

Entrance Examination – 2020
M.A. Economics

Time: 2 Hours
Max. Marks: 100

Part A: 25 Marks
Part B: 75 Marks

HALL TICKET NUMBER

INSTRUCTIONS

1. Please read these instructions carefully before marking your answers on the **OMR** answer sheet.
2. Write your Hall Ticket Number on the OMR sheet given to you. Also write your Hall Ticket Number in the space provided above.
3. Answers are to be marked on the OMR answer sheet following the instructions provided thereon.
4. Handover the OMR answer sheet at the end of the examination to the invigilator.
5. No extra sheets will be given. Plain sheets are given in the booklet for rough work.
6. There are 100 question in this paper. The Question Paper has **two parts** – **Part-A** and **Part-B**. The **Part-A** contains 25 questions and the **Part-B** contains 75 questions. Marks obtained in **Part-A** will determine the merit rank in case of a tie in the total number of marks obtained.
7. There is negative marking. For each question, the correct answer gets 1 (one) mark and a wrong answer gets – 0.33 marks. Each question has only one correct option.
8. The appropriate answer should be coloured with either a blue or a black pen or a sketch pen on the OMR sheet. **DO NOT USE A PENCIL.**
9. This question paper contains 23 pages including the cover page and pages for rough work (pages 21 to 23).
10. This question paper booklet can be taken by the candidates at the end of the examination.

Part A

1. In the Harrod growth model, if the warranted growth rate exceeds the natural rate of growth, there is a tendency for _____.

- A. secular inflation
- B. chronic depression
- C. secular deflation
- D. full employment

2. If all prices in one country (country A) are higher than all prices in another country (B) when compared at the wage rates that happen to prevail in the two countries. If the countries share the same currency and the nominal wage rate in country B remains fixed _____.

- A. the nominal wage rate in country A will have to fall
- B. unemployment must be higher in country B than in country A
- C. the real wage in country A must be higher than in country B
- D. workers in country A must be less productive than workers in country B

3. If the utility function is given by $U(x_1, x_2) = x_1 + x_2$, which is true about the marginal rate of substitution (MRS) between two commodities x_1 and x_2 at positive level of consumption and also the nature commodities?

- A. MRS is constant at 1 and commodities are perfect complements
- B. MRS is constant at 1 and commodities are perfect substitutes
- C. MRS is not constant and commodities are substitutes
- D. MRS is not constant and commodities are complements

4. Consider the following matrix:

$$S = \begin{pmatrix} -2 & 5 \\ 1 & -3 \end{pmatrix}$$

Then, the matrix S is:

- A. positive definite
- B. negative definite
- C. negative semi-definite
- D. indefinite

5. In general, risk-loving person will _____.

- A. always accept a gamble
- B. always accept unfair gambles
- C. always accept fair gambles
- D. none of the above

6. The price leadership model in Oligopoly market is an example of
- a price game between a leader and consumers
 - a quantity game between a quantity leader and a price leader
 - simultaneous actions game in price competition
 - sequential action game
7. Let X_1, X_2, X_3 be non-null convex sets. Then, which of the following is convex?
- $X_1 \cap X_2 \cap X_3$
 - $X_1 \cup X_2 \cup X_3$
 - $X_1 \cap X_2 \cup X_3$
 - $X_1 \cup X_2 \cap X_3$
8. Which of the following research methods did Abhijit Banerjee, Esther Duflo and Michael Kremer, who shared Nobel Prize for 2019 in economics for innovation in poverty studies, adopt:
- Random sampling
 - Stratified random sampling
 - Customized Random Sampling
 - Randomized controlled trials
9. 'Run on the bank' in banking parlance means:
- an impressive increase in bank's profits
 - a massive demand for withdrawal of money by depositors
 - hostile takeover of the bank by its rivals
 - a fall in the NPAs of the bank
10. When a country devalues its currency, we expect that_____.
- income will rise because the devaluation stimulates aggregate demand.
 - income will rise because the devaluation stimulates aggregate supply.
 - income will fall because the devaluation reduces aggregate demand.
 - income will fall because the devaluation reduces aggregate supply.
11. Information on Gini coefficient and Correlation coefficient values are given below:
- Gini coefficient value ranges from 0 to +1
 - Gini coefficient value ranges from +1 to -1
 - Gini coefficient value ranges from 0 to +100
 - Pearson's correlation coefficient value ranges from -1 to +1
 - Pearson's correlation coefficient value ranges from 0 to +1
 - Pearson's correlation coefficient value ranges from +1 to +100
- Which one of the following is correct?
- Only I and V are correct
 - Only II and V are correct
 - Only III and VI are correct
 - Only I and IV are correct

