

**R4056**

**Sub. Code**

**25MEC1C1**

**M.A. DEGREE EXAMINATION, NOVEMBER – 2025**

**First Semester**

**Economics**

**MICRO ECONOMICS**

**(CBCS – 2025 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective questions by choosing the correct option.

1. Which of the following represents the graphical depiction of consumer preference? (CO1, K1)
  - (a) Demand curve
  - (b) Utility curve
  - (c) Indifference curve
  - (d) Budget line
  
2. Who introduced the concept of compensated demand curve? (CO1, K1)
  - (a) Adam Smith
  - (b) Alfred Marshall
  - (c) J.R. Hicks
  - (d) Samuelson

3. When marginal product is maximum, total product is (CO2, K2)
- (a) Constant
  - (b) Increasing at an increasing rate
  - (c) Maximum
  - (d) Decreasing
4. In the short run, when output increases, average fixed cost (CO2, K1)
- (a) Increases
  - (b) Decreases
  - (c) Remains constant
  - (d) First decreases then increases
5. In perfect competition, a firm is a (CO3, K1)
- (a) Price taker
  - (b) Price maker
  - (c) Price leader
  - (d) Colluder
6. The kinked demand curve model is associated with (CO3, K1)
- (a) Perfect competition
  - (b) Monopoly
  - (c) Oligopoly
  - (d) Monopolistic competition

7. A strategy where firms set a high initial price to realize maximum revenue from segments willing to pay more is called (CO4, K1)
- (a) Penetration pricing
  - (b) Skimming pricing
  - (c) Premium pricing
  - (d) Bundling pricing
8. Charging a low price to quickly gain market share is known as (CO4, K2)
- (a) Premium pricing
  - (b) Penetration pricing
  - (c) Psychological pricing
  - (d) Line pricing
9. The behavioural theory of the firm was developed by (CO5, K2)
- (a) Williamson
  - (b) Cyert and March
  - (c) Bain
  - (d) Sylos-Labini
10. According to Bain's limit pricing theory, firms set prices (CO5, K1)
- (a) At the competitive level
  - (b) At the monopoly profit-maximizing level
  - (c) Just high enough to maximize sales
  - (d) Low enough to deter potential entrants

**Part B**

(5 × 5 = 25)

Answer **all** the questions not more than 500 words each.

11. (a) Distinguish between cardinal and ordinal utility approaches. (CO1, K3)

Or

- (b) Explain the Slutsky substitution effect. (CO1, K3)

12. (a) Differentiate between short-run and long-run production functions. (CO2, K3)

Or

- (b) Explain the law of variable proportions. (CO2, K3)

13. (a) Describe the main features of perfect competition. (CO3, K2)

Or

- (b) Write a note on price discrimination. (CO3, K2)

14. (a) Show premium pricing with an example. (CO4, K2)

Or

- (b) Distinguish between penetration pricing and skimming pricing. (CO4, K2)

15. (a) Sketch the assumptions of Sylos-Labini's model. (CO5, K2)

Or

- (b) Differentiate between profit maximization and limit pricing strategy. (CO5, K2)

**Part C** (5 × 8 = 40)

Answer **all** the questions not more than 1000 words each.

16. (a) Explain the indifference curve analysis with income and substitution effects. (CO1, K3)

Or

- (b) Critically examine the Friedman - Savage hypothesis and Markowitz hypothesis of risk preferences. (CO1, K3)

17. (a) Illustrate the law of returns to scale. (CO2, K3)

Or

- (b) Derive the relationship between average cost and marginal cost curves with explanation. (CO2, K3)

18. (a) Discuss Chamberlin's theory of monopolistic competition. (CO3, K3)

Or

- (b) Explain the Cournot Model of duopoly and its assumptions. (CO3, K3)

19. (a) Critically analyze the role of geographical pricing in international trade. (CO4, K5)

