

C-6799

Sub. Code

30111/30211

M.B.A. DEGREE EXAMINATION, NOVEMBER 2025

First Semester

MANAGEMENT CONCEPTS AND PRACTICE

**(Common for Business Analytics/Digital Marketing and
E-Commerce)**

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. Management is what a _____ does?
 - (a) Manager
 - (b) Subordinate
 - (c) Supervisor
 - (d) Superior

2. Management is
 - (a) Art
 - (b) Science
 - (c) Both science and Art
 - (d) Neither

3. Management is a wider concept than administration according to
 - (a) Fayol
 - (b) Hernold Koontz
 - (c) Oliver Shelton
 - (d) William Newman

4. Who is father of scientific management?
- (a) Mary Partker Follett
 - (b) Max Weber
 - (c) Fayol
 - (d) Taylor
5. Planning function is performed by
- (a) Top level (b) Middle level
 - (c) Bottom level (d) All levels
6. Characteristics of planning include
- (a) Continuity
 - (b) All pervasiveness
 - (c) Primacy to all functions
 - (d) All the above
7. Point out the boundryless organisation from the following types of organisation.
- (a) Network organisation
 - (b) Virtual organisation
 - (c) Both
 - (d) None
8. Which one of the following is not a traditional organisation?
- (a) Line and Staff (b) Functional organisation
 - (c) Committee (d) Matrix
9. The process of finding out prospective candidate
- (a) Selection (b) Recruitment
 - (c) Placement (d) None of the above

10. Motivation through fear and punishment is
- (a) Positive motivation
 - (b) Negative motivation
 - (c) Monetary motivation
 - (d) None of these

Part B

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) What are the nature of management? Explain.

Or

- (b) Distinguish between Management and Administration.

12. (a) Explain the Evolution of management thought.

Or

- (b) Explain the contribution of behavioral scientists by Maslow.

13. (a) What are the importance of planning. Explain.

Or

- (b) Explain the types of plans.

14. (a) Explain the nature of organization.

Or

- (b) Write short notes on centralization and decentralization.

15. (a) Explain the importance of directing.

Or

- (b) What is mean by communication and explain its objectives.

Part C

(5 × 8 = 40)

Answer **all** questions, choosing either (a) or (b).

16. (a) Explain the functions of management.

Or

(b) How can management be recognized as a profession.

17. (a) Discuss the Scientific management and contribution of F.W. Taylor.

Or

(b) Explain the HR movement by Hawthorne experiments.

18. (a) Explain the process of planning.

Or

(b) Explain the limitations of planning.

19. (a) Explain the principles of organization.

Or

(b) Explain the types of departmentation.

20. (a) Explain the Maslow theory of motivation.

Or

(b) Explain the need for controlling.

C-6800

Sub. Code

30112

M.B.A. DEGREE EXAMINATION, NOVEMBER 2025.

First Semester

Business Analytics

ACCOUNTING FOR BUSINESS ANALYSTS

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

- _____ is concerned with the recording of business transactions in a systematic manner.
 - Book keeping
 - Journal
 - Ledger
 - Trial Balance
- Accrued income account is a/an _____.
 - Income
 - Expenses
 - Liability
 - Asset
- Ratio analysis involves the process of _____.
 - Recording
 - Computation
 - Relationship between two items
 - Journal entry

4. Short term investment is a/an _____.
- (a) Current assets
 - (b) Current liability
 - (c) Application of fund
 - (d) Sources of find
5. A production budget is based on _____ Budget.
- (a) Cash
 - (b) Overheads
 - (c) Sales
 - (d) Purchase
6. _____ Budgeting is a method of budgeting in which all expenses must be justified for each new period.
- (a) Master
 - (b) Cash
 - (c) Flexible
 - (d) Zero Based
7. Absorption costing takes into account _____.
- (a) Fixed Cost
 - (b) Variable Cost
 - (c) Total cost
 - (d) Works Cost
8. Usually standards are set up on the basis of _____.
- (a) Past performance
 - (b) Ideal performance
 - (c) Normal performance
 - (d) Attainable high performance
9. Depreciation is arises because of _____.
- (a) Fall in the market value of an asset
 - (b) Physical wear and tear
 - (c) Fall in the value of money
 - (d) All of the above

10. The main objective of providing depreciation is to _____.
- (a) Calculate true profit
 - (b) Show the true financial position
 - (c) Reduce tax burden
 - (d) Provides funds for replacement of fixed assets

Part B

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) What are the benefits of computerized accounting?

