M.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

Third Semester

Business Analytics

DBMS AND DATA WAREHOUSING

(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A $(10 \times 2 = 20)$

Answer **all** the questions.

- 1. What is a Database?
- 2. What is Database Design?
- 3. What do you meant by Metadata?
- 4. What is a Warehouse Management System?
- 5. What is Data Mining?
- 6. What is Data Preparation?
- 7. What is Data Transformation?
- 8. What is Data Visualization?
- 9. What is Data Warehousing Implementation?
- 10. What is ETL?

Part B

 $(5 \times 5 = 25)$

Answer **all** questions.

11. (a) Explain the Advantages of DBMS.

Or

- (b) Explain the Object–Oriented Database.
- 12. (a) Explain Features of a Data Warehouse.

 \mathbf{Or}

- (b) Explain the characteristics of a Data Warehouse.
- 13. (a) Explain the Importance of Data mapping.

Or

- (b) Explain the Benefits of Dimensional Modeling.
- 14. (a) Write the Advantages of Data Visualization.

Or

- (b) Explain the limitations of Data mining.
- 15. (a) Structure the Functions of Business Intelligence Techniques.

Or

(b) Business Intelligence Vs Data Science.

Part C $(3 \times 10 = 30)$

Answer all questions.

16. (a) Elaborately Explain the Database (VS) Data Warehouses.

Or

(b) Explain ETL and it's Strength and Weakness.

 $\mathbf{2}$

17. (a) Explain the process of Data mapping.

Or

- (b) Explain the steps of Dimensional Modeling.
- 18. (a) Elaborate the Benefits of Business Intelligence.

Or

(b) Explain the characteristics of OLAP.

3

M.B.A. DEGREE EXAMINATION, NOVEMBER 2023

Third Semester

Business Analytics

MULTIVARIATE DATA ANALYSIS — I

(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

 $(10 \times 2 = 20)$

Answer **all** questions.

- 1. What is multivariate analysis?
- 2. Give an example of multivariate data.
- 3. What are data cleaning techniques?
- 4. What are the types of data cleansing?
- 5. What is common factor analysis?
- 6. What are the two main forms of factor analysis?
- 7. What is multivariable analysis in regression?
- 8. How is multiple regression calculated?
- 9. Give any two assumptions of logistic regression.
- 10. Is logistic regression robust to outliers?

Part B (5 × 5 = 25)

Answer all questions.

11. (a) State the feature of a Multivariate normal distribution.

Or

- (b) State the following :
 - (i) Generalized Variance
 - (ii) Standardized distance
 - (iii) The relationship between covariance of correlation
- 12. (a) What is difference between data mining and data cleaning?

Or

- (b) What is data cleaning in DMDW?
- 13. (a) What are the steps of factor analysis?

Or

- (b) What is KMO in factor analysis?
- 14. (a) What are the three types of multiple regression Analyses?

Or

- (b) What are the benefits regression?
- 15. (a) What is the difference between multiple regression and discriminant analysis?

Or

(b) Why is logistic regression better than linear discriminant?

 $\mathbf{2}$

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Compute the matrix of all correlations between the measurements from the turtles data. What do you notice?

Or

- (b) Give four type of data-types and techniques that can be applied.
- 17. (a) What is difference between factor analysis and PCA?

Or

- (b) What is the difference between logistic regression and KNN?
- 18. (a) How do you know if a logistic regression is good?

Or

(b) Discuss the formula of multiple regression.

3

M.B.A. DEGREE EXAMINATION, NOVEMBER 2023

Third Semester

Business Analytics

TIME SERIES ECONOMETRICS

(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

 $(10 \times 2 = 20)$

Answer all questions.

- 1. Mention the components of the time series.
- 2. What is the need for studying time series?
- 3. What is volatility in financial time series?
- 4. What is the relationship between returns and volatility?
- 5. Write a note on unit root test.
- 6. What is Univariate time series forecasting?
- 7. Why do we need VAR?
- 8. What is an error correction model?
- 9. What is multi variate time series?
- 10. What is GARCH model in time series?

Part B (5 × 5 = 25)

Answer **all** questions.

- 11. (a) Write a note on :
 - (i) MAD
 - (ii) MSE

Or

- (b) What is meant by standard deviation and how is it calculated?
- 12. (a) What are the volatility estimator used by RISKMETRICS model?

Or

(b) State the features of historical volatility.

