

D-95

**Entrance Examination, February 2013
Ph.D. (Economics)**

Time: 2 Hours

Max. Marks: 75

HALL TICKET NUMBER

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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 there upon.
4. Handover 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 75 questions in this paper; 25 questions in PART-A and 50 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 14 pages excluding the cover page. In addition, **two blank pages for rough work are provided at the end of the question paper (pages 15 & 16) marked "ROUGH WORK".**

**Ph.D. Entrance Examination
School of Economics**

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PART – A (Answer all 25 questions)

1. Which of the following is most fundamental for a theory based on demand-supply equilibrium?
 - A. Existence of equilibrium
 - B. Uniqueness of equilibrium
 - C. Stability of equilibrium
 - D. None of the above

2. Supply of labour in conventional theory derives from
 - A. Size of population
 - B. Utility of labour
 - C. Disutility of labour
 - D. Labour-income trade-off

3. Cost of living index is based on
 - A. Wholesale prices
 - B. Retail prices
 - C. Demand conditions
 - D. Supply conditions

4. If the rupee-dollar exchange rate has changed from Rs 50 to Rs 55 on the forex market, the exchange rate has
 - A. Appreciated
 - B. Depreciated
 - C. Undergone devaluation
 - D. None of the above

5. With regard to investment the evidence in India points to public investment
 - A. Crowding-in private investment
 - B. Crowding-out private investment
 - C. Having zero multiplier effects
 - D. Increasing supply bottlenecks
6. Counter-cyclical fiscal policy implies
 - A. Increase in public expenditure when growth rate is high
 - B. Increase in public expenditure when growth rate is low
 - C. Decrease in public expenditure when growth rate is low
 - D. None of the above
7. Public resource mobilization in India has relied mostly on
 - A. Direct taxes
 - B. Indirect taxes
 - C. Sale of assets of public sector enterprises
 - D. Government savings
8. Tobin tax is a tax on
 - A. Foreign capital inflows
 - B. Import of capital goods
 - C. Import of consumer durables
 - D. Imports of luxury goods
9. Trade deficit of a developing country is likely to worsen if
 - A. There is a recession in the world economy
 - B. If world commodity prices decline
 - C. If domestic costs are higher than costs in rich countries
 - D. All of the above
10. Which of the following economists is credited with modern revival of classical economics?
 - A. Karl Marx
 - B. Schumpeter
 - C. Piero Sraffa
 - D. Joan Robinson

11. The proposition that 'division of labour is limited by the extent of market' is due to
- A. William Petty
 - B. Karl Marx
 - C. Lenin
 - D. Adam Smith
12. The rate of growth of agricultural output is
- A. The difference between the rate of growth of national income and the growth rate of manufacturing output
 - B. The difference between the rate of growth of cropped area and the rate of growth of crop yield
 - C. The sum of the growth rate of area and the growth rate of yield
 - D. None of the above
13. Fiscal consolidation implies
- A. Increased taxes
 - B. Increased subsidies
 - C. Increased revenue deficits
 - D. Reduced fiscal deficits
14. According to Post-Keynesians the long-run rate of growth of a capitalist economy depends on
- A. Supplies of raw materials
 - B. Growth of demand
 - C. Decrease in speculative investments
 - D. All of the above
15. Verdoorn's Law refers to
- A. The relation between agriculture and manufacturing
 - B. The relation between productivity and production
 - C. The relation between taxes and GDP
 - D. None of the above
16. Positivistic knowledge is
- A. Based on values and norms
 - B. Value-free knowledge
 - C. Both A and B
 - D. Neither A nor B

