D 93023-A (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS–UG) DEGREE EXAMINATION, NOVEMBER 2020

Economics

ECO 4(3) C04—MATHEMATICAL TOOLS FOR ECONOMICS

(Multiple Choice Questions for SDE Candidates)

Time : 15 Minutes	Total No. of Questions : 20	Maximum : 20 Marks

INSTRUCTIONS TO THE CANDIDATE

1. This Question Paper carries Multiple Choice Questions from 1 to 20.
2. The candidate should check that the question paper supplied to him/her contains all the 20 questions in serial order.
3. Each question is provided with choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and enter it in the main answer-book.
4. The MCQ question paper will be supplied after the completion of the descriptive examination.

ECO 4(3) C04—MATHEMATICAL TOOLS FOR ECONOMICS

(Multiple Choice Questions for SDE Candidates)

1. Stochastic variables are those having :

   (A) Probability distribution. (B) Indexation.

   (C) Correlation. (D) Causation.

2. If marginal revenue is Rs. 25 and elasticity of demand w.r.t price is 2, then the average revenue is :

   (A) 50. (B) 25.

   (C) 75. (D) 100.

3. An example of fixed inputs of production is ————————.

   (A) Land. (B) Organisation.

   (C) Both (A) and (B). (D) None of these.

4. The elasticity of demand d in terms of AR and MR is :

   (A) $\frac{AR - MR}{AR}$. (B) $\frac{AR - MR}{MR}$.

   (C) $\frac{MR}{AR - MR}$. (D) $\frac{AR}{AR - MR}$.

5. When demand is unitary elastic, then ?

   (A) $d = 1, MR = 0$. (B) $d = 0, MR = 1$.

   (C) $d = -1, MR = 0$. (D) $d = 0, MR = -1$.

6. For a unitary elastic supply, p^s is :

   (A) Less than 1. (B) More than 1.

   (C) Equal to 1. (D) Zero.

7. Luxury goods are :

   (A) Price inelastic. (B) Price elastic.

   (C) Both (A) and (B). (D) None.

8. The relationship between supply and price is :

(A) Negative. (B) Perfect.

(C) Positive. (D) None.

9. A given percentage change in price results in an equal percentage change in sales, indicates :

(A) Unitary price elasticity. (B) Inelastic price elasticity.

(C) Elastic price elasticity. (D) None.

10. Iso quants are downward sloping and ———— to the origin.

(A) Convex. (B) Concave.

(C) Vertical. (D) Horizontal.

11. In CES production function, the elasticity of substitution is :

(A) Unity. (B) Zero.

(C) Negative. (D) Constant.

12. Demand function $Q = f(P)$, the variable P denotes :

(A) Product. (B) Production.

(C) Price. (D) Profit.

13. The order of differential equation is the order of ————.

(A) Derivative. (B) Highest derivative.

(C) Exponent. (D) Factors.

14. Slope of Total product Curve is called :

(A) MP. (B) AP.

(C) TC. (D) MC.

15. The ratio of capital to labour is called :

(A) Average product of labour. (B) Average product of capital.

(C) Factor intensity. (D) None of these.

16. For the function one condition for getting points of inflexion is a :

(A) $f^1(d) = 0/x$. (B) $f''(x) = 0$.

(C) $f'''(x) = 0$. (D) None of these.

17. For a function $y = f(x_1, x_2)$, the total differential is given by :

(A) $dy = f_1 dx_1 + f_2 dx_2$. (B) $dy = f_1 dx_2 + f_2 dx_1$.

(C) Both (A) and (B). (D) None of these.

18. The inflexion points of the function $y = x^3 - 3x^2 + 5$ is at :

(A) 3. (B) 6.

(C) 1. (D) 0.

19. The output of a firm, with given prices of factors of production is decided so that the total cost is :

(A) Maximum. (B) Balanced.

(C) Minimum. (D) Positive.

20. If $f_{xx} f_{yy} < (f_{xy})^2$ when f_{xx} and f_{yy} are of the same sign, then the function is at :

(A) Minimum point. (B) Maximum point.

(C) Inflexion point. (D) Saddle point.

D 93023 (Pages : 2) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS–UG) DEGREE EXAMINATION, NOVEMBER 2020

Economics

ECO 4(3) C04—MATHEMATICAL TOOLS FOR ECONOMICS

Time : Two Hours and a Half Maximum : 80 Marks

Section A (Short Answer Questions)

Answer at least **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 30.

1. What is Homogeneous production function ?
2. Find $\lim_{x \to 4} \frac{3x^2 - 5x}{x + 6}$.
3. Define Optimization.
4. Find the following function apply Quotient rule : $y = \frac{6x - 7}{8x - 5}$.
5. Explain the concept of Returns to scale.
6. If $TC = Q^2 + 7Q + 23$ then find MC.
7. What is Price elasticity of demand ?
8. Find the Marginal cost function from $AC = \frac{160}{Q} + 5 - 3Q + 2Q^2$.
9. What is an inflection point ?
10. Prove that Marginal cost must equal marginal revenue at the profit maximizing level of output.
11. Define Marginal Productivity of capital and labour.
12. Given $z = x^4 + 8xy + 3y^3$, find the Total differential.
13. Find the first order partial derivatives of the following functions : $z = 2w^2 + 8wxy - x^2 + y^3$.
14. Integrate $\int x^{\frac{2}{3}} dx$.
15. The rate of net investment $I = 60t^{1/3}$, and capital stock at $t = 1$ is 85. Find K using Integration.

(10 × 3 = 30 marks)

Turn over

Section B (Paragraph Questions)

Answer at least **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall Ceiling 30.

16. Find the Total Revenue function using Integration : MR = $84 - 4Q - Q^2$.

17. Explain the rules of differentiation.

18. $MC = \frac{dTC}{dQ} = 25 + 30Q - 9Q^2$. Fixed cost is 55. Find the cost functions of TC, AC and VC.

19. Briefly explain Lagrange multiplier method.

20. At the price x, the demand function $y = 27 + \frac{1}{x} - \frac{x}{2}$. Find the marginal revenue as $x = 3$.

21. Given the demand function $q = 165 - 3p - 2p^2$. Find the elasticity of demand at the price = 5.

22. Explain the relationship between TC, AC and MC Concepts.

23. If $2x^2 - 3xy + y^2 = 0$ find the value of $\frac{dy}{dx}$ using the product rule.

(5 × 6 = 30 marks)

Section C (Essay Questions)

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. (i) Explain the concept of Price, Cross and Income elasticity of demand.
    (ii) Describe the important mathematical applications in Economics.

25. Minimize $y = x_1^2 - x_1x_2 + 2x_2$ subject to $2x_1 + 4x_2 = 12$ using the Lagrange method.

26. If the demand law is $p = a - bx$. Find the Total revenue and Marginal revenue functions.

27. Find (i) $\int\left(5x + \frac{2}{x}\right)dx$; (ii) $\int 10x^3 dx$; and (iii) $\int \frac{6x+3}{x(x+1)}dx$.

(2 × 10 = 20 marks)

D 93022 (Pages : 2) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION NOVEMBER 2020

Economics

ECO 4 (3) C 03—BANKING—II

Time : Two Hours and a Half Maximum : 80 Marks

Section A (Short Answer Questions)

Answer at least **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 30.

1. What is the chief role of a development bank ?
2. What do you mean by MCLR ?
3. What is Capital Adequacy Ratio ?
4. Distinguish between Repo and Reverse Repo Rate.
5. Differentiate between SLR and CRR.
6. Write the differences between co-operative banks and commercial banks.
7. Write a note on the functions of NABARD.
8. Write a note on the three tier structure of co-operative banks.
9. Explain the importance of Regional Rural Banks.
10. What do you mean by refinancing ?
11. Why do we regard RBI as the 'Lender of Last Resort' ?
12. State the definition of NPA.
13. State the classification of assets by the RBI.
14. What is Basel Accords III ?
15. What is meant by lead bank scheme ?

(10 × 3 = 30 marks)

Turn over

Section B (Short Essay Questions)

Answer at least **five** *questions.*

Each question carries 6 *marks.*

All questions can be attended.

Overall Ceiling 30.

16. Explain the relevance of SFCs.
17. What are the limitations of agricultural and rural banking in India ?
18. Critically assess the role and functions of Mudra Bank..
19. Write the Mode of functioning Open Market Operation.
20. Do we need RBI to supervise and monitor the activities of Commercial Banks ?
21. Write a note on the recommendations of Narasimham Committee II.
22. What are the functions of RBI ?
23. Write a note on the functions and importance of SIDBI.

(5 × 6 = 30 marks)

Section C (Long Essay Questions)

Answer any **two** *question.*

Each question carries 10 *marks.*

24. Critically examine the Narasimham Committee Report -I.
25. How does NABARD help the co-operative credit system in India ?
26. Explain the various monetary policy instruments of RBI.
27. List the development banks in India. Write its main features and make a critical assessment.

(2 × 10 = 20 marks)

D 93021 **(Pages : 2)** **Name**.....

Reg. No.....

THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION NOVEMBER 2020

Economics

ECO 4(3) C02—COOPERATION–II

Time : Two Hours and a Half Maximum : 80 Marks

Section A

Answer at least **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 30.

1. Define a marginal farmer.
2. Define NGO.
3. Explain the purpose of Community Development Societies (CDS).
4. What is organic farming ?
5. What is CAPE ?
6. What is meant by Cooperative better farming society ?
7. Define Contract farming.
8. Analyse Gender bias.
9. What is *Janasree Bima Yojana* ?
10. What is NCCF ?
11. Explain the functions of Area Development Societies.
12. What is meant by fragmentation of holdings ?
13. Explain the functions of State Marketing Societies.
14. What is PACS ?
15. Define a credit union.

(10 × 3 = 30 marks)

Turn over

Section B

Answer at least **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall Ceiling 30.

16. Elucidate the process of participatory planning.
17. Discuss the role and functions of NCCT.
18. Explain the advantages and disadvantages of collective farming.
19. Elucidate the role of NABARD in rural development.
20. Trace the evolution of dairy cooperatives in Kerala.
21. Examine the structure and functions Cooperative marketing society.
22. Discuss the relevance of Industrial cooperatives in India.
23. Examine the structure and objectives of consumer cooperatives.

(5 × 6 = 30 marks)

Section C

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. Why education is important for cooperatives ? Examine the role of CAPE in Human resource management of cooperatives.
25. Briefly explain the role of cooperatives in storage, ware housing, marketing and processing of agriculture produce.
26. Make a critical evaluation of Kudumbashree as a model SHG of Kerala.
27. Examine the role of cooperatives in non-agriculture activities.

(2 × 10 = 20 marks)

D 93020–A (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2020

Economics

ECO 4 (3) C 01—INTRODUCTORY ECONOMICS—II

(Multiple Choice Questions for SDE Candidates)

Time : 15 Minutes	Total No. of Questions : 20	Maximum : 20 Marks

INSTRUCTIONS TO THE CANDIDATE

1. This Question Paper carries Multiple Choice Questions from 1 to 20.
2. The candidate should check that the question paper supplied to him/her contains all the 20 questions in serial order.
3. Each question is provided with choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and enter it in the main answer-book.
4. The MCQ question paper will be supplied after the completion of the descriptive examination.

ECO 4 (3) C 01—INTRODUCTORY ECONOMICS—II

(Multiple Choice Questions for SDE Candidates)

1. Which of the following is an example of an intermediate good ?

   (A) Car sold by a dealer of second hand cars.

   (B) Steel and cement used to construct a flyover.

   (C) Fertilizers purchased by a farmer.

   (D) All of these.

2. If factor income received from abroad is equal to factor income paid abroad, then which of the following is not a valid statement ?

   (A) National income = domestic income.

   (B) ndp_{fc} + depreciation = gnp_{fc}.

   (C) ndp_{fc} + depreciation = gnp_{mp}.

   (D) All are valid.

3. In which type of economy, domestic income is equal to national income ?

   (A) Open economy. (B) Closed Economy.

   (C) Both (a) and (b). (D) Neither (a) nor (b).

4. NDP at FC is less than National Income when :

   (A) Net factor income from abroad is positive.

   (B) Net factor income from abroad is negative.

   (C) Net factor income from abroad is zero.

   (D) Net exports are positive.

5. ——— is the net amount available to households for consumption and saving.

   (A) National income. (B) Personal income.

   (C) Personal disposable income. (D) Government income.

6. Which one is included in National Income ?

   (A) Winning from lottery. (B) Milk purchase by a dairy shop.

   (C) National debt interest. (D) None of these.

7. Which of the following is included in domestic income ?

(A) Factor income from abroad. (B) Windfall gains.

(C) Pension on retirement. (D) Capital gains.

8. Which of the following is not an economic activity and hence not included while estimating national income in India ?

(A) Medical services rendered by a dispensary.

(B) A housewife doing household work.

(C) A lawyer doing his practiced.

(D) A maid working full time with a family.

9. The first National Income calculation on a scientific basis in India is in the year :

(A) 1947-48. (B) 1951-52.

(C) 1931-32. (D) 1990-91.

10. Which of the following is the consumption sector ?

(A) Household. (B) Firm.

(C) Government. (D) Foreign.

11. If factor cost is greater than Market price, then it means that :

(A) Indirect taxes > subsidies. (B) Indirect taxes = subsidies.

(C) Indirect Taxes < Subsidies. (D) Indirect taxes = and > subsidies.

12. Public Goods are :

(A) Excludable. (B) Non-excludable.

(C) Marketable. (D) All of these.

13. Which is the tax shifting ?

(A) To bear the tax burden himself.

(B) To shift the tax burden on others.

(C) To bear some part of the tax himself and shift the rest on others.

(D) None of these .

14. BOP includes :

(A) Current account. (B) Capital Account.

(C) Official Reserve account. (D) All the above.

15. ——— is the deliberate downward adjustment in the official exchange rate, reduces the currency's value.

(A) Devaluation. (B) Depreciation.

(C) Revaluation. (D) Appreciation.

16. A key effect of devaluation is that it :

(A) Makes the domestic currency cheaper relative to other currencies.

(B) Makes the domestic currency dearer relative to other currencies.

