# Entrance Examination, June 2017 M.Phil. /Ph.D. Economics

Time: 2 Hours Max. Marks: 80

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 80 questions in this paper. The Question Paper has <u>two parts</u> PART-A and PART-B. The PART-A contains 40 questions and the PART-B also contains 40 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. This question paper contains 17 pages including the cover page and pages for rough work.

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### Entrance Examination 2017 MPhil and PhD (Economics)

Max. Marks: 80 Duration: 2 Hours

### Part-A: (Answer all questions from Question 1 to 40)

- 1. Which among the following, according to Milton Friedman, is a desirable property of a good theory?
  - A. realism of assumptions
  - B. predictive ability of the theory
  - C. internal structure of theory
  - D. simplicity of assumptions of the theory
- 2. In testing a hypothesis, the common error is
  - A. Type I
  - B. Type I and II
  - C. Type II
  - D. None of these
- 3. Which one of the following is an example of probability sampling technique for data collection?
  - A. Lottery method
  - B. Snow-balling method
  - C. Quota sampling method
  - D. Purposive sampling method
- 4. Which of the following methods of data collection may not be suitable to the illiterate respondents?
  - A. Personal interview
  - B. Telephonic interview
  - C. Schedule
  - D. Mailed questionnaire
- 5. Which of the following is a form of group discussion?
  - A. Panel discussion
  - B. Workshop
  - C. Symposium
  - D. All of the above
- 6. In any discipline, the nature and the method of construction of knowledge of the concerned field is known as
  - A. Philology
  - B. Epistemology
  - C. Entomology
  - D. Phenomenology



- 7. When a conclusion or statement does not logically follow from the premise of the argument, it is called the
  - A. Fallacy of Populace
  - B. Red Herring
  - C. Non Sequitur
  - D. Fallacy of Ambiguity
- 8. An argument must have
  - A. more than one premise
  - B. more than one conclusion
  - C. at least one premise and at most one conclusion
  - D. at most one premise
- 9. Which of the following should be the basis of creation of knowledge?
  - A. Experience
  - B. Divine thinking
  - C. Reason
  - D. Experience and reason
- 10. "Reasoning from general situation to particular situation" is called
  - A. Deduction
  - B. Induction
  - C. Observation
  - D. Experience
- 11. Measurement of inequality in wealth and income distribution is measured with help of
  - A. Measurement of bimodaling
  - B. Measurement of outliers
  - C. Measurement of uniformity
  - D. Measurement of variability
- 12. When the given population is heterogeneous with respect to characteristics of variable(s) under study, then which of following methods is used.
  - A. Simple random sampling
  - B. Stratified random sampling
  - C. Interval sampling
  - D. Multi-stage sampling
- 13. When one is able to define a thing or a phenomenon, such a definition is usually aimed to avoid
  - A. description
  - B. reason
  - C. difficulty
  - D. ambiguity

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- 14. "A system of systematically interrelated concepts, definitions and propositions that are advanced to explain and predict phenomena" is a
  - A. Fact
  - B. Value
  - C. Theory
  - D. Generalization
- 15. For scientific validity of research claims about a population under study, the required sample size must be larger as,
  - A. the degree of variability (variance of the population parameter) is smaller
  - B. permissible error of the estimate is smaller
  - C. degree of required confidence level is smaller
  - D. all of the above
- 16. Let "Some stockholders are not businessmen" be a true statement. Which among the following can be derived as a true statement from the above?
  - A. All non-businessmen are stockholders
  - B. Some non-businessmen are stockholders
  - C. No businessmen are stockholders
  - D. No stockholders are businessmen
- 17. No valid argument
  - A. Can have false premise
  - B. Can have false conclusion
  - C. Can have neither false premise nor false conclusion
  - D. Can have true premise along with false conclusion
- 18. All nest-builders are great workers. Some birds are nest-builders. Therefore,
  - Λ. All birds are great workers
  - B. Some birds are great workers
  - C. All great workers are nest-builders
  - D. All nest-builders are birds
- 19. Consider the following qualities: (i) persistence; (ii) Keenness of observation (iii) Faith; (iv) Logical reasoning; (v) industriousness; and (vi) Verbal communication. Which of these are essential for a researcher?
  - A. i, ii, iii, iv
  - B. i, ii, iv, v
  - C. ii, iii, iv, vi
  - D. ii, iii, v, vi
- 20. A hypothesis should be
  - A. related to the existing body of theory and fact
  - B. economical, farsighted and prudent
  - C. formulated in a way that can be tested and verified directly
  - D. all of the above