Or

- (b) Journalize the following transactions in the books of Nagul:

April 1st, 2021 Commenced business with Cash Rs.50,000 and Stock Rs. 4,000

April 5th, 2021 Bought goods from Nelson for cash Rs.10,000

April 12th, 2021 Sold goods to Jamal Rs.19,500

April 18th, 2021 Rent paid Rs.5,000 and Salary paid Rs. 12,000

April 23rd, 2021 Jamal settled his account with Rs.19,000

12. (a) What is the importance of Solvency Ratios?

Or

- (b) Calculate cash from operations from the following profit and loss account.

	Rs.		Rs.
To Expenses paid	3,00,000	By Gross profit	4,50,000
To Depreciation	70,000	By Profit on sale of land	50,000

	Rs.		Rs.
To Loss on sale of machine	4,000	By Dividend	4,000
To Discount	200	By Interest on investment	6,000
To Goodwill	20,000		
To Net Profit	1,15,800		
	<u>5,10,000</u>		<u>5,10,000</u>

13. (a) Draw up a flexible budget for overhead expenses on the basis of the following data and determine the overhead rates at 70% plant capacity.

At 80%
capacity

Variable overheads:

Indirect labour	12,000
Indirect material	4,000

Semi variable overheads:

Power (30% fixed)	20,000
Repairs and maintenance (60% fixed)	2,000

Fixed overheads:

Depreciation	11,000
Insurance	3,000
Salaries	10,000
Total Overheads	62,000

Estimated direct labour hours at 80% capacity:
1,24,000 hours.

Or

- (b) What are the limitations of Responsibility Accounting?

14. (a) Calculate Breakeven point (in Rs).

Sales Rs.6,00,000

Fixed expenses Rs. 1,50,000

Variable expenses:

Direct material Rs. 2,00,000

Direct labour Rs. 1,20,000

Other variable expenses Rs. 80,000

Or

(b) From the following data, calculate material yield variance.

	Standard mix	Actual mix
Material A	200 units at Rs.12	160 units at Rs.13
Material B	100 units at Rs.10	140 units at Rs.10

Standard loss allowed is 10% of input. Actual output is 275 units.

15. (a) A company purchased a plant for Rs. 1,00,000. The useful life of the plant is 10 years and the residual value is Rs.20,000. Find out the rate of depreciation under the straight line method.

Or

(b) State the objectives of inventory valuation.

Part C

(5 × 8 = 40)

Answer **all** questions, choosing either (a) or (b).

16. (a) Draw the company final account format.

Or

- (b) From the following Trial Balance of Muthu ,
-
- Prepare Trading, Profit and Loss account and
-
- Balance Sheet as on 31
- st
- March 2021.

Debit balance	Rs.	Credit Balances	Rs.
Drawings	3,710	Capital	21,318
Rates	376	Discount received	1,526
Bank balance	3,748	Creditors	4,858
General expenses	2,676	Sales	41,566
Furniture	390		
Discount allowed	1,642		
Debtors	10,800		
Wages	2,454		
Bad debts	450		
Carriage inward	956		
Purchases	25,466		
Opening stock	8,346		
Plant and Machinery	2,754		
Land and Building	5,500		
	<u>69,268</u>		<u>69,268</u>

Adjustments:

- (i) The value of closing stock on 31st March 2021 was estimated at Rs.8,840
- (ii) Provide 10% depreciation on Furniture and 6% on Land and Building.
- (iii) Create a 5% provision on debtors.

17. (a) From the following information relating to Sony Ltd., Prepare Fund Flow Statement.

(Rupees in thousands)					
Liabilities	30.9.2019	30.9.2020	Assets	30.9.2019	30.9.2020
	Rs.	Rs.		Rs.	Rs.
Share capital	300	400	Cash	30	90
General reserve	100	50	Accounts receivable	105	150
Retained earnings	30	60	Inventories	150	195
Accounts payable	45	135	Fixed assets	190	210
	475	645		475	645

The company issued bonus shares for Rs 50,000 and for cash Rs. 50,000. Depreciation written off during the year Rs. 15,000.

Or

(b) M/s. Asoka Ltd. has submitted the following balance sheet as on 30th June 2020.

	Rs.		Rs.
Equity capital	1,50,000	Fixed assets	1,62,000
Revenue reserve	30,000	Stock	22,000
8% debenture	20,000	Debtors	51,000
sundry creditors	49,000	Bills receivable	2,000
		Bank	12,000
	2,49,000		2,49,000

Find the current ratio and quick ratio and comment on the financial condition of the company.

18. (a) From the following data forecast the cash position at the end of April, May and June 2018.