13. (a) Write a note on :

- (i) Auto Regression
- (ii) Integrated
- (iii) Moving average.

Or

- (b) What is Spurious regression and explain its functions?
- 14. (a) Write a note on VECTOR AUTO REGRESSIVE MODELS.

Or

(b) State the need for error correction model in multi variate time series?

 $\mathbf{2}$

15. (a) Distinguish between Volatility and GARCH.

Or

- (b) Write a note on :
 - (i) Value at risk (VaR)
 - (ii) Down side risk.

Part C $(3 \times 10 = 30)$

Answer **all** questions.

16. (a) Describe the "Holts model" in forecasting time series.

Or

- (b) Discuss about the various financial returns and Volatility patterns.
- 17. (a) State the identification of ARMA models in forecasting time series.

Or

- (b) Explain the different types of decomposition models in multi variate time series.
- 18. (a) What are the uses of ARCH models how these model are used in forecasting?

 \mathbf{Or}

(b) Explain the forecasting evaluation through Mean Square Error (MSE).

3

M.B.A. DEGREE EXAMINATION, NOVEMBER 2023

Third Semester

Business Analytics

DATA MINING FOR BUSINESS ANALYTICS

(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A $(10 \times 2 = 20)$

Answer **all** questions.

- 1. Compare descriptive and predictive mining.
- 2. What is Data characterization?
- 3. Define Outliers.
- 4. Give an example of Multidimensional association rule.
- 5. What is Data generalization?
- 6. Define Data transformation.
- 7. Compare Classification and Prediction.
- 8. What is multiple linear Regression analysis?
- 9. What are the requirements for clustering?
- 10. Write few-applications of data mining in Telecommunications.

Part B (5 × 5 = 25)

Answer all questions.

11. (a) What is Noise? Explain the techniques used to remove the noisy data.

 \mathbf{Or}

- (b) Explain Attribute subset selection method for data reduction.
- 12. (a) Explain the issues regarding classification and prediction.

Or

- (b) Explain the Decision tree based classification in detail.
- 13. (a) Explain k-means partitioning algorithm in Cluster Analysis.

Or

- (b) Explain BIRCH clustering method in detail.
- 14. (a) Write short notes on Multimedia data mining.

Or

- (b) Write short notes on Mining WWW.
- 15. (a) How to predict the class label for weather data set using Weka Tool.

Or

(b) Explain the Applications of Data mining in financial data analysis.

 $\mathbf{2}$

Part C (3 × 10 = 30)

Answer all questions.

16. (a) Explain the architecture of Data mining in detail.

Or

- (b) Explain the schema representation for multidimensional databases.
- 17. (a) Describe Bayesian classification in detail.

Or

- (b) Discuss Text data mining in detail.
- 18. (a) Elaborate the implementation issues in data mining.

Or

(b) Describe the Supervised Neural Network Learning.

3

M.B.A. DEGREE EXAMINATION, NOVEMBER 2023

Third Semester

Business Analytics

BUSINESS LAW AND ETHICS

(Common for M.B.A. (Business Analytics)/ M.B.A. (DM & E-Commerce))

(2016 onwards)

Duration: 3 Hours

Maximum : 75 Marks

 $(10 \times 2 = 20)$

Part A

Answer **all** questions.

- 1. Define the terms offer.
- 2. What is meant by free consent?
- 3. When is bill of Exchange said to be dishonored?
- 4. Define consumerism.
- 5. What is ethical dilemma?
- 6. Write a note on ethical congruence.
- 7. Define organization culture.
- 8. Write a note on ethical Behavior.
- 9. What are the marketing ethics?
- 10. Explain ethical issues in HRM.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) What are quasi-contract? Enumerate quasi-contract provide by the Indian contract Act.

Or

- (b) Enumerate the circumstances in which mistake vitiates a contract.
- 12. (a) When a negotiable instrument considered as dishonor? What are the duties of a holder upon such dishonor?

Or

- (b) What are guidelines for effective consumer protection in electronic commerce?
- 13. (a) Define culture, distinguish value from ethics and culture.

Or

- (b) Enlist various principles of business ethics.
- 14. (a) Explain the various ethical decision-making frameworks.

Or

- (b) How can a CEO handle politics with in organization?
- 15. (a) Comment on the ethical issues in Human Resource Management.

Or

(b) What are the ethical dilemmas in marketing? Explain.