- 21. Circularity is a
  - A. formal fallacy
  - B. informal fallacy
  - C. both a formal and an informal fallacy
  - D. neither a formal nor an informal fallacy
- 22. Consider the following two sentences:
- P: Number of mobile connections in India has increased rapidly over the past 5 years
- Q: Number of private universities in India has increased rapidly over the past 5 years *Choose the correct answer*:
  - A. Both P and Q are true and P is the correct explanation for Q
  - B. Both P and Q are true but P is not the correct explanation for Q
  - C. P is true but Q is false
  - D. Both P and Q are false
- 23. In the estimates of the values of national income with reference to the value added by self-employed, family enterprises, small and tiny enterprises, non-wage, non-salaried services etc., is based on the
  - A. Census data
  - B. Sample Survey data
  - C. Contingent Valuation data
  - D. Imputed Valuation data
- 24. The appropriate method employed for calculating the national income in an economy where bulk of producers pay income tax and rest of workers make a regular social security payments which is linked to their incomes is the
  - A. Expenditure Method
  - B. Income Method
  - C. Consumption Method
  - D. Tax and Social Security Method
- 25. The method of calculating the price indices by using current year weights is referred to as
  - A. Lespeyres Index
  - B. Friedman Index
  - C. Paasche Index
  - D. Fischer Index
- 26. For testing the structural stability in a multiple regression model, one can use the
  - A. t-test
  - B. Dickey-Fuller test
  - C. Chow test
  - D. None of the above
- 27. Why is it important to read original articles when you are reviewing the literature?
  - A. to look for flaws in the method,
  - B. to obtain an overview of methods and procedures,
  - C. to examine the validity of the conclusions,
  - D. all of the above

- 28. Assume the following 4 statements to be true:
- (i) Specialization leads to increase in productive capacity.
- (ii) Total productive capacity determines wealth of a nation.
- (iii) Division of labour facilitates specialization.
- (iv) Division of labour takes place when the size of market is large.

Assume further that market exists only in two states of nature - it is either large or small (and small is not large). Then,

- A. Division of labour leads to lower productivity.
- B. Large market implies greater wealth of a nation
- C. Market size is irrelevant for economic performance.
- D. None of the above.
- 29. An argument is *sound* if and only if
  - A. the conclusion follows from the premise
  - B. the conclusion is true
  - C. the premise is true
  - D. the argument is valid and the premise is true
- 30. In a valid *inductive* argument, the conclusion follows from the premise
  - A. necessarily
  - B. contingently
  - C. both necessarily and contingently
  - D. neither necessarily nor contingently
- 31. A suitable decision should incorporate:
  - A. list of alternative courses of action
  - B. complete prediction of future
  - C. summary list of pros and cons
  - D. all of the above
- 32. Consider the statement: "Geetha and Seetha are economists". Its negation is:
  - A. Neither Geetha nor Seetha is an economist.
  - B. Geetha is an economist but Seetha is not.
  - C. Geetha is not an economist but Seetha is.
  - D. At least one of the two (Geetha/Seetha) is not an economist
- 33. A function of sample values is called a......
  - A. Parameter,
  - B. Core Value,
  - C. Statistic
  - D. Variable

- 34. The difference between the mean of a researcher's sample and the mean of the population of the sample is known as the
  - A. standard deviation,
  - B. sampling error
  - C. confidence interval
  - D. level of significance

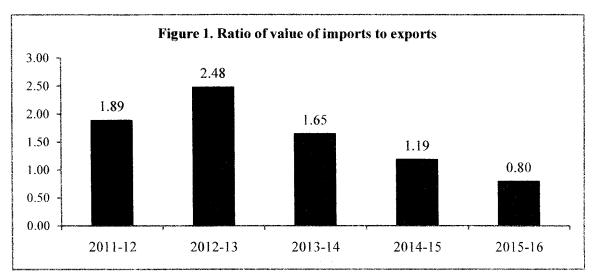
Following data Table 1 shows the marks obtained by four students (Tom, Bon, Zak and San) in four examinations. Answer the following two questions (35 and 36) based on the following data Table 1.

