Entrance Examination, June, 2009
MA (Economics)

Time: 2 Hours
Maximum Marks: 100

HALL TICKET NUMBER

INSTRUCTIONS

1. Read these instructions carefully before answering.

2. Enter your Hall Ticket Number on this page and also on the OMR answer sheet.

3. Answers are to be marked on the OMR answer sheet following the instructions provided thereupon.

4. Handover both the question paper booklet and the OMR answer sheet at the end of the examination.

5. Use of non-programmable calculators is allowed.

6. The Question Paper has two parts – PART-A and PART-B. There are 100 questions in this paper: 25 questions in PART-A and 75 questions in PART-B. Marks obtained in PART-A will determine the merit rank in case of a tie in the total number of marks obtained.

7. Each correct answer carries one mark.

8. There is negative marking. Each wrong answer carries –0.33 marks.

9. This question paper contains 15 pages excluding the OMR sheet and blank pages for rough work.
PART-A

1. The price elasticity of demand for the good X having an inverse demand function, 
   \[ p = 4 - 0.2 \times x \] at \( p = 2 \) is:
   
   A) \(-0.2\)  \quad B) \(-5\)  \quad C) \(-1\)  \quad D) \(-2\)

2. Which of the following statements about a production function is correct?
   
   A) It shows the minimum output given the quantity of inputs.
   B) It shows the maximum input required to produce a given quantity of output.
   C) It shows the maximum inputs required to produce the profit maximizing quantity of output.
   D) It shows the maximum output that can be produced by a given quantity of inputs.

3. The production function of a company is \( Q = -k^3 + 6k^2 + 48k \) (\( k \) represents the units of capital employed). At what point of capital will it yield diminishing marginal returns?
   
   A) When \( k = 1 \)  \quad B) When \( k = 2 \)  
   C) When \( k = 1.5 \)  \quad D) When \( k = 0.5 \)

4. Consumer perceptions about the possible ill effects of sugar consumption coupled with failed monsoons leads to
   
   A) increased prices;  \quad B) decreased prices;  
   C) decreased quantities with an ambiguous effect on prices;  \quad D) decreased prices with an ambiguous effect on quantities;

5. Which of the following is NOT a measure of monetary policy?
   
   A) Reducing the Bank Rate  \quad B) Increasing the rate of income tax  
   C) Increasing CRR  \quad D) Reducing SLR

6. The quantity theory of money implies that a given percentage change in the money supply will cause
   
   A) an equal percentage change in nominal GDP  
   B) a smaller percentage change in nominal GDP  
   C) an equal percentage change in real GDP  
   D) a smaller percentage change in real GDP.
7. Which of the following is true if prices of all the goods and services in an economy increase in a year?
   
   A) Real GDP will increase  
   B) Nominal GDP will increase  
   C) Real GDP will increase more than nominal GDP  
   D) Real GDP will fall in proportion to the increase in prices

8. Which of the following is not a leakage from national income flow?
   
   A) Savings  
   B) Imports  
   C) Investment  
   D) Taxes

9. In Indian economy, the yellow revolution is associated with:
   
   A) edible oils seeds  
   B) pulses  
   C) cereals  
   D) fruits and vegetables

10. In the last quarter of fiscal year 2008-09, the rate of inflation in India,
   
   A) has shown a declining trend  
   B) has shown an increasing trend  
   C) has remained stable at a low level  
   D) has remained stable at a high level

11. The Special Economic Zones Act was enacted in India in:
   
   A) 1991  
   B) 1999  
   C) 2005  
   D) 2007

12. There are only four persons A, B, C, and D in a queue. The following information has been furnished: (i) C is neither the first nor the last person in the queue; (ii) D is not standing anywhere behind A; (iii) A is just ahead of B in the queue. How are these four persons placed in the queue (from front to back)?
   