Or

- (b) Evaluate line pricing and bundling pricing as effective tools of price management. (CO4, K5)

20. (a) Critically examine March's behavioural model of the firm. (CO5, K5)

Or

- (b) Compare and contrast Bain's limit pricing theory and Sylos-Labini's model with the traditional profit maximization approach. (CO5, K5)
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**R4057**

**Sub. Code**

**25MEC1C2**

**M.A. DEGREE EXAMINATION, NOVEMBER – 2025**

**First Semester**

**Economics**

**MACRO ECONOMICS**

**(CBCS – 2025 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective questions by choosing the correct option.

1. The branches of the subject economics is

(CO1, K1)

- (a) Wealth and welfare
- (b) Production and consumption
- (c) Demand and supply
- (d) Micro and macro

2. Identify the sectors of two sector model

(CO1, K2)

- (a) Households and firms
- (b) Private and public
- (c) Internal and external
- (d) Firms and government

3. Aggregate supply is equal to \_\_\_\_\_. (CO2, K2)
- (a)  $C + I + G$
  - (b)  $C + S + G + (X - M)$
  - (c)  $C + S + T + (X - M)$
  - (d)  $C + S + T + R_f$
4. The relationship between total spending on consumption and the total income is the \_\_\_\_\_ (CO2, K1)
- (a) Consumption function
  - (b) Saving function
  - (c) Investment function
  - (d) Aggregate demand function
5. When investment assumed autonomous the slope of the aggregate demand schedule is determined by the \_\_\_\_\_. (CO3, K2)
- (a) Marginal propensity to invest
  - (b) Disposal income
  - (c) Marginal propensity to consume
  - (d) Average propensity to consume
6. The multiplier tells us how much \_\_\_\_\_ changes after a shift in \_\_\_\_\_. (CO3, K2)
- (a) Consumption, Income
  - (b) Investment, output
  - (c) Savings, investment
  - (d) Output, aggregate demand

7. The IS curve shows equilibrium in the \_\_\_\_\_.  
(CO4, K2)
- (a) Money market
  - (b) Goods market
  - (c) Labour market
  - (d) Capital market
8. The Philips curve shows the relationship between \_\_\_\_\_  
(CO4, K2)
- (a) Income and investment
  - (b) Inflation and unemployment
  - (c) Interest rate and savings
  - (d) Tax and GDP
9. In supply side economics, reducing the burden of taxation is expected to \_\_\_\_\_  
(CO5, K2)
- (a) Reduce savings
  - (b) Increase work effort and investment
  - (c) Decrease employment
  - (d) Increase government control
10. Deregulation in supply side economics mainly aims at \_\_\_\_\_.  
(CO5, K1)
- (a) Increasing government size
  - (b) Removing restrictions on businesses
  - (c) Increasing taxation
  - (d) Reducing exports

**Part B**

(5 × 5 = 25)

Answer **all** the questions not more than 500 words each.

11. (a) Show the two sector circular flow model. (CO1, K2)

Or

- (b) Examine the distribution effects of national income.  
(CO1, K3)

12. (a) Show the subjective and objective factors of consumption function. (CO2, K3)

Or

- (b) Determine the marginal efficiency of investment.  
(CO2, K3)

13. (a) Explain the accelerator theory of investment with a simple numerical example. (CO3, K3)

Or

- (b) Elucidate the concept of employment multiplier and its implications for job creation. (CO3, K3)

14. (a) Demonstrate how the factors cause shifts in the IS curve with examples. (CO4, K3)

Or

- (b) Illustrate the short run and long run Philips curve.  
(CO4, K3)

15. (a) Show how supply side policies aim to influence labour supply. (CO5, K3)

Or

- (b) Elucidate the advantages and disadvantages of supply side economics on income distribution.  
(CO5, K3)

**Part C**

(5 × 8 = 40)

Answer **all** the questions not more than 1000 words each.