2

Part C $(3 \times 10 = 30)$

Answer all questions.

16. (a) The law of contract is not the whole law of agreements nor it the whole law of obligation - Discuss.

Or

- (b) Discuss the statement once a condition is always condition. How does condition differ from warranty under sale goods Act 1930?
- 17. (a) Discuss the territorial, pecuniary and appellate jurisdiction of the various consumer forums under the consumer protection Act 1986.

Or

- (b) Ethical decision making is an internal part of the function of an organization. Discuss.
- 18. (a) Finance would be impossible without ethics Do you agree? Comment.

Or

(b) Discuss various theories of Business ethics. Ethical decision - making is an internal part of the function of an organization. Discuss.

3



M.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

First Semester

MANAGEMENT CONCEPTS AND PRACTICES

(Common for M.B.A. (Business Analytics / DM & E-Commerce)

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

ours

Section A

 $(10 \times 1 = 10)$

Answer **all** the questions

- 1. _____prescribed the norms of professional ethics for its members.
 - (a) Art
 - (b) Science
 - (c) Code of conduct
 - (d) Administration
- 2. _____ provides direction to enterprise activities.
 - (a) Planning
 - (b) Organising
 - (c) Accounting
 - (d) Advertising
- 3. A form of rational organisation characterized by division of labour, specialization, structure, impersonal relations, competence of personnel etc. is known as
 - (a) Scientific management
 - (b) Systems approach
 - (c) Bureaucracy
 - (d) Classical theory

- 4. The concept of division of work into sub-parts and then allotting these tasks among the workers was known as
 - (a) Division of plant
 - (b) Division of labour
 - (c) Division of raw materials
 - (d) Division of supervisors
- 5. A plan is a _____for accomplishment.
 - (a) Sustainability
 - (b) Contingent
 - (c) Tactic
 - (d) Forecast
- 6. In which of the following situations should an employee use his own judgment?
 - (a) When immediate action is necessary and the rules do not cover the situation.
 - (b) Whenever the rules appear to be unfair in their application.
 - (c) Whenever a situation is not covered by established rules.
 - (d) Whenever a superior is present.
- 7. The staff managers are not accountable for the ———
 - (a) Strategy
 - (b) Cost and time
 - (c) Results
 - (d) Profit
- 8. Weber advocated that—played a major role in traditional authority systems.
 - (a) Coercive
 - (b) Decision making
 - (c) Obedience
 - (d) Charisma

 $\mathbf{2}$

- 9. Coordination can be achieved by ———— contact among the responsible people concerned
 - (a) Authority
 - (b) Personal
 - (c) Direct
 - (d) Marketer's
- 10. PERT charts depict and information
 - (a) Task, Duration, Dependency
 - (b) Cost, Time, Organising
 - (c) Planning, Encouraging, Recruiting
 - (d) Control, Process, Result

Section B

 $(5 \times 5 = 25)$

Answer **all** the questions

11. (a) Explain the features that determine the nature of management.

Or

- (b) What do you think were the key functions where the Operations Manager failed to perform?
- 12. (a) Write a note on the evolution of management thought. What are the recent trends in management thought?

Or

- (b) "Fayol is considered as the father of modern management theory. Discuss.
- 13. (a) Which kind of plan tactical or operational, should an organisation develop first? Why?

Or

(b) When a logical approach to a problem is ineffective, how do you come up with a solution?

3

14. (a) When it is your responsibility to organise and plan a project what steps do you take?

Or

- (b) Who do you find as the most charismatic
 - (i) political leader and
 - (ii) entrepreneur and why?
- 15. (a) 'Management involves coordination and integration of all resources, to accomplish specific results". Explain.

Or

(b) What do you see as the essential elements of a control system?

Section C $(5 \times 8 = 40)$

Answer **all** the questions.

16. (a) What qualities do you think should a supervisor have to get the best work out of his subordinates? Why was this person able to motivate you belier than any other?

 \mathbf{Or}

(b) 'Management is the effective utilization of human and material resources to achieve the enterprise's objectives". Comment.

4

17. (a) Distinguish between Taylor and Fayol as far as the development of management thought is concerned.

Or

- (b) Discuss in brief the contributions of Behavioural Science Approach and System Approach to the study of management.
- (a) Future keeps on moving. It may not be possible to predict future changes accurately and provide for them in plans. Discuss.