   A) CDAB  
   B) DCAB  
   C) DACB  
   D) CADB

13. The graph of function, \( y = 3x^2 - 18x \), for \( x \geq 0 \) shows that the value of \( y \),
   
   A) falls first and then rises  
   B) rises first and then falls  
   C) rises throughout  
   D) never goes below 0

14. Which among the following is the smallest number?
   
   A) \( \frac{2}{29} \)  
   B) \( \frac{1}{5} \)  
   C) \( \frac{2}{77} \)  
   D) \( \frac{7}{8} \)

15. Given that \( \log_e x \cdot \log_e 7 = 2 \), then the value of \( x \) is:
   
   A) \( e^{\sqrt{2}} \)  
   B) \( 14.e \)  
   C) 49  
   D) \( 2^7 \)
16. Which of the following securities is most liquid?
   A) Money market instruments  B) Capital market instruments
   C) Gilt edged securities     D) Index futures

17. Dumping in international trade refers to dumping of commodities
   A) into market by illegal import
   B) into foreign markets at lesser price than world prices
   C) into foreign markets at prices less than average cost plus transport costs
   D) that threaten environmental safety

18. According to Adam Smith, growth of national income of an economy is limited by
   A) size of the exports     B) size of the capital resources
   C) size of the market      D) size of the manufacturing sector

19. Value of a commodity in a Marxian framework is determined by:
   A) embodied labour time    B) social necessary labour time
   C) its usefulness or use value D) labour that it commands

20. There are 2 balls numbered 1, 3 balls numbered 2, and 4 balls numbered 3 in a bag. Two balls are drawn at random one after the other without replacement, then probability that the numbers on the balls drawn are identical is:
   A) 1/18  B) 3/18  C) 5/18  D) 1/3

21. There are four letters to be posted to four distinct addresses. Four envelopes have been pasted with the labels of these four addresses. If letters are inserted in these envelopes randomly, then the probability of all letters being put in correct envelopes is:
   A) ¼   B) 1/24   C) 1/16   D) 1/256

22. There are 427 college students participating in a rock concert. What is the probability that there are at least two persons among them who have the same birthday (i.e. share date and month in their dates of birth)?
   A) 0   B) 365/429   C) 366/429   D) 1

23. In an examination, 26 percent candidates failed in geography and 22 percent failed in economics. If 15 percent failed in both geography and economics, then what percentage of the candidates passed in both the subjects?
   A) 67   B) 52   C) 37   D) 81
24. Bangladesh Grameen Bank has become popular in the last one decade for its concept of organizing:

A) cooperative credit for farmers  
B) self-help groups among poor women  
C) water shed development  
D) self-help groups among farmers  

25. According some recent classifications, India is among the four following fastest growing countries in last half a decade:

A) Hong Kong, South Korea, China and India  
B) South Korea, Russian, China and India  
C) Brazil, Russia, India and China  
D) Brazil, China, India and South Korea  

PART-B

26. To manufacture a particular type of PC, you require a CPU and a HDD (among other things). If the quantity of HDDs is represented on X-axis and quantity of CPUs on the Y-axis, the shape of the isoquants will be

A) strictly convex to origin  
B) concave to origin  
C) downward sloping straight line  
D) L-shaped

27. The long-run elasticity of supply is greater than the short-run elasticity of supply because

A) in the long run, the stock of machines and buildings can adjust;  
B) in the long run new firms can enter and existing firms can exit the industry;  
C) in the long run customers can discover substitutes;  
D) both A and B;

28. The demand function for wheat is given as \( q^D = 500 - 1.5 p \) and the supply function is \( q^S = 50 + p \). The government sets the price of wheat at 200 and agrees to purchase and store any excess supply of wheat at that price. How much money does it cost the government to buy this wheat?

A) 10,000  
B) 7500  
C) 15000  
D) 17500

29. The kink in the demand curve in the kinked demand curve oligopoly model stems from the firm’s belief that competition

A) will match every price increase or decrease that is attempted  
B) will never match any price cuts that a firm attempts  
C) will match every price increase but not any price cut  
D) will not match any price increase but will match every price cut
30. According to Keynesian aggregate supply function, an increase in aggregate demand necessarily leads to an increase in price when

A) large scale unemployment exist in an economy
B) there is disguised unemployment in the economy
C) the economy attains full employment
D) frictional unemployment exists in the economy

31. Which of the following transactions is included in the current account balance of the balance of payments statement?

A) Foreign direct investments
B) Portfolio investments
C) External commercial borrowings
D) Dividends earned on portfolio investments

32. Scholarship to the poor students comes under:

A) subsidy payments
B) social payments
C) transfer payments
D) balance of payments

33. Which among the following can be classified as a factor income?

A) Gift
B) Pension
C) Gratuity payment
D) Wages and salaries

34. Which of the following is a stock variable?

A) Gross Domestic Product
B) Inventory of a firm
C) Inflation
D) Investment.