16. (a) Examine the various methods of estimating the national income of a country. (CO1, K4)

Or

- (b) Explain the three sector and four sector models of circular flow of income. (CO1, K4)

17. (a) Critically examine the Keynesian theory. (CO2, K5)

Or

- (b) Illustrate the aggregate demand and supply functions with the help of a diagram. (CO2, K5)

18. (a) Critically evaluate the classical view that savings and investment are always equal. How did Keynes challenge this notion? (CO3, K5)

Or

- (b) Show Duesenberry's financial theory of investment. How does it differ from other traditional investment theories? (CO3, K5)

19. (a) Assess the effectiveness of monetary and fiscal policy under different slopes of IS and LM curves. (CO4, K5)

Or

- (b) Solve a numerical example involving a basic IS equation (eg.  $Y = C + I + G$ ) with given values and interest rates to find equilibrium income. Show steps. (CO4, K5)

20. (a) How can the Laffer curve be used to justify tax cuts? What are the limitations of this argument?  
(CO5, K4)

Or

- (b) “Deregulation and reducing government intervention always lead to higher economic growth”. Infer with reference to supply side policies.  
(CO5, K4)
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**R4058**

**Sub. Code**

**25MEC1C3**

**M.A. DEGREE EXAMINATION, NOVEMBER – 2025**

**First Semester**

Economics

STATISTICAL ANALYSIS

**(CBCS – 2025 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective type questions by choosing the correct option.

1. Mean, median and mode are known as (CO1, K1)
  - (a) Average of Position
  - (b) Mathematical average
  - (c) Measures of dispersion
  - (d) Measures of central tendency
  
2. The coefficient of variation (C.V) is useful for (CO1, K1)
  - (a) Comparing average of two series
  - (b) Measuring skewness
  - (c) Comparing variability of two series
  - (d) Finding correlation
  
3. A relationship is non-linear when it forms a (CO2, K2)
  - (a) Straight line
  - (b) Curve
  - (c) Zigzag line
  - (d) Change

4. In regression analysis, the variable that is being predicted is \_\_\_\_\_ (CO2, K1)
- (a) Response or dependent variable
  - (b) Independent variable
  - (c) Intervening variable
  - (d) Usually X
5. A value of the probability ranges from \_\_\_\_\_ to \_\_\_\_\_ (CO3, K1)
- (a) 0 to 1
  - (b) +1 to -1
  - (c) 0 to 100
  - (d) -1 to 0
6. The *t*-test is generally used to test (CO3, K2)
- (a) Equality of two variances
  - (b) Equality of more than two means
  - (c) Equality of means
  - (d) Independence of attributes
7. A single value calculated from a sample to estimate a population parameter is called: (CO4, K1)
- (a) Interval estimate
  - (b) Point estimate
  - (c) Hypothesis test
  - (d) Confidence limit
8. For large samples ( $n > 30$ ), the test used to compare sample mean with population mean is \_\_\_\_\_ (CO4, K1)
- (a) *t*-test
  - (b) *Z*-test
  - (c) Chi-square test
  - (d) ANOVA
9. Which type of chart in Excel is best suited for showing trends over time? (CO5, K1)
- (a) Pie Chart
  - (b) Bar Chart
  - (c) Line Chart
  - (d) Column Chart

10. SPSS stands for (CO5, K1)
- (a) Software Package for the Social Sciences
  - (b) Standard Package for the Social Sciences
  - (c) Statistical Package for the Software Sciences
  - (d) Statistical Package for the Social Sciences

**Part B** (5 × 5 = 25)

Answer **all** the questions not more than 500 words each.

11. (a) Sketch the characteristics of a good mean. (CO1, K2)

Or

- (b) Calculate the quartile deviation froth the following data. (CO1, K3)

10 15 13 18 8 16 17 14 20 6 22

12. (a) The ranking of 10 students in two subjects, Microeconomics and Macroeconomics are as follows. (CO2, K3)

Microeconomics	1	6	5	10	3
Macroeconomics	6	4	9	8	1
Microeconomics	2	4	9	7	8
Macroeconomics	2	3	10	5	7

Calculate the rank correlation coefficient.