12. Let A be an upper triangular matrix of order n with diagonal elements $a_{ii} \neq 0$ for all $i = 1, 2, \dots, n$ and $\text{trace}(A) = 0$. Then,

- A. A is non-singular
- B. A is a positive definite matrix
- C. A is idempotent
- D. A is a negative definite matrix

13. Assertion (A): The current account measures a country trade in currently produced goods and services, along with unilateral transfers between countries.

Reason (R): Unilateral transfers are payments from one country to another that do not correspond to the purchase of any good, service, or asset.

- A. both A and R are individually true and R is the correct explanation of A
- B. both A and R are individually true but R is not the correct explanation of A
- C. A is true but R is false
- D. A is false but R is true

14. The maximum size of the type I error, which we are prepared to risk is known as the:

- A. power of the test
- B. degree of confidence
- C. level of significance
- D. confidence coefficient

15. Consider the following production function: $y = -x^3 + 18x^2 + 45x$, where y is output and x is input (labour). For what value of x will the marginal product of labour start decreasing?

- A. $x = 3.0$
- B. $x = 6.0$
- C. $x = 6 + \sqrt{51}$
- D. Does not exist

16. The Phillips curve indicates that when the labour market is _____, production costs will _____ and aggregate supply decreases.

- A. easy; rise
- B. easy; fall
- C. tight; fall
- D. tight; rise

17. If $m : n = 3 : 2$, then find the ratio of $(4m + 5n) : (4m - 5n)$

- A. 30 : 20
- B. 11 : 1
- C. 6 : 5
- D. 9 : -1

18. Which of the following statements better describe the concept of money neutrality in the long run:

- A. the change in money supply doesn't affect prices in the long run
- B. the increase in money supply leads to an increase in both prices and output
- C. the change in money supply doesn't affect prices in the short run
- D. the change in money supply doesn't affect the real output in the long run

19. Which of the following names is associated with theory of Entrepreneurship

- A. Alfred Marshall
- B. Ronald Coase
- C. Joseph Schumpeter
- D. Graham Pyatt

20. Suppose we have estimated the regression model,

$$y_i = \beta_1 + \beta_2 x_{i2} + \dots + \beta_K x_{iK} + e_i$$

Let \hat{y}_i be the fitted value of y_i for each i . Now, we estimate the artificial model,

$$y_i = \beta_1 + \beta_2 x_{i2} + \dots + \beta_K x_{iK} + \gamma_1 \hat{y}_i + \gamma_2 \hat{y}_i^2 + v_i$$

to test $H_0 : \gamma_1 = \gamma_2 = 0$ against $H_1 : H_0$ is wrong. Choose the correct statement.

- A. H_1 can be equivalently rewritten as $H_1 : \gamma_1 \neq 0$ and $\gamma_2 \neq 0$.
- B. An F-test cannot be appropriate for testing H_0 .
- C. This test is called the Gauss Markov Theorem.
- D. Rejection of H_0 suggests that there can be omitted variables.

21. In the Lewis model, what does the term "surplus labour" refer to?

- A. An amount of labour that is so high that it deflates wages throughout the economy
- B. Labour that can be withdrawn from the low productivity agricultural sector without a decrease in the total production
- C. Labour that is exploited by the capitalist class.
- D. Labour that can be withdrawn from the industrial sector without a decrease in the total production.

22. What is Ricardian equivalence proposition?

- A. The tax cuts do not affect desired consumption and desired national saving.
- B. The tax incentives do not affect desired consumption but impacts on desired national saving.
- C. The tax cuts do affect desired consumption and desired national saving.
- D. The tax cuts do affect desired consumption and do not affect desired national saving.

23. Which among the following is **not** correct?

- A. During inflation lenders suffer and borrowers benefit out.
- B. Rising inflation indicates lower purchasing capacity among the consumers.
- C. With rising inflation, the currency of the economy depreciates provided that it follows the flexible currency regime.
- D. Inflation decreases the nominal value of the wages while the real value increases.

