V-24

Entrance Examination, June 2011

M.A. (Economics)

Time: 2 Hours   Maximum Marks: 100

HALL TICKET NUMBER

M.A. Entrance Examination

Department of Economics

Max. Marks: 100   Duration: 2 Hours

Part-A (Answer all 25 Questions)

1. An increase in aggregate demand is more likely to lead to demand pull inflation if:
   A) Aggregate supply is perfectly elastic
   B) Aggregate supply is perfectly inelastic
   C) Aggregate supply has unitary elasticity
   D) Aggregate supply is relatively elastic

2. Which of the following is not involved with fiscal policy?
   A) Income tax
   B) National insurance
   C) VAT
   D) Interest rates

3. An outward shift in the Marginal Efficiency of Capital should:
   A) Decrease consumption
   B) Increase aggregate demand
   C) Reduce aggregate supply
   D) Slow economic growth

4. A profit maximizing firm will invest up to the level of investment where:
   A) The cost of borrowing equals the marginal efficiency of capital
   B) The cost of borrowing is greater than the marginal efficiency of capital
   C) The cost of borrowing is less than the marginal efficiency of capital
   D) The cost of borrowing equals the marginal propensity to consume

5. The standard of living is often measured by:
   A) Real GDP per capita
   B) Real GDP
   C) Real GDP multiplied by population
   D) Real GDP plus depreciation

6. To adjust GDP from market prices to factor cost:
   A) Add indirect taxes
   B) Subtract subsidies
   C) Deduct indirect taxes and subsidies
   D) Deduct indirect taxes and add subsidies

1

7. Who among the following was a Physiocrat?
   A) Adam Smith
   B) William Petty
   C) Leon Walras
   D) Quesnay

8. In the presence of heteroscadasticity, the OLS estimators are:
   A) unbiased
   B) efficient
   C) non-linear
   D) highly significant

9. Consider the following two linear equations: $2x - 5y + 0.5z = -12.55$; and
   $-0.33x + 2.4y + 3z = 11$. This system of equations possesses:
   A) no solutions
   B) one solution
   C) two solutions
   D) infinitely many solutions

10. Two students joined Ph D programme in ethical economics. At least one of these students is from Hyderabad. What is the probability that both of these students are from Hyderabad? (It is equally likely for a student to be from Hyderabad and to be not from Hyderabad).
    A) 1/4
    B) 1/3
    C) 1/2
    D) 2/3

11. A commodity is available in fixed supply. Demand is downward sloping with respect to own price. It is found that in equilibrium configuration, there is excess supply observed for this commodity at zero price. Then this represents a case of:
    A) unique equilibrium price
    B) multiple equilibria
    C) a commodity that is a free good
    D) all of the above

12. A sufficient statistic implies that:
    A) it contains all relevant information available in a sample
    B) it contains all relevant information needed to solve the research problem
    C) it contains same amount of information irrespective of the sample chosen
    D) it contains all information of the population

13. Consider an investor contemplating new investment. Suppose that she becomes less sure about future prospects of gains from such investment. Then it is most likely that,
    A) her rate of discount goes up and expected value of future returns also goes up
    B) her rate of discount goes up and expected value of future returns goes down
    C) her rate of discount goes down and expected value of future returns also goes down

2

D) her rate of discount goes down and expected value of future returns goes up

14. According to the first fundamental theorem of welfare economics, a competitive general equilibrium is Pareto optimal when,
   A) economic agents pursue their own self-interest
   B) some economic agents may pursue their self-interest but some are motivated by altruistic behaviour
   C) All economic agents are motivated by altruistic behaviour
   D) government offers minimum support price in production and enforces price ceiling for goods sold to consumers

15. Let consumption function be: $C = 35 + 0.7 Y$, where Y is disposable income and C is consumption. Let APC be average propensity to consume and MPC marginal propensity to consume. Then,
   A) APC is same at all levels of disposable income
   B) APC is equal to MPC at all levels of disposable income
   C) MPC is same at all levels of disposable income
   D) APC is less than MPC at all levels of disposable income

16. Under permanent income hypothesis, if permanent income increases, then
   A) transient income decreases
   B) transient consumption increases
   C) permanent consumption increases
   D) transient consumption decreases

17. Type I error occurs due to
   A) acceptance of a false null hypothesis
   B) rejection of a true null hypothesis
   C) inability to set up null hypothesis correctly
   D) inability to test validity of a null hypothesis altogether

18. Consider an economy with full employment and having a vertical aggregate supply function. An increase in taxes on income will lead to,
   A) a decrease in price level and an increase in real output
   B) an increase in price level and a decrease in real output
   C) an increase in price level and no change in real output
   D) a decrease in price level and no change in real output