35. In an economy, the marginal propensity to consume is 0.75. If marginal propensity to import is 0.10 and the tax rate is 20%, then the value of multiplier will be

A) 2.00
B) 3.33
C) 0.50
D) 1.00

36. Which of the following occurs during the phase of depression in the economy?

A) Output increases, employment decreases
B) Output decreases, employment increases
C) Output increases, employment increases
D) Output decreases, employment remain the constant.

37. Value added by a firm is equal to

A) firm’s revenue – costs of intermediate goods
B) wages + interest payments + indirect taxes – profits
C) wages + interest payments – costs of intermediate goods + profits
D) price of the goods sold – profits.
38. The difference between M3 and M1 is
   A) demand deposits       B) post office savings deposits
   C) time deposits         D) M2.

39. The phrase “business cycle” refers to the pattern of fluctuations in
   A) the general level of prices as measured by the consumer price index
   B) interest rate as measured by the prime lending rate
   C) economic activity
   D) stock market index.

40. The IS equation is \( Y = 500 - 20i \), where \( Y \) is real income and \( i \) is rate of interest. Which of the following combinations of interest and income does not represent a point on the IS curve?
   A) \( i = 2\% \) and \( Y = 450 \)       B) \( i = 5\% \) and \( Y = 400 \)
   C) \( i = 7\% \) and \( Y = 360 \)       D) \( i = 10\% \) and \( Y = 300 \)

41. Which of the following is not one of the basic postulates of the Keynesian model?
   A) Effective demand determines the level of employment and output
   B) Since full employment is not always possible, Government intervention is essential
   C) Budget deficit is a tool to fight recession
   D) Monetary policy is more effective than fiscal policy.

42. Which among the following states has the largest number of neighbouring Indian states around it?
   A) Chhattisgarh
   B) Madhya Pradesh
   C) Jharkhand
   D) Assam

43. If under conditions of the law of variable proportions, if the average product of labour when 5 workers are employed is 10, and when 6 workers are employed is 12, then which of the following statements is true?
   A) The marginal product of labour is greater than the average product of labour between 5 and 6 labourers.
   B) The marginal product of labour is less than the average product of labour between 5 and 6 labourers.
   C) The marginal product of labour is equal to the average product of labour between 5 and 6 labourers.
   D) The marginal product of labour is rising faster than average product of labour between 5 and 6 labourers.
44. Which of the following statements is false?

A) Economies of scale are incompatible with a perfectly competitive equilibrium.
B) Consumers in a perfectly competitive market have complete information about prices.
C) The demand curve of an individual consumer under perfect competition is a horizontal line.
D) The average revenue curve of each firm under perfect competition is a horizontal line.

45. Which of the following statements about a monopoly in long-run equilibrium is incorrect?

A) A monopoly has no supply curve.
B) A monopoly will never sell where the price elasticity of demand is greater than unity in absolute value.
C) The market demand curve and the average revenue curve are the same.
D) A monopoly maximizes profits.

46. For a demand curve which has unitary elasticity of demand throughout its range, the additional revenue obtained by selling one more unit on the market is

A) positive   B) negative   C) 0   D) 1

47. Suppose a price ceiling is imposed on coal at its current market price level. If the trade unions for mine workers succeed in winning a higher wage for coal miners then,

A) A shortage of coal is likely to result
B) A surplus of coal will result
C) There would be no change in the equilibrium quantity of coal bought and sold
D) The price of coal is likely to fall

48. On an island of 1000 inhabitants, each individual has the same demand for bananas given by \( B_i = 40 - 12p \), for each individual \( i \), where \( i = 1, 2, \ldots, 1000 \). No bananas are grown in the island but each year 34000 bananas are imported. The equilibrium quantity and price of bananas are respectively.