(C) Makes the foreign currency cheaper relative to other currencies.

(D) Leaves the relative value unchanged.

17. Which among the following is an implication of evaluation ?

(A) Revaluation makes the country's exports relatively more expensive for foreigners.

(B) Revaluation makes foreign products relatively more expensive for domestic consumers, thus encouraging imports.

(C) Revaluation help to reduce the country's exports to reduce the current account surplus.

(D) All the above.

18. Regional Rural Bank were started in ———.

(A) 1969. (B) 1972.

(C) 1975. (D) 1991.

19. Import quota is :

(A) Tariff. (B) Non-tariff trade barrier.

(C) Concession. (D) International obligation.

20. Trade Policy measures for correction of balance of payments disequilibrium include of export promotion :

(A) Export promotion. (B) Import control.

(C) Both (A) and (B). (D) Import substitution.

D 93020 (Pages : 2) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION NOVEMBER 2020

Economics

ECO 4 (3) C 01—INTRODUCTORY ECONOMICS—II

Time : Two Hours and a Half Maximum : 80 Marks

Section A (Short Answer)

Answer at least **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 30.

1. What are the important functions of money ?
2. What do you mean by Devaluation ?
3. Explain any *two* effects of inflation.
4. What is Open Market Operation ?
5. What are the instruments of monetary policy ?
6. Mention any two functions of Commercial banks.
7. Distinguish between growth and development.
8. What is exchange rate ?
9. Differentiate between revenue and capital expenditure.
10. Distinguish between appreciation and depreciation of currency.
11. Write any *four* demographic indicators.
12. What is the importance of public expenditure ?
13. What do you mean by Balance of Trade ?
14. Write any *three* fiscal measures.
15. List any *three* items used to record in the Current account of the Balance of Payments.

(10 × 3 = 30 marks)

Section B (Short Essay Questions)

Answer at least **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall Ceiling 30.

16. What are the methods of estimating economic inequality ?
17. Write a note on major poverty eradication programmes of the Government of India ?
18. What are the Terms of References (ToR) of the 15tn Finance Commission opposed by Kerala? Why ?
19. Why should we increase capital expenditure ?
20. Distinguish between Public Finance and Private Finance.
21. Explain the employment and unemployment scenario in India in the last decade.
22. Explain the salient features of population census 2011.
23. Discuss the contributions of trade to development.

(5 × 6 = 30 marks)

Section C (Essays)

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. Explain the role and functions of Central Bank in a country.
25. Analyze the problem of growing fiscal deficit in India.
26. Describe the macroeconomic and development policy approaches in the Pre and Post reform periods. Write with special emphasis on recent economic policy changes.
27. Explain the role of Commercial banks in economic development. What are the services offered by the Commercial banks ?

(2 × 10 = 20 marks)

D 93019-A (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS–UG) DEGREE EXAMINATION, NOVEMBER 2020

Economics

ECO 3B 04—MICRO ECONOMICS – II

(Multiple Choice Questions for SDE Candidates)

Time : 15 Minutes	Total No. of Questions : 20	Maximum : 20 Marks

INSTRUCTIONS TO THE CANDIDATE

1. This Question Paper carries Multiple Choice Questions from 1 to 20.
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3. Each question is provided with choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and enter it in the main answer-book.
4. The MCQ question paper will be supplied after the completion of the descriptive examination.

ECO 3B 04—MICRO ECONOMICS – II

(Multiple Choice Questions for SDE Candidates)

1. Demand curve is elastic under :

   (A) Perfect competition. (B) Monopoly.

   (C) Monopolistic competition. (D) All of the above.

2. Selling cost is insignificant under :

   (A) Perfect competition. (B) Monopoly.

   (C) Monopolistic competition. (D) All of the above.

3. 'Homogenous products' is a characteristic of :

   (A) Perfect competition only. (B) Perfect oligopoly only.

   (C) Both (A) and (B). (D) None of the above.

4. Differentiated products is a characteristic of :

   (A) Monopolistic competition only.

   (B) Oligopoly only.

   (C) Both monopolistic competition and oligopoly.

   (D) Monopoly.

5. Marginal revenue of a firm is constant throughout under :

   (A) Perfect competition. (B) Monopolistic competition.

   (C) Oligopoly. (D) All the above.

6. When AC is more than AR, what is the firm doing ?

   (A) Making supernormal profit. (B) Incurring loss.

   (C) Having break-even point. (D) Minimising losses.

7. When AR passes through minimum point of AVC, it is called :

   (A) Break-even point. (B) Shutdown point.

   (C) Normal profit point. (D) Supernormal profit point.

8. Given the supply of a commodity in the market period, the price of the commodity is determined by :

   (A) The market demand curve alone.

   (B) The market supply curve alone.

   (C) The market demand curve and the market supply curve.

   (D) None of the above.

9. The short-run supply curve of the perfectly competitive firm is given by :

   (A) The rising portion of its MC curve over and above the shut-down point.

   (B) The rising portion of its MC curve over and above the break-even point.

   (C) The rising portion of its MC curve over and above the AC curve.

   (D) The rising portion of its MC curve.

10. When the perfectly competitive firm but not the industry is in long-run equilibrium ?

   (A) P = MR = SMC = SAC.

   (B) P = MR = LMC = LAC.

   (C) P = MR = SMC = LMC = SAC = LAC.

   (D) P = MR = SMC = LMC = SAC = lowest point on the LAC curve.

11. If factor prices and factor quantities move in the same direction, we have :

   (A) A constant cost industry. (B) An increasing cost industry.

   (C) A decreasing cost industry. (D) Any of the above.

12. In the short run, the monopolist :

   (A) Breaks-even. (B) Incurs a loss.

   (C) Makes a profit. (D) Any of the above.

13. In long-run equilibrium, the pure monopolist (as opposed to the perfectly competitive firm) can make pure profits because of :

   (A) Blocked entry. (B) High selling prices.

   (C) Low LAC costs. (D) Advertising.

14. Which form of monopoly regulation is most advantageous for the consumer ?

(A) Price control. (B) Lump-sum tax.

(C) Per-unit tax. (D) All of the above.

15. Price discrimination is an essential feature of :

(A) Perfect competition. (B) Oligopoly.

(C) Duopoly. (D) Monopoly.

16. Monopoly market is :

(A) Single seller market. (B) Single buyer market.

(C) Single buyer and seller. (D) None.

17. Price discrimination is possible :

(A) Under any market form.

(B) Only under monopoly.

(C) Only under monopolistic completion.

(D) Only in perfect competition.

18. Lerner Index is a measure of :

(A) Elasticity of demand. (B) Monopoly power.

(C) Inequality. (D) None.

19. The market structure which number of sellers is small with interdependence is called :

(A) Perfect competition. (B) Monopoly.

(C) Monopolistic competition. (D) Oligopoly.

20. In the long run, a monopolistically competitive firm earn :

(A) Abnormal profit. (B) Loss.

(C) Normal profit. (D) Differentiated profit.

D 93019 (Pages : 2) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS–UG) DEGREE EXAMINATION, NOVEMBER 2020

Economics

ECO 3B 04—MICROECONOMICS – II

Time : Two Hours and a Half Maximum : 80 Marks

Section A (Short Answer Questions)

Answer at least **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 30.

1. What is meant by price leadership ?
2. Define Monopsony.
3. What is meant by excess capacity ?
4. What is *Laissez-Faire* ?
5. What is selling cost ?
6. Define a cartel.
7. What is meant by factor market ?
8. Define marginal productivity.
9. Distinguish between price taker and price maker.
10. Define a break-even point.
11. What is meant by administered price ?
12. Define pure monopoly.
13. What is meant by barometric price leadership ?
14. What is MRC ?
15. Define bilateral monopoly.

(10 × 3 = 30 marks)

Section B (Short Essay Questions)

Answer at least **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall Ceiling 30.

16. Analyze the various degrees of price discrimination.
17. Explain the significance of kink in the Kinked demand curve model.

Turn over

18. What are the four major forms of market ?
19. Analyze the short run equilibrium of a firm in a perfectly competitive market.
20. Suppose the demand function of a monopolist is Q = 360 – 20P and Total Cost function is TC = 6Q + 0.05 Q^2. Find out how much he will produce and what price he will charge ?
21. Distinguish between collusive and non-collusive oligopoly.
22. What are the important sources of monopoly power ?
23. Critically examine the Cournot model of oligopoly.

(5 × 6 = 30 marks)

Section C (Long Essays)

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. Analyse the short run and long run equilibrium of a firm in a market of monopolistic competition.
25. Make a survey on the basic features various market systems
26. Analyse the input pricing and employment if there is perfect competition in the input market and monopoly in employment market.
27. Analyse the short run and long run equilibrium of a monopolist.

(2 × 10 = 20 marks)

D 93018-A (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2020

Economics

ECO 3B 03—QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS—I

(Multiple Choice Questions for SDE Candidates)

Time : 15 Minutes	Total No. of Questions : 20	Maximum : 20 Marks

INSTRUCTIONS TO THE CANDIDATE

1. This Question Paper carries Multiple Choice Questions from 1 to 20.
2. The candidate should check that the question paper supplied to him/her contains all the 20 questions in serial order.
3. Each question is provided with choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and enter it in the main answer-book.
4. The MCQ question paper will be supplied after the completion of the descriptive examination.

ECO 3B 03—QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS—I

(Multiple Choice Questions for SDE Candidates)

1. Factor $x^2 + 2x - 15$:

   (A) $(x-3)(x-5)$. (B) $(x+5)(x+3)$.

   (C) $(x+5)(x-3)$. (D) $(x+5)(x-3)$.

2. Solve the quadratic equation $6x^2 + 7x - 3 = 0$:

   (A) $x = 1/3$ or -1.5. (B) $-1/6$ or 3.

   (C) $x = 1/6$ or -3. (D) $x = -1/3$ or 1.5.

3. The solution for the equation $4^{2x+1} = 8^{x+3}$ is :

   (A) 4. (B) 8.

   (C) 2. (D) 7.

4. Logarithm of 25 to the base 5 is :

   (A) 5. (B) 125.

   (C) 2. (D) $\frac{1}{3}$.

5. If $\log_a \sqrt{3} = \frac{1}{4}$, then the value of a = ————.

   (A) 3. (B) $\frac{3}{4}$.

   (C) 9. (D) $3^{1/4}$.

6. The solution of the equation $\frac{2}{3}x = 4$ is :

   (A) 6. (B) 12.

   (C) 8. (D) 16.

7. If the rows and columns of a determinant are interchanged , then the determinant value ————.

(A) Remains the same. (B) The sign of the value change.

(C) Becomes zero. (D) None of these.

8. A square matrix B is orthogonal if :

(A) $B = -B^T$. (B) $B = B^T$.

(C) $B^T = B^{-1}$. (D) $B^T = -B^{-1}$.

9. Matrix addition is :

(A) Commutative (B) Associative.

(C) Have additive identity. (D) All the above.

10. Total cost is equal to :

(A) TVC + TFC. (B) AFC + AVC.

(C) AVC. (D) AFC.

11. Statistical methods are :

(A) Collection of data.

(B) Classification.

(C) Analysis and interpretation of data.

(D) All of these.

12. When the upper limit of a class is the lower limit of the next class, the series is known as :

(A) Exclusive (B) Inclusive.

(C) Individual. (D) Discrete.

13. Measures of central tendency are called averages of the ———— order.

(A) First. (B) Second.

(C) Third. (D) Fourth.

14. To compare two or more distributions, we use :

(A) Absolute measure of dispersion. (B) Relative measure of dispersion.

(C) Both (A) and (B). (D) Either (A) or (B).

15. The most commonly used measure of dispersion is :

(A) Range. (B) Standard deviation.

(C) Co-efficient of variation. (D) Quartile deviation.

16. If the same amount is added to or subtracted from all the values , standard deviation shall be :

(A) Changed (B) Unchanged.

(C) Both. (D) None.

17. A is a 3 × 2 matrix

B is a 2 × 3 matrix

C is a 2 × 2 matrix

D is a 3 × 3 matrix

Which of the following products does not exist ?

(A) AB. (B) AC.

(C) BD. (D) CD.

18. The sample correlation coefficient ranges between_____

(A) –1 and +1. (B) +1 and infinity.

(C) –1 and infinity. (D) Can have any value.

19. The sign of the ———— indicates the direction of the association. The magnitude of the correlation coefficient indicates the strength of the association.

(A) Standard deviation. (B) Quartile Deviation.

(C) Correlation co-efficient. (D) Regression co-efficient.

20. When there is a single continuous dependent variable and a single independent variable, the analysis is called a simple ———— regression analysis.

(A) Linear. (B) Nonlinear.

(C) Curvilinear. (D) Rectangular.

D 93018 (Pages : 3) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2020

Economics

ECO 3B 03—QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS—I

Time : Two Hours and a Half Maximum : 80 Marks

Section A

Answer at least **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 30.

1. Define Variables and Constants.
2. What is Logarithmic linear function ?
3. Find the logarithm of 216 to the base 6.
4. Solve if $a = b^x, b = c^y, c = a^z$, show that $xyz = 1$.
5. Define Transpose of a matrix.
6. Define (i) Diagonal matrix ; and (ii) Square matrix.
7. What are the important merits and demerits of Mode ?
8. Define (i) Skewness ; and (ii) Kurtosis.
9. What Lorenz curve ?
10. Distinguish between Positive and Negative Correlation.
11. Find the range of the set 4, 8, 9, 15, 12, 6, 11, 2, 10, 7.
12. What is Co-efficient of Variation ?
13. Define Mean Deviation.
14. What is the use of Pie chart ?
15. Define Standard error of an estimate.

(10 × 3 = 30 marks)

Turn over

Section B (Short Essay Questions)

Answer at least **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall Ceiling 30.

16. Briefly explain the inverse of the matrix and its properties.

17. If $A = \begin{bmatrix} 0 & 2 & 3 \\ 2 & 1 & 4 \end{bmatrix}$ and $B = \begin{bmatrix} 7 & 6 & 5 \\ 1 & 4 & 5 \end{bmatrix}$. Evaluate $2A + 3B$.