19. For a normal distribution it is true that
   A) all its odd central moments are zero
   B) all its even central moments are zero
   C) all its central moments are zero
   D) all its raw moments are zero

3

20. We are given the following two samples. Sample A has the following observations: 13, 13, 21, 29, 29; and sample B has the following observations: 113, 117, 121, 125, and 129. Then,
    A) variance of A is greater than variance of B
    B) variance of A is smaller than variance of B
    C) variances of A and B are equal
    D) variances of A and B are not comparable

21. Suppose that the price elasticity of demand for honey has been estimated at -2. If quantity demanded increased by 10 percent, price must have changed by
    A) 5 percent lower
    B) 5 percent higher
    C) 10 percent lower
    D) 10 percent higher

22. Along any straight-line, negatively sloped demand curve,
    A) the price elasticity and slope vary.
    B) the price elasticity varies, but the slope remains the same.
    C) the slope varies, but the price elasticity remains the same.
    D) the price elasticity and slope remain the same.

23. If consumers spend $15 million a month on CDs, regardless of whether the price they pay goes up or down, that implies that their price elasticity of demand for CDs is
    A) 0
    B) 1
    C) Infinite
    D) 15

24. A firm is employing 100 units of labor and 50 units of capital to produce 200 widgets. Labor costs $10 per unit and capital $5 per unit. For the quantities of inputs employed, MP L = 2 and MP K = 5. In this situation, the firm
    A) is producing the maximum output possible given the prices and relative productivities of the inputs.
    B) could lower its production costs by using more labor and less capital.
    C) could increase its output at no extra cost by using more capital and less labor.
    D) should use more of both inputs in equal proportions.

25. If a firm is producing where its short-run marginal cost (SMC) is equal to price and the long-run marginal cost (LMC) is less than long-run average cost (LAC), then it would do better in the long-run by
    A) increasing output with its existing plant until LMC equals price.
    B) increasing plant size until LMC and SMC are identical and equal to price.
    C) decreasing plant size until LAC, SAC, and price are equal.
    D) doing nothing because it is already at the long-run profit maximizing point.

4

Part-B (Answer all 75 Questions)

26. Mahalonobis model of Second five year plan placed emphasis on:
    A) Export sector
    B) Financial Sector
    C) Basic and Heavy Industry sectors
    D) Small Scale sector

27. India's current savings rate is
    A) 27.6 %
    B) 37.4 %
    C) 47.3 %
    D) 52.8 %

28. The supply curve for a monopolist
    A) is equal to the marginal cost curve above the average variable cost curve.
    B) is equal to the marginal cost curve above the average cost curve.
    C) Cannot be uniquely determined.
    D) is equal to the average variable cost curve above the marginal cost curve.

29. Tax reform committee headed by Rajah Chelliah suggested
    A) a reduction of income tax to three slabs.
    B) uniform rate for custom duties.
    C) that estate duties be abolished.
    D) all the above.

30. A 5% increase in the price causes no change in the total revenue that a firm earns ceteris-paribus. This implies that
    A) demand is price inelastic
    B) demand is perfectly price elastic
    C) demand has unitary price elasticity
    D) nothing can be said about the demand.

31. Stability of oligopolistic prices can be explained by
    A) Curnot behaviour of the firms in question
    B) theory of product differentiation
    C) the kinked demand curve theory
    D) when firms act as Stackelberg leaders

32. India is less affected by the financial crisis of 2008 because we did not implement
    A) Securitization
    B) Labour reforms
    C) Full capital convertibility
    D) Financial sector reforms

33. Which of the following variable will come under Stock variable?
    A) gross domestic product
    B) money supply
    C) exports
    D) imports

34. If GNP deflator is raised by 40% then which of the following statement is correct?
    A) Nominal GNP increases by 40%
    B) Real GNP will increase by 40%
    C) Both nominal and real GNP will increase by 40%
    D) Nominal GNP increases by 40% and real GNP decreases by 40%

35. The ratio of the change in equilibrium output to the change in autonomous spending that causes change in output is called
    A) marginal propensity to consume
    B) marginal propensity to save
    C) average propensity to consume
    D) multiplier

36. An expansionary monetary and fiscal policy shifts
    A) aggregate demand to the left
    B) aggregate demand to the right
    C) aggregate supply to the right
    D) aggregate supply to the left

37. Rate of unemployment can be calculated as
    A) percentage number of unemployed to total population
    B) percentage number of unemployed to Labour force
    C) percentage number of unemployed to skilled population
    D) none of the above