17. Type II error refers to
- A. Rejecting the null hypothesis when it is true
 - B. Accepting the null hypothesis when it is false
 - C. Both A and B
 - D. Neither A nor B
18. India's demographic dividend will contribute to growth positively if
- A. The labour force is equipped with skills
 - B. Child labour is eliminated
 - C. Market for consumption goods is huge
 - D. None of the above
19. Which is an example of Poisson distribution in the following?
- A. Number of heads in 10 tosses of a coin
 - B. Number of students in a class
 - C. Number of cars parked in the university campus
 - D. Number of printing mistakes per page in a book
20. The standard deviation of a standard normal distribution
- A. Is always equal to zero
 - B. Is always equal to one
 - C. Can take any positive value
 - D. Can take any value
21. Student's 't' test is used
- A. To test the significance of correlation coefficient
 - B. To test association between attributes
 - C. To fit normal distribution
 - D. None of the above
22. As part of estimation of savings data in India, household savings are divided into which of the following categories:
- A. Current and future savings
 - B. Precautionary and speculative savings
 - C. Financial and physical savings
 - D. Current and capital savings

23. National accounts data in India recognize the following division of organizational pattern
- A. Organized and unorganized
 - B. Formal and informal
 - C. Modern and traditional
 - D. Capitalist and artisanal
24. Social Accounting Matrix can be analytically traced back to
- A. Adam Smith's division of labour
 - B. Quesnay's Tableau Economique
 - C. Ricardo's rent theory
 - D. Marx's social division of labour
25. Which agency prepares estimates of State Domestic Product in India?
- A. National Sample Survey Organisation (NSSO)
 - B. Indian Council of Social Science Research (ICSSR)
 - C. Central Statistical Office (CSO)
 - D. National Council of Applied Economic Research (NCAER)

PART – B (Answer all 50 questions)

26. If the compensated demand curve for a good x coincides with the Marshallian or ordinary demand curve, it implies that:
- A. Income effect is zero
 - B. The good is an inferior good
 - C. Substitution effect is zero
 - D. The good is a Giffen good
27. A monopolist faces a linear demand curve given by the equation $P = 10 - 2Y$ where Y is the quantity demanded and P is the price. If the monopolist has a constant marginal cost of production $C = 2$ then the dead weight loss in welfare is equal to:
- A. 4
 - B. 8
 - C. 2
 - D. 10

28. Which of the following markets does not maximize welfare?
- A. Perfectly competitive market
 - B. Perfectly discriminating monopoly
 - C. A regulated monopoly
 - D. A monopoly that implements a two-part tariff on its product
29. Monopoly power is defined as
- A. The ability of a firm to bar entry of other firms
 - B. The ability of a firm to practise price discrimination
 - C. The ability of a firm to fix price above marginal cost
 - D. The ability of a firm to hire and fire workers
30. Which of the following is a sufficient condition for integrability in demand theory?
- A. Homogeneity of degree one in prices of demand function
 - B. Positive semi-definite compensated price responses
 - C. The substitution matrix is symmetric, negative semi-definite, and satisfies the singularity property
 - D. All the above conditions
31. In Marxian economics the exchange value of a commodity is defined as
- A. Usefulness of a commodity after the commodity gets exchanged
 - B. The difference in the value of a commodity as between barter and monetized systems
 - C. Value form of use value of a commodity
 - D. The numerical proportion between one commodity and another
32. According to Marx organic composition of capital is
- A. A measure of the extent to which labour is supplied with raw materials and machinery in the production process
 - B. The capital organically linked to labour
 - C. The capital that does not vary in the production process
 - D. None of the above

33. In times of intense technological change, which of the following might happen according to Marx?
- A. Labour-saving technologies might be introduced that displace more workers than re-absorb them
 - B. Informal employment might rise
 - C. Investment in infrastructure might rise
 - D. All of the above
34. Viewing money as a store of wealth is a radical departure from standard monetary theory. Which thinkers would come close to this idea?
- A. Keynes and Marx
 - B. Keynes and Friedman
 - C. Keynes and Lucas
 - D. Keynes and Prescott
35. The Herfindhal's Index measures
- A. Market shares within the industry
 - B. Market power of a firm within the industry
 - C. Inter-firm competition
 - D. Market power of the government
36. A weak natural monopoly is defined as one whose
- A. Average costs decline over the entire output range
 - B. Costs are sub additive over the output range
 - C. Marginal costs lie everywhere below average costs
 - D. Average costs rise over the output range
37. Which of the following is *not* a reason for heteroscedasticity?
- A. Extremely low or high values of X and Y coordinates in the data set
 - B. Correlation of explanatory variables over time
 - C. Incorrect specification of the functional form of the model
 - D. Incorrect transformation of variables
38. Using OLS estimation technique in the presence of heteroscedasticity will lead to
- A. Easy acceptance of statistically significant coefficient using t and F tests
 - B. Easy rejection of statistically significant coefficient using t and F tests
 - C. The t and F tests still being accurate
 - D. t test gives accurate results while F test does not