Month 2018	Sundry expenses	Sales	Purchases	Wages
	Rs.	Rs.	Rs.	Rs.
February	7,000	1,20,000	80,000	10,000
March	9,000	1,30,000	98,000	12,000
April	5,000	70,000	1,00,000	8,000
May	10,000	1,16,000	1,03,000	10,000
June	6,000	85,000	80,000	8,000

Further information:

Sales at 10% realized in the month of sales- Balance equally realized in two subsequent months.

Purchases: creditors are paid in the month following the month of supply.

Wages : 20% paid in arrears in the following month.

Sundry expenses paid in the month itself.

Income tax Rs. 20,000 payable in June.

Dividend Rs. 12,000 payable in June.

Income from investments Rs. 2,000 received half yearly in March and September.

Cash balance on hand as on 1st April 2018 Rs.40,000.

Or

- (b) Explain the important elements of performance budgeting.
19. (a) The following particulars of sales and profit for two periods are available in respect of a concern.

Year	Sales	Profit
2022	10,00,000	2,00,000
2023	15,00,000	4,00,000

Calculate:

- (i) P/V Ratio
(ii) Break Even point
(iii) Profit on sale of Rs.20,00,000
(iv) Sales required to make a profit of Rs.6,00,000
(v) Margin of safety.

Or

- (b) Calculate labour variances from the following data:

A factory worked for 6,000 labour hours during a week. 200 hours were wasted due to power failure. The sundry works done by the workers were equal to 6,400 standard hours. The standard rate per hour was Rs. 15. The actual wage rate was Rs. 20 per hour.

20. (a) ABC & Co. purchased a machine for Rs.22,000 on January 1, 2012. The estimated life of the machinery is 10 years, after which its break-up value will be Rs.2,000. Depreciation has to be charged at 21% on the diminishing balance. There was an addition to the original plant on January 1, 2014 to the value of Rs.4,000. On 1st July 2015 the first machine was sold for Rs.9,000. You are required to prepare Machinery account for the four years ending 31st December 2015.

Or

- (b) Briefly explain the methods of inventory valuation.

C-6801

Sub. Code

30113

M.B.A. DEGREE EXAMINATION, NOVEMBER 2025

First Semester

Business Analytics

SPREADSHEET MODELING

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

- Where is the option for page border given in the MS Excel spreadsheet?
 - Insert
 - Format
 - View
 - Page Border cannot be added in excel worksheet
- You can use the drag and drop method to _____.
 - Copy cell contents
 - Move cell contents
 - Add cell contents
 - (a) and (b) both
- What is the collection of worksheets called?
 - Ledger
 - Book
 - Testbook
 - Workbook
- It refers to the position in which data is placed within the cell.
 - Alignment
 - Location
 - Destination
 - All of these

5. _____ Excel function returns TRUE or FALSE based on two or more conditions
- (a) =AVERAGEIFS (b) =CONCAT
(c) =COUNTA (d) =AND
6. In MS Excel 2007, to trace errors and show the cells that are referenced in a formula, we use _____ buttons.
- (a) trace formula (b) trace
(c) formula auditing (d) formula
7. These pictorial represent data in Excel
- (a) Gridlines (b) Graphs
(c) Legends (d) Charts
8. What type of result does the MATCH function, when used on its own, return?
- (a) It returns the lookup value located in a specific location.
(b) It returns a value that is the same as the lookup value.
(c) It returns the cell reference of the lookup value.
(d) It returns the relative position of a lookup value, either as a row or column number, within the selected array.
9. Which of following is Not one of Excel' s what-if function?
- (a) Goal seek (b) Solver
(c) Scenario manager (d) Auto Outline
10. Which of the following is not information you can specify using the solver?
- (a) Input cells (b) Constraints
(c) Target cell (d) Changing cells

Part B

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Explain the various features of MS Excel.

Or

- (b) Write short notes on the following:
(i) Saving a Workbook
(ii) Customized Quick Access Toolbar

12. (a) Write short notes on the following :

- (i) Group selected worksheets
(ii) Ungroup selected worksheets
(iii) Group all worksheets
(iv) Ungroup all worksheets

Or

- (b) How to format currency symbol, date and percentages? Explain.

13. (a) What is relative references? Explain how to create and copy a formula using relative references.

Or

- (b) Differentiate between AVERAGEIF and AVERAGEIFS.

14. (a) What are the logical functions available in Spreadsheet? Explain in detail.

Or

- (b) How to use INDEX and MATCH? Explain in detail.

15. (a) Write a procedure for grouping items and inserting calculated fields in Pivot Table.

