly is always zero

32. Joe consumes only two goods, X and Y . Suppose that he always increases his quantity consumed of Y when the price of Y rises. Then we can infer that

- (a) X is a normal good
- (b) Y is a normal good
- (c) X is an inferior good
- (d) Y has a price elasticity of demand of zero

SPACE FOR ROUGH WORK

33. 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) It would depend upon the degree of risk aversion
- (d) None of the above

34. Sam consumes only two goods, X and Y . If X is a Giffen good for Sam, then

- (a) Y must be a Giffen good for Sam
- (b) Y must be a normal good for Sam
- (c) Both (a) and (b) are false
- (d) Not enough information given

SPACE FOR ROUGH WORK

35. Mary's demand curve for food is $Q = 10 - 2P$. Her price elasticity of demand for food at price P^* equals $(-2/3)$. How much is P^* ?
- (a) 2
 - (b) 4
 - (c) 1
 - (d) None of the above
36. An employee'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

37. Which of the following will cause total revenue earned by cell phone producers to rise?
- (a) The demand is price elastic and the price falls
 - (b) The price falls and demand is inelastic
 - (c) The demand is reduced because consumers learn of new hazards of cell phone use
 - (d) The population in the economy increases dramatically

38. Let the utility function be $U = xy^2$, where x and y are two consumption goods. The prices of the two goods and the money income are given by

$$P_x = 2, P_y = 3, M = 9$$

The optimal quantities consumed of two goods are

- (a) $x = 2, y = 3/2$
- (b) $x = 2, y = 4$
- (c) $x = 3/2, y = 2$
- (d) $x = 4, y = 2$

SPACE FOR ROUGH WORK

39. Other things being equal, demand is more elastic when
- (a) the good is a luxury and not a necessity
 - (b) the good is broadly defined (a computer rather than an Apple Mac)
 - (c) the item is not a large part of your budget
 - (d) All of the above
40. If the total output of candles in Nick's wicks shop increases from 20 per hour to 30 per hour as he hires the second worker, then
- (a) the marginal product of the second worker is 20 candles
 - (b) the marginal product of the second worker is 30 candles
 - (c) the price of each candle is \$2 and the marginal revenue product (MRP) of the second worker is \$20
 - (d) the price of each candle is \$2 and the marginal revenue product (MRP) of the second worker is \$30

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41. Informal lenders extend credit to the poor more often than formal lenders, because
- (a) informal lenders do not face transaction costs and can therefore lend at affordable interest rates
 - (b) relative to commercial banks, informal lenders are less risk averse and charge lower interest rates
 - (c) relative to commercial banks, informal lenders can more easily circumvent informational asymmetries
 - (d) None of the above
42. Suppose that in a particular economy, the poor earn ₹ 500 per year and spend it all on consumption, the middle class earn ₹ 2,000 per year and spend ₹ 1,500 on consumption and the rich earn ₹ 10,000 per year and consume 80% of it. The overall savings rate in the country, if 20% people are the poor and 50% are in the middle class, is
- (a) approximately 85%
 - (b) approximately 41%
 - (c) approximately 21%
 - (d) None of the above

SPACE FOR ROUGH WORK

43. If Lorenz curves cross, we say there is less inequality in the case where
- (a) the poorer get a larger percentage of income
 - (b) the poorer get a smaller percentage of income
 - (c) the richer are less rich
 - (d) we cannot say
44. One study found that the Gini coefficient for Egypt was 0.403 and that for Australia was 0.404. From this information, we can conclude that Egypt and Australia
- (a) had virtually the same number of households in absolute poverty
 - (b) had virtually the same percentage of households in absolute poverty
 - (c) had virtually the same human development index level
 - (d) None of the above

SPACE FOR ROUGH WORK

45. If child mortality remained constant but the incidence of mortality shifted from late childhood to early childhood, then fertility rates would
- (a) stay constant
 - (b) decrease
 - (c) increase
 - (d) decrease first and then increase
46. The supply curve of labour to industry in the Lewis model is horizontal if there is surplus labour in agriculture. This condition persists as long as
- (a) the marginal product of labour is less than the average product of labour in agriculture
 - (b) there are diminishing returns to labour in agriculture
 - (c) the marginal product of labour in agriculture is zero
 - (d) None of the above

SPACE FOR ROUGH WORK

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

- (a) $\log a$
- (b) $\log x$
- (c) 1
- (d) 0

48. The function $f(x)$ is defined as

$$f(x) = -1, x \leq 0$$

$$f(x) = (x+2)^2, 0 < x \leq 3$$

$$f(x) = x, x > 3$$

The area under the $f(x)$ curve between $x = -2$ and $x = 5$ is

- (a) 27
- (b) $205/3$
- (c) $155/3$
- (d) 80

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49. $f(x) = (2x - 3)^3$

- (a) has a minimum at $x = 3/2$
- (b) has a point of inflexion at $x = 3/2$
- (c) has a maximum at $x = 3/2$
- (d) has a minimum at $x = 2/3$

50. If $f(x) = \frac{x^2 - 2x + 4}{x^2 + 4x + 3}$, then $f(x)$ has

- (a) no point of discontinuity
- (b) a single point of discontinuity at $x = 2$
- (c) two points of discontinuity at $x = 1$ and $x = 3$
- (d) two points of discontinuity at $x = -1$ and $x = -3$

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