Or

- (b) Explain the uses of regression analysis in economics. (CO2, K3)

13. (a) A bag contains 8 white and 4 red balls. Five balls are drawn at random. What is the probability that 2 of them are red and 3 white? (CO3, K3)

Or

- (b) Interpret Poisson distribution. (CO3, K3)

14. (a) Show the properties of a good estimator. (CO4, K2)

Or

- (b) Write a short essay on tests for portions in large samples. (CO4, K2)

15. (a) How would you process raw data in Excel for statistical analysis? (CO5, K3)

Or

- (b) Demonstrate creating and modifying graphs in Excel. (CO3, K3)

**Part C** (5 × 8 = 40)

Answer **all** the questions not more than 1000 words each.

16. (a) Examine the importance of measuring variation. (CO1, K4)

Or

- (b) Find Karl Pearson measure of skewness, from the data given below. (CO1, K4)

Wages	12	15	20	25
Workers	10	25	40	70
Wages	30	40	50	
Workers	32	13	10	

17. (a) Examine the different types of correlation with examples. (CO2, K4)

Or

- (b) From the following data obtain two regression equations: (CO2, K4)

Marks in Economics	25	28	35	32	31
Marks in Statistics	43	46	49	41	36
Marks in Economics	36	29	38	34	32
Marks in Statistics	32	31	30	33	39

Estimate the marks in Statistics when the marks in Economics are 30.

18. (a) Examine the major terms of probability theory. (CO3, K5)

Or

- (b) Two samples drawn from two normal populations are given as follows. (CO3, K5)

Sample 1	60	65	71	74
Sample 2	61	66	67	85
Sample 1	76	82	85	87
Sample 2	78	63	85	86

The table value at 5 percent of significance is 3.36, test whether the two population have the same variance using the F – test.

19. (a) Discuss the steps involved in a test of significance. How would you frame null and alternative hypotheses? (CO4, K5)

Or

- (b) Study the following data. (CO4, K5)

Educational level	Poverty	Non-poverty
Literates	80	57
Illiterates	45	60

Use chi-square test to find out whether there is any association between educational level and poverty (5 % value of chi-square for one degree of freedom =3.84).

20. (a) Demonstrate the steps to create, modify, and format graphs and charts in Excel. (CO5, K3)

Or

- (b) Illustrate the procedure for the calculation of regression analysis in SPSS with an illustration. (CO5, K3)

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**R4059**

**Sub. Code**

**25MEC1C4**

**M.A. DEGREE EXAMINATION, NOVEMBER – 2025**

**First Semester**

**Economics**

**ENVIRONMENTAL ECONOMICS**

**(CBCS – 2025 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective type questions by choosing the correct option.

1. The tragedy of the commons refers to: (CO1, K1)
  - (a) Overuse of shared resources
  - (b) Depletion of non-renewable resources
  - (c) Population growth
  - (d) Increased biodiversity
  
2. The food chain in an ecosystem helps to maintain: (CO1, K1)
  - (a) Flow of energy in the ecosystem
  - (b) Passage of nutrients in the ecosystem
  - (c) The feeding relationship in nature, thus biodiversity
  - (d) All of the above

3. What is the primary goal of cost benefit analysis in environmental decision making: (CO2, K1)
- (a) To maximize economic benefits
  - (b) To minimize environmental costs
  - (c) To compare total costs and benefits of a project
  - (d) To promote sustainable development
4. Which international protocol focuses on reducing greenhouse gas emissions? (CO2, K1)
- (a) Kyoto Protocol
  - (b) Montreal Protocol
  - (c) Paris Accord
  - (d) Rio Declaration
5. What is the primary purpose of Pigouvian taxes? (CO3, K1)
- (a) To generate revenue for the government
  - (b) To correct negative externalities
  - (c) To promote international trade
  - (d) To reduce income inequality
6. Which principle underlies the implementation of Pigouvian taxes? (CO3, K1)
- (a) Polluter pays principle
  - (b) Producer subsidy principle
  - (c) Market competition principle
  - (d) Free market principle

