

J-85

Entrance Examinations, February 2015
Ph.D. (Economics)

Time: 2 Hours

Max. Marks: 75

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 thereon.
4. Handover the OMR answer sheet at the end of the examination.
5. Use of non-programmable calculators is allowed.
6. There are 75 questions 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 50 questions. 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 13 pages excluding this cover page but including pages for rough work.

PART-A

1. *A priori*sm, a prominent method employed in evolving economic theory in the mainstream tradition, rests on:
 - A. A logical deduction from set of axioms which are true by definition
 - B. A generalisation based on induction
 - C. A logical deduction from set of axioms which are empirically tested.
 - D. All of the above.

2. Karl Popper, a famous philosopher of science, stated that any scientific theory is valid unless it is subjected to a severe test of:
 - A. Verification
 - B. Identification
 - C. Hypothesisation
 - D. Falsification

3. Nobel Laureate Amartya Sen showed in his work that famines in Bengal in 1940s occurred primarily because of:
 - A. Droughts in India
 - B. Wars among nations
 - C. Loss of entitlements among people
 - D. All the above

4. The methodology adopted in Marshall-Jevons-Walras tradition of neoclassical economics rested on:
 - A. Methodological wholism
 - B. Methodological individualism
 - C. Methodological nihilism
 - D. Methodological inductivism

5. The method of social inquiry followed by Karl Marx in his critique of capitalist economy involved:
 - A. Historical method
 - B. Dialectical method
 - C. Political economy method
 - D. All of the above

6. The presumption that economic phenomenon in society exists independent of social dimensions is known as:
 - A. *Homoeconomicus*
 - B. *Ceteris Paribus*
 - C. *Reductio ad Absurdum*
 - D. All of the above

7. Formalism in economics refers to construction of models based on:
 - A. Statistical evidence
 - B. Ethnographic observations
 - C. Mathematical axioms
 - D. Descriptive narration
8. Elinor Ostrum, the first woman ever to win a Nobel Prize in economics in 2009, contributed to economics in the field of:
 - A. Financial Markets
 - B. Public Economics
 - C. Law and Economics
 - D. Governing Common Properties
9. An important implication that arises out of Lionel Robbin's famous definition of economic science is that:
 - A. Economics concerns strictly to efficient resource allocation alone.
 - B. Economics should extend itself to issues of redistribution
 - C. Economics should confine to policy advocacy
 - D. All of the above.
10. Most capitalists criticize the economic system in communist countries because it:
 - A. overemphasizes the production of consumer goods
 - B. emphasizes on human resources development
 - C. pays wages that are too high for the quality of workmanship
 - D. provides little incentive to improve methods of production
11. Dual economies are those economies which have:
 - A. abundant human but scarce capital resources
 - B. a modern manufacturing sector co-existing with a traditional agriculture sector.
 - C. specialize in labor-intensive products more than capital-intensive products.
 - D. foreign-owned and domestically-owned capital.
12. The Harrod-Domar growth model suggests that growth is:
 - A. directly related to savings and inversely related to the capital/output ratio.
 - B. directly related to the capital/output ratio and inversely related to savings.
 - C. indirectly related to savings and the capital/output ratio.
 - D. directly related to savings and the capital/output ratio.
13. "Optimal Control Theory" method is one of the solution methods to solve:
 - A. investment decisions in simultaneous equations model,
 - B. non-linear programming problem,
 - C. linear programming problem ,
 - D. dynamic optimization problem.
14. The multi-objective programming problem at the first stage formulation, in general, does not give the unique optimal solution but it gives only:
 - A. strong maximum value to the objective function,
 - B. strong minimum value to the objective function,
 - C. satisficing solution among non-dominated alternatives.
 - D. solutions to all constraints.