18. If $A = \begin{bmatrix} 3 \\ 0 \\ 5 \\ 1 \end{bmatrix}$ and $B = \begin{bmatrix} 4 & 2 & -1 & 0 \end{bmatrix}$. Find AB and BA.

19. The rankings of 10 trainees at the beginning and at the end of a certain course are given below :

Trainees	Ranks before the training	Ranks after the training
A	1	6
B	6	8
C	3	3
D	9	7
E	5	2
F	2	1
G	7	5
H	10	9
I	8	4
J	4	10

Obtain Spearman's Rank Correlation co-efficient.

20. Distinguish between Correlation analysis and Regression analysis.

21. Find the Median for using the following table which gives you the distribution of marks secured by some students in an examination :

Marks	0–20	21–30	31–40	41–50	51–60	61–70	71–80
No. of Students	42	38	120	84	48	36	31

22. Explain different types of functions and its applications in Economic analysis.

23. Prove that $\log_{10} 1600 = 2 + 4 \log_{10} 2$.

(5 × 6 = 30 marks)

Section C (Long Essay Questions)

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. (i) Briefly explain different laws of logarithms.

(ii) If $\log_a 32 = \frac{5}{7}$.

25. Find the Rank of the Matrices :

(i) $\begin{bmatrix} 1 & 0 & 2 & 3 \\ 2 & 1 & 0 & 1 \\ 4 & 1 & 4 & 7 \end{bmatrix}$; and (ii) $\begin{bmatrix} 1 & 2 & -1 \\ 2 & 4 & 3 \\ -1 & -2 & 6 \end{bmatrix}$.

26. Write a short note on relative and absolute Measures of Dispersion.

27. Obtain the line of regression of Y on X for the following data :

Age (Years) X	66	38	56	42	72	36	63	47	55	45
Blood Pressure Y :	145	124	147	125	160	118	149	128	150	124

Estimate the blood pressure of a man whose age is 50 years.

(2 × 10 = 20 marks)

D 92929 (Pages : 2) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2020

Electronics

ELE 3A 11—GENERAL COURSE I : PYTHON PROGRAMMING

Time : Two Hours and a Half Maximum : 80 Marks

Section A

Answer at least **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 30.

1. What is a byte code ?
2. What are identifiers in python ?
3. Give the membership operators in python with examples.
4. Explain output statements in Python.
5. Write the syntax of for loop statement.
6. What are loop control statements ?
7. Explain range( ) function.
8. What are the advantages of function ?
9. Define positional arguments in a function.
10. How function call is done in Python ?
11. What are local variables ?
12. What are the different ways to create strings in Python ?
13. What are Lists ?
14. What are the rules for creating keys in a dictionary ?
15. How the elements in a string can be accessed using fir loop ?

(10 × 3 = 30 marks)

Turn over

Section B

Answer at least **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall Ceiling 30.

16. Explain the different relational operators in Python with examples.
17. Write a program to find the sum of all odd and even numbers up to a number specified by the user.
18. Write a program to check whether a number is prime or not. Prompt user for input.
19. Find the area and circumference of a circle. Prompt user for input.
20. Describe the syntax for the following function and explain with an example :

    a) abs() b) max() c) pow() d) len() e) sort()

21. Write a program to add two numbers using function.
22. Write a Python code to find the mean and variance from a list of numbers.
23. Describe the syntax for the following function and explain with an example :

    a) replace() b) rstrip() c) reverse() d) count() e) join()

(5 × 6 = 30 marks)

Section C

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. Explain the different data types used in Python with examples.
25. Write a program to print the sum of the following series : $1 + 1/2 + 1/3 + 1/4 + ... + 1/n$.
26. Write a Python program using function to find the value of ${}_nP_r = n!/(n-r)!$ Without using in built factorial() function.
27. Write a Python program to check for the presence of a key in the dictionary and sum all its values.

(2 × 10 = 20 marks)

D 91810 (Pages : 3) Name.....

Reg. No.....

THIRD SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2020

Economics

EIF 3B 04—ISLAMIC BANKING AND INSURANCE

(For B.A. Economics with Islamic Finance)

Time : Three Hours Maximum : 80 Marks

Section A

Answer all **twelve** *questions.*
Each question carries ½ mark.

1. A type of partnership where one party offer funds while other gives expertise and management is :

   A) Mudarabah. B) *Wadiah*.

   C) Murabaha. D) Musharika.

2. Which of the following is forbidden by Holy Qur'an ?

   A) Gambling. B) Interest sharing.

   C) *Gharar*. D) All of these.

3. Which of the following is a mandatory levy ?

   A) Sadaqah. B) Zakat.

   C) Qard Hasan. D) Waqf.

4. OIC stands for :

   A) Oil Importing Countries.

   B) Other Islamic Countries.

   C) Organization of Islamic Co-operation.

   D) Organization for International co-operation.

5. Which of the following is the most liquid of all assets ?

   A) Money. B) Gold.

   C) Land. D) Bond.

Turn over

6. Which of the following is usually referred as the lender of the last resort ?

A) Commercial bank. B) Central bank.

C) Co-operative bank. D) Islamic commercial bank.

7. The Head quarter of IDB is located at :

A) Bahrain. B) Jeddah.

C) Kuwait city. D) Tehran.

8. The RBI was nationalized in the year :

A) 1935. B) 1949.

C) 1950. D) 1947.

9. Which of the following organization is responsible for assessing the standard and practice of Islamic Banking ?

A) IDB. B) AAOIFI.

C) Dar A Mai Al Islam. D) DJIM.

10. Faisal Islamic Bank is a/an :

A) Private Islamic Bank. B) Public sector Islamic bank.

C) Islamic central bank. D) None of these.

11. P and L statement is also known as :

A) Statement Operations. B) Statement of Income.

C) Statement of earnings. D) None of these.

12. The capacity of credit creation by commercial banks depends on :

A) Banking habits of the people. B) CRR.

C) Credit policy of the central bank. D) All of these.

(12 × ½ = 6 marks)

Section B (Very Short Answers)

Answer any **ten** *questions.*
Each question carries 2 marks.

13. What is Re *Takaaful* ?

14. What is ATM ?

15. Explain the principle of Profit and Loss Sharing (PLS).

16. Explain the influence of *Shariah* in Islamic banking ?

17. What is Riba ?

18. What is Islamic Banking ?
19. What is meant by NBFCs ?
20. What is *Sukuk* ?
21. What are the major objectives of AAOIFI ?
22. What is *Sadaqah* ?
23. What is meant by balance sheet of a bank ?
24. What is underwriting ?

(10 × 2 = 20 marks)

Section C (Short Essay)

Answer any **six** *questions.*
Each question carries 5 *marks.*

25. What are the basic principles of Islamic banking ?
26. What are the important functions of Islamic commercial banks ?
27. What are the important benefits of Islamic Insurance ?
28. What are the different types of Islamic Banks ?
29. What are the different *Takaaful* Products ?
30. Examine the rationale for Islamic banking in India ?
31. What are the important sources of funds for Islamic banking ?
32. Examine the Islamisation of banking in Pakistan and Iran.

(6 × 5 = 30 marks)

Section D (Essay)

Answer any **two** *questions.*
Each question carries 12 *marks.*

33. What are the important financial instruments and techniques used in Islamic banking and finance ?
34. What are the important functions of a central bank ? What are the important additional functions of an Islamic central bank ?
35. Compare and contrast Islamic banks with conventional commercial banks.
36. Analyze the origin and growth of Islamic banking in Egypt, Malaysia and Saudi Arabia.

(2 × 12 = 24 marks)

D 91809 (Pages : 3) Name.....

Reg. No.....

THIRD SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION NOVEMBER 2020

Economics

EFT 3B 04—EXPORT MARKETING

(For B.A. Foreign Trade)

Time : Three Hours Maximum : 80 Marks

Answers may be written **either** *in English* **or** *in Malayalam.*

Part A

Answer all **twelve** *questions. Each question carries ½ mark.*

1. Which of the following is not a Trading Blocks :

   (a) ASEAN. (b) SAARC.

   (c) IFCO. (d) SAFTA.

2. The ratio between the values of two currencies at a particular point of time is called :

   (a) Nominal exchange rate. (b) Real exchange rate.

   (c) Effective exchange rate. (d) None of these.

3. The marketing mix does not include :

   (a) Product. (b) Place.

   (c) Practicality. (d) Promotion.

4. Today, the European Common Market is known as :

   (a) SAARC. (b) European Economic Community.

   (c) ASEAN. (d) European Union.

5. FDI is included under the ———————— account of BOP.

   (a) Capital Account.

   (b) Current Account.

   (c) Official Settlements Account.

   (d) None of the above.

Turn over

6. The biggest or greatest amount of involvement in a foreign market comes through which of the following :

   (a) Exporting. (b) Joint Venturing.

   (c) Licensing. (d) Direct Investment.

7. According to 4 Ps of marketing, inventory and logistics services are classified as :

   (a) Place. (b) Product.

   (c) Price. (d) Promotion.

8. Which of the following is not an actual modes of international market entry

   (a) Standardisation. (b) Licensing.

   (c) Franchising. (d) Exporting.

9. Which of the following market entry modes is primarily a partnership between two or more international companies where the result is a new entity :

   (a) Direct Exporting. (b) Indirect Exporting.

   (c) Licensing. (d) Joint Venturing.

10. The price of one currency in terms of another currency is known as :

    (a) Arbitrage Price. (b) Exchange Rate.

    (c) Export Price. (d) Import Price.

11. The international dimensions of marketing includes :

    (a) International Trade. (b) Foreign Marketing.

    (c) Domestic Marketing. (d) All of these.

12. Way of entering foreign markets by setting up foreign manufacturing facilities is classified as

    (a) Direct Investment. (b) Indirect Investment.

    (c) Union Ownership. (d) Export Union.

(12 × ½ = 6 marks)

Part B (Very Short Answer Type Questions)

Answer any **ten** *questions. Each question carries* 2 *marks.*

13. What are the features of Export Marketing ?

14. Write a note on ASEAN.

15. Write a note on Export Processing Zone.

16. Define Exchange Rate.
17. What is Customs Union ?
18. Write a note on Devaluation.
19. Write a note on FEMA.
20. Explain the role of place in Marketing Mix.
21. Write a note on Export Marketing Strategy.
22. What is meant by Exchange Rate Regime ?
23. Distinguish between Balance of Payments and Balance of Trade.
24. What are Fully Convertible Currencies ?

(10 × 2 = 20 marks)

Part C (Short Essays)

Answer any **six** *questions. Each question carries* 5 *marks.*

25. What are the strategies of International Business ?
26. Explain the different forms of Economic Integration.
27. Distinguish between Domestic Marketing and International Marketing.
28. What are the motivations for Export Marketing ?
29. What are the impediments in the paths of International Business ?
30. Explain the important types of International Marketing Strategies.
31. Explain the benefits of E-commerce logistics.
32. Explain the components of Balance of Payment account.

(6 × 5 = 30 marks)

Part D (Essay Questions)

Answer any **two** *questions. Each question carries* 12 *marks.*

33. Define Foreign Exchange Market ? What are its features ? How does it function ?
34. Explain the important factors influencing International Business.
35. What is Export Pricing ? What are the objectives and importance of Export Pricing ?
36. Explain in detail the variables of Marketing Mix.

(2 × 12 = 24 marks)

D 91808-A (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2020

Economics

ECO 3B 04—MODERN BANKING AND INSURANCE

(Multiple Choice Questions for SDE Candidates)

Time : 15 Minutes	Total No. of Questions : 20	Maximum : 20 Marks

INSTRUCTIONS TO THE CANDIDATE

1. This Question Paper carries Multiple Choice Questions from 1 to 20.
2. The candidate should check that the question paper supplied to him/her contains all the 20 questions in serial order.
3. Each question is provided with choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and enter it in the main answer-book.
4. The MCQ question paper will be supplied after the completion of the descriptive examination.

ECO 3B 04—MODERN BANKING AND INSURANCE

(Multiple Choice Questions for SDE Candidates)

1. India's first bank was :

   (A) Bank of Hindustan. (B) Bank of Hind.

   (C) BOI. (D) Bank of Delhi.

2. Upper bank of India was established in ————.

   (A) 1860. (B) 1870.

   (C) 1863. (D) 1865.

3. Industrial bank also known as :

   (A) Investment bank. (B) State bank.

   (C) Commercial bank. (D) Unit bank.

4. IFCI was established in the year ————.

   (A) 1948. (B) 1956.

   (C) 1935. (D) 1934.

5. Treasury bills are issued by :

   (A) RBI. (B) IMF.

   (C) IBRD. (D) IFCI.

6. MMMFs was introduced in :

   (A) 1990. (B) 1991.

   (C) 1992. (D) 1993.

7. Reverse repo is introduced in :

   (A) January 1996.

   (B) April 1996.

   (C) November 1996.

   (D) December 1996.

8. On 29th September 2015 bank rate is :

(A) 5.75. (B) 6.25.

(C) 7.75. (D) 6.5.

9. Consortium means ————.

(A) Partnership. (B) Owner.

(C) Manager. (D) Individual.

10. Which bank considers triple bottom line analysis ?

(A) Tele banking. (B) Social banking.

(C) SMS banking. (D) M-banking.

11. RBI first implemented CTS at :

(A) Delhi. (B) Kolkata.

(C) Mumbai. (D) Bangalore.

12. The banking ombudsman scheme is introduced by :

(A) RBI. (B) Prime minister.

(C) Finance minister. (D) President.

13. The Indian Marine Insurance Act was passed in :

(A) 1963. (B) 1774.

(C) 1779. (D) 1781.

14. First fire insurance company opened at :

(A) London. (B) Italy.

(C) Germany. (D) France.

15. Life insurance business was nationalized in the year :

(A) 1956. (B) 1948.

(C) 1850. (D) 1912.

16. General insurance business act was came in to force from the year :

(A) 1973. (B) 1970.

(C) 1972. (D) 1980.

17. General insurance were nationalised in the year :

(A) 1972. (B) 1872.

(C) 1782. (D) 1852.

18. Those concerns which are incorporated and registered under Indian co-operative societies act :

(A) Mutual companies. (B) Co-operative insurance organisation.