39. A time series sample data is considered stationary if the following characteristic of the series is time invariant
- A. Mean
 - B. Variance
 - C. Covariance
 - D. All of the above
40. Estimating all the equations in the simultaneous equation model (SEM) simultaneously is known as
- A. Simultaneous-equation estimation method
 - B. Single equation method
 - C. Full information method
 - D. Two-stage least squares method
41. A cointegration of two or more time series suggests that an equilibrium relationship between them exists that is of
- A. Long run
 - B. Short run
 - C. Very short run
 - D. Either A or B depending on the number of lags
42. "In a given Poisson distribution, mean is 8 and variance is 7". The statement is
- A. True
 - B. False
 - C. Can be true if variance value is known
 - D. None of the above
43. Effective protection includes
- A. Tariff on final good
 - B. Tariff on intermediate inputs
 - C. Both A and B
 - D. Neither A nor B

44. Heckscher-Ohlin trade theory assumes production functions are
- A. Same between the countries
 - B. Different between the countries
 - C. Same between the commodities
 - D. None of the above
45. Linder's demand hypothesis states that the range of exports are determined by
- A. External demand
 - B. Internal demand
 - C. Both A and B
 - D. Level of income
46. Paul Krugman's theory of trade explains trade in
- A. Differential products
 - B. Identical products
 - C. Both A and B
 - D. Neither A nor B
47. The author of the book *The Price of Inequality* is
- A. Paul Samuelson
 - B. Joseph Stiglitz
 - C. Karl Marx
 - D. Kalecki
48. The author of *Unequal Exchange: A Study of the Imperialism of Trade* is
- A. Gunnar Myrdal
 - B. W. A. Lewis
 - C. Emmanuel, A.
 - D. Hans Singer
49. The hypothesis of 'secular deterioration of terms of trade' is due to
- A. Raul Prebisch
 - B. Alfred Marshall
 - C. Milton Friedman
 - D. Dadabhai Nauroji

50. Metzler's Paradox refers to a situation where imposition of tariff on imports raises
- A. The prices of exports
 - B. The prices of imports
 - C. Both A and B
 - D. None of the above
51. The concept of 'immiserizing growth' is due to
- A. Adam Smith
 - B. Jagdish Bhagwati
 - C. Rybezynski
 - D. J R Hicks
52. Kuznet's curve explains that as GDP increases, inequality in income distribution tends to initially
- A. Increase
 - B. Decrease
 - C. Remains constant
 - D. None of the above
53. One of the assumptions of CLRM is that the number of observations in the sample must be greater than the number of
- A. Regressors
 - B. Regressands
 - C. Dependent variables
 - D. Dependent and independent variables
54. 'If after regressing Y on X we find the errors to be autocorrelated, then transforming the model into log-linear model would help us get rid of this problem'. This statement
- A. Is always true
 - B. Is false
 - C. Depends on the Durbin-Watson d-statistics
 - D. Depends on the sign of autocorrelation

55. Two time series are individually non-stationary. Their linear combination is however stationary. This is an example of two variables
- A. With random walk
 - B. With spurious regression
 - C. Being cointegrated
 - D. With trend stationarity
56. The model where the value of Y depends on its value in the previous time period and a random variable is called
- A. Single equation model
 - B. AR(1) model
 - C. MA(1) model
 - D. ARIMA (1,1) model
57. The difference between a competitive market and a contestable market is:
- A. The absence of entry and exit costs
 - B. The absence of perfect information in contestable markets
 - C. Entrants in contestable markets have price-setting powers
 - D. The absence of sunk costs in contestable markets
58. In which of the markets would a producer be able to convert the consumers' entire surplus into producer's surplus by pricing?
- A. Discriminating monopoly
 - B. Duopoly
 - C. Perfectly competitive market
 - D. Perfectly discriminating monopoly
59. If the supply curve in a competitive market is a straight line through the origin, then the elasticity of supply would take a value:
- A. Greater than one
 - B. Zero
 - C. Less than one
 - D. Equal to one