7. The Travel Cost Method (TCM) estimates the value of environmental goods based on: (CO4, K1)
- (a) Hypothetical scenarios
  - (b) Market prices of resources
  - (c) Costs incurred by visitors traveling to a site
  - (d) Government subsidies
8. Which of the following is a type of cost based method? (CO4, K1)
- (a) Contingent valuation method
  - (b) Hedonic pricing method
  - (c) Replacement cost method
  - (d) Travel cost method
9. Which international treaty regulates the transboundary movement of hazardous waste? (CO5, K1)
- (a) Stockholm Convention
  - (b) Basel Convention
  - (c) Rotterdam Convention
  - (d) Nagoya Protocol
10. Which of the following is an example of a command and control environmental regulation? (CO5, K1)
- (a) Carbon pricing
  - (b) Emissions trading scheme
  - (c) Technology standard
  - (d) Public education campaign

**Part B**

(5 × 5 = 25)

Answer **all** questions not more than 500 words each.

11. (a) Examine the components of forest ecosystems.  
(CO1, K3)

Or

- (b) Elucidate of Sustainable Development Goals.  
(CO1, K3)

12. (a) Sketch the principal concerns of environmental degradation in India.  
(CO2, K3)

Or

- (b) Show the role of cost benefit analysis. (CO2, K3)

13. (a) Illustrate the purpose and mechanism of Pigouvian subsidies.  
(CO3, K2)

Or

- (b) Determine the causes for market failure. (CO3, K2)

14. (a) Examine the types of environmental values.  
(CO4, K3)

Or

- (b) Criticize the Travel Cost Method. (CO4, K3)

15. (a) Illustrate the role of institutions to protect the environment.  
(CO5, K3)

Or

- (b) Show the role and functions of SPCB and CPCB.  
(CO5, K3)

**Part C**

(5 × 8 = 40)

Answer **all** questions not more than 1000 words each.

16. (a) Assess Material Balance Model with illustration.

(CO1, K5)

Or

- (b) Enumerate the nature and scope of environmental economics.

(CO1, K5)

17. (a) Examine the causes of land pollution and suggest control measures.

(CO2, K3)

Or

- (b) Critically assess the Pareto's optimal welfare.

(CO2, K5)

18. (a) Determine the factors that contribute to the environmental crisis in India.

(CO3, K4)

Or

- (b) Portray the economics of externality.

(CO3, K4)

19. (a) Explain the Contingent Valuation Method.

(CO4, K2)

Or

- (b) Outline the strengths and weakness of CVM in valuing environmental amenities.

(CO4, K4)

20. (a) Evaluate the Environmental Policy in India. (CO5, K5)

Or

(b) Assess functions of Ministry of Environment, Forests and Climate Change in India. (CO5, K5)

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**R4060**

**Sub. Code**

**25MEC1E1**

**M.A. DEGREE EXAMINATION, NOVEMBER – 2025**

**First Semester**

**Economics**

**Elective — COMPUTER APPLICATION FOR DATA  
ANALYSIS**

**(CBCS – 2025 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective Type questions by choosing the correct option.