(C) Association. (D) None of these.

19. Unit banking is referred to as :

(A) Local banking. (B) Branch banking.

(C) Mixed banking. (D) Central bank.

20. Expansion of ATM is :

(A) Automated Teller Machine. (B) Any Time Money.

(C) All Time Money. (D) Automatic Touch Machine.

D 91808 (Pages : 3) Name.....

Reg. No.....

THIRD SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION NOVEMBER 2020

Economics

ECO 3B 04—MODERN BANKING AND INSURANCE

Time : Three Hours Maximum : 80 Marks

Part A (Objective Type Questions)

Write **all** *the* **twelve** *questions.*
Each question carries ½ mark.

1. Money market refers to that part of the debt market where the maturity is :

   a) Less than 1 year.
   b) Less than 1 month.
   c) Less than 6 months.
   d) More than 1 year.

2. Identify a money market instrument :

   a) Shares.
   b) Debentures.
   c) Bonds.
   d) Treasury Bills.

3. The apex bank in industrial finance is :

   a) IFCI.
   b) RBI.
   c) MUDRA Bank.
   d) IDBI.

4. IRDA is the regulatory agency for :

   a) Banking.
   b) Tele-Banking.
   c) Insurance.
   d) Internet Banking.

5. The first nationalization of 14 banks were in the year :

   a) 1970.
   b) 1969.
   c) 1980.
   d) 1991.

6. The principle of Causa-Proxima is related to :

   a) Life Insurance.
   b) Medical Insurance.
   c) General Insurance.
   d) Commercial Banking.

7. An independent bank which does not have any connecting branch in other areas is :

   a) Branch banking. b) Unit banking.

   c) Chain banking. d) Mixed banking.

8. The following is a secondary function of commercial bank :

   a) Clearing of Cheque. b) Accepting deposit.

   c) Making advances. d) Credit creation.

9. Malhotra committee is related to :

   a) Telecommunication. b) Online Banking.

   c) Banking Sector Reforms. d) Insurance.

10. An example of New Generation Bank :

   a) AXIS Bank. b) Canara Bank.

   c) SBI. d) Indian Bank.

11. What is the Act to deal with NPA ?

   a) Banking Regulation Act 1949. b) SAFAESI Act 2002.

   c) Indian Company Act 1956. d) RBI Act 1934.

12. The following is NOT a monetary measure :

   a) Interest reduction. b) Interest subsidy.

   c) Reducing CRR. d) Reducing Repo rate.

(12 × ½ = 6 marks)

Part B (Very Short Answer Type Questions)

Write any **ten** *questions.*
Each question carries 2 *marks.*

13. What do you mean by credit creation ?

14. What are the services offered by the commercial banks ?

15. Write a note on mixed banking.

16. Explain any two functions of the RBI.

17. Distinguish between pure risk and speculative risk.

18. What are the features of property insurance ?

19. What do you mean by mediclaim policy ?

20. What is moral hazard ?

21. Distinguish between risk pooling and risk transfer.

22. What are the features of Indian money market ?

23. What is the role of RBI in call money market ?

24. What is social banking ?

(10 × 2 = 20 marks)

Part C (Short Essay Type Questions)

Write any **six** *questions.*
Each question carries 5 *marks.*

25. Distinguish between branch banking and unit banking.

26. What are features of treasury bills ?

27. What are the types of advances offered by the commercial banks ?

28. Describe the scope of motor insurance.

29. What are the features liability insurance ?

30. What are the principal contingencies in life insurance ?

31. What is the importance of State Finance Corporations ?

32. What are the benefits of internet banking ?

(6 × 5 = 30 marks)

Part D (Essay Type Questions)

Answer any **two** *questions.*
Each question carries 12 *marks.*

33. Write a brief note on the present NPA issue of the Indian public sector banks.

34. Explain the role of development banks in India.

35. Write a note on the risks management operations of insurance companies.

36. Describe the basic principles of insurance.

(2 × 12 = 24 marks)

D 91807-A (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2020

Economics

ECO 3B 03—QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS – I

(Multiple Choice Questions for SDE Candidates)

Time : 15 Minutes	Total No. of Questions : 20	Maximum : 20 Marks

INSTRUCTIONS TO THE CANDIDATE

1. This Question Paper carries Multiple Choice Questions from 1 to 20.
2. The candidate should check that the question paper supplied to him/her contains all the 20 questions in serial order.
3. Each question is provided with choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and enter it in the main answer-book.
4. The MCQ question paper will be supplied after the completion of the descriptive examination.

ECO 3B 03—QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS – I

(Multiple Choice Questions for SDE Candidates)

1. Which of the following is NOT exponential function ?

   (A) $f(x) = e^x$. (B) $f(x) = 1^x$.

   (C) $f(x) = 2^x$. (D) $f(x) = (0.5)^x$.

2. Factor : $x^2 + 2x - 15$.

   (A) $(x-3)(x-5)$. (B) $(x+5)(x+3)$.

   (C) $(x+5)(x-3)$. (D) $(x+5)(x-3)$.

3. Solve the quadratic equation

   (A) $x = 1/3$ or -1.5. (B) $-1/6$ or 3.

   (C) $x = 1/6$ or -3. (D) $x = -1/3$ or 1.5.

4. X^0 = _____.

   (A) X. (B) 0.

   (C) 1. (D) None of these.

5. Logarithm of unity to any base is :

   (A) Unity. (B) ∞.

   (C) Zero. (D) None of these.

6. The equation $x^2 + 4 = 0$ is a :

   (A) Cubic equation. (B) Simple equation.

   (C) Quadratic equation. (D) None of these.

7. If the rows and columns of a determinant are interchanged , then the determinant value _____.

   (A) Remains the same. (B) The sign of the value change.

   (C) Becomes zero. (D) None of these.

8. The rank of a matrix is defined as the maximum number of :

   (A) Linearly independent rows of a matrix.

   (B) Linearly independent columns of a matrix.

   (C) Both (A) and (B).

   (D) Neither (A) nor (B).

9. Let A and B be skew symmetric matrix, then AB is symmetric if and only if :

   (A) $AB = BA$. (B) $AB = 0$.

   (C) $A = B^T$. (D) $A = -B^T$.

10. Transpose of a matrix A of order $m \times n$ is of order :

   (A) $m \times m$. (B) $n \times n$.

   (C) $n \times m$. (D) None of these.

11. In the consumption function C = a + by, the constant b denotes:

   (A) Elasticity. (B) MPS.

   (C) MPC. (D) None of these.

12. Statistics deals with :

   (A) Qualitative information. (B) Quantitative information.

   (C) Both. (D) None.

13. Statistical methods are :

   (A) Collection of data.

   (B) Classification.

   (C) Analysis and interpretation of data.

   (D) All of these.

14. The best average to analyze speed is :

   (A) HM. (B) Mode.

   (C) GM. (D) AM.

15. Dispersion means :

(A) The scatterness of a set of observations.

(B) The concentration of a set of observations.

(C) Both (A) and (B).

(D) Neither (A) Nor (B).

16. Measures of dispersion are called the averages of the ———— order.

(A) 1^{st}. (B) 2^{nd}.

(C) 3^{rd}. (D) 4^{th}.

17. The ————, denoted *r*, ranges between –1 and + 1 and quantifies the direction and strength of the linear association between the two variables.

(A) Standard deviation. (B) Quartile Deviation.

(C) Regression co-efficient. (D) Sample correlation co-efficient.

18. The sign of the ———— indicates the direction of the association. The magnitude of the correlation co-efficient indicates the strength of the association.

(A) Standard deviation. (B) Quartile Deviation.

(C) Correlation co-efficient. (D) Regression co-efficient.

19. What would you expect the correlation between consumer cost and consumer satisfaction to be ?

(A) Zero or near zero. (B) Moderate to large negative.

(C) Small positive. (D) Small negative.

20. When there is a single continuous dependent variable and a single independent variable, the analysis is called a simple ———— regression analysis.

(A) Linear. (B) Non-linear.

(C) Curvilinear. (D) Rectangular.

D 91807 (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION NOVEMBER 2020

Economics

ECO 3B 03—QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS—I

Time : Three Hours Maximum : 80 Marks

Section A (Objective Type)

Answer **all** *questions.*
Each question carries ½ mark.

1. $k = \left(3x^6\right)^0 - 6$, the value of k is ————————.

   (i) – 3. (ii) – 5.

   (iii) – 6. (iv) 0.

2. A matrix with equal number of rows and columns is called a ————————.

   (i) Diagonal matrix. (ii) Square matrix.

   (iii) Zero matrix. (iv) None of these.

3. For an orthogonal matrix A, AA^T = ————————.

   (i) I. (ii) A.

   (iii) A^T. (iv) None of these.

4. $\log_a a$ = ————————.

   (i) 0. (ii) 1.

   (iii) log a. (iv) a.

5. For two matrices A and B with orders $m \times n$, and $p \times q$, AB is possible when ————————.

   (i) $m = q$. (ii) $m = p$.

   (iii) $n = p$. (iv) $n = q$.

6. Cost function $C = x^2 + 4x$, then MC is ————————.

(i) $\frac{x^3}{3} + 4\frac{x^2}{2}$. (ii) $2x + 4$.

(iii) x^2. (iv) None of these.

7. ———————— is a two dimensional diagrammatic data representation.

(i) Frequency curve. (ii) Bar diagram.

(iii) Pie diagram. (iv) Pictogram.

8. Geometric mean of two values is 4. One of them is 8 the second value is ————————.

(i) 2. (ii) 4.

(iii) 8. (iv) 16.

9. A value which divides the observations into two equal parts is ————————.

(i) Mode. (ii) Median.

(iii) Decile. (iv) Mean deviation.

10. For a positively skewed distribution, ————————.

(i) Mean = Mode. (ii) Mean < Mode.

(iii) Mean > Mode. (iv) None of these.

11. If the regression lines are perpendicular, the co-efficient of correlation is————————.

(i) + 1. (ii) – 1.

(iii) 0. (iv) None of these.

12. Absolute value of the co-efficient of correlation is ———————— of regression co-efficients.

(i) AM. (ii) HM.

(iii) Median. (iv) GM.

(12 × ½ = 6 marks)

Section B (Short Answer Type)

Answer any **ten** *questions.*
Each one carries 2 marks.

13. Find the value of $\left[\sqrt[3]{125}\right]^{-2}$.

14. Define Linear equation.

15. Define order of a matrix.

16. Solve the equation $x^2 - 6x + 8 = 0$.

17. Define Symmetric matrix.

18. For the matrix $A = \begin{bmatrix} 4 & 0 \\ 0 & 4 \end{bmatrix}$, if $k\,A = I$ find k.

19. If $A = \begin{bmatrix} 5 & 7 & 2 \\ 2 & 3 & 1 \\ 4 & 6 & 2 \end{bmatrix}$, show that $|A| = 0$.

20. Define Geometric mean.

21. Find the marginal cost when the production is 5 units if the cost function of a firm is

$C = x^3 - 3x^2 + 2x$.

22. Obtain $\frac{d^2R}{dx^2}$ where $R = 2x - 4x^2$.

23. Show that $f(x) = 3x^2 - 18x + 7$ is minimum at $x = 3$.

24. Define Scatter diagram.

(10 × 2 = 20 marks)

Section C (Short Essay/Problem Type)

Answer any **six** *questions.*
Each one carries 5 *marks.*

25. For the matrices $A = \begin{bmatrix} 4 & 1 \\ -3 & 2 \end{bmatrix}$ and $B = \begin{bmatrix} 2 & 1 \\ 4 & -2 \end{bmatrix}$, show that $(A + B)^T = A^T + B^T$.

26. Define mean deviation about mean. Obtain the mean deviation about mean for the data 5, 8, 10, 14, 15, 18, 20 and 22.

27. Find the elasticity of demand for the demand function $4q = \frac{64}{p^3}$.

28. Define Skewness. What are the various measures of skewness ?

29. Given the regression lines $9x - 4y + 15 = 0$ and $25x - 6y - 7 = 0$. What are the regression co-efficients x on y and y on x ?

30. Explain the method of Lorenz curve and Gini Coefficient.

31. If $A = \begin{bmatrix} 1 & a & b+c \\ 1 & b & c+a \\ 1 & c & a+b \end{bmatrix}$, show that $|A| = 0$.

32. Explain rank correlation coefficient.

(6 × 5 = 30 marks)

Section D (Essay Type)

Answer any **two** *questions.*
Each one carries 12 *marks.*

33. Use Cramer's rule, solve the equations to get the values of x, y and z.

$3x + y + z = 1$; $2x + 2z = 0$; $5x + y + 2z = 2$.

34. Define Kurtosis. How is it measured ? Find the co-efficient of kurtosis to the following data :

Class	:	100–120	120–140	140–160	160–180	180–200	200–220	220–240
Frequency	:	1	2	6	20	11	3	2

35. Matrix A and B are given by $A = \begin{bmatrix} -1 & 2 \\ 0 & 1 \end{bmatrix}$, $B = \begin{bmatrix} 1 & 0 \\ -1 & 2 \end{bmatrix}$, then show that

(i) $[A + B]^2 \neq A^2 + 2AB + B^2$; and

(ii) $(A + B)(A - B) \neq A^2 - B^2$.

36. Explain direct and inverse correlation. Obtain Pearson's co-efficient of correlation between x and y using the following data :

x	12	20	15	22	18	24	20	12	15	22
y	30	35	28	36	29	39	30	25	30	38

(2 × 12 = 24 marks)

D 73767 (Pages : 3) Name.....

Reg. No.....

THIRD SEMESTER (CUCBCSS—UG) SPECIAL DEGREE EXAMINATION NOVEMBER 2019

Economics

ECO 3B 04—MODERN BANKING AND INSURANCE

Time : Three Hours Maximum : 80 Marks

Part A (Objective Type Questions)

Answer **all twelve** *questions.*
Each question carries ½ mark.

1. The operation of storefront locations away from the institution's home office for the convenience of customers is :

   a) Unit banking. b) Branch banking.

   c) Mixed banking. d) Tele banking.

2. The LIC was founded in :

   a) 1956. b) 1955.

   c) 1952. d) 1950.