60. The agrarian movements of 1980s differ from the earlier peasant movements basically because
- A. They did not mobilize peasants
 - B. They gave up the demand for land re-distribution
 - C. They demanded abolition of intermediaries
 - D. All of the above
61. What in Marx's view is 'annihilation of space through time'?
- A. Space is compressed because of the reduction in turnover time
 - B. Space is destroyed because workers are more efficient in producing labour power
 - C. Space is compressed because of the increase in turnover time
 - D. Space is compressed because transaction costs have reduced
62. A vertical slope of the Phillips Curve implies that a policy of stabilization is
- A. Highly effective
 - B. Highly ineffective
 - C. Adversely effective
 - D. None of the above
63. It is advisable for a firm operating under perfect competition to shut down in the short run when the price of the product falls below
- A. Total cost
 - B. Fixed cost
 - C. Average variable cost
 - D. Semi-fixed cost
64. If the elasticities of demand and of supply are respectively 3 and 2, and the government imposes a specific sales tax of Rs 25 per unit, the tax burden on the buyer will be
- A. Rs 5
 - B. Rs 10
 - C. Rs 15
 - D. Rs 20
65. A backward bending labour supply curve implies that
- A. Substitution effect dominates income effect
 - B. Substitution effect equals income effect
 - C. Substitution effect is absent
 - D. Substitution effect is less than income effect

66. A production plan is defined as
- A. A list of net outputs of various goods
 - B. A list of net inputs of various goods
 - C. A list of all input bundles
 - D. None of the above
67. Which of the following is not a property included in Arrow's Impossibility Theorem?
- A. Social preferences are reflexive, transitive and complete
 - B. A Pareto superior state is ranked socially above other states
 - C. There is no dictator
 - D. Relative social ranking between any two states must not depend on individual rankings of any of these states with respect to any other state
68. Let the budget set (of commodity bundles costing no more than the wealth) of a consumer be compact. Then consumer's demand is well defined if
- A. Utility function is continuous
 - B. Utility function is monotonous
 - C. Utility function is strictly monotonous
 - D. Utility function displays non-satiation property in commodity space
69. The purchasing power parity (PPP) theory fails in reality because of
- A. Transport costs and trade restrictions
 - B. Monopolist or oligopolistic practices in goods markets
 - C. Differences in commodity baskets on which inflation is measured in different countries
 - D. All the above
70. The J-curve illustrates
- A. The effects of depreciation on the home country's economy
 - B. The immediate increase in the current account caused by a currency depreciation
 - C. The gradual adjustment of home prices to a currency depreciation
 - D. The short-term effects of depreciation on the current account

71. A foreign exchange swap is a
- A. Spot sale of currency
 - B. Forward repurchase of currency
 - C. Spot sale of currency combined with a forward repurchase of currency
 - D. Spot sale of currency combined with a forward sale of currency
72. When dealing with the number of occurrences of an event over a specified interval of time or space, the appropriate probability distribution is a
- A. Binomial distribution
 - B. Poisson distribution
 - C. Normal distribution
 - D. Hyper geometric probability distribution
73. For a normal distribution, a negative value of z indicates
- A. Error in computation because z is always positive
 - B. That the area corresponding to the z is negative
 - C. That z is to the left of the mean
 - D. That z is to the right of the mean
74. Popper's view on philosophy of science is
- A. Falsify the solution of the problem
 - B. Formulate a law
 - C. Verify the generalization
 - D. All the above
75. The share of wages in organized manufacturing in India shows a
- A. Falling trend
 - B. Rising trend
 - C. Cyclical trend
 - D. None of the above