Table 1. Marks obtained by four students

	Tom	Bon	Zak	San
Exam 1	98	91	75	45
Exam 2	80	45	75	75
Exam 3	70	65	75	85
Exam 4	52	99	75	95
Standard deviation	19.2	24.7	0.0	21.6

- 35. Which is true in Table 1?
  - A. Average marks obtained by four students are similar and equal to 85
  - B. Average marks obtained by four students are similar and equal to 75
  - C. Average marks obtained by four students are not similar
  - D. None of the above
- 36. Based on the coefficient of variation (CV) values, which of the following ranking of students is true (from the highest fluctuation to the lowest fluctuation of marks across four examinations)?
  - A. Bon, Zak, San and Tom
  - B. Bon, Tom, Zak and San
  - C. Zak, San, Tom and Bon
  - D. Bon, San, Tom and Zak

The following column diagram (Figure 1) shows the ratio of the amount of imports by India to the amount of its exports to Mexico over the period from 2011-12 to 2015-16. Answer the following four questions (37 to 40) based on the following data Figure 1.



Data Source: http://commerce.nic.in/eidb/iecnt.asp

- 37. In how many of the given years, India's imports were more than its exports to Mexico?
  - A. 1
  - B. 2
  - C. 3
  - D. 4
- 38. If the import amount of India in 2011-12 was 2580 million US dollars, the export amount of India in the same year was
  - A. 1067 million US dollars
  - B. 1167 million US dollars
  - C. 1267 million US dollars
  - D. 1367 million US dollars
- 39. What was the percentage increase in India's exports from 2011-12 to 2015-16?
  - A. 45%
  - B. 49%
  - C. 51%
  - D. data inadequate
- 40. Of the two statements: (i) "India's imports were more than its exports in both 2011-12 and 2015-16" and (ii) "India's imports were less than exports in 2015-16",
  - A. Both statements are correct
  - B. Only statement (i) is correct
  - C. Only statement (ii) is correct
  - D. Both statements are incorrect

## Part-B (Answer all from question 41 to 80)

- 41. The marginal product of labour is
  - A. the change in total cost when an extra worker is employed,
  - B. the change in total output when an extra worker is employed
  - C. the change in profits when an extra worker is employed,
  - D. the change in wages when an extra worker is employed
- 42. The statement that marginal cost (MC) = marginal revenue (MR) leads to the total profit maximization or loss minimization is true
  - A. all the time
  - B. only in the long run
  - C. only if the slope of MC is greater than the slope of MR at the point of equality
  - D. only if the average cost is falling at the point of equality
- 43. In general, for normal goods, a change in the welfare of a Consumer, when the price of the good changes, can be measured by the concept of:
  - A. Compensating Variation in Income
  - B. Equivalent variation in Income
  - C. Marshallian Consumer Surplus
  - D. Any of the three concepts listed above
- 44. In a Cournot Oligopoly model with two firms,
  - A. Each firm assumes the strategy of the other firm to be given and fixed and incorporates this while making its decisions.
  - B. Each firm negotiates with the other firm in reaching equilibrium.
  - C. One firm sets the price/ quantity for the other firm to take as given while maximizing its profits.
  - D. Both firms take independent decisions regardless of the other firm's decisions.
- 45. The factor that distinguishes between classical and Keynesian macroeconomics is
  - A. the speed of price adjustment
  - B. the slope of the aggregate demand curve.
  - C. the degree of monopoly power in the economy.
  - D. the assumption about the transmission mechanism of monetary policy.
- 46. The natural rate of unemployment can be defined as the unemployment rate that exists when the economy
  - A. is neither growing nor shrinking
  - B. has zero inflation
  - C. has only cyclical and structural unemployment
  - D. produces at the potential output level
- 47. Which among following is not a component of the international reserve
  - A. Foreign currency assets
  - B. Special Drawing Rights (SDR)
  - C. Gold
  - D. Cash Reserve Ratio (CRR)

- 48. Which of the following statements is true about the supply-side economics?
  - A. The main change made by the tax laws of 1981 and 1986 was to increase marginal tax rates in order to balance the budget
  - B. The Laffer Curve says that, if marginal tax rates fall, tax revenues will rise, and the budget deficit will decrease
  - C. If the tax laws of 1981 and 1986 had their intended effect, consumption would have risen, causing an increase in both real GDP and in the price level
  - D. All of the above
- 49. In the Indian agriculture, two terms 'Green Revolution' and 'Yellow Revolution' respectively are used to denote mainly the successes achieved in the production of
  - A. green energy production and oilseeds
  - B. foodgrains and tamarind
  - C. foodgrains and oilseeds
  - D. leafy vegetables and Sunflowers
- 50. Consider following three statements for Indian Economy.

**Statement 1**: The share of agriculture in the country's total GDP has been declining in the post-reform period.

**Statement 2**: The share of agricultural sector's contribution to GDP and the share of the main workforce in the agriculture have been declining in the post reform period.