Or

- (b) Explain Nominal Group Technique. How is it different from brainstorming and garden technique??
- 19. (a) Why is Organisational structure important? What sort of organisational structure best suited to custom made product produced in a stable environment a mass product produced in unstable environment?

Or

(b) Is decentralization of decision making powers in a company a result of individual incompetence? Support your argument with reasons.

 $\mathbf{5}$

20. (a) Describe a time when you had to work exceptionally hard to provide great service to a customer or client. What did you do and what was the outcome?

 \mathbf{Or}

(b) PERT is a management interventional technique designed to establish an effective control system. Justify the statement.

6

Sub. Code	
30112	

M.B.A. DEGREE EXAMINATION, NOVEMBER 2023

First Semester

Business Analytics

ACCOUNTING FOR BUSINESS ANALYSTS

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A $(10 \times 1 = 10)$

Answer **all the** questions.

- 1. In the words of ______ "Management accounting is concerned with accounting information that is useful to management."
 - (a) J. Betty
 - (b) Robert Anthony
 - (c) Institute of charted Accounts of England
 - (d) All of the above
- 2. Main emphasis of management accounting is ______ to maximise profit.
 - (a) Planning
 - (b) Controlling
 - (c) Decision Making
 - (d) All of the above

- 3. At break even point _____.
 - (a) Total expenses = Total revenue
 - (b) Total expenses > Total revenue
 - (c) Total expenses < Total revenue
 - (d) Any of the above
- 4. The break even point is obtained at intersection of
 - (a) Total revenue and total cost line
 - (b) Total cost and variable cost line
 - (c) Variable cost and fixed cost line
 - (d) Fixed cost and total cost line
- 5. Ratio analysis implies the process of ______ the relationship of items and group of items financial statements.
 - (a) Computing
 - (b) Determining
 - (c) Presenting
 - (d) All of the above
- 6. Quick ratio of ______ is considered to represent a satisfactory current financial position.
 - (a) 1:2
 - (b) 2:1
 - (c) 1:1
 - (d) 3:1

 $\mathbf{2}$

7.	Budget is prepared for a

- (a) Indefinite period
- (b) Definite period
- (c) Period of one year
- (d) Six months
- 8. An example of long period budget is _____.
 - (a) R & D budget (b) Master budget
 - (c) Sales budget (d) Personnel budget
- 9. Budgetary control system acts as a friend, philosopher and guide to the _____.
 - (a) Management (b) Share holders
 - (c) Creditors (d) Employees
- 10. Budgetary control system facilitates centralized control with _____.
 - (a) Decentralized activity
 - (b) Centralized activity
 - (c) Both
 - (d) None

Part B (5 × 5 = 25)

Answer **all** the questions.

11. (a) Differentiate between double and single entry systems of accounting.

Or

(b) List and explain the branches of accounting in detail.

3

12. (a) What is the nature of financial statements? What are the limitations of such statements?

Or

- (b) Define common size financial statements and explain their usefulness during financial statement analysis.
- 13. (a) Mention the essentials of an effective budgetary control system.

Or

- (b) Discuss the objectives and limitations of budgetary control.
- 14. (a) Define marginal cost. Discuss the importance of classifying expenses into variable and fixed.

Or

- (b) Prepare a marginal cost statement from the information given below: Direct Material 20,000 Direct labour 15,000 Factory overheads (50 per cent variable) 5,000 Selling and distribution overheads (40 per cent fixed) 8,000 Sales 70,000.
- 15. (a) Classify the factors should be considered for determining amount of depreciation.

Or

(b) Explain the circumstances under which different methods of depreciation can be employed.

4

Part C $(5 \times 8 = 40)$

Answer **all** the questions.

16. (a) Discuss the differences between management accounting and financial accounting.

Or

- (b) Explain the relationship of accounting with other disciplines.
- 17. (a) Explain the procedure of preparing a common size balance sheet.

Or

- (b) Write short notes on:
 - (i) Comparative financial statements
 - (ii) Trend analysis
 - (iii) Qualifications of financial analyst
- (a) Explain the concept of Budgeting and Budgetary Control. Discuss the importance and objectives of budgetary control.

Or

- (b) Discuss the procedure for preparing the following budgets:
 - (i) Cash budget
 - (ii) Production budget
 - (iii) Sales budget

 $\mathbf{5}$

19. (a) "The technique of marginal costing can be a valuable aid to management." Discuss the statement and give your view.