24. The duality concept in a Linear Programming Problem states that, corresponding to every given minimization program (to minimize C), there exists a counterpart maximization program (to maximize a new variable, say Maximize Π), with the property that...

- A. Minimum $C =$ Maximum Π and the optimal feasible solutions do exist
- B. Minimum $C =$ Maximum Π and the optimal feasible solutions do not exist
- C. Minimum $C \neq$ Maximum Π and the optimal feasible solutions do exist
- D. Minimum $C \leq$ Maximum Π and the optimal feasible solutions do not exist

25. What types (increasing/decreasing) of absolute risk aversion $A(w)$ and relative risk aversion $R(w)$ will be observed for the Investor X, whose utility function is $u(w) = \text{Log}(w)$, (where w is the total wealth and w is strictly positive) ?

- A. The investor X exhibits increasing $A(w)$ and constant $R(w)$
- B. The investor X exhibits decreasing $A(w)$ and constant $R(w)$
- C. The investor X exhibits increasing $A(w)$ and decreasing $R(w)$
- D. The investor X exhibits increasing $A(w)$ and $R(w)$

Part B

26. Equation $f(x) = 2x^2 - 5x + 6$ has,

- A. two identical real roots
- B. two distinct real roots
- C. two distinct complex roots
- D. one real root and one complex root.

27. A feature that distinguishes financial markets from goods markets

- A. regulation
- B. futures trading
- C. cross-border trading
- D. financial products are promises to pay

28. The economist who received a Nobel Prize for demonstrating that government policies play a critical role in fostering technological innovation...

- A. Paul. M. Romer
- B. William D Nordhaus
- C. Oliver Hart
- D. Jean Tirole

29. Daily peak temperature for two summer months is recorded in units of degree Fahrenheit (F) for a study of impact of daily temperature on electricity consumption (E), measured in thousand units. It is found that between the two variables F and E, there is a positive correlation, r . If it is required that temperature measurements be converted to degree Celsius (C), then the value of correlation between temperature, C and electricity consumption, E:

- A. increases upon change of scale
- B. decreases but remains positive
- C. decreases and becomes negative
- D. remains the same

30. In an economy undergoing financial innovations such as widespread use of ATM machine making money demand less elastic compared to pre-innovation times, one would expect

- A. both the IS and LM curves to be flatter.
- B. the LM curve to become flatter.
- C. the LM curve to become steeper.
- D. LM curve to shift.

31. The production function has this property:

- A. techniques are ordered according to capital intensity
- B. techniques are reversible according to relative factor prices
- C. factor inputs are substitutable in production
- D. all of the above

32. If international trade takes place as a result of comparative advantage, it will cause which of the following effect in the participating countries?

- A. Inequality among households will be reduced.
- B. All individuals in one country will be worse off.
- C. The average well-being of people in both countries will increase.
- D. One country will grow faster over time.

33. The covariance between the length and weight of five items is 6 and their standard deviations are 2.45 and 2.61 respectively. Then the correlation coefficient between the length and weight is ___.

- A. very near to zero.
- B. 0.9974
- C. 0.6575
- D. 0.9383

34. Timex Design Inc. produces very costly and attractive sports watches. At the same time, Sofex Inc. introduced a stylish sports watch in the market. The watches of Timex Design Inc. and Sofex Inc. are considered to be perfect substitutes. The cross elasticity of demand between these watches is ___.

- A. infinity
- B. positive, less than infinity
- C. zero
- D. one

35. The concept employed to define surplus maximization in Marx's analysis through either increasing the number of units of labour employed or by extending the working day is referred to as ___.

- A. Relative Surplus
- B. Labour Time Surplus
- C. Quantitative Surplus
- D. Absolute Surplus

36. If the exchange rate changes from 80 rupees per dollar to 100 rupees per dollar ___.

- A. the dollar has depreciated
- B. the dollar has appreciated
- C. the rupee has appreciated
- D. no change in the value of dollar

For the next TWO (37 and 38) questions consider the following system of equations:

$$2x_1 - x_2 + 3x_3 = 5 \quad (1); \text{ and } -x_1 + 2x_2 - 2x_3 = 0. \quad (2)$$

37. What is the number of basic solutions for the above system of equations?

- A. 3
- B. 2
- C. 0
- D. 1

38. How many total number of solutions does this system of equations have?

- A. No solution;
- B. One unique solution;
- C. Three solutions;
- D. Infinitely many solutions

39. The offer curves introduced by Alfred Marshall, helps us to understand how the _____ is established in international trade.