1. Attaching an image or document to an email is done using the: - (CO1, K1)
  - (a) Delete option
  - (b) Attach/clip icon
  - (c) Refresh button
  - (d) Reply option
2. Which of the following best describes Artificial Intelligence (AI)? (CO1, K1)
  - (a) A machine that can think and learn like humans
  - (b) A programming language
  - (c) A computer virus
  - (d) A type of internet browse
3. Which command is used to save a file for the first time in MS Word? (CO2, K1)
  - (a) Save
  - (b) Save As
  - (c) Open
  - (d) New

4. Which feature in MS Word corrects spelling mistakes automatically while typing? (CO2, K1)
- (a) Auto Text (b) Grammar Check  
(c) Auto Correct (d) Track Changes
5. The Commission for Agricultural Costs and Prices (CACP) primarily recommends: (CO3, K1)
- (a) Fertilizer subsidies  
(b) Export quotas for food grains  
(c) Crop insurance schemes  
(d) Minimum Support Prices (MSP)
6. The main advantage of online journals over printed journals is\_\_\_\_ (CO3, K1)
- (a) High subscription cost  
(b) Limited access  
(c) Instant accessibility and global reach  
(d) Time delay in publication
7. In MS Excel, the file extension for a workbook is\_\_\_\_\_ (CO4, K2)
- (a) .docx (b) .xlsx  
(c) .pptx (d) .txt
8. Which chart is most suitable for showing the relationship between two variables? (CO4, K1)
- (a) Line chart (b) Pie chart  
(c) Histogram (d) Scatter plot
9. Merging data from multiple files in SPSS is done through\_\_\_\_\_ (CO5, K1)
- (a) Data —\* Merge Files  
(b) File —\* Add Dataset  
(c) Analyze —\* Merge Data  
(d) Transform —\* Combine Data

10. In SPSS, which view is primarily used for data entry?  
(CO5, K1)
- (a) Output Viewer                      (b) Variable View  
(c) Data View                              (d) Syntax Editor

**Part B**    (5 × 5 = 25)

Answer **all** the questions not more than 500 words each.

11. (a) Illustrate the different type of operating system.  
(CO1, K3)

Or

- (b) Outline the advantages of fusing email.    (CO1, K3)

12. (a) Explain the importance of using Mail Merge in MS Word.  
(CO2, K2)

Or

- (b) Describe the role of animations in making presentations effective.  
(CO2, K2)

13. (a) Compare paid and non-paid data sources.  
(CO3, K3)

Or

- (b) Show the process of coding qualitative data for research.  
(CO3, K3)

14. (a) Portray the steps involved in creating and opening a new workbook in MS Excel.  
(CO4, K3)

Or

- (b) Show the advantages of using Excel for growth model.  
(CO4, K3)

15. (a) Elucidate the steps involved in entering data into SPSS for statistical analysis.  
(CO5, K4)

Or

- (b) How to recode variables in SPSS?                      (CO5, K4)

**Part C**

(5 × 8 = 40)

Answer **all** the questions not more than 1000 words each.

16. (a) Explain the different types of operation systems with suitable examples. (CO1, K3)

Or

- (b) Examine the advantages and disadvantages of Artificial Intelligence. (CO1, K3)

17. (a) Discuss the role of Spell Check, Grammar Check, and Thesaurus in improving document quality. (CO2, K4)

Or

- (b) Compare MS PowerPoint presentations with traditional teaching methods. (CO2, K4)

18. (a) Illustrate the importance of data in economics research. (CO3, K4)

Or

- (b) Present the challenges that researchers face in accessing paid sources of data. (CO3, K4)

19. (a) Outline major features of MS excel for data analysis. (CO4, K3)

Or

- (b) Explain the procedure to compute and interpret the range, minimum, and mode values in Excel. (CO4, K3)

20. (a) Assess the significance of SPSS in modern research. (CO5, K5)

Or

- (b) Appraise the procedure for the calculations of Growth Rate in SPSS. (CO5, K5)

**R4061**

**Sub. Code**

**25MEC1S1**

**M.A. DEGREE EXAMINATION, NOVEMBER – 2025**

**First Semester**

**Economics**

**BASICS OF SPSS**

**(CBCS – 2025 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective type questions by choosing the correct option.