Or

- (b) Sale of product amount to 200 unit per month at 10 per unit. Fixed overhead is 400 per month and variable cost 6 per unit. There is proposal to reduce price by 10 per cent. Calculate the present and future P/V ratio and find, by adopting P/V ratio, how many units be sold to maintain total profit.
- 20. (a) Explain the need and significance of depreciation in detail.

 \mathbf{Or}

(b) Distinguish between "straight line method" and "diminishing balance method" of providing depreciation. Which one of the above two methods would you recommend to provide depreciation on Plant and Machinery?

6

Sub. Code	
30113	

M.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

First Semester

Business Analytics

SPREADSHEET MODELLING

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A $(10 \times 1 = 10)$

Answer all questions.

- 1. What is the primary function of the Ribbon in Microsoft Excel?
 - (a) To save workbooks
 - (b) To access commands and options
 - (c) To customize the Quick Access Toolbar
 - (d) To automatically resize column widths
- 2. When working with Excel, what is a single spreadsheet within a file called?
 - (a) Workbook (b) Worksheet
 - (c) Row (d) Column
- 3. How can you switch between worksheets in an Excel file?
 - (a) Right-click the tab and select a worksheet
 - (b) Use the mouse scroll wheel
 - (c) Press Ctrl+Tab
 - (d) All of the above

- 4. Which Excel function is used to concatenate text from multiple cells?
 - (a) CONCATENATE (b) SUM
 - (c) AVERAGE (d) IF
- 5. What is the primary function of the SUMIF function in Excel?
 - (a) Calculates the sum of a range that meets multiple criteria
 - (b) Calculates the sum of a range based on a single criterion
 - (c) Finds the average of a range
 - (d) Returns the count of cells meeting a single criterion
- 6. What is the purpose of the Quick Access Toolbar in Excel?
 - (a) To change the color scheme of Excel
 - (b) To provide quick access to frequently used commands
 - (c) To insert rows and columns
 - (d) To protect worksheets and workbooks
- 7. How can you insert additional rows and columns within an Excel worksheet?
 - (a) Right-click and select 'Insert"
 - (b) Use the mouse scroll wheel
 - (c) Press Ctrl+Tab
 - (d) Use the AutoFit Column Width" button in the Ribbon

 $\mathbf{2}$

- 8. What does the AutoFill feature in Excel primarily help you do?
 - (a) Automatically save e your work
 - (b) Predict Future values
 - (c) Quickly copy data patterns
 - (d) Perform complex calculations
- 9. Which Excel feature allows you to customize the toolbar with frequently used commands?
 - (a) Ribbon
 - (b) Formula auditing
 - (c) Quick Access Toolbar
 - (d) Pivot Tables
- 10. What does protecting a worksheet or workbook in Excel primarily prevent?
 - (a) Unauthorized changes
 - (b) Data loss
 - (c) Excessive formatting
 - (d) Formula errors

Part B

 $(5 \times 5 = 25)$

Answer all questions.

11. (a) Explain the purpose of the Ribbon in MS Excel and discuss the importance of customization for efficient work.

Or

(b) Describe the steps involved in protecting worksheets and workbooks in Excel. Provide practical examples.

3

12. (a) What is the AutoFill feature in Excel, and how is it used? Provide examples.

Or

- (b) Discuss the significance of cell alignment and orientation in Excel. How can these formatting options improve data presentation?
- 13. (a) Explain the difference between absolute and relative cell referencing in Excel formulas and provide practical scenarios for using each.

 \mathbf{Or}

- (b) Describe the functions of the SUMIF, COUNTIF. and AVERAGEIF Functions in Excel, Include examples of their applications.
- 14. (a) Discuss the importance of Pivot Tables in data analysis. Explain how to create a Pivot Table in Excel, including customization and formatting.

Or

- (b) Provide a detailed guide on creating different types of graphs in Excel (e.g., Column, Pie, Scatter). Explain when to use each type of graph and the advantages of graphical data representation.
- 15. (a) Explain the purpose of named cells and ranges in Excel. Provide examples of how they can be used in formulas and data analysis.

\mathbf{Or}

(b) Describe the process of working with Data Validation techniques, including Drop Down Lists and Conditional Formatting. How can these techniques improve data quality and presentation?

Part C

 $(5 \times 8 = 40)$

Answer all questions.