- A. exchange rate
- B. equilibrium price ratio
- C. terms of trade
- D. satisfaction level

40. Share of workforce employed in Indian agriculture according to the Agricultural Census in 2011 is about _____.

- A. 36 percent
- B. 49 percent
- C. 56 percent
- D. 62 percent

41. If the total revenue and total cost function is given by $R(q) = 10q - 0.01q^2$ and $C(q) = 100 + 5q$ Find the level of output that will maximize profit

- A. $q = 500$
- B. $q = 525$
- C. $q = 1000$
- D. $q = 250$

42. Under competitive conditions a firm in the long run makes _____.
- A. normal profits
 - B. zero profits
 - C. negative profits
 - D. need more information
43. A commodity for Marx represents which two kinds of values?
- A. Surplus Value and Scarcity Value
 - B. Bourgeoisie Value and Proletariat Value
 - C. Use Value and (exchange) Value
 - D. Capital Value and Labour Value
44. In India which of the following have highest share in disbursements of credit to agriculture and allied activities?
- A. Commercial banks
 - B. Cooperative Banks
 - C. Regional Rural Banks
 - D. Microfinance Institutions
45. In case of Cournot model of oligopoly _____.
- A. Price is equals to marginal cost
 - B. Price is greater than marginal cost
 - C. Price is less than marginal cost
 - D. Price is half of the marginal cost
46. If any state in a country depends on disproportionately high level on indirect taxes, on the normative basis such tax system is _____.
- A. Progressive in nature
 - B. Ideal in nature
 - C. Regressive in nature
 - D. We cannot say anything
47. How does Amartya Sen define poverty?
- A. The need to supplement luxuries for an individual
 - B. The lack of supportive social institutions to ensure one's basic livelihood.
 - C. The lack of material well-being
 - D. The deprivation of basic capabilities for an individual

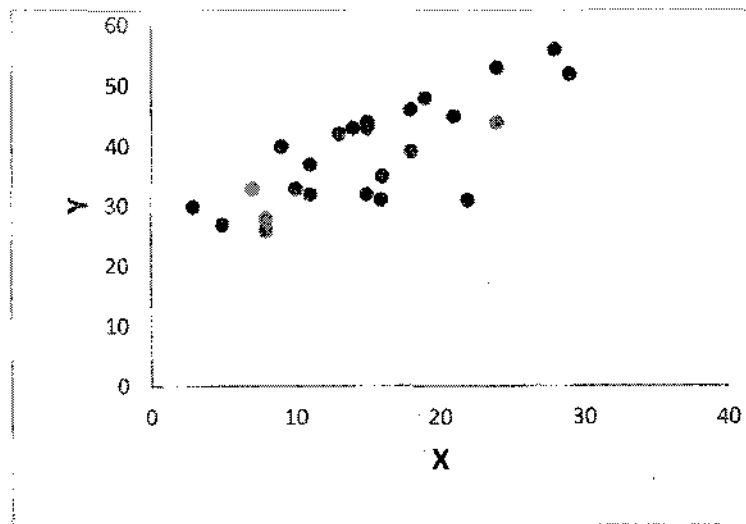
48. When a corporation issues a bond, it is _____.

- A. borrowing money and promising to pay the lender back
- B. investing in another company
- C. creating a new set of preferred stock
- D. selling an ownership share in the company

49. A society consists of four individuals with the following incomes 200, 220, 300 and 320. The poverty line is 250. The poverty gap index is then,

- A. 0.05
- B. 0.08
- C. 0.16
- D. 20.0

50. See the scatter-plot given below:



- A. The two variables have a positive statistical relation
- B. The two variables have no statistical relation
- C. The variable Y is inversely proportional to X
- D. The variable Y is directly proportional to X

51. According to John Maynard Keynes, aggregate planned output in the short run is determined by _____.

- A. level of labour supply in the economy
- B. stock of capital in the economy
- C. technological efficiency
- D. none of the above

52. In the Solow model, if a country is in the steady state, an earthquake causes wide-spread destruction of the capital stock, and there is no change in the level of savings or depreciation, then this will result in which of the following?