3. ———— is not a money market instrument.

   a) Treasury bills. b) Certificates of deposit.

   c) Debt securities. d) Commercial papers.

4. RTGS stands for :

   a) Real Time Gross Settlement. b) Real Time General Settlement.

   c) Real Time Gross Security. d) None of these.

5. Insurance works on the principle of :

   a) Sharing of losses. b) Probabilities.

   c) Randomness. d) All of the above.

6. Which is the first development bank of India ?

   a) IDBI. b) SBI.

   c) IFCI. d) NABARD.

7. Identify the qualitative credit control measure from the following :

   a) Bank rate policy.
   b) Open market operations.
   c) Credit rationing.
   d) Cash reserve ratio.

8. The IRDA Act was passed in :

   a) 1999.
   b) 2000.
   c) 2001.
   d) 2004.

9. ———— is insurance for insurance companies.

   a) E- purse.
   b) Reinsurance.
   c) General insurance.
   d) Risk management.

10. Marine insurance covers the loss or damage of :

   a) Ships.
   b) Cargo.
   c) Terminals.
   d) All the above.

11. Annuity is :

   a) A risk management process.
   b) A contract between a policy holder and insurance company.
   c) A strategy that tries to limit risks in financial assets.
   d) The act of conducting a financial transaction that has substantial risk of losing value.

12. General insurance does not cover :

   a) Fire insurance.
   b) Marine insurance.
   c) Life insurance.
   d) Travel insurance.

(12 × ½ = 6 marks)

Part B (Very Short Answer Type Questions)

Answer any **ten** *questions.*
Each question carries 2 *marks.*

13. Define risk sharing.
14. What do you mean by surrender value ?
15. Distinguish between life insurance and general insurance.
16. Prepare a note on mediclaim.
17. What is meant by burglary insurance ?
18. Explain term insurance.

19. Distinguish between repo rate and reverse repo rate.

20. What is an e-purse ?

21. What is a non performing asset ?

22. What is meant by bank nationalization ?

23. Define social banking.

24. What is meant by EFTs ?

(10 × 2 = 20 marks)

Part C (Short Essay Type Questions)

Answer any **six** *questions.*
Each question carries 5 *marks.*

25. What are the functions of development banks ? Name the development banks in India.

26. Explain the meaning and advantages of internet banking.

27. Explain recent trends in banking.

28. Examine the features of insurance industry.

29. Explain the traditional functions of the Reserve Bank of India.

30. Define money market. What are the instruments of money market ?

31. Prepare a note on IFCI.

32. What is fidelity guarantee insurance ? Discuss the significance of fidelity guarantee insurance.

(6 × 5 = 30 marks)

Part D (Essay type questions)

Answer any **two** *questions.*
Each question carries 12 *marks.*

33. Discuss the functions of commercial banks in India.

34. Explain important types of insurance. Point out the significance of insurance.

35. What is risk management ? Explain the principles of risk management.

36. Describe the features of banking reforms and regulation with special reference to Narasimham Committee.

(2 × 12 = 24 marks)

D 73766 (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CUCBCSS—UG) [SPECIAL] DEGREE EXAMINATION NOVEMBER 2019

Economics

ECO 3B 03—QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS—I

Time : Three Hours Maximum : 80 Marks

Section A (Objective Type)

Answer **all** *questions.*
Each question carries ½ mark.

1. $\left[4x^6\right]^{\frac{1}{2}} - 128 = 0$ the value of x is ————————.

   (i) 2. (ii) – 2.

   (iii) 4. (iv) – 4.

2. Find the value of $[81]^{\frac{1}{4}} + 2^4$ is ————————.

   (i) 16. (ii) 17.

   (iii) 18. (iv) 19.

3. For a matrix $A\left(A^T\right)^T =$ ————————.

   (i) Identity matrix. (ii) The matrix A.

   (iii) A^2. (iv) A^T.

4. The matrix $A = \begin{bmatrix} 3 & 0 \\ 0 & 3 \end{bmatrix}$ is ————————.

   (i) An identity matrix. (ii) A scalar matrix.

   (iii) A unit matrix. (iv) A singular matrix

5. A function $f(x)$ is called an odd function, if ————————.

(i) $f(-x) = -f(x)$. (ii) $f(-x) = f(x)$.

(iii) $f(x^2) = f(x)$. (iv) None of these.

6. GM of 2 and 8 is ————————.

(i) 4. (ii) 5.

(iii) 6. (iv) None of these.

7. Quartile deviation and the first quartile of a set of observations are respectively 3 and 4, then the third quartile is ————————.

(i) 4. (ii) 5.

(iii) 7. (iv) 10.

8. 70 % of a set of observations are greater than 32. Then 32 is ———————— of the set.

(i) 3^{rd} percentile. (ii) 70^{th} percentile.

(iii) 3^{rd} decile. (iv) 7^{th} decile.

9. Variance of a set of observations where the value of all the observations are same to the mean of the set is equal to ————————.

(i) Mean of the set. (ii) Zero.

(iii) Median of the set. (iv) None of these.

10. Gini Coefficient is associated with :

(i) Lorenz curve. (ii) Ogives.

(iii) Frequency curve. (iv) Bar diagram.

11. Maximum value for the coefficient of correlation between two variables is ————————.

(i) – 1. (ii) + 1.

(iii) 0. (iv) ∞.

12. Sign of the regression co-efficients are decided by ———————— of the variables.

(i) Means. (ii) Variances.

(iii) Covariance. (iv) None of these.

(12 × ½ = 6 marks)

Section B (Short Answer Type)

Answer any **ten** *questions.*
Each one carries 2 *marks.*

13. Find the value of $\left[\frac{1}{16}\right]^{\frac{1}{4}} + [8]^{\frac{1}{3}}$.

14. If $\log_4 (x-2) = 2$, find x.

15. Solve $2x - y = 13$ and $2y = 10$.

16. Define symmetric and skew symmetric matrices :

17. If the matrix $A = \begin{bmatrix} 3 & 7 & -2 \\ 0 & 0 & 4 \\ 8 & -4 & 1 \end{bmatrix}$, write $[A - I]$.

18. Define orthogonal matrix.

19. Find $\underset{x \to 2}{\text{Lt}} \frac{x^2 - 4}{x - 2}$.

20. Define harmonic mean.

21. Define elasticity of a function.

22. If $y = e^{4x}$, find $\frac{d^2y}{dx^2}$.

23. Define frequency polygon.

24. The regression lines y on x as $12x + 21y + 10 = 0$ and x on y as $6x + 8y + 5 = 0$. Obtain the coefficient of correlation between x and y.

(10 × 2 = 20 marks)

Section C (Short Essay/Problem Type)

Answer any **six** *questions.*
Each one carries 5 *marks.*

25. If $A = \begin{bmatrix} 3 & 4 \\ 2 & -3 \end{bmatrix}$, $B = \begin{bmatrix} 2 & -2 \\ 1 & 3 \end{bmatrix}$, show that $[AB]^T = B^T A^T$.

26. Define Dispersion. Explain range and mean deviation about mean.

27. The cost for producing x items per week for a firm is $x^5 - 5x^4 + 5x^3 - 4$. How many items are to be produced per week so as to minimize the cost of production ?

28. Write a note on less than and greater than ogives.

29. Explain kurtosis. How is it measured ?

30. Explain Lorenz curve as a graphical measure of dispersion.

31. If $A = \begin{bmatrix} 1 & a & a^2 \\ 1 & b & b^2 \\ 1 & c & c^2 \end{bmatrix}$, show that $|A| = (b-c)(c-a)(a-b)$.

32. Show that change of origin and scale (linear transformation) is independent of Pearsons' coefficient of correlation.

(6 × 5 = 30 marks)

Section D (Essay Type)

Answer any **two** *questions.*
Each one carries 12 *marks.*

33. Using matrix inverse method to find the values of x, y and z :

$$\begin{aligned} 2x + y + z &= 1 \\ x - y + 4z &= 0 \\ x + 2y - 2z &= 3. \end{aligned}$$

34. Define Skewness. How is it measured ? Find Bowley's co-efficient of skewness to the following data :

Class	Below 10	10–20	20–30	30–40	40–50	above 50
Frequency	5	12	20	16	5	2

35. Define partition values. Explain various partition values in common use. What are their inter relationship ? How partition values are used to measure various fundamental characteristics of data ?

36. Explain Spearman's rank correlation co-efficient. Calculate the rank correlation coefficient between X and Y using the data given :

X	:	65	66	67	68	69	70	71	72
Y		67	68	65	66	70	72	69	71

(2 × 12 = 24 marks)

D 12004-A (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS-UG) DEGREE EXAMINATION, NOVEMBER 2021

Mathematics

[illegible] MATHEMATICAL TOOLS FOR [illegible]

(2019 [illegible] Admissions)

(Multiple Choice Questions for SDE Candidates)

Time : 15 Minutes	Total No. of Questions : 20	Maximum : 20 Marks

INSTRUCTIONS TO THE CANDIDATE

1. This Question Paper carries Multiple Choice Questions from 1 to 20.
2. The candidate should check that the question paper supplied to him/her contains all the 20 questions in serial order.
3. Each question is provided with choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and enter it in the main answer-book.
4. The MCQ question paper will be supplied after the completion of the descriptive examination.

ECO 4(3)C04—MATHEMATICAL TOOLS FOR ECONOMICS

(Multiple Choice Questions for SDE Candidates)

1. Regression analysis is concerned with ———————— relationship among variables.

   (A) Statistical. (B) Functional.

   (C) Deterministic. (D) None of the above.

2. Stochastic variables are those having :

   (A) Probability distribution. (B) Indexation.

   (C) Correlation. (D) Causation.

3. Cost is a function of ————————.

   (A) Price. (B) Revenue.

   (C) Quantity. (D) None of these.

4. An example of fixed inputs of production is ————————.

   (A) Land. (B) Organisation.

   (C) Both (A) and (B). (D) None of these.

5. Total variable cost plus total fixed cost gives :

   (A) Total cost. (B) Average cost.

   (C) Marginal cost. (D) None of these.

6. The ratio of total cost to the quantity produced is called :

   (A) Average cost. (B) Marginal cost.

   (C) Total variable cost. (D) None.

7. Sum of explicit cost and implicit cost gives :

   (A) Total cost. (B) Average cost.

   (C) Marginal cost. (D) None of these.

8. Cross price elasticity may not always be :

(A) Symmetrical. (B) Asymmetrical.

(C) Both (A) and (B). (D) None.

9. If close substitutes are available, then the elasticity of demand will be :

(A) Low. (B) Moderate.

(C) High. (D) Optimum.

10. The relationship between demand and price is :

(A) Positive. (B) Negative.

(C) Perfect. (D) None.

11. Functional relationship between input and output is called :

(A) Isoquants. (B) Isocost.

(C) Input function. (D) Production function.

12. In CES production function, the elasticity of substitution is :

(A) Unity. (B) Zero.

(C) Negative. (D) Constant.

13. What is the order of differential equation $\frac{dy}{dt} = 10x + 5$?

(A) First. (B) Second.

(C) Third. (D) Fourth.

14. The order of differential equation is the order of ————————.

(A) Derivative. (B) Highest derivative.

(C) Exponent. (D) Factors.

15. Second stage in return to scale is called :

(A) Increasing returns. (B) Diminishing returns.

(C) Constant returns. (D) Negative returns.

16. For a function $y = f(x), x_1 \geq x_2 \;\; f(x) \geq f(x_2)$ says that the function is :

(A) Increasing. (B) Decreasing.

(C) Constant. (D) None of these.

17. For profit maxmisation we must have :

(A) MR = MC. (B) MC Curve cut MR curve from below.

(C) Both (A) and (B). (D) None of these.

18. For a function $y = f(x_1, x_2)$, the total differential is given by :

(A) $dy = f_1 dx_1 + f_2 dx_2$. (B) $dy = f_1 dx_2 + f_2 dx_1$.

(C) Both (A) and (B). (D) None of these.

19. If marginal revenue is Rs. 25 and elasticity of demand w.r.t. price is 2, then the average revenue is :

(A) 50. (B) 25.

(C) 75. (D) 100.

20. For two goods 1 and 2, if $E_{12} > 0$ implies that the two goods are :

(A) Complementary. (B) Substitutes.

(C) Supplementary. (D) Giffen goods.

D 12094 (Pages : 3) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS–UG) DEGREE EXAMINATION, NOVEMBER 2021

Economics

ECO 4(3)C04—MATHEMATICAL TOOLS FOR ECONOMICS

(2019—2020 Admissions)

Time : Two Hours and a Half Maximum : 80 Marks

Section A

Answer atleast ten *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall ceiling 30.

1. Differentiate the following function using the power function rule :

   (i) $f(x) = 7(x)^{-2}$; (ii) $y = -8x^{-3}$.

2. Find $\lim_{x \to 3} \frac{x^2 - 5x + 6}{x^2 - 9}$.

3. Find the second order derivative of the following function : $f(x) = 3x^4 + 5x^3 + 6x$.

4. Define the concepts of Implicit function and explicit function.

5. What is the Addition rule in Integration ?

6. What is Homogeneous production function ?

7. Define Optimization.

8. Explain the concept of Returns to scale.

9. What is Income elasticity of demand ?

10. Differentiate $x^5 + e^x$.

11. What is definite integral ?

12. Find $\int \left(5x + \frac{2}{x}\right) dx$.

13. A consumer consumes two commodities x_1 and x_2 and the utility function is given by $u = x_1^2 + 3x_1x_2 + 5x_2$. Find out marginal utilities of x_1 and x_2.

Turn over

14. Given the implicit functions, find the $\frac{dy}{dx}$: (i) $3x^4 - 7y^5 - 86 = 0$; and (ii) $7x^2 - y = 0$.

15. Find the AC and MC functions from the total cost function : $TC = 60 + 10x + 15x^2$.

(10 × 3 = 30 marks)

Section B

Answer atleast **five** *questions.*

Each question carries 6 *marks.*

All questions can be attended.

Overall ceiling 30.

16. Find the first derivative of each of the following functions :

(i) $y = 8x^3 + 4x^2 + 9x + 3$; (ii) $y = -7x^{-2}$; and (iii) $y = 6x^{-4}$.