**Statement 3**: The decline in the share of workforce engaged in the agriculture sector has been faster than the decline in the agriculture's share of contribution to the country's total GDP over time.

Which of the following is correct?

- A. Statement 1 and 3 are true
- B. Only Statement 1 is true
- C. Statement 1 and 2 are true
- D. All three statements are true
- 51. As per the countrywide "Situation Assessment Survey of Agricultural Households" in India for the 2012-13 crop year, about 58% of rural households in India were engaged in farming activity, which, in turn, contributed only about 60% to their average total monthly incomes. Which of the following conducted this survey?
  - A. Registrar General of India Office
  - B. Central Statistical Office
  - C. NABARD
  - D. National Sample Survey Office

- 52. The Sovereign debt includes:
  - A. The external debt outstanding on account of loans received by the sovereign under the 'external assistance' programme, and civilian component of domestic currency debt.
  - B. Other government debt comprising borrowings from International Monetary Fund, defense debt component of domestic currency debt as well as foreign currency defense debt.
  - C. The foreign institutional investor (FII) investment in government securities.
  - D. All of the above
- 53. Which of the following hypothetical situations would lend support to the applicability of the Keynesian view over the Classical view?
  - A. Unemployment rises briefly, but settles back to a low and stable rate without any government intervention,
  - B. Unemployment rises and stays high for a long period of time without any government intervention
  - C. Unemployment stays at a stable and low rate for a long period of time without any government intervention,
  - D. Unemployment rises when the government increases its spending
- 54. Who is regarded as the first Economist to systematize "how investments in education can affect productivity in agriculture as well as the economy as a whole", according to his 1979 Nobel citation?
  - James A. Mirrlees
  - B. Trygve Haavelmo
  - C. Charles Hutchinson
  - D. Theodore W. Schultz
- 55. "The tangible forms of capital are not the only type of capital but schooling, a computer training course, expenditures on medical care, and lectures on the virtues of punctuality and honesty are also capital assets". This statement is closely related to
  - A. the human capital index of the UNO,
  - B. the human capital formation theory propounded by Gary S. Becker (1977)
  - C. the human capital theory propounded by Gary S. Becker (1964)
  - D. none of the above
- 56. In the words of the Hartog Committee (1929), by stagnation in education,
  - A. we mean the retention in a lower class of a child for a period of more than one year,
  - B. we mean the retention in a lower class of a child for a period of more than two years,
  - C. we mean premature withdrawal of children from schools at any stage before completion of the primary courses,
  - D. we mean the drop-outs of children from the primary school

- 57. Consider three statements related to Karl Marx's Theory of Surplus Value:
  - (i) Marx did not himself invent the term "Surplus Value" but he developed the concept,
  - (ii) According to Marx's theory, the surplus value is defined as the value extracted through the surplus labour over the necessary labour of workers
  - (iii) According to Marx's theory, surplus value is equal to the new value created by workers in excess of their own labour-cost, which is appropriated by the capitalist as profit when products are sold.

#### Which is correct?

- A. Only statement (iii) is correct
- B. Only statement (i) and (ii) are correct
- C. All three statements are false
- D. All three statements are true
- 58. Which one of the following statements is true with respect to the Tendency of Rate of Profit to Fall (TRPF) hypothesis of Adam Smith in Economics?
  - A. the falling tendency resulted from increased competition which accompanied the growth of capital and intensifying competition itself would drive down the average profit rate
  - B. the competition could only level out differences in profit rates on investments, but not lower the general profit rate as a whole,
  - C. the tendency of the rate of profit to fall is an expression peculiar to the capitalist mode of production of the progressive development of the social productivity of labor.
  - D. technological improvement and use of labour-saving modes of production would reduce overall profit rate.
- 59. The basic statement of the Heckscher-Ohlin theorem is that
  - A. a country will import goods that use its abundant factors intensively, and export goods that use its scarce factors intensively.
  - B. a country will export goods that use its abundant factors intensively, and import goods that use its scarce factors intensively
  - C. a country will export goods that use its abundant factors intensively, and will not import any goods,
  - D. a country will import goods that use its abundant factors intensively, and will not export any goods
- 60. The predatory dumping in international trade is a kind of price discrimination in which
  - A. a monopolist continuously sells a portion of his commodity at a high price in the domestic market and the remaining output at a low price in the foreign market,
  - B. the producer sells the unsold stocks at a low price in the foreign market without reducing the domestic price,
  - C. a monopolist firm sells its commodity at a very low price or even at a loss in the foreign market in order to drive out some competitors
  - D. All of the above