- A. The growth rate of output will increase, and the country will end up at the original steady state.
- B. The growth rate of output will drop, and the country will end up at a lower steady state.
- C. The growth rate of output will increase, and the country will end up at a higher steady state.
- D. The growth rate of output will increase, and the country will end up at a lower steady state.

53. If gold becomes acceptable as a medium of exchange, the demand for gold will _____ and the demand for bonds will _____, everything else held constant.

- A. decrease; decrease
- B. decrease; increase
- C. increase; increase
- D. increase; decrease

54. MGNREGA is aimed at:

- A. helping educated unemployed youth to establish self-employed units.
- B. providing guaranteed wage employment of at least 100 days in a year to those households opting for it.
- C. to provide employment to Widows.
- D. providing guaranteed wage employment of unlimited days in a year.

55. For the total cost function: $TC(q) = q^3 - 6q^2 + 14q + 75$, find the output at which point average variable cost is minimum.

- A. $q = 3$
- B. $q = 5$
- C. $q = 4$
- D. $q = 6$

56. Which of the following is the most likely cause of Immiserizing growth?

- A. When growth is concentrated in a country's import sector.
- B. When growth is balanced across exports and imports.
- C. When growth is concentrated in goods with high world demand elasticity.
- D. When growth is concentrated in a country's export sector.

57. Health insurance is _____.

- A. a risk sharing mechanism that lowers out-of-pocket health expenditure
- B. Cost containing mechanism
- C. Both the above
- D. None of the above

58. Terms of trade that relate to the real ratio of international exchange between commodities is called _____.

- A. Real cost terms of trade
- B. Commodity terms of trade
- C. Income terms of trade
- D. Utility terms of trade

59. Match the following function types (List-1) with the given function (List-2):

- LIST-1
- I. Affine function
 - II. Rectangular hyperbola
 - III. Polynomial function
 - IV. Exponential function
 - V. Periodic function

- LIST-2
- 1. $y = 5^x$
 - 2. $y = -x^n + 2x^{n-1} + \dots + 3x + c$
 - 3. $y = 3 \sin(x - 4)$
 - 4. $y = -5x + 12$
 - 5. $y = -6/x$

	I	II	III	IV	V
A.	4	5	2	1	3
B.	5	4	2	3	1
C.	1	3	4	2	5
D.	4	2	5	1	3

60. Which of the following is a true statement?

- A. The money supply is defined as only central bank notes.
- B. The average price of goods and services in an economy is called the aggregate price level.
- C. The inflation rate is measured as the rate of change in the government budget deficit.
- D. The aggregate price level is measured as the rate of change in the inflation rate.

61. Which of the following statements is false?

- A. Foster-Greer-Thorbecke (FGT) index is scale invariant and but not translation invariant.
- B. FGT index is decomposable.
- C. Sen's index is translation invariant but not scale invariant.
- D. Sen's index does take into account the income distribution of the poor

62. A recession could result from a(n)

- A. increase in aggregate demand
- B. decrease in aggregate demand
- C. increase in short-run aggregate supply
- D. increase in long-run aggregate supply

63. Irving R. Associates is granted a patent for a new product for which there are no close substitutes. Which of the following must be true at the profit-maximising quantity?

- A. price is equal to marginal cost
- B. average revenue is equal to marginal cost
- C. marginal revenue is positive
- D. marginal revenue is less than marginal cost.

64. Five persons namely, Bhaskar, Mary, Apala, Nemichand and Shahid are to be seated on five seats in a row such that Shahid and Bhaskar must sit next to each other and Mary and Apala must sit next to each other. How many distinct arrangements are possible?

- A. 24
- B. 120
- C. 36
- D. 72

65. The secular decline of terms of trade hypothesis in international trade is proposed by:

- A. Gunnar Myrdal
- B. Hans Singer- Raul Prebisch
- C. Paul Samuelson
- D. David Ricardo

66. Which among the following statements is incorrect?

- A. Index number is a relative measurement.
- B. In fact, all index numbers are weighted.
- C. Theoretically the best average in construction of index numbers is Geometric mean.
- D. It is not possible to shift the base year for the price index.