17. Find the derivative for the inverse of the following functions : (i) $Q = 20 - 5P$; and (ii) $Q = 25 + 3P^3$.

18. Explain the relationship between TR, AR and MR Concepts.

19. Find the second order.direct partial derivatives z_{xx} and z_{yy} for each of the following functions : (i) $z = 2xy^4 + 7x^3y$; and (ii) $z = (7x + 3y)^3$.

20. Integrate $\int \frac{x^2}{x+2}$.

21. Find the Marginal productivity of the different inputs for each of the following production functions Q : (i) $Q = 6x^2 + 3xy + 2y^2$; and (ii) $Q = 0.5\ K^2 - 2KL + L^2$.

22. Find the Total Revenue function using Integration : $MR = 84 - 4Q - Q^2$.

23. Briefly explain Lagrange multiplier method.

(5 × 6 = 30 marks)

Section C

Answer any **two** *questions.*

Each question carries 10 *marks.*

24. Given $y = \log(50 + x_1^2 + 2x_1x_2 + x_2^4)$ find $\frac{\partial y}{\partial x_1}$ and $\frac{\partial y}{\partial x_2}$. Apply chain rule of differentiation.

25. Given $Q_1 = 100 - P_1 - 0.75P_2 - 0.25P_3 + 0.0075Y$. At $P_1 = 10$, $P_2 = 20$, $P_3 = 40$ and $Y = 10000$. Find (i) price elasticity of demand and (ii) cross elasticity of demand ; and (iii) Income elasticity of demand.

26. Explain the important marginal concepts in Economic Analysis and explain some mathematical applications in economics.

27. Optimize $z = x^2 + y^2$ subject to the constraint $y = 10 - x$ using the Lagrange multiplier method.

(2 × 10 = 20 marks)

D 12093 (Pages : 2) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2021

Economics

ECO 4(3) C03—BANKING—II

(2019—2020 Admissions)

Time : Two Hours and a Half Maximum : 80 Marks

Section A (Short Answer Questions)

Answer at least **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 30.

1. Define a Central Bank.
2. What is Capital Adequacy Norm ?
3. Explain the working of Open Market Operation.
4. Write a note on the relevance of Mudra Bank.
5. What do you mean by rural banking ?
6. Distinguish between bank and Non-Banking Financial Institution.
7. What is LAF ?
8. Explain the importance of IDBI.
9. What do you mean by Prudential Norm?
10. Distinguish between Repo and Reverse Repo rate.
11. What is MCLR ?
12. What do you mean by refinancing ?
13. Write a note on the importance of agricultural banking.
14. What is NPA ?
15. What is meant by lead bank scheme ?

(10 × 3 = 30 marks)

Turn over

Section B (Short Essay Questions)

Answer at least **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall Ceiling 30.

16. Write a note on the origin of NABARD.
17. Explain the importance of agricultural banking.
18. Narrate the three tier structure of co-operative banks.
19. Explain the difference between CRR and SLR.
20. What are the prudential norms followed by the banking sector in India ?
21. Write a brief note on the functions of SIDBI.
22. Explain the rules of Note Issue System of RBI in India.
23. Write a brief note on the Basel Norms.

(5 × 6 = 30 marks)

Section C (Long Essay Questions)

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. Distinguish the roles and functions of IDBI and IFCI.
25. Explain the functions of RBI. What are the monetary measures to macroeconomic objectives?
26. Briefly explain the recommendations of Narasimham Committee Report I and II.
27. Explain the role and functions of NABARD.

(2 × 10 = 20 marks)

D 12092 (Pages : 2) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION, NOVEMBER 2021

Economics

ECO 4(3) C02—CO-OPERATION II

(2019—2020 Admissions)

Time : Two Hours and a Half Maximum : 80 Marks

Section A (Short Answer Questions)

Answer at least **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 30.

1. Define a SHG.
2. What is warehousing ?
3. State decentralisation.
4. Define group- farming.
5. What is TRIFED ?
6. Define *Grama sabha.*
7. What is NCCF ?
8. State 'Micro finance'.
9. What is SGSY ?
10. Define Credit union.
11. State 'Collectivization'.
12. State the recommendations of Mirdha Committee(1965).
13. Define share capital of a cooperative society.
14. Define Primary cooperatives.
15. What is meant by Neighbourhood Groups ?

(10 × 3 = 30 marks)

Turn over

Section B (Short Essay Questions)

Answer at least **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall Ceiling 30.

16. What are the important variants of cooperative farming society ?
17. Analyze the advantages and disadvantages of collective farming.
18. Explain the functions of NAFED.
19. Trace the evolution of dairy cooperatives in India.
20. Elucidate the role of NABARD in rural development.
21. Prepare a brief note on the decentralization process of Kerala.
22. Why education is important for cooperatives ?
23. Analyze the characteristics and source of finance of cooperative marketing society.

(5 × 6 = 30 marks)

Section C (Long Essay Type)

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. Analyze the objectives, characteristics and functions of consumer cooperatives.
25. Analyze the origin, structure and importance of Kudumbashree programme of Kerala.
26. Trace the history of cooperative movements in Kerala.
27. Analyze the importance of cooperatives in farming and rural credit.

(2 × 10 = 20 marks)

D 12091–A (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS–UG) DEGREE EXAMINATION, NOVEMBER 2021

Economics

ECO 4(3)C01—INTRODUCTORY ECONOMICS—II

(2019—2020 Admissions)

(Multiple Choice Questions for SDE Candidates)

Time : 15 Minutes	Total No. of Questions : 20	Maximum : 20 Marks

INSTRUCTIONS TO THE CANDIDATE

1. This Question Paper carries Multiple Choice Questions from 1 to 20.
2. The candidate should check that the question paper supplied to him/her contains all the 20 questions in serial order.
3. Each question is provided with choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and enter it in the main answer-book.
4. The MCQ question paper will be supplied after the completion of the descriptive examination.

ECO 4(3)C01—INTRODUCTORY ECONOMICS—II

(Multiple Choice Questions for SDE Candidates)

1. Which of the following is an example of an intermediate good ?

   (A) Car sold by a dealer of second hand cars.

   (B) Steel and cement used to construct a flyover.

   (C) Fertilizers purchased by a farmer.

   (D) All of these.

2. National Disposable income is equal to :

   (A) Private Final Consumption Expenditure + Government Final Consumption Expenditure + National Saving.

   (B) National Consumption Expenditure + National Saving.

   (C) National Income + Net Indirect Taxes + Net Current Transfers from rest of the world.

   (D) All of these.

3. In which type of economy, domestic income is equal to national income ?

   (A) Open economy. (B) Closed Economy.

   (C) Both (A) and (B). (D) Neither (A) nor (B).

4. Which of the following is a part of National Income ?

   (A) Old age pension. (B) Unemployment allowance.

   (C) Profit. (D) Scholarship.

5. ——— is the net amount available to households for consuption and saving.

   (A) National income. (B) Personal income.

   (C) Personal disposable income. (D) Government income.

6. Which one is included in National Income ?

   (A) Winning from lottery. (B) Milk purchase by a dairy shop.

   (C) National debt interest. (D) None of these.

7. Which of the following is included in domestic income ?

(A) Factor income from abroad. (B) Windfall gains.

(C) Pension on retirement. (D) Capial gains.

8. Which of the following is not an economic activity and hence not included while estimating national income in india ?

(A) Medical services rendered by a dispensary.

(B) A housewife doing household work.

(C) A lawyer doing his practiced.

(D) A maid working full time with a family.

9. The first National Income calculation on a scientific basis in India is in the year :

(A) 1947-48. (B) 1951-52

(C) 1931-32. (D) 1990-91.

10. Which of the following is the consumption sector ?

(A) Household. (B) Firm.

(C) Government. (D) Foreign.

11. If factor cost is greater than Market price, then it means that :

(A) Indirect taxes > subsidies. (B) Indirect taxes = subsidies.

(C) Indirect Taxes < Subsidies. (D) Indirect taxes = and > subsidies.

12. Non-exclusion principle is related to :

(A) Private goods. (B) Public goods.

(C) Merit goods. (D) Mixed goods 20.

13. Who is the father of Public Finance :

(A) Dalton. (B) Pigou.

(C) Smith. (D) Musgrave.

14. The equity principle of taxation was propounded by :

(A) Adam Smith. (B) Dalton.

(C) J. B. Say. (D) Marshall.

15. ——— is the deliberate downward adjustment in the official exchange rate, reduces the currency's value.

(A) Devaluation. (B) Depreciation.

(C) Revaluation. (D) Appreciation.

16. A key effect of devaluation is that it :

(A) Makes the domestic currency cheaper relative to other currencies.

(B) Makes the domestic currency dearer relative to other currencies.

(C) Makes the foreign currency cheaper relative to other currencies.

(D) Leaves the relative value unchanged.

17. Which among following is an implication of revaluation ?

(A) Revaluation makes the country's exports relatively more expensive for foreigners.

(B) Revaluation makes foreign products relatively more expensive for domestic consumers, thus encouraging imports.

(C) Revaluation help to reduce the country's exports to reduce the current account surplus.

(D) All the above

18. India's Green revolution was most successful in ——— Production :

(A) Wheat. (B) Rice.

(C) Maize. (D) Cotton.

19. When the first industrial policy was introduced ?

(A) 1951. (B) 1991.

(C) 1948. (D) 1956.

20. Trade Policy measures for correction of balance of payments disequilibrium include of export promotion :

(A) Export promotion. (B) Import control.

(C) Both (A) and (B). (D) Import substitution.

D 12091 (Pages : 2) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS–UG) DEGREE EXAMINATION, NOVEMBER 2021

Economics

ECO 4(3)C01—INTRODUCTORY ECONOMICS—II

(2019—2020 Admissions)

Time : Two Hours and a Half Maximum : 80 Marks

Section A

Answer atleast **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall ceiling 30.

1. Distinguish between internal and external trade.
2. What is Cash Reserve Ratio ?
3. What do you mean by deflation ?
4. Prepare a note on any two types of inflation.
5. What are the measures to estimate inequality ?
6. Distinguish between fixed and flexible exchange rates.
7. What do you mean by globalization ?
8. Write a note on Budget.
9. Write any three initiatives of the government to reduce poverty.
10. What is fiscal policy ?
11. What are the functions of money ?
12. Distinguish between Public Revenue and Public Expenditure.
13. Differentiate growth and development.
14. What are the items included in the capital account of the Balance of Payments (BoPs) ?
15. Write any two effects of inflation.

(10 × 3 = 30 marks)

Turn over

Section B

Answer atleast **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall ceiling 30.

16. What are the Terms of References (ToR) of the 15th Finance Commission opposed by Kerala ? Why ?
17. Why should we increase capital expenditure ?
18. Explain the role and importance of NITI Aayog ?
19. Explain the employment and unemployment scenario in India in the last decade.
20. Discuss the contributions of trade to development.
21. Explain the role and functions of Central Bank in a country.
22. What are the demographic challenges of India ?
23. Explain the principle of maximum social advantage.

(5 × 6 = 30 marks)

Section C

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. Describe the macroeconomic and development policy approaches in the Pre and Post reform periods. Analyze with special emphasis on recent economic policy changes.
25. Explain BoP and its importance. What are the types accounts in BoP ? Explain the items included in each account of the BoP.
26. Examine the importance of banks in growth and development of an economy.
27. Analyze the problem of growing fiscal deficit in India.

(2 × 10 = 20 marks)

D 12090-A (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION NOVEMBER 2021

Economics

ECO 3B 04—MICROECONOMICS—II

(2019—2020 Admissions)

(Multiple Choice Questions for SDE Candidates)

Time : 15 Minutes	Total No. of Questions : 20	Maximum : 20 Marks

INSTRUCTIONS TO THE CANDIDATE

1. This Question Paper carries Multiple Choice Questions from 1 to 20.
2. The candidate should check that the question paper supplied to him/her contains all the 20 questions in serial order.
3. Each question is provided with choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and enter it in the main answer-book.
4. The MCQ question paper will be supplied after the completion of the descriptive examination.

ECO 3B 04—MICROECONOMICS—II

(Multiple Choice Questions for SDE Candidates)

1. Differentiated products is a characteristic of :

   (A) Monopolistic competition only.

   (B) Oligopoly only.

   (C) Both monopolistic competition and oligopoly.

   (D) Monopoly.

2. An increase in output in a perfectly competitive and constant cost industry which is in long run equilibrium will come :

   (A) Entirely from new firms.

   (B) Entirely from existing firms.

   (C) Either entirely from new firms or entirely from existing firms.

   (D) Partly from new firms and partly from existing firms.

3. In the short run, the monopolist :

   (A) Breaks even. (B) Incurs a loss.

   (C) Makes a profit. (D) Any of the above.

4. In long-run equilibrium, the pure monopolist (as opposed to the perfectly competitive firm) can make pure profits because of :

   (A) Blocked entry. (B) High selling prices.

   (C) Low LAC costs. (D) Advertising.

5. Which form of monopoly regulation is most advantageous for the consumer ?

   (A) Price control (B) Lump-sum tax.

   (C) Per-unit tax. (D) All of the above.

6. Third degree price discrimination occurs when the monopolist charges different prices for the same commodity in different :

   (A) Markets (B) Places.

   (C) Continents. (D) Countries.

7. At the point of equilibrium of a monopolist MC cuts MR curve :

(A) From below. (B) From above.

(C) At point of equality of AC and AR. (D) None.

8. Railways is an example of :

(A) Simple monopoly. (B) Differentiated monopoly.

(C) Natural monopoly. (D) Monopsony.

9. The concept of group equilibrium is related to :

(A) Perfect competition. (B) Monopoly.

(C) Monopolistic competition. (D) Oligopoly.

10. Comparing a monopoly and a competitive firm, the monopolist will :

(A) Produce less at a lower price. (B) Produce more at a lower price.

(C) Produce less at a higher price. (D) Produce less at a lower price.

11. The market structure with Perfect knowledge is called :

(A) Perfect competition. (B) Monopoly.

(C) Monopolistic competition. (D) Oligopoly.