16. (a) Compare and contrast Absolute Cell Referencing and Relative Cell Referencing in Excel. Provide an example of when you would use each type of referencing and explain the impact on formulas.

 \mathbf{Or}

- (b) Explain the importance of data validation and error checking in Excel. Discuss common data validation techniques and error handling procedures.
- 17. (a) Explain the role of Conditional Formatting in Excel and how it enhances data visualization and analysis. Provide an example of a condition that can be applied using Conditional Formatting and its impact on data presentation.

Or

- (b) Explain the concept of grouping worksheets in Excel and the advantages of using this feature Provide a scenario where grouping worksheets would be particularly useful, and describe how it can simplify tasks involving multiple related worksheets.
- 18. (a) Explain the concept of data validation in Excel and how it helps maintain data integrity. Provide practical examples of using validation rules.

Or

(b) Describe the importance of formula auditing in Excel. Discuss the tools available for formula error checking and tracing precedents/dependents.

 $\mathbf{5}$

19. (a) Describe the key features of Excels Date Functions and their applications. Provide examples of specific Date Functions, such as DAYS36O, TODAY, and NETWORKDAYS, and explain their uses.

Or

- (b) Explain the use of lookup functions in Excel, including VLOOKUP, HLOOKUP, INDEX and MATCH. Provide examples of when and how to use these functions effectively.
- 20. (a) Explain the concept of data analysis using Pivot Tables in Excel. Provide a detailed example of creating a Pivot Table and its applications.

Or

(b) Discuss the various date and text Functions in Excel. such as TODAY, NETWORKDAYS, MID, SEARCH, and others. Provide practical examples of their usage in data manipulation and analysis.

6

Sub. Code	
30114	

M.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

First Semester

Business Analytics

STATISTICS FOR BUSINESS

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Section A

 $(10 \times 1 = 10)$

Answer all the questions.

- 1. The specific statistical methods that can be used to summarize or to describe a collection of data is called:
 - (a) Descriptive statistics
 - (b) Inferential statistics
 - (c) Analytical statistics
 - (d) All of the above
- 2. The need for inferential statistical methods derives from the need for ————.
 - (a) Population (b) Association
 - (c) Sampling (d) Probability
- 3. If the class mid points in a frequency distribution of age of a group of persons are 25, 32, 39, 46, 53 and 60. The size of class interval is:

(a)	5	(b)	7
(c)	8	(d)	6

- 4. The first step in tabulation is:
 - (a) Foot note (b) Source note
 - (c) Captions (d) Classification

5. The standard deviation for 15, 22, 27, 11, 9, 21, 14, 9 is:

- (a) 6.22 (b) 6.12
- (c) 6.04 (d) 6.32

6. Mean deviation which is calculated is minimum at:

- (a) Mean (b) Median
- (c) Mode (d) All the three
- 7. Height of students in a class is ———.
 - (a) Discrete variable
 - (b) Qualitative variable
 - (c) Continuous variable
 - (d) None of these
- 8. A qualitative variable is called ———.
 - (a) Parameter (b) Attribute
 - (c) Statistic (d) None of these
- 9. Lower class boundary of 30-35 will be
 - (a) 35 (b) 30
 - (c) 32.5 (d) None of above
- 10. The smallest number and the largest number of any class of a frequency distribution are called:
 - (a) Class interval (b) Class limit
 - (c) Class marks (d) None of above

Section B

$$(5 \times 5 = 25)$$

Answer **all** the questions.

11. (a) Write short notes about the types of data in detail.

 \mathbf{Or}

(b) Discuss about the functions and limitations of statistics.

12. (a) Mention the properties of Normal distribution.

 \mathbf{Or}

- (b) Explain the null and alternative hypothesis in detail with suitable examples.
- 13. (a) List the possible alternative hypotheses and the corresponding rejection rules followed in testing equality of two population means.

Or

- (b) Explain the general procedure to be followed for testing of hypotheses.
- 14. (a) Describe the concept of time value of money in detail.

 \mathbf{Or}

- (b) Compare and contrast the terms discounting and compounding interest in detail.
- 15. (a) Calculate the coefficient of correlation from the following data: $\Sigma X = 50, \Sigma Y = 30, \Sigma X = 290, \Sigma Y = 300, \Sigma X = 115, N = 10$.

Or

(b) Define regression and write down the two regression equations.

 $(5 \times 8 = 40)$

Answer **all** the questions.

16. (a) Analyse the importance and scope of statistics.