A) 12000 and 1  B) 34000 and 2  C) 34000 and 0.5  D) 12000 and 0.5

49. The production function of a firm is given by \( Q = L^{0.75} K^{0.75} \) where \( Q \) is the rate of output \( L \) is the rate of labour input and \( K \) is the rate of capital input. If \( L \) is increased by 8% and \( K \) is increased by 8%, then \( Q \) will increase by

A) 6%  B) 8%  C) More than 8%  D) Less than 8%
50. A perfectly competitive firm, facing market price of Rs. 20, is currently producing an output level where the average variable cost is Rs. 16, average total cost is Rs. 21, and marginal cost is Rs. 18. In order to maximize profits, this firm should

A) decrease output  B) shut down because of losses  
C) increase the market price to Rs. 21  D) increase output

51. In a perfectly competitive market, the market demand curve is __________ whereas a single firm in the market sees its demand curves as __________. Which pair will fill the blanks correctly?

A) Downward-sloping, perfectly inelastic  B) Upward-sloping, perfectly elastic  
C) Downward-sloping, perfectly elastic  D) Perfectly elastic, downward-sloping

52. Which one of the following is not an external economy of scale?

A) Cheaper loans from a local bank resulting from merger  
B) The availability of specialized (skilled) labour force in a particular region of the economy  
C) Specialist research and development facilities provided by a local university  
D) Improvements to the local transport network

53. The minimum efficient scale of production (MES) represents

A) the output at which the long run average total cost curve becomes horizontal  
B) the lowest price a business can charge consumers and still make normal profit  
C) the highest number of employees a firm can employ before productivity starts to fall  
D) the output at which no further increases in output are possible

54. The individual labour supply curve in neo-classical analysis is backward-bending because,

A) the rich people are very lazy  
B) at the low wages the substitution effect dominates and at higher wages the income effect dominates  
C) wage labour is back breaking and results in bent backs  
D) large corporations offer higher wages for less working hours
55. Let \( x_1, x_2, x_3, \ldots, x_n \) be incomes of \( n \) households \(( x_i > 0 \) for all \( i = 1, 2, 3, \ldots, n \)). Further, let \( cv_0 \) be the coefficient of variation. Now each of these \( n \) households is given Rs. 1000\(^{\text{rs.}}\). Then the new coefficient of variation \( cv_f \) has the following relation to old coefficient of variation \( cv_0 \):

A) \( cv_f > cv_0 \)  
B) \( cv_f < cv_0 \)  
C) \( cv_f = cv_0 \)  
D) \( cv_f > cv_0 \) if \( cv_0 > 1 \) and \( cv_f < cv_0 \) if \( cv_0 < 1 \).

56. In how many different ways can a 3-member committee be formed from a class consisting of 4 girls and 4 boys such that there is at least 1 girl on the committee?

A) 24  
B) 10  
C) 14  
D) 52

57. Consider the matrix given below:

\[
A = \begin{pmatrix}
1 & 1 & 1 \\
2 & 3 & 4 \\
4 & 5 & a
\end{pmatrix}
\]

What should be the value of \( a \) in the matrix \( A \) so that the \( A \) becomes a singular matrix (i.e. \( A \) does not have full rank)?

A) 6  
B) 5  
C) 4  
D) 3

58. Let \( A = \{ x \mid x \) is a letter in the word ECONOMIC\}. What is the total number of subsets of \( A \)?

A) 256  
B) 64  
C) 8  
D) 6

59. Let \( z \) be a natural number greater than 100. Which among the following is the negation of the sentence, "All digits of the number \( z \) are even"?

A) "No digit of the number \( z \) is even"  
B) "Some digit of the number \( z \) is odd"  
C) "All digits of number \( z \) are odd"  
D) Both A and C.

60. A 5 metre wide footpath is to be prepared around a rectangular compound of a Health Centre measuring 90 m \( \times \) 60 m. What is the area of the footpath?

A) 1600  
B) 1690  
C) 1736  
D) 1780

61. Factors of \( 2x^2 - 7x + 3 \) are:

A) \((x - 3) \ (2x - 1)\)  
B) \((2x - 3) \ (x - 1)\)  
C) \((x - 6) \ (2x - 1)\)  
D) \((3 - 2x) \ (x - 1)\)
62. Each group of four letters in the word ECONOMETRICS is written in reverse order. Then, which is the ninth letter from the right?