Or

- (b) What is an AutoFilter in Excel? How to filter data in Excel using an AutoFilter.

Part C

(5 × 8 = 40)

Answer **all** questions, choosing either (a) or (b).

16. (a) Briefly explain about worksheets and workbooks.

Or

- (b) Write a procedure to perform the following on a worksheet:

- (i) Set a column to a specific width
- (ii) Change the default width for all columns.

17. (a) Explain the built-in and custom formats for formatting data.

Or

- (b) Discuss the following with procedure:

- (i) Alignment of content in cell range
- (ii) Cell orientation

18. (a) Discuss the following functions in detail:

- (i) FLOOR (ii) CEILING (iii) MROUND (iv) MOD (v) QUOTIENT

Or

- (b) Write short notes on:

- (i) Formula Error Checking
- (ii) Goto

19. (a) Explain the following types of chart in detail.

- (i) Pie (ii) Scatter

Or

- (b) Describe the various text functions in Spreadsheet.

20. (a) How to Create a Pivot Chart in Excel? Explain with procedure.

Or

- (b) Discuss on Scenario Manager.

C-6802

Sub. Code

30114

M.B.A. DEGREE EXAMINATION, NOVEMBER 2025

First Semester

Business Analysis

STATISTICS FOR BUSINESS

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. The rating of movies as good, average and bad is
 - (a) Nominal scale
 - (b) Ordinal scale
 - (c) Interval scale
 - (d) Ratio scale
2. The temperature of a patient during hospitalization is 1000F is in
 - (a) Nominal scale
 - (b) Ordinal scale
 - (c) Interval scale
 - (d) Ratio scale
3. Student's 't' distribution was found by
 - (a) Karl Pearson
 - (b) Laplace
 - (c) R.A. Fisher
 - (d) William S.Gosset
4. Paired t-test is applicable when the observations in both the samples are
 - (a) Paired
 - (b) Correlated
 - (c) Equal in number
 - (d) All the above

5. If the null hypothesis is false then which of the following is accepted?
- (a) Null Hypothesis
 - (b) Positive Hypothesis
 - (c) Negative Hypothesis
 - (d) Alternative Hypothesis.
6. The point where the Null Hypothesis gets rejected is called as?
- (a) Significant Value
 - (b) Rejection Value
 - (c) Acceptance Value
 - (d) Critical Value
7. A sum of Rs. 1600 gives a simple interest of Rs. 252 in 2 years and 4 months. The rate of interest per annum is:
- (a) 6%
 - (b) $6\frac{1}{4}\%$
 - (c) $6\frac{1}{2}\%$
 - (d) $6\frac{3}{4}\%$
8. If the compound interest on a certain sum for 2 years at 10% per annum is Rs. 525. The simple interest on the same sum for double the time at half the rate percent per annum is:
- (a) 400 rupees
 - (b) 500 rupees
 - (c) 600 rupees
 - (d) 800 rupees
9. If $r = +1$, then the correlation is called
- (a) perfect Positive correlation
 - (b) perfect negative correlation
 - (c) Positive correlation
 - (d) negative correlation
10. The linear regression analysis can be classified in to
- (a) 4 types
 - (b) 3 types
 - (c) 2 types
 - (d) none of the above

Part B

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) What is relative-cumulative frequency distribution?
Or
(b) Explain open-end class interval with example.
12. (a) The remuneration paid to 100 lecturers coaching for professional entrance examination are normally distributed with mean Rs. 700/- and standard deviation Rs. 50/-. Estimate the number of lectures whose remuneration will be
(i) between Rs. 700/- and Rs. 720/-
(ii) more than Rs. 750/-

Or

- (b) A random sample of 10 packets containing cashew nuts weigh (in grams) 70, 120, 110, 101, 88, 83, 95, 98, 107, 100 each. Test whether the population mean weight of 100 grams?
13. (a) A car manufacturing company desires to introduce a new model car. The company claims that the mean fuel consumption of its new model car is lower than that of the existing model of the car, which is 57 kms/litre. A sample of 100 cars of the new model car is selected randomly and their fuel consumptions are observed. It is found that the mean fuel consumption of the 100 new model car is 60 kms/litre with a standard deviation of 3 kms/litre. Test the claim of the company at 5% level of significance.

Or

- (b) A company producing batteries finds that mean life span of the population of its batteries is 200 hours with a standard derivation of 15 hours. A sample of 100 batteries randomly chosen is found to have the mean life span of 195 hours. Test, at 5% level of significance, whether the mean life span of the batteries is significantly different from 200 hours.