Section C

Or

- (b) Explain the various methods used for presentation of data.
- 17. (a) Define Binomial distribution. What are the main characteristics of binomial distribution?

Or

(b) Describe briefly various types of sampling methods and give brief description of each.

3

18. (a) Give a detailed account on testing hypotheses for population proportion.

Or

- (b) Explain the procedure of testing hypotheses for equality of proportion of two populations. Interest of XII Students on Residential Schooling was investigated among randomly selected students from two regions. Among 300 students selected from Region A, 34 students expressed their interest. Among 200 students selected from Region B, 28 students expressed their interest. Does this information provide sufficient evidence to conclude at 5% level of significance that students in Region A are more interested in Residential Schooling than the students in Region B?
- 19. (a) Elaborate the methods to predict the future value using the present value in detail with suitable examples.

Or

- (b) Breakdown the concept of time value of money in detail with suitable examples.
- 20. (a) A random sample of recent repair jobs was selected and estimated cost, actual cost were recorded. Calculate the value of Spearman's correlation

Estimated cost 70 68 67 5560 7563 60 7265 65 80 68 7562 70Actual cost 60 60

Or

(b) Describe different types of regression and correlations in detail.

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Sub. Code
30115

M.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

First Semester

Business Analytics

ECONOMIC ANALYSIS FOR BUSINESS DECISIONS

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A $(10 \times 1 = 10)$

Answer **all** the questions.

- 1. The following are the sign of inflation, except
 - (a) Increased prices
 - (b) Increased purchasing power
 - (c) Decreased savings
 - (d) Decreased investment
- 2. Capital Budgeting is related to investment.
 - (a) Future (b) Current
 - (c) Long term (d) Business Asset
- 3. The most basic source of demand is ———— of the individuals
 - (a) Satisfaction (b) Consumption
 - (c) No of units (d) Need
- 4. There is only one possible price at which quantity supplied is ———— quantity demanded
 - (a) Equal to (b) Equilibrium to
 - (c) Upward to (d) Doward to

	called the —	g white -	in at least one input is fixed is
	(a) Cost analysis	(b)	Long run
	(c) Short run	(d)	Price analysis
6.	Shut-down costs are production operations	requin are —	red to be incurred when the
	(a) Declines	(b)	Break even
	(c) Fixed	(d)	Suspended
7.	The LMC cuts the LAC	C at its	s — point.
	(a) Expanding	(b)	Rising
	(c) Minimum	(d)	Maximum
8.	In the long run the P =	e best	e level of output is, where
	(a) LAC	(b)	LMC
	(c) SMC	(d)	SAC
9.	In India the national the ———	incon	ne estimates are prepared by
	(a) Central Statistic	al Org	anisation
	(b) Central Economi	cs Coi	uncil
	(c) Central Finance	Cound	ril
	(d) Central Governm	nent	
10.	All inventory changes included in the —	s whet	ther negative or positive are
	(a) GDP	(b)	Circular flow
	(c) Inflow	(d)	Outflow
	Pa	art B	$(5 \times 5 = 25)$
		11 +h o	· ·
	Answer a	un une	questions.
11.	Answer a (a) Explain the conc	ept of	questions. economic efficiency.
11.	Answer a (a) Explain the conc	ept of Or	questions. economic efficiency.

12. (a) What is elasticity of demand? Explain the types of elasticity of demand.

Or

- (b) Explain the law of supply and the determinants of supply.
- 13. (a) "The marginal rate of technical substitution is numerically equal to the negative of the slope of an isoquant." Comment.

Or

- (b) Explain in brief the concept of Production function.
- 14. (a) Explain the various sources of monopoly power.

 \mathbf{Or}

- (b) Explain Cournot's model of oligopoly.
- 15. (a) Discuss the three methods of national income measurement with a hypothetical example.

Or

(b) Suggest how the discrepancy between output can be calculated by the expenditure approach.

Part C $(5 \times 8 = 40)$

Answer **all** the questions.

16. (a) "Economics is concerned with the application of economic concepts and analysis to the problem of formulating rational individual and national decisions" Discuss.

 \mathbf{Or}

(b) How do You justify the fact that most of the economies in the world have registered growth even alter influenced by the global meltdown?

17. (a) What is cross price elasticity of demand? Explain the cross price elasticity of demand in case of substitutes, complementary goods and unrelated goods.