A) E        B) N        C) R        D) S

63. You are given the following quadratic equation: \(4x^2 + 9 = 0\). Then, it has

A) identical real roots    B) distinct real roots
C) identical imaginary roots  D) distinct imaginary roots

64. Ratio of the area of a circle (with radius \(r\)) to its circumference is proportional to:

A) \(1/r\)    B) \(r\)    C) \(\pi r\)    D) \(\sqrt{r}\)

65. Find the value of \(\sqrt{6 + \sqrt{6 + \sqrt{6 + \ldots}}}\)

A) \(\infty\)    B) \(-\infty\)    C) 6    D) 3

66. Abhay speaks the truth 70 percent of the time and independently of Abhay, Mary speaks the truth 80 percent of the time. What is the probability that they contradict each other on the matter of the occurrence of the same incident?

A) 0.44    B) 0.06    C) 0.38    D) 0.5

67. We are given two distributions: distribution A with observations 5, 5, 9, 13, 13 and distribution B with observations 105, 107, 109, 111, 113. Then,

A) variance of A is larger than variance of B
B) variance of A is smaller than variance of B
C) variances of A and B are equal
D) A is skewed to the left whereas B is skewed to the right

68. The Type I error occurs due to,

A) inability to set up hypothesis correctly
B) inability to test validity of a hypothesis altogether
C) acceptance of a false hypothesis
D) rejection of a true hypothesis

69. If Agitation is coded as "CIKVCVKQP", then Peace will be coded as:

A) NCZBD    B) RGCEG    C) OGCPK    D) ABCDE

70. A household spends one and a half times as much in months of November and April as in each of the remaining months. What part of its entire years spending does it spend in November and April?

A) 1/6    B) 1/7    C) 3/13    D) 2/13
71. If x men, working x hours a day for x days complete x units of work, then how many units of work will y men working y hours per day for y days will complete?
   A) \( \frac{x^2}{y^3} \)  B) \( \frac{y^3}{x^2} \)  C) \( \frac{y^2}{x^3} \)  D) \( \frac{x^3}{y^2} \)

72. Country X is in a balanced position on its Balance of Payments (BoP). A small depreciation of its currency will lead to a BoP surplus if and only if –
   A) the sum of import and export elasticities is more than +1.
   B) the sum of import and export elasticities is equal to +1.
   C) the sum of import and export elasticities is more negative than –1.
   D) the sum of import and export elasticities is less negative than –1

73. Under a freely flexible exchange rate system, a deficit in a nation’s balance of payment is corrected by
   A) a decrease in the domestic currency price of the foreign currency.
   B) an appreciation of domestic currency.
   C) a depreciation of the domestic currency.
   D) a depreciation of the foreign currency

74. Which among the following is NOT directly concerned with international trade?
   A) GATT  B) WTO  C) UNCTAD  D) IBRD

75. The practice of using fiscal and monetary policy to stabilize the economy is known as
   A) monetarism  B) supply side economics
   C) fine tuning  D) sound money

76. The negative effect on the economy when average tax rates increase because taxpayers have moved into higher income brackets during an expansion is
   A) fiscal drag.  B) bracket creep.
   C) the Laffer curve.  D) debt burden.

77. The total amount of tax you pay divided by your total income is the
   A) marginal tax rate.  B) average tax rate.
   C) total tax rate.  D) proportional tax rate.

78. The so-called primitive accumulation refers to:
   A) accumulation of goods by primitive people.
   B) accumulation of means of production by one class towards the beginning of capitalism.
   C) accumulation of primitive commodities.
   D) accumulation of labour in a collective process of production.
79. According to Marx, in what sense does labour become doubly free in capitalism:

A) free of means to produce and freedom to choose one's employer.
B) free to live and free to work.
C) free to think and free to sell one's ability to do labour.
D) freedom to buy and sell.