38. The value of Gini coefficient ranges from
    A) -1 to +1
    B) 0 to 1
    C) 0 to 100
    D) - 100 to +100

39. Total cost of production for a firm to produce 100 units is Rs.1,500 and to produce 150 units is Rs.2000. Assuming the average variable cost to be constant, fixed cost for the firm is
    A) Rs.100
    B) Rs.500
    C) Rs.1000
    D) Rs.1500

40. For an economy consumption-income ratio is given to be 0.72. The incremental capital-Output ratio is 4. Given that the population is growing at 3% p.a. what will be the growth rate of per capita income?
    A) 9%
    B) 1%
    C) 7%
    D) 4%

41. The values of X and Y that maximize the function' $\pi = 110X - 3X^2 - 2XY - 2Y^2 + 140Y$ such that $X/Y = 2$ are
    A) X = 10, Y = 10
    B) X = 40, Y = 20
    C) X = 25, Y = 50
    D) X = 20, Y = 10

42. The second –order own partial derivatives of the function: $Z = X^3 - 9XY - 3Y^3$
    A) 6X and -18Y
    B) 10X and -18Y
    C) 6X and 18Y
    D) 6X and 10Y

43. The bordered Hessian determinant for the problem: Maximize $U = XY + X$, subject to. $6X + 2Y = 110$ is
    A) Negative definite
    B) Positive definite
    C) Negative semi-definite
    D) Indefinite

44. Given the demand function, $p = 25 - q^2$, the consumer surplus for 4 units of q is equal to
    A) 42
    B) 50
    C) 32.67
    D) 42.67

45. Limit of the function, $f(x) = (x-4) / (16 - x^2)$ as $x \to 4$ is equal to
    A) 1/16
    B) -1/8
    C) -1/16
    D) -1/4

46. Which of the following statements is true ?
    A) Per capita net availability of food grains has been declining since 1991.
    B) Savings rate in India has been declining.
    C) Gross capital formation in agriculture is declining since 1991.
    D) The population growth rate in India has been increasing.

47. Fiscal deficit in an economy is fundamentally sustainable as long as:
   A) Revenue growth is faster than inflation.
   B) Current account deficit grows slower than fiscal deficit.
   C) Capital expenditure grows faster than revenue expenditure.
   D) Nominal growth rate of GDP is higher than the interest rate.

48. Positive economics
   A) does not depend on market interactions.
   B) only looks at the best parts of the economy.
   C) examines how the economy actually works (as opposed to how it should work).
   D) is very subjective.

49. A pure private good is
   A) nonrival in consumption and subject to exclusion.
   B) rival in consumption and subject to exclusion.
   C) rival in consumption and not subject to exclusion.
   D) all of the above

50. The slope of the production possibilities curve is the
   A) marginal rate of substitution.
   B) contract curve.
   C) marginal rate of transformation.
   D) offer curve.

51. Which one of the following statements is false?
   A) The null set is a subset of all sets.
   B) If S is a set, then S union S is equal to S.
   C) If M is a set with four elements, then M intersection M is equal to M.
   D) If V is an empty set, then V has one zero element, i.e., V = { 0 }.

52. If R is a matrix of 8x9, Q is matrix of order 4x8 and P is matrix of order 3x4, then the order of the new matrix PQR is
   A) 9x3
   B) 3x9
   C) 9x3
   D) 3x3

53. Given a consumption function C = 510 + 0. 9Y what is the value of the multiplier?
   A) 0.1
   B) 0.09
   C) 10.0
   D) 9.0

54. The speculative demand for money depends on
   A) interest rate
   B) profits

C) output

D) income

55. Which of the following is NOT included in the estimation of national income through income method?

    A) Rental income

    B) Undistributed Profits

    C) Mixed income

    D) Pensions

56. If $y = a^x$, then dy/dx is equal to

    A) $a^x \ln a$

    B) a^x

    C) $x\, a^{x-1}$

    D) None of the above

57. If $A = \begin{bmatrix} 1 & -1 \\ 0 & 2 \end{bmatrix}$ $B = \begin{bmatrix} 0 & 1 \\ -1 & 2 \end{bmatrix}$ then AB' must be equal to

    A) $\begin{bmatrix} 0 & 1 \\ 1 & 0 \end{bmatrix}$ B) $\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ C) $\begin{bmatrix} -1 & -3 \\ 2 & 4 \end{bmatrix}$ D) $\begin{bmatrix} 1 & -1 \\ -2 & 4 \end{bmatrix}$

58. The mean of a binomial distribution with n= 20, p = 0.5, where n is sample size and p is the probability of success, is