Or

- (b) Assume yourself as a manager of any FMCG firm. In what ways supply analysis is important for you?
- 18. (a) "Technical and/or managerial indivisibilities cause increasing return to scale." Give your opinion.

Or

- (b) Discuss the concept of economies of scale and economies of scope. Give suitable examples.
- 19. (a) Under what conditions will a firm operating in a perfectly competitive industry choose to leave the industry?

Or

- (b) The case of perfect competition is sometimes referred to as a 'benchmark industrial structure. In this context, what do you think commentators mean by the term 'benchmark'?
- 20. (a) Examine all standard method of computing national income and social accounting in India with particular reference to both conceptual statistical difficulties of measurement.

Or

(b) Why is there so much attention given to the national income figures, of a country? Newspapers report the figures government officials talk about GDP growth, and even secondary school textbooks mention them.

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M.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

First Semester

Business Analytics

RESEARCH METHODOLOGY

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A $(10 \times 1 = 10)$

Answer **all** the questions.

- 1. For what is the 'variable view in IBM SPSS's data editor used?
 - (a) Entering data.
 - (b) Writing syntax.
 - (c) Viewing output from data analysis.
 - (d) Defining characteristics of variables.
- 2. In the data view in the spss data editor, each column represents what?
 - (a) A Case (b) A Data Point
 - (c) A Missing Value (d) A Variable
- 3. Survey is a ———— study
 - (a) Descriptive (b) Fact finding
 - (c) Analytical (d) Systematic
- 4. The first purpose of a survey is to _____
 - (a) Description (b) Evaluation
 - (c) Pration (d) Provide Information

- 5. Which technique is generally followed when the population is finite?
 - (a) Systematic Sampling Technique
 - (b) Purposive Sampling Technique
 - (c) Area Sampling Technique
 - (d) None of the above
- 6. Which one is called non-probability sampling?
 - (a) Quota sampling
 - (b) Cluster sampling
 - (c) Systematic sampling
 - (d) Stratified random sampling
- 7. What type of chart is useful for comparing values over categories?
 - (a) Pie Chart (b) Column Chart
 - (c) Line Chart (d) Dot Graph
- 8. A feature that displays only the data in column (s) according to specified criteria
 - (a) Formula (b) Sorting
 - (c) Filtering (d) Pivot
- 9. What is the major of attribute of Correlation Analysis?
 - (a) Association among variable
 - (b) Difference among variables
 - (c) Regression among variables
 - (d) Variations among variables
- 10. What is the main role of research in education?
 - (a) To upsurge one's social status.
 - (b) To increase ones job prospects.
 - (c) To augment ones personal growth.
 - (d) To help an applicant in becoming a renowned educationalist.

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Part B $(5 \times 5 = 25)$

Answer **all** the questions.

11. (a) Outline the steps to open the SFSS file and save the file.

 \mathbf{Or}

- (b) Enumerate the advantages of using SPSS tool in detail.
- 12. (a) List and explain different types of research in detail.

Or

- (b) Breakdown the qualities of a good questionnaire in detail.
- 13. (a) Describe the different types of scales in detail.

Or

- (b) Illustrate the bar chart and pie chart with a neat diagram.
- 14. (a) Compare and contrast the type I and type II error with suitable examples.

Or

- (b) Infer the terms parametric and non parametric test in detail.
- 15. (a) Differentiae correlation with regression in detail.

Or

(b) Enumerate the assumptions of linear regression in detail.

$$Part C (5 \times 8 = 40)$$

Answer **all** questions.

16. (a) Statistical software is useful for data analysis – Justify.

Or

(b) Explain the factors of SPSS with its Features.

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17. (a) Define research. How a person can conduct Research? Give the essential features of it?

Or

- (b) "Research is much concerned with proper fact finding, analysis and evaluation". Do you agree with this statement?
- 18. (a) Compare and contrast the univariate descriptive analysis in detail with suitable examples.

Or

- (b) Analyse the merits and demerits of various probability sampling techniques.
- 19. (a) Describe Research Hypothesis. Describe the steps in testing in hypothesis.

Or

- (b) Interpret why is hypothesis required in research? What are the different types of hypothesis? Gives Examples.
- 20. (a) Analyse the objective, process and application of Multiple Regression and Correlation Analysis to solve research Problems.

Or

(b) Visual representations of results are best understood by a reader thus special care must be taken for this formulation. Examine.

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