14. (a) Mr. Thomas invested an amount of Rs. 13900 divided into two different schemes A and B at the simple interest rate of 14% p.a. and 11% p.a. respectively. If the total amount of simple interest earned in two years be Rs. 3508, what was the amount invested in Scheme B?

Or

- (b) At what rate of compound interest per annum, a sum of Rs. 1200 becomes Rs. 1348.32 in 2 years?
15. (a) Calculate the Karl Pearson's coefficient of correlation for the following data and interpret.

x	9	8	7	6	5	4	3	2	1
y	15	16	14	13	11	12	10	8	9

Or

- (b) Find the regression equation of X on Y given that $n = 5$, $\Sigma x = 30$, $\Sigma y = 40$, $\Sigma xy = 214$, $\Sigma x^2 = 220$, $\Sigma y^2 = 340$.

Part C

(5 × 8 = 40)

Answer **all** questions, choosing either (a) or (b).

16. (a) Determine median from the following data: 25, 20, 15, 45, 18, 7.10, 38, 12 In a class of 100 students, 20 have failed and their average of marks is 5. The total marks secured by the entire class were 562. Find the average marks of those who have passed.

Or

- (b) Mention the features of tabulated data distinguishing it from diagrams and graphs.

17. (a) Assuming that one in 80 births are twins calculate the probability of 2 or more sets of twins on a day when 30 births occur. Compare the results obtained by using (i) the Binomial (ii) Poisson distributions.

Or

- (b) The Average number of fish caught per hour in a lake is 0.66. Find the probability to get (i) No fish (ii) 2 Fishes (iii) at most 3 fishes (iv) at least 1 fish in a period of 7 hours.
18. (a) A survey was conducted among the students of a city to study their preference towards consumption of chocolate and ice-cream. Among 2000 randomly selected students, it is found that 1120 are chocolate and the remaining are ice-cream. Can we conclude at 1% level of significance from this information that both chocolate and ice-cream are equally preferred among the students in the city?

Or

- (b) Performance of students in a national level Olympiad exam was studied. The scores secured by randomly selected students from two districts, viz., D1 and D2 of a State were analyzed. The number of students randomly selected from D1 and D2 are respectively 1000 and 1600. Average scores secured by the students selected from D1 and D2 are respectively 116 and 114. Can the samples be regarded as drawn from the identical populations having common standard deviation 27 Test at 5% level of significance.

19. (a) A TV was bought for Rs. 21,000. The value of the TV was depreciated by 5% per annum. Find the value of the TV after 3 years. (Depreciation means the reduction of value due to use and age of the item)

Or

- (b) Find the compound interest on Rs. 48,000 for one year at 8% per annum when compounded half-yearly.
20. (a) Calculate the Karl Pearson's correlation coefficient between the marks (out of 10) in statistics and mathematics of 6 students.

Student	1	2	3	4	5	6
Statistics	7	4	6	9	3	8
Mathematics	8	5	4	8	3	6

Or

- (b) Find out the regression equation, x on y and y on x from the following data:

x	15	20	25	30	35	40	45
y	8	14	20	26	32	38	44

C-6803

Sub. Code

30115

M.B.A. DEGREE EXAMINATION, NOVEMBER 2025

First Semester

Business Analytics

ECONOMIC ANALYSIS FOR BUSINESS DECISIONS

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. The creation of choice is done by
 - (a) Scarcity of resources
 - (b) Less choices
 - (c) The urgency of needs
 - (d) Abundance of resources

2. Two Indifference curves cannot cut each other because
 - (a) They slope downwards
 - (b) They are convex to origin
 - (c) They represent those combinations of two goods that give the same satisfaction
 - (d) Each Indifference curve represents a different level of satisfaction

3. The law of demand states that if there is an increase in a product's selling price _____.
- (a) The quantity demanded of that good will decrease
 - (b) The quantity supplied of that good will decrease
 - (c) The quantity demanded of that good will increase
 - (d) The quantity supplied of that good will increase
4. The shape of the demand curve is _____.
- (a) Downward -sloping
 - (b) Upward -sloping
 - (c) Vertical
 - (d) Horizontal
5. In production function, production is a function of
- (a) Price
 - (b) Factors of Production
 - (c) Total expenditure
 - (d) None of the above
6. Rent for warehouse is a component of what cost?
- (a) Production cost
 - (b) Cost of factory
 - (c) Prime cost
 - (d) Distribution cost

7. What cost will be payable even if the company is closed?
- (a) Cost of shut-down
 - (b) Cost of the historical record
 - (c) Cost of sunk
 - (d) Imputed cost
8. Which of the following best describes an oligopoly?
- (a) Many monopolistically competitive firms
 - (b) A few firms sharing monopoly power
 - (c) A former monopoly that has been broken up by the government
 - (d) A government - granted franchise or monopoly
9. Who measured the first national income of India?
- (a) Dadabhai Naoroji
 - (b) William Digboi
 - (c) V.K.R.V Rao
 - (d) Professor P.C Mahalanobis
10. The business cycles or the periodic booms and slumps in economic activities reflect the _____ in economic activities.
- (a) Upward movement
 - (b) Downward movement
 - (c) Upward and Downward movement
 - (d) Extreme rise

Part B

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) With illustration explain the application of economics in Business Decisions.