- 61. According to the crowding-out hypothesis in public finance
  - A. Public investment is complementary to private investment
  - B. Public investment is supplementary to private investment
  - C. Public investment displaces private investment
  - D. Public investment encourages private investment
- 62. The threshold level of emission is
  - A. The maximum level of emission
  - B. Zero level of emission
  - C. The minimum level of emission to begin to cause a damage
  - D. The uncontrolled level of emission
- 63. Modified value added tax (MODVAT) is basically a tax on
  - A. Consumption
  - B. Production
  - C. Services
  - D. None of the above
- 64. An "ad valorem tax" is typically imposed
  - A. on the total business income of a person
  - B. at the time of transaction as in the case of a sales tax
  - C. on the extra earning of an employee
  - D. on the capital gains
- 65. While making distinctions between "Health" and "Health Care", which one of the following statements is correct?
  - A. Health is not a commodity but health care is a commodity which can be purchased in the market,
  - B. Health cannot be traded in the market but health care is tradable.
  - C. Health can only have value-in-use and not in exchange but health care has both value-in-use and exchange.
  - D. All of the above
- 66. Which is the major source of health care financing in India?
  - A. Social insurance
  - B. Charity
  - C. External funding
  - D. Out-of-pocket expenditure
- 67. In India, the law relating to labour and employment is also known as
  - A. The Employee Welfare Law
  - B. The Industrial Law
  - C. The Worker Protection Law
  - D. None of the above

- 68. Lionel Robbins defined economics as a science that studies the relationship between unlimited wants and scarce resources which have alternative uses. By this definition, the central concern of economics is strictly
  - A. Redistribution
  - B. Allocative efficiency alone
  - C. Redistribution as well as allocative efficiency
  - D. Consumer choice
- 69. The definition of the Head Count Ratio of poverty based on calorie norm reflects the poverty.
  - A. Multi-dimensional
  - B. Income
  - C. Relative
  - D. Absolute
- 70. In the Solow growth model, when the propensity to save increases, then the aggregate production function
  - A. Shifts Down
  - B. Remains Constant
  - C. Shifts upwards
  - D. Becomes Linear
- 71. In the Harrod model of growth, the incremental capital-output ratio is assumed to be
  - Increasing continuously
  - B. Decreasing
  - C. Increasing first and then decreasing
  - D. Constant
- 72. In the Harrod-Domar model, the warranted growth rate is determined by
  - A. Savings ratio and technical coefficient
  - B. Incremental capital to incremental output ratio
  - C. Savings ratio and marginal product of capital
  - D. Technical coefficient and marginal product of capital
- 73. If  $MC = 2 0.4q + 3q^2$  is the marginal cost (MC) function of a firm where q is the level of output, the average variable cost (AVC) at q = 10 units will be:
  - A. 1000 units
  - B. zero
  - C. 100 units
  - D. Cannot be calculated from the given data
- 74. The concept of duality in a linear programming problem refers to the following property
  - A. the optimal solution values of choice variables are equal for both minimization and maximization programs,
  - B. all constraints are satisfied with equality signs only,
  - C. objective function values of minimization and maximization programs are equal, provided the optimal solutions do exist
  - D. all of the above

- 75. The spurious regression is related to the
  - A. non-stationary process
  - B. stationary process
  - C. Stochastic process
  - D. none of the above
- 76. The statement that "There can be more than one sample regression function representing the population regression function" is
  - A. always true
  - B. always false
  - C. sometimes false, sometimes true
  - D. none of the above
- 77. In Financial Economics, an "American option" is an option (call or put), that can be exercised
  - A. by the buyer only on the maturity date
  - B. by the buyer on any business date from the initiation to maturity
  - C. by the seller only on the maturity date
  - D. by the authorized seller only
- 78. Which of the following is often referred to as the "Hedonic Price" method for valuing environmental assets?
  - A. Using 'existence value' to estimate the value of an environmental asset
  - B. Using travel costs to estimate the value of an environmental asset
  - C. Using the 'willingness to pay' to value an environmental asset
  - D. Using linkages between variations in house prices and geographical proximity to an environmental asset
- 79. According to the Urban Hierarchy Theory, any given country should
  - A. Have few large and complex cities than small towns
  - B. Have small towns that serve as hubs for high order economic functions
  - C. Have many megalopolises
  - D. Have the same number of small towns and megacities
- 80. With an increase in money supply, the LM curve will take
  - A. leftward shift
  - B. rightward shift
  - C. no shift at all
  - D. none of above

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