67. Consider the following statement in Economics:

“When parties can bargain without any transaction cost, and to their mutual advantages, the resulting outcome will be efficient, regardless of how property rights specified”. This statement is related to _____.

- A. Pigouvian tax of negative externality
- B. Marginal social cost (MSC) in externality analysis
- C. Coase Theorem
- D. Market failure theory due to public goods

68. In the IS-LM model, an increase in government spending in the goods market impacts the money market because it leads to _____.

- A. an increase in the money supply
- B. an increase in income, which increases money demand
- C. a decrease in income, which decreases money demand
- D. an increase in interest rates, which increases money demand

69. In a village of 100 households (HH), the mean HH income is 400 and variance of HH income is 25600. The government decides to augment income of every HH by 100. Then the coefficient of variation (cv) of the HH income:

- A. increases by 25 %
- B. increases by 20 %
- C. decreases by 20 %
- D. decreases by 25 %

70. The main difference between a tariff and a quota is _____.

- A. a quota reduces the quantity of imports more than a tariff.
- B. a tariff raises the price of imports more than a quota.
- C. a quota does not harm domestic consumers.
- D. a tariff generates government revenue, while a quota, unless it is sold, does not.

71. The Feldstein-Horioka Saving Investment Puzzle says the following:

- A. countries with relatively low saving to income ratios have relatively high investment to income ratios.
- B. there is no correlation between investment and saving in developed countries.
- C. countries with a high ratio of saving to income have high ratios of investment to income.
- D. Both A and B

72. The banking system is called as fractional reserve banking _____.

- A. when the reserve deposit ratio is 100%
- B. when the reserve deposit ratio is less than 100%
- C. when bank reserves are equal to deposits
- D. both A and B

73. The total utility function $U(x_1, x_2) = x_1 x_2$ is maximized subject to the budget constraint $x_1 + x_2 = 6$ using the Lagrangian function method. Then at the equilibrium point, the marginal utility of money λ will be equal to _____.

- A. 3
- B. 6
- C. 9
- D. 1.5

74. Comparison of GDP levels across countries are *most* accurate when:

- A. the value of non-market activities is the same across countries.
- B. prices are the same across countries.
- C. prices and the value of non-market activities are the same across countries.
- D. prices for non-market activities are the same across countries.

75. Consider set $X = \{ 1/n \mid n \text{ is a natural number} \}$. Then X is a,

- A. finite set
- B. countable set
- C. closed set
- D. open set

76. For the demand schedule to be downward-sloping, the following is true:

- A. income effect dominates substitution effect
- B. substitution effect is zero
- C. substitution effect dominates income effect
- D. income effect is zero

77. Which of the following production functions exhibits decreasing returns to scale?

- A. $Q = L^{2/3} \cdot K^{2/3}$
- B. $Q = L^{2/3} + K^{2/3}$
- C. $Q = \frac{2}{3}L + \frac{2}{3}K$
- D. $Q = \min \{ \frac{2}{3}L, \frac{2}{3}K \}$

78. An estimator that contains all information about parameter available in the sample is said to be:

- A. Sufficient estimator
- B. Efficient estimator
- C. Consistent estimator
- D. Unbiased estimator

79. An excise tax levied on each unit of X good consumed _____.

- A. would reduce consumption of X and lower total expenditure on X .
- B. would rotate the budget line outward along the X axis and allow the consumer to reach a higher indifference curve.
- C. would place a consumer on a lower indifference curve
- D. cause the consumer to reduce consumption of tax goods and the non-tax good equally.

80. If the Reserve Bank of India increases the money supply, you would expect to see income _____ and interest rates _____.

- A. changes be indeterminate; fall
- B. fall; fall
- C. rise; fall
- D. rise; changes be indeterminate

81. Marginal cost of a pure public good is _____.

- A. One
- B. Zero
- C. Very High
- D. Two

82. Given $Q = 100K^{0.5}L^{0.5}$, w (price of labour) = 30, and r (price of capital) = 40. What is the capital (K) Labour (L) ratio the firm should use in order to minimize the cost of producing 1444 units of output?