    A) 10

    B) 5

    C) 4

    D) 1

59. The regression lines of y on x, and x on y intersect

    A) at the origin

    B) at infinity

    C) at the point of mean of x and mean of y

    D) none of the above

60. If A and B are two distinct sets, then A∩B is a null set, if

    A) A and B have at least one common element

    B) A and B have equal number of elements

    C) A and B have non-zero elements

    D) A and B have no common elements

61. Given TC = $3q^2$ + 7q + 12 (q = quantity; TC = total cost), the marginal cost (MC) and average cost (AC) at q = 3 are

    A) MC = 25; AC = 20

    B) MC = 20; AC = 25

    C) MC = 5; AC = 16

D) None of the above

62. The mean and standard deviation of the weights of 20 school children are recorded to be 30 kg. and 3 kg. respectively. If each of the children is asked to hold a school bag weighing one kg and weights are measured again, then the new mean and standard deviation of weights of children respectively are:
A) 30 kg., 3 kg.
B) 30 kg., 4 kg.
C) 31 kg., 3 kg.
D) 31 kg., 4 kg.

63 A basket contains 5 red and 4 white balls. If two balls are drawn at random, the probability of getting one red and one white ball is:
A) 0.5
B) 0.4
C) 0.9
D) None of the above

64. If $y = \log (x-e^{-x})$, then dy/dx is equal to:

A) $\dfrac{1-e^{-x}}{x-e^{-x}}$

B) $\dfrac{1+e^{-x}}{x+e^{-x}}$

C) $\dfrac{1-e^{-x}}{x-e^{-x}}$

D) $\dfrac{1+e^{-x}}{x-e^{-x}}$

65. Verify the property of the following matrix:
$$\begin{bmatrix} 2 & 4/3 \\ -3/2 & -1 \end{bmatrix}$$
A) Negative definite
B) Positive definite
C) Indefinite
D) Semi-definite

66. Let A be the set of positive integers whose square is less than or equal to nine. Let B be the set of all even integers. Then, which of the following is true?
A) A is a subset of B
B) B is a subset of A
C) Intersection of A and B is a null set
D) Intersection of A and B is a singleton set

67. If a frequency distribution is positively skewed, the mean will be located
A) to the left of the mode
B) to the right of the mode
C) coincides with the mode
D) either to the right or left of the mode

10

68. When the intrinsic value of money and its face value are equal it is called
    A) Token money
    B) Quasi-money
    C) Fiat money
    D) None of the above

69. What is the empirically fitted relationship between the rate of change of money wages and rate of unemployment, known as?
    A) Baumol Hypothesis
    B) Liquidity preference theory
    C) Friedman model
    D) Philips curve

70. Who is the first women to win the Nobel prize in Economics?
    A) Joan Robinson
    B) Ursula Hicks
    C) Edith Penrose
    D) Elinor Ostrom

71. The proportion of Indian workforce employed in the unorganized sector is around:
    A) 92%
    B) 82%
    C) 42%
    D) 32%

72. Cropping pattern refers to
    A) area under a particular crop at a given point of time
    B) ratio of area under one to another
    C) relative distribution of cropped area under different crops at a given point of time
    D) ratio of net sown area to total cropped area

73. The Narasimham committee I dealt with:
    A) Banking sector reforms
    B) Insurance sector reforms
    C) Capital market reforms
    D) Non-banking institutions reforms

74. Which of the following is not included in the invisibles on current account of the balance of payments of India?
    A) Foreign travel
    B) Transportation
    C) Insurance
    D) Loans from foreign banks

75. Which of the following is an example of a positive externality?
    A) A firm emit pollution into the air, harming members of society.
    B) An auto body shop makes a lot of noise, reducing the property values of nearby homes.
    C) A coastal diary farmer's undeveloped land offers unimpeded views of ocean for a nearby neighborhood.
    D) You go to a shop and pay Rs 5 for a candy bar that you then eat.

76. According to Marxian dialectics, what drives economic and social change in a society?
    A) Commodity fetishism
    B) Simple reproduction
    C) Contradictions in society
    D) None of the above

77. According to Marxian political economy, which of the following statements is true?
    A) Fixed capital and constant capital are the same.
    B) Variable capital and circulating capital are the same.
    C) Fixed capital is only a component of constant capital.
    D) Constant capital is made up of constant wages.

78. The supply curve of labour to industry is horizontal if there is surplus labour in agriculture. This persists as long as
    A) The marginal product of labour (MPL) is less than the average product of labour in agriculture.
    B) The MPL in agriculture is less the MPL in industry.
    C) The MPL is subject to diminishing returns in agriculture.
    D) The MPL in agriculture is zero.