Or

- (b) “Understanding consumer’s economic behavior is helpful to take business decisions” — Elucidate.

12. (a) What is meant by elasticity of supply? Explain its types.

Or

- (b) State the factors which determine market demand for a commodity of your choice.

13. (a) What is meant by production? Describe the assumptions of production function.

Or

- (b) Write the relationship between marginal cost and average cost curve.

14. (a) Write the features of various market structure with illustrations.

Or

- (b) How does the monopolistic competitor incur loss in the business? Explain with a suitable graph.

15. (a) Discuss the major national income concepts.

Or

- (b) Give an account on the major economic indicators in an economy.

Part C

(5 × 8 = 40)

Answer **all** questions, choosing either (a) or (b).

16. (a) “ Managerial Economics is a way of thinking about business” — Elucidate.

Or

- (b) Explain the circular flow of economic activity of India.

17. (a) Explain the concept of Income elasticity of demand and discuss the importance of income elasticity of demand for a business firm.

Or

- (b) How does analysis of demand contribute to business decision making.

18. (a) Explain the types of costs and its significance in decision making.

Or

- (b) What are the uses of cost function in business decision?

19. (a) Explain how the price and output is determined in perfect competition.

Or

(b) Show graphically how an individual firm attains equilibrium firm under perfect competition.

20. (a) Explain the managerial use of business cycle.

Or

(b) Discuss the causes and control measures of the inflation.

C-6804

Sub. Code

30116

M.B.A. DEGREE EXAMINATION, NOVEMBER 2025

First Semester

Business Analytics

RESEARCH METHODOLOGY

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. In the Data View in the SPSS Data Editor, each column represents What?
 - (a) Case
 - (b) A data point
 - (c) A missing value
 - (d) A variable

2. In SPSS, what is the Data viewer?
 - (a) A table summarizing the frequencies of data for on variable
 - (b) A Spreadsheet into which data can be entered
 - (c) A dialog box that allows you to choose a statistical test
 - (d) A screen in which variables can be defined and labeled

3. In which of the following research method , process of hypothesis testing optimally safeguard the role of extraneous variables?
- (a) Export facto method
 - (b) Experimental method
 - (c) Historical Method
 - (d) Descriptive Survey method
4. A null hypothesis is
- (a) When there is no difference between the variables
 - (b) The same as research hypothesis
 - (c) Subjective in nature
 - (d) When there is difference between the variables
5. Which one is called non-probability sampling?
- (a) Cluster sampling
 - (b) Quota sampling
 - (c) Systematic sampling
 - (d) Stratified random sampling
6. Which of the following is true for the coefficient of correlation?
- (a) The coefficient of correlation is not dependent on the change of scale
 - (b) The coefficient of correlation is not dependent on the change of origin
 - (c) The coefficient of correlation is not dependent on both the change of scale and Change of origin
 - (d) None of the above

7. Which of the following techniques is an analysis of the relationship between two variables to provide the prediction mechanism?
- (a) Standard error
 - (b) Correlation
 - (c) Regression
 - (d) None of the above
8. Which of the following statement is correct?
- (a) Reliability ensures the validity
 - (b) Validity ensures reliability
 - (c) Reliability and validity are independent of each other
 - (d) Reliability does not depend on objectivity
9. To Test null hypothesis, a researcher uses:
- (a) t test
 - (b) ANOVA
 - (c) X^2
 - (d) Factorial analysis
10. Which of the one is true about Heteroskedasticity?
- (a) Linear Regression with varying error terms
 - (b) Linear Regression with constant error terms
 - (c) Linear Regression with Zero error terms
 - (d) All of the above

Part B

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) What is SPSS? Explain the types of windows in SPSS?

Or

- (b) Describe the purpose of using SPSS for research.

12. (a) What are the conditions required for an experimental study?

Or

- (b) State the requirements of multiple choice questions in a questionnaire.

13. (a) How is a Likert scale developed for a research questionnaire?