15. Multicollinearity problem in econometrics is more prominent in time-series data and arises due to:
- correlation of error terms over a period of time
 - correlation between explanatory variables and error terms
 - correlation between dependent and independent variables
 - correlation among explanatory variables
16. Under which assumption, the maximum likelihood (ML) and ordinary least squares (OLS) estimators of the regression model are identical?
- The assumption that errors are normally distributed.
 - Classical linear regression model assumptions
 - Two-tailed testing assumption
 - None of the above
17. The correlation coefficient between two variables P_i and Q_i is 0.80 and their covariance is 20. If the variance of P_i series is 16, the standard deviation of Q_i series is:
- difficult to determine from the above data information.
 - 1.563
 - 4.000
 - 6.250
18. One bag contains 20 tickets marked with numbers 1 to 20. One ticket is drawn at random. The probability that the ticket number will be a multiple of 2 or 5 is:
- Difficult to determine
 - 10
 - 0.35
 - 0.60
19. Which of the following is true for logit and probit models?
- Both models guarantee that the estimated probabilities lie in the 0 to 1 range
 - In both models, dependent and independent variables are quantitative values
 - In both models, estimated probabilities are linearly related to explanatory variables
 - All of the above
20. If the growth rate of a variable is estimated by using the semi log linear econometric model of the form $\ln Y_t = \alpha + \beta t + U_t$ where Y is the variable under consideration, U is the error term and t is the time in year such that $t = 1, 2, 3, \dots, 50$. Then:
- the slope coefficient β is known as the exponential growth rate
 - the annual compound growth rate (r) can be calculated from the estimated coefficient of β
 - in any given sample, r tends to slightly higher than β
 - All of the above
21. In the regression model $D_t = \alpha + \beta P_t^3 + \delta Y_t^2 + U_t$, the variable D_t is:
- linear in terms of constant parameters and explanatory variables
 - non-linear in terms of parameters and explanatory variables
 - non-linear in terms of parameters but linear in explanatory variables
 - linear in terms of parameters but non-linear in explanatory variables

22. In a linear programming problem, which of the following is not true?
- A. It has linear objective function
 - B. Both negative and nonnegative restrictions are put on choice variables
 - C. Optimal solution values in the primal and dual problems may nor may not be similar
 - D. Objective function values in the primal and dual solutions are similar
23. An excise duty is fully borne by the buyers, when the price elasticity of demand of the product is:
- A. infinity
 - B. zero
 - C. unity
 - D. minus unity
24. Which of the following goods is the best example of a natural monopoly?
- A. Diamonds
 - B. Registered Mail
 - C. Natural gas
 - D. A patented good
25. A differentiated product has:
- A. No substitutes
 - B. No close substitutes
 - C. Close but not perfect substitutes
 - D. Many perfect substitutes

PART-B

26. An additional worker costs INR 150 per hour, and that person can add 250 units of output to the firm. The firm should hire that person as long as:
- A. 250 remains above INR 150
 - B. $250/150$ is greater than zero
 - C. Value of marginal product is above 150
 - D. None of the above
27. The kinked demand curve is used to:
- A. Illustrate the nature of zero-sum games
 - B. Explain the stability of oligopolistic prices
 - C. Illustrate the difference between pure and differentiated oligopoly
 - D. All of the above
28. The Contract Curve shows an efficient allocations of goods between:
- A. Two consumers
 - B. Two inputs
 - C. Two production functions
 - D. All of the above

29. In statistics, a trend that appears in some groups but reverses when the groups are combined is referred to as:
- A. Yule-Simpson Paradox
 - B. Sen's Paradox
 - C. Samuelson's Paradox
 - D. Feldstein-Horioka puzzle
30. With the increase in the price of a product from INR 8 to INR 10, the quantity demanded falls from INR 6 to 4. What is the arc elasticity of demand?
- A. -1.33
 - B. -1.80
 - C. -2.50
 - D. -2.80
31. Which of the following effect arises with children's toys?
- A. Bandwagon effect
 - B. Snob effect
 - C. Veblen effect
 - D. None of the above
32. Taking chickenpox vaccine is an example of:
- A. Positive production externality
 - B. Positive consumption externality
 - C. Negative production externality
 - D. Negative consumption externality
33. Economies of scope refers to the decrease in average total cost that can occur when a firm:
- A. produces a single product
 - B. produces more than one product
 - C. narrows the scope of its regional markets
 - D. has monopoly power in world markets
34. If a person is risk averse, he will pay a price for insurance even if the expected value of the insurance is lower than the price. Assume that the price of insurance is p , and the expected value (i.e., the expected payouts under the policy) is v . What is the term for the quantity $p-v$?
- A. Expected utility.
 - B. Coefficient of relative risk aversion.
 - C. Risk premium.
 - D. Risk-loving.
35. Assume that two countries, Country 1 and Country 2, are producing only two goods, apples and oranges. The opportunity cost of producing an apple is higher in Country 1. Which country has a comparative advantage in producing apples?
- A. Country 1.
 - B. Neither country.
 - C. Both countries.
 - D. Country 2.