79. Which of the following statements best reflects Hirschman's theory of unbalanced growth?
    A) A country should focus on industrial development because agriculture is not a dynamic sector.
    B) Saving rates need to be increased.
    C) Once certain industries develop, linkages effects will induce the development of other new industries.
    D) All the above.

80. Which of the following is a backward linkage effect from automobile industry?
    A) Stimulating steel production for use as an input in making autos.
    B) Generating higher incomes from workers employed in auto production.
    C) Stimulating development of the transport service industry.
    D) All the above.

81. A neutral tax is one that
    A) generates no excess burden.

12

B) affects government saving and private sector investment decisions equally.

C) Balances the government budget.

D) relies, as far as possible on uniform tax rates.

82. The text book definition of *disguised unemployment* includes workers who

    A) pretend to work while actually having no job.

    B) seek jobs in the informal-sector.

    C) stay in school rather than try to look for work.

    D) have a job, but one with very low productivity and very low pay.

83. The efficiency wage hypothesis helps to explain

    A) why rural wages are so low.

    B) why wages in the urban informal sector generally exceeds wages in the rural markets.

    C) why low income countries have a comparative advantage in products that involve labour intensive technologies.

    D) why wages may exceed market clearing levels in the urban formal sector, even in the absence of wage control.

84. Agricultural growth in India after the eighties was largely due to

    A) an expansion in area under cultivation

    B) an increase in yield of crops grown

    C) both (A) and (B).

    D) none of the above.

85. The product exhaustion theorem is valid only if

    A) the production function is homogenous of degree one,

    B) firms make normal profits in a competitive market

    C) there are economies of scale with respect to the production of the output,

    D) there are economies of scope

86. The first time the Indian rupee was devaluated in the post Independence period was in

    A) 1951

    B) 1966

    C) 1978

    D) 1991

87. Indian industry witnessed a stagnation in the period

    A) 1950 to 1965

    B) 1965 to 1980

    C) 1980 to 1990

    D) 1990 to 2004

88. In the Ricardian model the growth process is ultimately limited by
    A) capital shortage.
    B) Falling natural price of labour.
    C) pessimistic expectations of the investors.
    D) The greater difficulty of growing corn.

89. The primary difference between excise and sales taxes is that only excise taxes are
    A) imposed enumerated items
    B) paid by the consumer rather than the seller
    C) progressive
    D) revenue elastic

90. Assuming an industrial growth rate of 6 percentage, what is its contribution to the country's GDP growth if the share of industrial sector to GDP is 25percent?
    A) 3 percent
    B) 2 percent
    C) 1.5 percent
    D) 2.5 percent

91. Most of the successful cases of land reforms have involved
    A) little or no compensation for confiscated assets.
    B) full compensation for landlords for confiscated assets.
    C) Consolidation of small farms into large collective farms.
    D) strict enforcement of short term land rental contracts.

92. Which of the following is a forward linkage effect of expanding the tractor industry?
    A) The potential increase in agricultural output made possible by having more tractors available.
    B) Loss of job in agriculture caused by mechanization.
    C) Increased income for workers in the tractors industry.
    D) Increased demand for tractor motors.

93. Sunk costs are defined as those which
    A) vary with output
    B) do not vary with output
    C) cannot be recovered
    D) none of the above

94. If A and B are two events with probabilities of occurrence as
P(A) = 0.6, P(B) = 0.4, and P(A∩B) = 0.2, then P(A|B) is

A) 1/3
B) 1/2
C) 1
D) 0

95. What is the probability of a sum of numbers in two throws of a dice being 7?
    A) 1/36
    B) 1/18
    C) 1/9
    D) 1/6

96. The CPI has increased from 300 to 330 and money wages for agricultural labour have increased from Rs. 40 to Rs. 47 per day. Which of the following is necessarily true?
    A) Agricultural wage employment has increased.
    B) Real wages have increased.
    C) Proportion of persons below poverty line has declined.
    D) Labour productivity has increased.

97. In the Harrod model, a country can increase its rate of growth of output if
    A) it restricts its population rate of growth.
    B) it increases its rate of investment.
    C) increases its capital output ratio.
    D) all of the above.

98. The regression line necessarily represents
    A) the correlation between variables.
    B) causality between variables.
    C) an economic identity.
    D) a quantitative relationship between variables.

99. Monetarist believes that expanding money supply will
    A) always increase prices
    B) always increase output
    C) always increase employment
    D) all of the above

100. Keynesian theory is based on
    A) micro economic foundations.
    B) observed quantities.
    C) accounting identities.
    D) all of the above.