12. The market structure which number of sellers is small with interdependence is called :

(A) Perfect competition. (B) Monopoly.

(C) Monopolistic competition. (D) Oligopoly.

13. Kinked demand curve explain which of the following features of oligopoly :

(A) Selling cost. (B) Price rigidity.

(C) Non-price competition. (D) Product differentiation.

14. In the short run, a monopolistically competitive firm can have :

(A) Abnormal profit. (B) Loss.

(C) Normal profit. (D) Any of the above are possible.

15. The following are conditions of perfect competition except :

(A) Sellers are large in number.

(B) Single buyer.

(C) Commodity produced is Homogenous.

(D) Freedom to Entry and exit.

16. In a Perfect competitive market :

(A) Firm is the price giver and the industry is a price taker.

(B) Firm is the price taker and the industry is a price giver.

(C) Both are price makers.

(D) Both are price takers.

17. The condition of short run equilibrium under perfect competition is :

(A) MC = MR. (B) MC cuts MR from below.

(C) MC is rising when it cuts AR. (D) All the above.

18. If a firm sells its output on a market that is characterized by many sellers and buyers, a homogeneous product, unlimited long-run resource mobility, and perfect knowledge, then the firm is a :

(A) A monopolist. (B) An oligopolist.

(C) A perfect competitor. (D) A monopolistic competitor.

19. If a firm sells its output on a market that is characterized by many sellers and buyers, a differentiated product, and unlimited long-run resource mobility, then the firm is :

(A) A monopolist. (B) An oligopolist.

(C) A perfect competitor. (D) A monopolistic competitor.

20. Which of the following markets comes close to satisfying the assumptions of a perfectly competitive market structure ?

(A) The stock market.

(B) The market for agricultural commodities such as wheat or corn.

(C) The market for petroleum and natural gas.

(D) All of the above come close to satisfying the assumptions of perfect competition.

D 12090 (Pages : 2) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2021

Economics

ECO 3B 04—MICROECONOMICS—II

(2019—2020 Admissions)

Time : Two Hours and a Half Maximum : 80 Marks

Section A (Short Answer Questions)

Answer at least **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 30.

1. What is meant by homogeneous product ?
2. Define bilateral monopoly.
3. What is meant by collusive oligopoly ?
4. Define a multi plant monopoly ?
5. Define Dumping.
6. What is meant by transfer pricing ?
7. What is meant by monopsony power ?
8. Define double column tariff ?
9. What is meant by price taker ?
10. Define a dominant firm.
11. Define 'shutdown point'.
12. What is OPEC ?
13. What is meant by 'bundling'.
14. Define 'selling cost'.
15. What is envelope curve ?

(10 × 3 = 30 marks)

Turn over

Section B (Short Essay Questions)

Answer at least **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall Ceiling 30.

16. What are the important characteristics of a perfectly competitive market.

17. What are the different types, of dumping.

18. Analyze the merits of peak load pricing.

19. Explain critically the marginal productivity theory of input demand.

20. Explain different degrees of price discrimination with suitable example.

21. Critically examine Sweezy's kinked demand curve model ?

22. Suppose the market demand in a perfectly competitive industry is given by QD = 70000 – 5000 P and the market supply function is QS = 400000 + 2500 P, find out the equilibrium price and find out market demand and supply schedule if price is Rs. 9, Rs. 8, Rs. 7, Rs. 6 and Rs. 5.

23. Critically examine the Chamberlin's model of oligopoly.

(5 × 6 = 30 marks)

Section C (Long Essay Questions)

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. What are the important characteristic features of oligopoly ? Explain the equilibrium of a firm in oligopoly.

25. Explain the short run and long run equilibrium of a firm under perfect competition.

26. Analyse the degrees , sources and measures of monopoly power.

27. Derive the market demand and supply of input of a firm in competitive factor markets.

(2 × 10 = 20 marks)

D 12089-A (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION NOVEMBER 2021

Economics

ECO 3B 03—QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS—I

(2019—2020 Admissions)

(Multiple Choice Questions for SDE Candidates)

Time : 15 Minutes	Total No. of Questions : 20	Maximum : 20 Marks

INSTRUCTIONS TO THE CANDIDATE

1. This Question Paper carries Multiple Choice Questions from 1 to 20.
2. The candidate should check that the question paper supplied to him/her contains all the 20 questions in serial order.
3. Each question is provided with choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and enter it in the main answer-book.
4. The MCQ question paper will be supplied after the completion of the descriptive examination.

ECO 3B 03—QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS—I

(Multiple Choice Questions for SDE Candidates)

1. 216 to the base $\sqrt{6}$ is :

   (A) 6. (B) $\frac{2}{6}$.

   (C) $\sqrt{-3}$. (D) None of these.

2. If $(2x + 1)(4x - 1) = 0$, the roots are :

   (A) 1, –1. (B) $\frac{1}{2}, \frac{1}{4}$.

   (C) $\frac{-1}{2}, \frac{1}{4}$. (D) 2, 2.

3. $y = mx + c$ is ———— of a straight line.

   (A) General form. (B) Slope form.

   (C) Intercept form. (D) Equation.

4. The common root of $x^2 - 5x + 6 = 0$ and $3x^2 - 5x - 2 = 0$ is :

   (A) 1. (B) 2.

   (C) 3. (D) 4.

5. When two rows (or columns) are interchanged the value of the determinant :

   (A) Remain unchanged. (B) Changed.

   (C) Changed by sign. (D) None of these.

6. The matrix $A = \begin{bmatrix} 0 & 0 & 1 \\ 0 & 0 & 0 \\ -1 & 0 & 0 \end{bmatrix}$ is :

   (A) Symmetric. (B) Diagonal.

   (C) Skewsymmetric. (D) Triangular.

7. The function $g(x) = 2x^2 - x + 7$ is :

(A) Linear. (B) Biquadratic.

(C) Quadratic. (D) Constant function.

8. The graph of a quadratic function is a :

(A) Line. (B) Hyperbola.

(C) Parabola. (D) None of these.

9. The indifference curve analysis is developed by :

(A) Edgeworth. (B) R. A. Fisher.

(C) Cobb-Douglas. (D) Wilfredo Pareto.

10. Histogram is useful to determine :

(A) Mean. (B) Median.

(C) Mode. (D) All these.

11. The value of the middle most item when they are arranged in order of magnitude is called :

(A) Quartile. (B) Mean.

(C) Mode. (D) Median.

12. Average is a measure of :

(A) Central tendency. (B) Dispersion.

(C) Symmetry. (D) Concentration.

13. Skewness refers to :

(A) Symmetry. (B) Asymmetry.

(C) Flatness. (D) Peakedness.

14. Probable error is used for :

(A) Measuring the error in r. (B) Testing the significance of r.

(C) Both (A) and (B). (D) Neither (A) nor (B).

15. Correlation coefficient measures :

(A) Variability. (B) Location.

(C) Concentration. (D) Relation.

16. For the following correlation coefficients, which of the following indicates the strongest relation :

(A) $r = 0.5$. (B) $r = 0.09$.

(C) $r = -0.6$. (D) $r = 0.2$.

17. Which of the following would not allow you to calculate a correlation ?

(A) A negative relationship between X and Y.

(B) A positive relationship between X and Y.

(C) A curvilinear relationship between X and Y.

(D) A linear relationship between X and Y.

18. What would you expect the correlation between daily calorie consumption and body weight to be ?

(A) Moderate to large positive. (B) Small positive.

(C) Zero or near zero. (D) Small negative.

19. Sanju calculated a correlation coefficient of 0.75, Which of the following reflects the best interpretation of this :

(A) Weak negative. (B) Strong negative.

(C) Weak positive. (D) Strong positive.

20. The estimated ———— equation can be used to predict the value of the dependent variable given values for the independent variables.

(A) Correlation. (B) Mean deviation.

(C) Standard deviation. (D) Regression.

D 12089 (Pages : 3) Name.....

Reg. No.....

THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2021

Economics

ECO 3B 03—QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS—I

(2019—2020 Admissions)

Time : Two Hours and a Half Maximum : 80 Marks

Section A (Short Answer Questions)

Answer at least **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 30.

1. What is Rectangular hyperbola ?
2. Define the concept of : (i) Zero Exponent ; and (ii) Negative Exponent.
3. Find the number of digits in 6^{10}.
4. What is Rank of a Matrix ?
5. Find A + B for $A = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & -1 & 2 \\ 0 & 3 & -5 \end{bmatrix}$.
6. Define Determinant.
7. Briefly explain the two graphic representations of frequency distributions.
8. Find $\begin{pmatrix} 1 & 6 \\ -3 & 5 \end{pmatrix}\begin{pmatrix} 2 \\ -7 \end{pmatrix}$.
9. What is Gini Co-efficient ?
10. Find the range of the set 5, 3, 8, 4, 7, 6, 12, 4, 3.
11. What is Karl Pearson's Co-efficient of Correlation ?
12. What are the important properties of Arithmetic mean ?

Turn over

13. Explain the concept of Co-efficient of Variation.

14. Distinguish between Univariate and Bivariate analysis.

15. Find the standard deviation of the set 3, 6, 2, 1, 7, 5.

(10 × 3 = 30 marks)

Section B (Short Essay Questions)

Answer at least **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall Ceiling 30.

16. Given $\log 2 = x$, $\log 3 = y$, $\log 5 = z$. Express the following of x, y and z. (i) $\log 12$ (ii) $\log(0.0675)$.

17. Write a short note on Measures of Central Tendency.

18. Briefly explain the inverse of the matrix and its properties.

19. Evaluate the following determinants :

(a) $\begin{vmatrix} 8 & 1 & 3 \\ 4 & 0 & 1 \\ 6 & 0 & 3 \end{vmatrix}$; and (b) $\begin{vmatrix} 4 & 0 & 2 \\ 6 & 0 & 3 \\ 8 & 2 & 3 \end{vmatrix}$.

20. Briefly explain the different methods used for graphical representation of data.

21. The following table gives the heights of students in a class. Find out the Quartile Deviation :

Height (In inches)	No. of Students
50–53	2
53–56	7
56–59	24
59–62	27
62–65	13
65–68	3

22. The ranks of the same 16 students in Economics and Statistics are as follows. Two numbers within brackets denote the ranks if the students in Economics and Statistics. (1, 1) (2, 10) (3, 3) (4, 4) (5, 5)(6, 7) (7, 2) (8, 6) (9, 8) (10, 11) (11, 15) (12, 9) (13, 14) (14, 12) (15, 16) (16, 13). Calculate the rank correlation co-efficient for proficiencies of this group in Economics and Statistics.

23. The following table gives the aptitude test scores and productivity indices of 10 workers selected at random :

Aptitude Index (X)	60	62	65	70	72	48	53	73	65	82
Productivity Index (Y)	68	60	62	80	85	40	52	62	60	81

Calculate the two regression equations and estimate the productivity index of a worker whose test score is 92.

(5 × 6 = 30 marks)

Section C (Long Essay Questions)

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. Briefly explain different types of functions and its applications in Economic analysis.

25. Solve the following system of linear equations using matrix inversion method :

$$2x + 3y - z = 9$$
$$x + y + z = 6$$
$$3x - y - z = -1.$$

26. Calculate the Mean and Standard Deviation from the following data :

Value	Frequency
90–99	2
80–89	12
70–79	22
60–69	20
50–59	14
40–49	4
30–39	1

27. What is Linear Regression ? Explain in detail the estimation procedure of Principle of Ordinary Least Squares.

(2 × 10 = 20 marks)

D 11919-A (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION NOVEMBER 2021

Economics

ECO 3B 04—MODERN BANKING AND INSURANCE

(2014—2018 Admissions)

(Multiple Choice Questions for SDE Candidates)

Time : 15 Minutes	Total No. of Questions : 20	Maximum : 20 Marks

INSTRUCTIONS TO THE CANDIDATE

1. This Question Paper carries Multiple Choice Questions from 1 to 20.
2. The candidate should check that the question paper supplied to him/her contains all the 20 questions in serial order.
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ECO 3B 04—MODERN BANKING AND INSURANCE

(Multiple Choice Questions for SDE Candidates)

1. The word meaning of Banco is ————————.

   (A) Heap. (B) Gold.

   (C) Deposit. (D) Loan.

2. Upper bank of India was established in ————————.

   (A) 1860. (B) 1870.

   (C) 1863. (D) 1865.

3. Find out odd one in the group :

   (A) IDBI. (B) RBI.

   (C) SFC. (D) IFCI.

4. The central office of RBI is at ————————.

   (A) Mumbai. (B) Chennai.

   (C) New Delhi. (D) Calcutta.

5. Money market is a part of :

   (A) Capital market. (B) RBI.

   (C) SBT. (D) Financial market.

6. The Government of India passed the SFC Act in ————————.

   (A) 1951. (B) 1960.

   (C) 1945. (D) 1950.

7. DFHI was set up in :

   (A) 1988. (B) 1982.

   (C) 1956. (D) 1948.

8. On 29th September 2015 the SLR is :

   (A) 20. (B) 21.5.

   (C) 21. (D) 20.5.

9. Alternative Banking is ————————.

(A) Tele banking. (B) Social banking.

(C) SMS banking. (D) M-banking.

10. ATM and debit cards are combined into a single card called :

(A) Bank card. (B) ATM.

(C) Credit card. (D) E-purse.

11. The banking ombudsman scheme is introduced under ———————— section of Banking Regulation Act.

(A) 35 A. (B) 35.

(C) 25. (D) 73.

12. Insurance is a ————————.

(A) Charity. (B) Gambling.

(C) A contract. (D) Discount.

13. First fire insurance company opened at :

(A) London. (B) Italy.

(C) Germany. (D) France.

14. General Insurance Business act was passed in :

(A) 1972. (B) 1856.

(C) 1850. (D) 1948.

15. General Insurance Business Act was came into force from the year :

(A) 1973. (B) 1970.

(C) 1972. (D) 1980.

16. Burglary insurance firstly developed in ————————.

(A) 1887. (B) 1857.

(C) 1882. (D) 1779.

17. The insurance covers all risks of loss relating to production of rice, milk, wheat etc.

(A) Marine insurance. (B) Life insurance.