Or

- (b) How do you interpret Kolmogorov Smirnov normality test? Explain with illustration.

14. (a) What is a hypothesis? Explain the tools used for testing the hypothesis.

Or

- (b) What is a null hypothesis? How is it tested?

15. (a) Write the assumptions of Linear Regression.

Or

(b) Why is residual analysis important ? Explain its implications in research.

Part C

(5 × 8 = 40)

Answer **all** questions, choosing either (a) or (b).

16. (a) How to compare two data sets in SPSS?

Or

(b) How do create and modify string variables?

17. (a) What are the characteristics to be possessed by words chosen for question constructions?

Or

(b) Under what circumstances are personal interviews desired?

18. (a) Explain the construction of Histogram when only mid — points are given.

Or

(b) Explain the Q-Q plot normality test in R.

19. (a) Explain how will you test the equality of variances of two normal populations.

Or

(b) Describe the techniques of analysis of variance for one -way and two -way Classification.

20. (a) What is meant by goodness of fit ? How do you tell a model is good fit?

Or

(b) What is multicollinearity? How to detect multicollinearity in regression?

C-6805

Sub. Code

30121

M.B.A. DEGREE EXAMINATION, NOVEMBER 2025

Second Semester

Business Analytics

MARKETING MANAGEMENT

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. When the performance of a product or service exceeds the expectation, the customer is
 - (a) Satisfied
 - (b) Dissatisfied
 - (c) Delighted
 - (d) Unhappy

2. Reliability, assurance, and tangibility are dimensions of:
 - (a) Service differentiation
 - (b) Service quality
 - (c) Service productivity
 - (d) Service delivery

3. Dividing a market into smaller, specific geographic units such as countries, states etc is
 - (a) Location Segmentation
 - (b) Geographic Segmentation
 - (c) Niche Segmentation
 - (d) Service c Segmentation

4. The method to find the position of a company, a brand, or an individual product in its market is.
 - (a) Product Mapping
 - (b) Brand Mapping
 - (c) Perceptual mapping
 - (d) Market Positioning
5. Dividing a market into smaller, specific geographic units such as countries, states etc is
 - (a) Location Segmentation
 - (b) Geographic Segmentation
 - (c) Niche Segmentation
 - (d) Service c Segmentation
6. High pricing of products in introduction stage is called as
 - (a) Luxury Pricing
 - (b) Penetration Pricing
 - (c) Skimming Pricing
 - (d) Intro Pricing
7. Offering incentives to marketing representatives and taking salesmen for tours, to motivate them and to achieve sales targets is part of _____ Promotion.
 - (a) Personal Selling
 - (b) Public Relation
 - (c) Financial promotion
 - (d) Sales force promotion
8. Print ads like brochures, magazines, catalogues etc., are mostly used in
 - (a) B2C
 - (b) C2C
 - (c) B2B
 - (d) S2S
9. In Marketing, the word 'Channel' is more relevant to
 - (a) Intermediary
 - (b) Suppliers
 - (c) Route
 - (d) Promotion methods

10. Targeted customer for promoting new tablet for typhoid is
- (a) Medical shops
 - (b) Patients
 - (c) Hospitals
 - (d) Doctors

Part B

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Briefly explain the buying behaviour process in mobile phone purchases.

Or

- (b) Describe the challenges in industrial marketing.

12. (a) Distinguish between demographic and geographic segmentation with examples.

Or

- (b) Illustrate the need for market research before launching new car in a market.

13. (a) What are the various stages in PLC?

Or

- (b) Discuss the importance of 'Physical Evidence' in marketing hotel services.

14. (a) Write a note on Visual Merchandising in promotion.

Or

- (b) What do you mean by Frequency and Reach in measuring an effectiveness of TV advertising campaign?

15. (a) Discuss the major factors in distribution planning for FMCG products.

Or

- (b) Explain the characteristics of multi-Channel distribution.

Part C

(5 × 8 = 40)

Answer **all** questions, choosing either (a) or (b).

16. (a) Elaborate on industrial buying steps in heavy inverters for companies.

Or

- (b) Describe the effect of environmental factors on consumer buying decisions.

17. (a) Design a sample questionnaire to study the satisfaction level of biscuits.

Or

- (b) Discuss on the possible research on after sales service of Air Coolers.

18. (a) Explain the branding methods to position 'Wristwatch brand' among college goers.

Or

- (b) Discuss the importance of brand equity in maturity stage of any product of your choice.

19. (a) Propose an effective Public Relation campaign for a tractor manufacturer.