36. The basic objective behind holding buffer stocks by Food Corporation of India is:
- A. To cater to targeted public distribution system
 - B. To stabilize prices during acute situations
 - C. To meet the requirements of downtrodden sections of the society
 - D. To enable farmers to meet their costs of production
37. According to NSSO data on consumption, which of the following is true?
- A. Calorie consumption among all classes have fallen
 - B. Consumption expenditure among all classes have risen
 - C. The real wages in rural and urban areas have marginally improved.
 - D. All 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. The Rybczynski theorem in trade theory deals with:
- A. The effect of factor growth on production and trade
 - B. Equalisation of factor prices through trade
 - C. Effect of tariffs on domestic production
 - D. Effect of growth on terms of trade
40. Which of the following statements is not true of the Mankiw-Romer-Well model of economic growth?
- A. It is a human capital augmented version of the Solow model
 - B. It explains the failure of international investment flow to poor countries
 - C. It assumes increasing returns to scale in physical and human capital
 - D. It shows that output is lower in poor countries because they have less human capital
41. The belief that the government of a less developed country should make simultaneous investments in a wide range of industries is called:
- A. The big-push theory
 - B. The theory of balanced growth
 - C. Dualistic growth theory
 - D. Critical minimum effort thesis
42. The Expert Group on Measurement of Poverty, headed by Dr. C. Rangarajan in 2014, adopted the following heads to cover poverty level of expenditure:
- A. Calorific value of cereals, proteins and fats, and also housing, clothing, mobility and education.
 - B. Calorific value of cereals
 - C. Calorific value of cereals, proteins and fats
 - D. Calorific value of cereals and proteins

43. Which of the following is not a form of e-money?
- Debit card
 - Credit card
 - Stored-value card
 - Smart card
44. What distinguishes Marx from Smith, Malthus and Ricardo in labour theory of value is:
- intrinsic value
 - use value
 - exchange value
 - surplus value
45. If a researcher asks questions and he himself records the respondent's replies then this particular method of data collection is known as:
- Interview Schedule method
 - Questionnaire method
 - Participant Observation method
 - Focus Group Discussions method
46. In order to avoid meaningless results, the set of viability conditions to be satisfied by the Input-Output system, is associated with:
- Hawkins-Simon
 - Hicks-Samuelson
 - Leontief-Tinbergen
 - Hawkins-Smith.
47. Which of the following organizations supplies data on State Domestic Product in India?
- National Sample Survey Organisation (NSSO)
 - Central Statistical Organization (CSO)
 - National Council for Applied Economics Research (NCAER)
 - Centre for Monitoring Indian Economy (CMIE)
48. What were the methods used to assess economic activity prior to the development of national income concept?
- Indices of Economic Progress
 - Human Development Indices
 - Crude Development Indices
 - Indices of Sectoral Incomes and Money Supply.
49. The current weighted price index is otherwise also known as:
- Paasche's index
 - Fisher's index
 - Lespeyre's index
 - Divisia index
50. The social accounting matrix analytically may be traced back to:
- Francois Quesnay
 - Ricardo
 - Adam Smith
 - Marx.

51. A critique of Keynesian unemployment equilibrium due to investment trap or liquidity trap states the following: As prices go down due to lack of effective demand, real value of money balances goes up and hence total real wealth of households also goes up, thereby inducing increased demand. What is this theoretical phenomenon called?
- Real Balance Effect
 - Keynes Effect
 - Pigou Effect
 - Fisher Effect
52. Which of the following conditions on the error term is NOT required to hold in order for OLS estimators to be BLUE?
- Normality condition
 - Homoscedasticity condition
 - Zero mean condition
 - All of the above
53. Expansion of money supply is facilitated by:
- purchase of securities by the RBI
 - increasing CRR
 - increasing REPO rate
 - increasing indirect tax rates
54. The first and second fundamental theorems of welfare economics are concerned with:
- functioning of a welfare state
 - functioning of a market system
 - functioning of a centrally planned economy
 - functioning of an economy with trusteeship system
55. Theory suggests that price of an equity share is likely to:
- rise just before dividend payment
 - rise just after dividend payment
 - fall just before dividend payment
 - fall just after dividend payment
56. Let a 2-good exchange economy be such that individual utility functions are strictly quasi-concave and strictly monotonous increasing. Then the set of:
- core allocations and the set of competitive allocations are both empty.
 - core allocations is empty but the set of competitive allocations is non-empty.
 - core allocations and the set of competitive allocations are both non-empty.
 - core allocations is non-empty but the set of competitive allocations is empty.
57. Mr. A with utility function $u(y)$, where y is his income, is risk averse w.r.t. Arrow-Pratt measure of absolute risk aversion. Ms. B has utility function v , such that v can be expressed as a monotone increasing function of $u(y)$ as $v = f(u)$. Then a sufficient condition for Ms. B to be similarly risk-averse is:
- v is a linear function of u .
 - v is a quadratic function of u .
 - v is an exponential function of u .
 - v is a strictly convex