80. In a flexible exchange rate regime, a current account deficit is likely to be corrected by:

A) drawing down on forex reserves
B) depreciation of home currency
C) appreciation of home currency
D) higher inflation

81. A central bank trying to defend its home currency may:

A) increase money supply
B) decrease money supply
C) increase interest rates
D) B and C above

82. The inflation rates in the USA and the UK are 4% and 6% respectively. The interest rate in the USA is 6%. The interest rate in the UK can be expected to be approximately:

A) 6%  B) 7%  C) 8%  D) 9%

83. The law of expanding state activity has been proposed by:

A) Richard Bird
B) Wagner
C) Peacock and Wiseman
D) Richard Musgrave

84. Stabilization loans to countries are given by:

A) IMF  B) UNDP  C) OPEC  D) UNCTAD

85. According to Engel's law, as family income rises:

A) households face diminishing returns to labour
B) households spend more money on luxury goods
C) spending on food declines as proportion of total consumption
D) industry becomes more capital intensive

86. The high level Committee on Estimation of Saving and Investment was chaired by:

A) Dr Y V Reddy
B) Dr C Rangarajan
C) Dr Raja J Chelliah
D) Dr Ravindra Dhokalia
87. Which of the Keynesian tools that had been largely abandoned in macroeconomic theory for the past thirty years, have been brought back by the recent crisis in global capitalism?

A) Monetary policy  B) Fiscal discipline
C) Inflation targeting  D) Fiscal expansionary policy.

88. Paul Krugman won the Nobel Prize this year for the following:

A) increasing returns and lower transport costs help explain large urban agglomerations.
B) new trade theory which shows why countries with similar endowments trade in similar commodities.
C) both of the above.
D) none of the above.

89. The Economic Advisory Council of the Prime Minister of India is headed by:

A) C Rangarajan  B) Montek Singh Ahluwalia
C) Suresh Tendulkar  D) Kirit Parikh

90. Environmental justice refers to

A) judicial activism in preventing environmental degradation
B) distribution of environmental costs of development amongst different social groups
C) doing justice to natural environment
D) Darwin's theory of natural selection

91. According to Schultz which of the following could be characterized as human capital investments?

A) Nutrition  B) Education
C) Low cost housing for migrants  D) All of the above

92. Flexible-specialization model is associated with which of the following characteristics?

A) Mass production
B) High fixed costs
C) Multi-product, multi-tasking and multi-skilling
D) Sweat shops

93. An economy is growing every year by 7.5 per cent and its population is growing every year by 1.5 per cent. Then its per capita income will double in approximately in,

A) 20 years  B) 15 years  C) 12 years  D) 9 years
94. If GDP is growing at g % per annum and population at p% per annum, the per capita GDP must be growing at what %?

A) \( \frac{(100-g)}{(100+p) - 1} \times 100 \)  
B) \( \frac{g + p}{2} \)  
C) \( \frac{g - p}{2} \)  
D) \( g - p \)

95. Euro is not used as currency in:

A) Belgium  
B) United Kingdom  
C) Germany  
D) The Netherlands

96. The agrarian movements of 1980's differed from the earlier peasant movement in the following important aspect:

A). They did not mobilise peasants  
B). They did not demand land re-distribution  
C). They demanded abolition of intermediaries  
D). All of the above

97. If the rate of investment is given as: \( I(t) = 125t^{\frac{2}{3}} \), where \( I \) indicates the rate of investment at time \( t \). It is given that the stock of capital at time, \( t = 0 \), is \( K(0) = 275 \). Then the time path of capital stock, \( K(t) \) is given as:

A) \( 165 + 75t^{\frac{2}{3}} \)  
B) \( 275 + 75t^{\frac{2}{3}} \)  
C) \( 275 + (250/3) \cdot t^{-\frac{1}{3}} \)  
D) \( 125t^{\frac{2}{3}} \)

98. According to the Lewis model of development with unlimited supply of labour, the expansion of the modern sector is determined by:

A) availability of market surplus from agriculture  
B) availability of surplus labour  
C) both of the above  
D) none of the above

99. Decadal population rate in India in the last one decade is:

A) 2.11%  
B) 2.05%  
C) 1.85%  
D) 1.35%

100. Let \( A \) be a subset of \( X \) and sets \( X \) and \( Y \) be disjoint; \( A, X \) and \( Y \) are non-null sets, then,

A) \( A \cup X = Y \)  
B) \( A \cap X = \phi \)  
C) \( X \cup Y \) is a subset of \( A \)  
D) \( A \cap Y = \phi \)

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P-20