- A. 1
- B. 4/3
- C. 3/4
- D. Insufficient Information

83. The third category of wages employed by the Classical economists apart from the concepts of Natural Wage and Market Wage is:

- A. Minimum Wage
- B. Equity Wage
- C. Subsistence Wage
- D. Unemployment Wage

84. In the long-run competitive equilibrium, return to capital is called _____.

- A. Rate of profit
- B. Supernormal profit
- C. Money rate of interest
- D. Real rate of interest

85. An economy grows by 20 % and -20% in two successive years. Then CAGR (compound annual growth rate) over this period of two years is approximately:

- A. Zero
- B. + 2 %
- C. - 2 %
- D. - 4 %

86. Total revenue (TR) and total cost (TC) functions of a simple monopolist are assumed to be $TR = 100q - 3q^2$ and $TC = 4q^2 + 10q$ respectively. At what level of output q , the total profit of the monopolist will be maximum?

- A. 6.4
- B. 289
- C. 14
- D. 100

87. When IS curve is vertical in the economy, the model predicts that:

- A. Fiscal policy is more effective
- B. Monetary policy is more effective
- C. Fiscal policy is less effective
- D. No policy is effective

88. The Utility Function: $U(x, y) = \sqrt{x^2 + y^2}$ is

- A. Homothetic and the Indifference Curve is Convex
- B. Homothetic and the Indifference Curve is Concave
- C. Nonhomothetic and the Indifference Curve is Convex
- D. Nonhomothetic and the Indifference Curve is Concave

89. In short run, fluctuations in GDP are the result of shifts in:

- A. technology
- B. aggregate Supply
- C. aggregate Demand
- D. capital Stock

90. The correlation coefficient between two variables X and Y is found to be 0.4. What is the correlation between $2x$ and $(-y)$?

- A. 2
- B. -2
- C. 0.4
- D. -0.4

91. A consumer's utility function is given by $U(x, y) = xy$, with a budgetary constraint $5x + 10y = 100$. Find the value of x and y that maximizes this utility function.

- A. $x = 5$ and $y = 5$
- B. $x = 10$ and $y = 5$
- C. $x = 5$ and $y = 10$
- D. $x = 1/10$ and $y = 1/5$

92. The demand function a firm is facing is $q = 40p - 6p^2$. If the Point elasticity of demand is $e_d = -\frac{1}{2}$, What is the price at that point of production?

- A. $p = 12$
- B. $p = 6$
- C. $p = 4$
- D. $p = 32$

93. To sell commodities at their cost of production in competitive markets and yet be able to make a surplus over and above cost of production as a contradiction in the general formula of capital has been identified by which of the following scholars?

- A. David Ricardo
- B. Thomas Piketty
- C. Joseph Stiglitz
- D. Karl Marx

94. Given the required reserve ratio at 20 percent and total reserves at INR 20 billion, the maximum amount of deposits would be _____.

- A. INR 100 billion
- B. INR 40 billion
- C. INR 4 billion.
- D. INR 60 billion

95. Given the following data what should be the money growth under monetary targeting?
Data: Income elasticity of money demand= 1, expected real GDP growth= 6%, Inflation rate = 4%.

- A. 11%
- B. 15%
- C. 10%
- D. 12%

96. Which of the following happens when the demand curve is perfectly inelastic and the government imposes a tax?

- A. the whole tax is borne by the producers
- B. the whole tax is borne by the consumers
- C. the tax is borne partially by the producers and partially by the consumers
- D. no change in the tax burden of the consumers

97. The impact of economic development on population is best documented by _____.

- A. Malthusian theory
- B. Optimum population theory
- C. Demographic Transition
- D. Lewis theory

98. Forward exchange rates are useful for those who wish to _____.

- A. protect themselves from the risk that the exchange rate will change before a transaction is completed.
- B. gamble that a currency will rise in value.
- C. gamble that a currency will fall in value.
- D. all of the above.

99. The rate of inflation increases when _____.

- A. the unemployment rate equals the NAIRU.
- B. the unemployment rate exceeds the NAIRU.
- C. the unemployment rate is less than the NAIRU.
- D. the unemployment rate increases faster than the NAIRU increases.

100. Assume that, over a given period, the value of transactions in rupees is 10,000 and the money stock is 5,000. What is the transaction velocity of money?

- A. 2.5
- B. 2
- C. 0.5
- D. 3