58. According to Real Business Cycles model, employment in an economy may decline due to:
- A. technology shock
 - B. high interest rates
 - C. liquidity trap
 - D. lack of demand
59. Vertical Phillips is explained by:
- A. absolute income hypothesis
 - B. rational expectations hypothesis
 - C. natural rate hypothesis
 - D. adaptive expectations hypothesis
60. Which of the following schools propounds policy ineffectiveness?
- A. Quantity theory of money
 - B. Rational expectations
 - C. Keynesian
 - D. Classical
61. Terms of trade of a country which imposes tariff on its imports, remains constant when a foreign offer curve is:
- A. perfectly elastic
 - B. perfectly inelastic
 - C. elastic
 - D. inelastic
62. Immiserizing growth leads to:
- A. improvement in terms of trade
 - B. deterioration in terms of trade
 - C. raise in factor prices
 - D. fall in commodity prices
63. In classical theory of trade, international values are determined by:
- A. supply
 - B. demand
 - C. reciprocal demand
 - D. demand and supply
64. The author of the book titled: "The Price of Inequality" is:
- A. Karl Marx
 - B. Paul Krugman
 - C. Joseph Stiglitz
 - D. Amartya Sen
65. Effective rate of protection includes:
- A. tariff on final product
 - B. both tariff on final product and tariff on intermediate good
 - C. tariff on intermediate good
 - D. None of the above
66. Primary deficit is equal to:
- A. fiscal deficit minus interest payments
 - B. revenue receipts plus capital receipts minus total expenditure
 - C. revenue expenditure minus revenue receipts
 - D. total expenditure minus total receipts

67. Non-banking financial institutions (NBFIs) include:
- Development finance institutions (DFIs)
 - Insurance companies
 - Primary dealers (PDs) and mutual funds
 - All the above
68. Indian commodity derivative markets are regulated under:
- Forward Contracts (Regulation) Act, 1952
 - IRDA Act, 1999
 - General Insurance Business (Nationalization) Act, 1972
 - The Securities Contracts (Regulation) Act, 1956
69. Narasimham Committee (1991) on financial sector reforms recommended:
- phasing out directed credit programs
 - structural reorganization of the banking sector
 - establishment of an asset reconstruction fund (ARF) tribunal
 - All the above
70. The Govt. of India initiatives to promote industry include:
- National Manufacturing Competitiveness Programme (NMCP)
 - Rajiv Gandhi Ujjami Mitra Yojana (RGUMY)
 - Scheme of Fund for Regeneration of Traditional Industries.(SFURTI)
 - All the above
71. National Food Security Mission covers:
- rice
 - rice and wheat
 - rice, wheat and pulses
 - None of the above
72. The NSSO uses the following concepts to estimate unemployment in India:
- Usual Principal Status (UPS) or chronic unemployment and subsidiary status unemployment
 - Current weekly status unemployment
 - Current daily status unemployment
 - All the above
73. A method of sampling in which the population is divided into different homogeneous groups in terms of some characteristic is known as:
- Systemic sampling
 - Stratified sampling
 - Cluster sampling
 - Judgement sampling
74. Meade's model of economic growth is designed to show the way in which the simplest form of economic system would behave during the process of:
- Stagflation
 - Inflation
 - Equilibrium growth
 - Disequilibrium growth
75. The acceleration principle applies only to:
- Output
 - Replacement investment
 - Net investment
 - Gross investment