(C) Re-insurance. (D) Crop insurance.

18. IRDA permitted co-operative insurance organisation in the year :

(A) 2000. (B) 2002.

(C) 2004. (D) 2005.

19. The number of banks nationalised in 1969 :

(A) 10. (B) 14.

(C) 16. (D) 20.

20. The rate at which Central Bank grant loans to the commercial banks against the security is :

(A) Repo rate. (B) Reverse repo.

(C) Bank rate. (D) Discounting bills.

D 11919 (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION NOVEMBER 2021

Economics

ECO 3B 04—MODERN BANKING AND INSURANCE

(2014—2018 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A (Objective Type Questions)

Answer **all** *questions.*
Each question carries ½ mark.

1. General Insurance Business (Nationalization) Act was passed in :

   a) 1938. b) 1972.

   c) 1986. d) 1991.

2. Services offered by retail banks include :

   a) Consumer lending. b) Provision of credit and debit cards.

   c) E-banking services. d) All the above.

3. The Local Area Bank Scheme was introduced in :

   a) 1934. b) 1949.

   c) 1991. d) 1996.

4. GIC stands for :

   a) General Insurance Company. b) Group Insurance Company.

   c) Gender Insurance Company. d) General Information Company.

5. ———— is the operation of storefront locations away from the institution's home office for the convenience of customers:

   a) Unit banking. b) Branch banking.

   c) Mixed banking. d) Tele banking.

6. Insurance for insurance companies is :

a) General insurance. b) E- purse.

c) Reinsurance. d) Risk management.

7. Identify the correct statement/s related to commercial papers :

Statement I Commercial papers can be compared to an unsecured short-term promissory note which is issued by top rated companies with a purpose of raising capital to meet requirements directly from the market.

Statement II : They usually have a fixed maturity period

Statement III : They offer higher returns as compared to treasury bills.

a) Statement I and II are correct.

b) Statements I and III are correct.

c) Statements II and III are correct.

d) Statements I, II and III are correct.

8. The document that promises future payment which is guaranteed by a commercial bank is :

a) Banker's Acceptance. b) Commercial Paper.

c) Certificate of Deposits. d) Repurchase Agreement.

9. Which is the largest commercial bank in India ?

a) Reserve Bank of India. b) Axis Bank.

c) State Bank of India. d) HDFC.

10. Total number of nationalized banks in India as of July 2020 is :

a) 11. b) 12.

c) 16. d) 22.

11. ———— is not a quantitative credit control measure :

a) Bank rate policy. b) Open market operations.

c) Cash reserve ratio. d) Moral suasion.

12. Risk management can be done by :

a) Insurance. b) Hedging.

c) Derivatives. d) All the above.

(12 × ½ = 6 marks)

Part B (Very Short Answer Type Questions)

Answer any **ten** *questions.*
Each question carries 2 *marks.*

13. Define promissory note.
14. Prepare a note on fidelity guarantee.
15. What is the difference between prime rate and interest rate ?
16. What is an insurance premium ?
17. Distinguish between risk and uncertainty.
18. Write a note on mediclaim.
19. Define mixed banking.
20. What is meant by third party claim ?
21. Distinguish between surrender value and paid-up value.
22. What is meant by burglary insurance ?
23. What do you mean by NPA ?
24. What is meant by Electronic Funds Transfer ?

(10 × 2 = 20 marks)

Part C (Short Essay Type Questions)

Answer any **six** *questions.*
Each question carries 5 *marks.*

25. Explain the meaning and types of annuity.
26. Compare insurance and reinsurance.
27. Explain the meaning and significance of consortium banking.
28. Explain the benefits of motor insurance policies.
29. Evaluate the features of IRDA Act.
30. Prepare a note on Development Banks in India.
31. Explain the meaning and features of cheque truncation system.
32. What are the instruments of money market ?

(6 × 5 = 30 marks)

Turn over

Part D (Essay Type Questions)

Answer any **two** *questions.*
Each question carries 12 *marks.*

33. Explain important types of insurance. Discuss the procedure in settlement of an insurance claim.

34. Explain the meaning, significance and principles of risk management.

35. Examine the structure of commercial banks in India. Discuss the functions of commercial banks.

36. Narrate recent trends in banking.

(2 × 12 = 24 marks)

D 11918-A (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2021

Economics

ECO 3B 03—QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS—I

(2014—2018 Admissions)

(Multiple Choice Questions for SDE Candidates)

Time : 15 Minutes	Total No. of Questions : 20	Maximum : 20 Marks

INSTRUCTIONS TO THE CANDIDATE

1. This Question Paper carries Multiple Choice Questions from 1 to 20.
2. The candidate should check that the question paper supplied to him/her contains all the 20 questions in serial order.
3. Each question is provided with choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and enter it in the main answer-book.
4. The MCQ question paper will be supplied after the completion of the descriptive examination.

ECO 3B 03—QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS—I

(Multiple Choice Questions for SDE Candidates)

1. The y-intercept of the function $y = b^x$ is :

   (A) 0. (B) It has no y-intercept.

   (C) 1. (D) – 1.

2. Solve the quadratic equation $6x^2 + 7x - 3 = 0$.

   (A) $x = 1/3$ or – 1.5. (B) – 1/6 or 3.

   (C) $x = 1/6$ or – 3. (D) $x = -1/3$ or 1.5.

3. A straight line and a parabola intersect at :

   (A) 2 points. (B) 1 point.

   (C) No point. (D) At origin.

4. The solutions of the equations by determinants method is called :

   (A) *Inverse method.* (B) *Rank method.*

   (C) *Cramer's rule.* (D) *None of these.*

5. Let B be the inverse of a matrix A having determinant 3, then the determinant of B is :

   (A) 9. (B) 3.

   (C) 1/3. (D) 0.

6. The function $\log y = a + bx$ is called :

   (A) Linear function. (B) Double log function.

   (C) Exponential function. (D) Semi log function.

7. For equilibrium price and quantity demanded , the condition is :

   (A) Demand > supply. (B) Demand < supply.

   (C) Demand = supply. (D) None of these.

8. An important tool of indifference curve analysis is :

   (A) Marginal propensity to consume. (B) Marginal rate of substitution.

   (C) Marginal propensity to save. (D) Marginal utility.

9. Total cost is equal to :

(A) TVC + TFC. (B) AFC + AVC.

(C) AVC. (D) AFC.

10. Statistical methods are :

(A) Collection of data.

(B) Classification.

(C) Analysis and interpretation of data.

(D) All of these.

11. When the upper limit of a class is the lower limit of the next class, the series is known as :

(A) Exclusive. (B) Inclusive.

(C) Individual. (D) Discrete.

12. Ogives are useful to locate :

(A) Mean. (B) Median.

(C) Mode. (D) Weighted mean.

13. The value which occurs with the maximum frequency is called :

(A) Median. (B) Mode.

(C) Mean. (D) None.

14. To find median, arrange the data in :

(A) Ascending order.

(B) Descending order.

(C) Ascending order or descending order.

(D) No order.

15. A is a 3×2 matrix

B is a 2×3 matrix

C is a 2×2 matrix

D is a 3×3 matrix

Which of the following products does not exist ?

(A) AB. (B) AC.

(C) BD. (D) CD.

16. The ————, denoted r, ranges between – 1 and +1 and quantifies the direction and strength of the linear association between the two variables.

(A) Standard deviation. (B) Quartile Deviation.

(C) Regression coefficient. (D) Sample correlation coefficient.

17. Correlation of r = ———— suggests a strong, positive association between two variables.

(A) – 0.9. (B) 0.9.

(C) 0. (D) – 7.

18. The square of the correlation coefficient or r^2 is called the :

(A) Covariance. (B) Variance.

(C) Coefficient of determination. (D) Cross-product.

19. A scatterplot of a correlation of 0.10 would look most like a :

(A) Straight line. (B) Ellipse.

(C) Circle. (D) Square.

20. In simple linear regression, the model used to describe the relationship between a single dependent variable Y and a single independent variable X is $y = a_0 + a_1x + k$. a_0 and a_1 are referred to as the model ————.

(A) Values. (B) Estimates.

(C) Parameters. (D) Class.

D 11918 (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION NOVEMBER 2021

Economics

ECO 3B 03—QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS—I

(2014—2018 Admissions)

Time : Three Hours Maximum : 80 Marks

Section A (Objective Type)

Answer **all** *questions.*
Each question carries ½ mark.

1. The value of $(0.0001)^{\frac{1}{4}}$ is :

   (a) 0.001. (b) 0.01.

   (c) 0.1. (d) 1.

2. The logarithm of 243 to the base 3 is :

   (a) 3. (b) 4.

   (c) 5. (d) 6.

3. If log 3 = 0.4771, find the number of digits in 3^{62} :

   (a) 27. (b) 28.

   (c) 29. (d) 30.

4. The degree of a quadratic equation is :

   (a) 1. (b) 2.

   (c) 3. (d) 4.

5. Let the matrix A is of order 2 × 4 and another matrix B is of order 4 × 5, then the product AB is of order :

   (a) 2 × 4. (b) 2 × 5

   (c) 4 × 4. (d) 4 × 5.

Turn over

6. Let A be a matrix such that $|A| \neq 0$, then 4 is said to be :

   (a) Orthogonal. (b) Symmetric.

   (c) Singular. (d) Non-singular.

7. Pie-chart represents the components of a factor by :

   (a) Percentages. (b) Angles.

   (c) Sectors. (d) Circles.

8. Sum of squares of the deviations about mean is :

   (a) Zero. (b) Minimum.

   (c) Maximum. (d) One.

9. The percentage of items in a frequency distribution lying between upper and lower quartiles is :

   (a) 80 %. (b) 40 %.

   (c) 50 %. (d) 25 %.

10. Mean deviation is minimum when deviations are taken from :

   (a) Mean. (b) Median.

   (c) Mode. (d) Zero.

11. If the correlation co-efficient $r = 1$, the angle between the two lines of regression is :

   (a) 0. (b) 90.

   (c) 60. (d) 30.

12. The term 'regression' was introduced by :

   (a) R.A. Fisher. (b) Karl Pearson.

   (c) Sir Francis Galton. (d) Pascal.

(12 × ½ = 6 marks)

Section B (Short Answer Type)

Answer any **ten** *questions.*
Each question carries 2 marks.

13. Simplify $15x^7y^3 + \frac{5}{3}x^3y^{-1}$.

14. Simplify $\frac{(3)^5 (27)^3 (9)^4}{3(81)^4}$.

15. Give the rules of logarithm.

16. If $\log 2 = 0.3010$ and $\log 3 = 0.4771$, find $\log 45$.

17. Find the equilibrium price and the quantity exchanged at the equilibrium price, if supply and demand functions are given by $S = 20 + 3p$ and $D = 160 - 2p$ where p is the price charged.

18. Define square matrix with an example.

19. Define minor and co-factor.

20. Show that the matrix $A = \begin{bmatrix} 5 & 7 & 2 \\ 2 & 3 & 1 \\ 4 & 6 & 2 \end{bmatrix}$ is singular.

21. Arithmetic mean of 100 items is 34. At the time of calculation, three items 118, 70 and 19 were wrongly taken as 180. 17 and 90 respectively. What is the correct mean ?

22. Define range and quartile deviation.

23. Distinguish between positive correlation and negative correlation.

24. Find the mean of variables x and y from the regression equations given by $2y - x - 50 = 0$ and $3y - 2x - 10 = 0$.

(10 × 2 = 20 marks)

Section C (Short Essay/Problem Type)

Answer any **six** *questions.*
Each question carries 5 *marks.*

25. Find the value of $\left[\frac{a^{-1}b^2}{a^2b^{-4}}\right] \div \left[\frac{a^3b^{-5}}{a^{-2}b^3}\right]^{-5}$.

26. Find the value of $\frac{36.52 \times 25.43}{15.31 \times 2.56}$ using logarithm.

27. A man sells 7 tables and 8 chairs at Rs. 2,940 and 5 tables anti 6 chairs at Rs. 2,150. What is the selling price of each ?

28. Let $P=\begin{bmatrix}0 & 1\\ 2 & 3\end{bmatrix}, Q=\begin{bmatrix}-1 & 2\\ 4 & 3\end{bmatrix}$ and $R=\begin{bmatrix}2 & -1\\ 6 & 5\end{bmatrix}$. Find $P(Q+R)$ and $PQ+PR$. Hence prove that $P(Q+R)=PQ+PR$.

29. A company sells x tins of chocolate powder each day at Rs.15 a tin. The cost of manufacturing and selling these tins is Rs. 10 per tin plus a fixed daily overhead cost of R.s. 1,000. Determine (i) Cost function ; (ii) Revenue function ; and (iii) Profit function. What is the total cost, total revenue and total profit when 500 tins are manfactured and sold a day.

30. The marks obtained by seven students are 5, 10, 15, 20, 25, 30, 45. Find the harmonic mean.

31. Obtain the standard deviation for the data on scores given below :

Score	0–10	10–20	20–30	30–40	40–50	50–60	60–70
No. of students	10	15	25	25	10	10	5

32. Find the rank correlation coefficient between poverty and overcrowding from the table given below :

Town	A	B	C	D	E	F	G	H	I	J
Poverty	17	13	15	16	6	11	14	9	7	12
Overcrowding	36	46	35	24	12	18	27	22	2	8

(6 × 5 = 30 marks)

Section D (Essay Type)

Answer any **two** *questions.*
Each question carries 12 *marks.*

33. Solve the following system of equations :

$3x-2y+7z=5$; $7x+y+9z=6$; $3x+3y-7z=0$.

34. Find the inverse of A, where $A=\begin{bmatrix}3 & 5 & 7\\ 2 & -3 & 1\\ 1 & 1 & 2\end{bmatrix}$.

35. Explain the graphs of frequency distributions.

36. In a partially destroyed record of an analysis of correlation data the following results are legible. Variance of $x=9$ and the regression equations are $8x-10y+66=0$; $40x-18y=214$. Find (i) The mean values of x and y ; (ii) The co-efficient of correlation ; and (iii) The standard deviation of y.

(2 × 12 = 24 marks)