1. SPSS data files are saved with the extension (CO1, K1)  
(a) .docx (b) .sav  
(c) .xlsx (d) .pdf
2. In SPSS, missing values can be defined in (CO1, K1)  
(a) Data View only  
(b) Variable View only  
(c) Both Variable and Data View  
(d) Output Window
3. Which window in SPSS is used to display results such as tables and charts? (CO2, K1)  
(a) Data Editor  
(b) Syntax Editor  
(c) Output Viewer  
(d) Variable View

4. Which variable type is used for alphanumeric entries in SPSS? (CO2, K1)
- (a) Numeric
  - (b) String
  - (c) Date
  - (d) Currency
5. Which menu is used to compute new variables in SPSS? (CO3, K1)
- (a) File → New → Data
  - (b) Transform → Compute Variable
  - (c) Data → Compute Variable
  - (d) Analyze → Descriptive Statistics
6. Automatic recoding is usually applied to which type of variables? (CO3, K1)
- (a) String variables
  - (b) Numeric variables
  - (c) Date variables
  - (d) Scale variables
7. Which SPSS menu provides access to descriptive statistics? (CO4, K1)
- (a) File
  - (b) Analyze
  - (c) Data
  - (d) Transform

8. The Explore procedure in SPSS is mainly used to (CO4, K1)
- (a) Test hypotheses
  - (b) Generate descriptive statistics and plots for continuous data
  - (c) Merge datasets
  - (d) Create new variables
9. Which test is used to examine the association between two categorical variables? (CO5, K1)
- (a) Pearson correlation
  - (b) One-sample t-test
  - (c) Chi-square test
  - (d) Paired t-test
10. A one-sample t-test is used to compare (CO5, K1)
- (a) Two independent groups
  - (b) Sample mean with population mean
  - (c) Two related samples
  - (d) More than two groups

**Part B**

(5 × 5 = 25)

Answer **all** the following questions not more than  
500 words each.

11. (a) Examine the Values Labels in SPSS. (CO1, K3)

Or

- (b) Show the steps of merging data from multiple files  
in SPSS with examples. (CO1, K3)

12. (a) Elucidate the advantages of using syntax for data  
creation in SPSS? (CO2, K2)

Or

- (b) Infer Codebook in SPSS. (CO2, K2)

13. (a) Illustrate the computing of a variable in SPSS.  
(CO3, K3)

Or

- (b) Outline the usefulness of sorting data in SPSS.  
(CO3, K3)

14. (a) Demonstrate that descriptive analysis a critical first  
step before inferential statistic (CO4, K3)

Or

- (b) Illustrate the type of graph that is often used to  
display frequencies of categorical data. (CO4, K3)

15. (a) Outline the purpose of a paired samples t-test. (CO5, K4)

Or

- (b) Appraise the assumptions of one-way NOVA. (CO5, K4)

**Part C** (5 × 8 = 40)

Answer **all** questions not more than 1000 words each.

16. (a) Illustrate the process of creating a new data file, entering data, and adding value labels in SPSS. (CO1, K2)

Or

- (b) Show in detail the process of exporting SPSS output to Word and PDF. (CO1, K4)

17. (a) Explain the process of creating and using a codebook in SPSS. Why is it important in research? (CO2, K2)

Or

- (b) Explain the role of the SPSS Data Editor. (CO2, K4)

18. (a) Show the concept of recoding variables in SPSS and its importance. (CO3, K4)

Or

- (b) Illustrate Automatic Recoding in SPSS. How does it work? (CO3, K2)

19. (a) Explain the steps and importance of using the Explore procedure in SPSS. (CO4, K3)

Or

- (b) Illustrate the Compare Means procedure in SPSS with an example from social sciences. (CO4, K4)

20. (a) Show Pearson correlation with interpretation of results. (CO5, K4)

Or

- (b) Describe different types of t-tests (one-sample, paired samples, independent samples) with applications. (CO5, K1)
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