

**FIRST SEMESTER M.A./M.Sc. DEGREE (REGULAR) EXAMINATION
NOVEMBER 2020/2021**

(CBCSS)

Econometrics

ECM 1C 04—BASIC STATISTICS AND SAMPLING THEORY

(2020 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

General Instructions

1. *In cases where choices are provided, students can attend **all** questions in each section.*
2. *The minimum number of questions to be attended from the Section / Part shall remain the same.*
3. *The instruction if any, to attend a minimum number of questions from each sub section / sub part / sub division may be ignored.*
4. *There will be an overall ceiling for each Section / Part that is equivalent to the maximum weightage of the Section / Part.*

Part A (Multiple Choice Questions)

*Answer **all** questions.*

Each question carries 1/5 weightage.

1. When the amount of change in one variable is not in constant ratio to the change in the other variable :
 - a) Non-linear correlation.
 - b) Curvilinear correlation.
 - c) Either (a) or (b).
 - d) Neither (a) or (b).
2. The measure of Kurtosis is derived from _____.
 - a) Moments.
 - b) Skewness.
 - c) Dispersion.
 - d) None of these.
3. The co-efficient of skewness that is based on Quartiles :
 - a) Bowley's.
 - b) Pearson's.
 - c) Either (a) or (b).
 - d) None of these.

Turn over

4. Which among the following is/are positional averages ?
- a) Mode.
 - b) Median.
 - c) Mean
 - d) Both (a) and (b).
5. The lowest level of data measurement is _____.
- a) Nominal scale.
 - b) Ordinal scale.
 - c) Interval scale.
 - d) Ratio scale.
6. A data set consists of the GNP growth rate of a country. Which is a better measure of central tendency for the data set :
- a) Arithmetic mean.
 - b) Median.
 - c) Geometric Mean.
 - d) Weighted Arithmetic mean.
7. Quartile Deviation is :
- a) $2/3$ Standard deviation.
 - b) $5/6$ Standard deviation.
 - c) $3/2$ Standard deviation
 - d) None of these.
8. _____ is used as a measure of risk in the stock market.
- a) Quartile deviation.
 - b) Mean Deviation.
 - c) Standard Deviation
 - d) None of these.
9. A distribution which is flatter than the normal distribution is _____.
- a) Mesokurtic.
 - b) Platykurtic.
 - c) Leptokurtic.
 - d) Binomial.
10. Wrong inferences about population based on a sample is _____.
- a) Non Sampling Error.
 - b) Sampling bias.
 - c) Sampling Error.
 - d) None of these.
11. The speed of a car in miles per hour represents :
- a) Continuous data.
 - b) Discrete data.
 - c) Either (a) or (b).
 - d) Neither (a) or (b).

**FIRST SEMESTER M.A./M.Sc. DEGREE (REGULAR) EXAMINATION
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Econometrics

ECM 1C 03—MACRO ECONOMIC THEORY

(2020 Admission onwards)

Time : Three Hours

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General Instructions

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Part A (Multiple Choice Questions)

Answer all questions.

Each question carries a weightage of 1/5.

1. According to Keynes, consumption is primarily a function of :
 - (a) Relative level of current disposable income.
 - (b) Absolute level of permanent disposable income.
 - (c) Relative level of expected lifetime income.
 - (d) Absolute level of current disposable income.
2. Which of the following links together the goods market and money market in the IS-LM model ?
 - (a) Expansionary monetary policy.
 - (b) Expansionary fiscal policy.
 - (c) Interest rates.
 - (d) Wages and prices.

Turn over

7. The expectations-augmented Phillips curve assumes that an increase in the expected rate of inflation would :
- (a) Shift the long-run Phillips curve to the left.
 - (b) Shift the Phillips curve downward.
 - (c) Shift the Phillips curve upward.
 - (d) Will remain the same.
8. According to the Baumol-Tobin model, people will hold more money if (i) the fixed cost of going to the bank is higher ; (ii) the expected expenditure is higher; (iii) the interest rate is lower.
- (a) (i) only.
 - (b) (i) and (iii).
 - (c) (ii) and (iii).
 - (d) (i), (ii) and (iii).
9. In an IS-LM model, a decrease in the income tax rate will :
- (a) Increase output and the interest rate.
 - (b) Increase consumption and decrease the interest rate.
 - (c) Make the IS-curve steeper.
 - (d) Decrease the expenditure multiplier.
10. Accelerator principle states that :
- (a) Given increase in investment will result in a multiple increase in income.
 - (b) Given decrease in investment will result in a multiple increase in income.
 - (c) An increase in income will result in fresh investment.
 - (d) Increased expenditure accelerates income.
11. In a Keynesian world, there is no room for policy intervention to increase GDP in a recession. This statement is :
- (a) False, the government can increase taxes to increase GDP.
 - (b) False, the government can reduce taxes to increase GDP.
 - (c) True, taxes and government expenditures do not affect GDP.
 - (d) True, GDP will only be determined by firm's investment.

12. The shape of long-run Phillips curve is assumed to be :
- (a) Horizontal. (b) Vertical.
(c) L-shaped. (d) Downward sloping.
13. Which of the following school of thought assumes that expectations are formed rationally but does not assume complete wage and price flexibility ?
- (a) New classical. (b) Keynesian.
(c) Monetarist. (d) New Keynesian.
14. Which of the following economist argues that the business cycle happens mainly because of changes in monetary and credit market conditions ?
- (a) R. G. Hawtrey. (b) Nicholas Kaldor.
(c) Samuelson. (d) J. R. Hicks.
15. Which of the following is not correct in terms of target and instrument variables in macro-economics ?
- (a) Target variables are mostly related to price or quantity.
(b) Instrument variables are mostly policy related.
(c) Price index and quantity index are usually target variables.
(d) Instrument variables have nothing to do with policy matters.

(15 × 1/5 = 3 weightage)

Part B (Very Short Answer Questions)

Answer any five questions.

Each question carries a weightage of 1.

16. Explain the Taylor rule.
17. What is Kuznet's paradox ?
18. Elucidate the Fisher effect.
19. Describe rational expectation.
20. Explain the concept of marginal efficiency of capital.
21. Define the LM curve.

22. Explain the major monetary policy instruments used in India.
23. Describe the salient features of the business cycle theory of Hawtrey.

(5 × 1 = 5 weightage)

Part C (Short Answer Questions)

Answer any seven questions.

Each question carries a weightage of 2.

24. Explain the positive as well as negative implications of fiscal deficit for an economy.
25. Elaborate the Cambridge school version of quantity theory of money.
26. Illustrate how the aggregate demand curve can be derived from IS-LM model.
27. Compare and contrast the new classical and Keynesian views of the way labour markets function.
28. Explain the adaptive expectation hypothesis. How is it used to explain the natural rate of unemployment ?
29. Explain the Hicks theory of business cycle.
30. What is Real Business Cycle theory ? How is it different from Keynesian Business Cycle theory ?
31. Explain the Philips curve. How do short-term and long-term Phillips curves differ ?
32. What do you mean by stabilization policy ? What are the problems of stabilization policy ?
33. Explain the theory of dynamic inconsistency.

(7 × 2 = 14 weightage)

Part D (Long Essay Questions)

Answer any two questions.

Each question carries a weightage of 4.

34. Briefly discuss the arguments of business cycle theories.
35. Illustrate the IS-LM framework and elaborate the impact of fiscal and monetary policies on the equilibrium of income and interest rate.
36. Explain the implications of the rational expectations assumption for the effectiveness of economic stabilization policy.
37. Evaluate and compare the traditional view and Ricardian view of government debt. Do you support the traditional view or Ricardian view of government debt ? Why ?

(2 × 4 = 8 weightage)

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Econometrics

ECM 1C 02—MICRO ECONOMIC THEORY

(2020 Admission onwards)

Time : Three Hours

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General Instructions

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Part A (Multiple Choice Questions)

Answer all fifteen questions.

Each question carries 1/5 weightage.

1. Under Cournot model of oligopoly, a firm is in equilibrium when :
 - i. Marginal Cost = Marginal Revenue.
 - ii. Marginal Revenue = 0.
 - iii. Marginal Revenue = Average Revenue.
 - iv. Marginal Cost = Average Revenue.

Which of the above statements is/are not true?

- (A) Only i. (B) Only ii.
(C) Both iii and iv. (D) All the above.
2. The slope of the indifference curve is _____.
 - (A) Price ratio. (B) Opportunity cost.
 - (C) Marginal rate of substitution. (D) Marginal rate of technical substitution.
 3. Assertion (A) : Demand curve and Marginal revenue curve never intersect for a monopoly.
Reason (R) : Marginal Revenue curve and Average revenue curve has the same slope.
 - (A) Only A is true. (B) Only R is true.
 - (C) Both A and R are true. (D) Both are false.

Turn over

4. 'Stock-adjustment principle' is associated with :
- (A) Nerlove. (B) Houthakker.
(C) Friedman. (D) Morgenstern.
5. When a firm's equilibrium output is less than the output at which the slope of AVC is zero is called :
- A) Reserve capacity. (B) Underutilization of factory.
C) Excess capacity. (D) Break even production.
6. Identify the correct statement related to learning curve :
- (A) The slope of the learning curve represents the rate in which learning translates into cost savings for a company.
(B) The steeper the slope, the higher the cost savings per unit of output.
(C) Both (A) and (B).
(D) None of these.
7. The compensation criterion of Kaldor-Hicks assumes :
- (A) Each individual's satisfactions are independent from the others so that he is the best judge of his welfare.
(B) There is the absence of external effects in production and consumption.
(C) It is possible to separate the problems of production and exchange from the problem of distribution.
(D) All the above
8. Which one of the following is an example for a Cartel ?
- (A) BRICS (B) EU.
(C) QUAD. (D) OPEC.
9. When the consumer is in equilibrium, $MRS_{XY} = 3.5$. If the price of the commodity Y is 20, then what will be the price of commodity X ?
- (A) 60. (B) 70.
(C) 50. (D) 40.
10. When the distance between consecutive multiple-isoquants increases, it is called :
- (A) Increasing returns to scale. (B) Decreasing returns to scale.
(C) Constant returns to scale. (D) All the above.

11. In the CES production function, $Q = A [\alpha C^{-\theta} + (1 - \alpha) L^{-\theta}]^{-1/\theta}$, the substitution parameter which determines the elasticity of substitution is :
- (A) θ . (B) α
 (C) A. (D) $(1 - \alpha)$.
12. Lines which represent the limits of the economic region of production are called :
- (A) Budget lines. (B) Ridge lines.
 (C) Isocost lines. (D) Isoquants.
13. According to Arrow :
- I. Social welfare cannot be evaluated by a democratic vote.
 II. The social welfare choices should be transitive.
- (A) Statement I alone is correct. (B) Statement II alone is correct.
 (C) Statements I and II are correct. (D) Statements I and II are incorrect.
14. A Stackelberg oligopoly is one in which one firm is a leader and other firms are followers. This model applies where :
- (A) The firms sell homogeneous products.
 (B) Competition is based on output.
 (C) Firms choose their output sequentially and not simultaneously.
 (D) All the above.
15. Moral hazard is associated with :
- (A) Labour market. (B) Goods market.
 (C) Insurance market. (D) Automobiles market.

(15 × 1/5 = 3 weightage)

Part B (Very Short Answer Questions)

Answer any five questions out of eight questions.

Each question carries 1 weightage.

16. What is prisoner's dilemma ?
17. State product exhaustion theorem.

Turn over

18. Differentiate between cooperative games and non co-operative games.
19. Define risk aversion.
20. Briefly explain elasticity of factor substitution.
21. Define linear homogeneous production function.
22. What do you mean by consumers surplus ?
23. Distinguish between snob effect and bandwagon effect.

(5 × 1 = 5 weightage)

Part C (Short Answer Questions)

Answer any seven questions out of nine questions.

Each question carries 2 weightage.

24. Point out difference between weak ordering and strong ordering. Explain revealed preference theory.
25. Explain Nash equilibrium.
26. Define asymmetric information. Discuss the implications of asymmetric information.
27. Explain social welfare function.
28. *Arrow's impossibility theorem is a social-choice paradox illustrating the flaws of ranked voting systems. Explain.*
29. Explain the non-price competition in monopolistic competition.
30. Distinguish between cardinal utility and ordinal utility. Summarise the assumptions of cardinal utility and ordinal utility analysis.
31. Explain the Neuman-Morgenstern method of constructing utility index.
32. Explain the relationship between technical progress and production function.

(7 × 2 = 14 weightage)

Part D (Essay Questions)

Answer any two questions out of four questions.

Each question carries 4 weightage.

33. Explain Pareto optimality. Discuss the marginal conditions of Pareto optimality.
34. Explain recent developments in demand theory. Discuss distributed-lag models of demand.
35. State and explain Cobb-Douglas production function. Prove the properties of Cobb-Douglas production function.
36. Explain meaning and characteristics of oligopoly. Critically examine Cournot's duopoly model.

(2 × 4 = 8 weightage)