Or

- (b) Discuss the effect of communication and culture in promoting Ayurvedic products.

20. (a) Discuss any three channel motivation methods adopted in two-wheeler marketing.

Or

- (b) Explain the advantages of direct marketing for insurance services.

C-6812

Sub. Code

30131

M.B.A. DEGREE EXAMINATION, NOVEMBER 2025

Third Semester

Business Analytics

DATA WAREHOUSING AND DBMS

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. Which of the following is NOT a characteristic of a database?
 - (a) It is self-describing
 - (b) It supports multiple views of data
 - (c) It has no relationship between data
 - (d) It provides data abstraction

2. In a relational database, what does a primary key do?
 - (a) Ensures foreign key constraints
 - (b) Identifies unique records in a table
 - (c) Represents null values
 - (d) Defines relationships between tables

3. What is the first step in building a data warehouse?
 - (a) Data extraction
 - (b) Requirement analysis
 - (c) Data transformation
 - (d) Metadata creation

4. Which of the following is NOT a characteristic of a data warehouse?
 - (a) Subject-oriented
 - (b) Volatile
 - (c) Integrated
 - (d) Time-varian

5. Which of the following is the correct sequence of ETL processes?
 - (a) Extract → Transform → Load
 - (b) Load → Extract → Transform
 - (c) Transform → Extract → Load
 - (d) Extract → Load → Transform

6. Which of the following is NOT a dimension of data quality?
 - (a) Accuracy
 - (b) Timeliness
 - (c) Redundancy
 - (d) Consistency

7. Data mining is often used to find relationships between data in which type of data?
- (a) Structured data
 - (b) Unstructured data
 - (c) Both structured and unstructured data
 - (d) None of the above
8. Which of the following is a key benefit of data visualization in a data warehouse?
- (a) It helps users understand complex data patterns and trends quickly
 - (b) It stores data for long-term retention
 - (c) It processes transactional queries in real-time
 - (d) It reduces data redundancy
9. Which of the following is NOT typically considered a component of Business Intelligence applications?
- (a) Data visualization tools
 - (b) Reporting and querying tools
 - (c) Data extraction tools
 - (d) Transactional data processing tools
10. Which of the following is a typical component of the deployment phase for a data warehouse?
- (a) Real-time data storage
 - (b) Testing and validation of ETL processes
 - (c) Limiting storage size
 - (d) Removing redundant data

Part B

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) What is a Database Management System (DBMS), and why is it important?

Or

- (b) Discuss the concept of database backup and recovery strategies.

12. (a) Compare and contrast databases and data warehouses.

Or

- (b) Examine the role of data quality and consistency in the success of a data warehouse.

13. (a) How does real-time ETL differ from traditional batch ETL processes?

Or

- (b) Explain data transformation and its significance in preparing data for a data warehouse.

14. (a) Discuss the integration of data warehousing with e-commerce platforms and its benefits.

Or

- (b) Explain the different types OLAP.

15. (a) What are the primary considerations for ensuring the security of sensitive data in a data warehouse?

Or

- (b) Explain the role of user training and support in the successful deployment of a data warehouse.

Part C

(5 × 8 = 40)

Answer **all** questions, choosing either (a) or (b).

16. (a) What is transaction management in DBMS, and explain the ACID properties?

Or

- (b) Explain the relational database model and its key components.

17. (a) What are data marts and how do they differ from a data warehouse?

Or

- (b) What are the properties of data in a data warehouse and how do they differ from transactional databases?

18. (a) Explain the star schema and snowflake schema in dimensional modeling.

Or

- (b) Discuss the role and components of ETL (Extract, Transform, Load) processes in data warehousing.

19. (a) Discuss the impact of real-time data warehousing on live web applications, such as stock trading or news platforms.

Or

- (b) What are the key features of effective data visualization tools in the context of data warehousing?
20. (a) Analyze the challenges of integrating legacy systems into a newly implemented data warehouse.

Or

- (b) Discuss the role of a data warehouse in enabling business intelligence applications.
-

C-6813

Sub. Code

30132/31039B

M.B.A. DEGREE EXAMINATION, NOVEMBER 2025

Third Semester

PYTHON FOR DATA ANALYTICS

**(Common for M.B.A. Business Analytics/Industry
Integrated)**

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. Which of the following is not a Python feature?
 - (a) Interpreted language
 - (b) Case-sensitive
 - (c) Low-level programming
 - (d) Supports multiple paradigms

2. Which keyword is used to handle exceptions in Python?
 - (a) try
 - (b) handle
 - (c) error
 - (d) catch

3. What does the pass statement do?
 - (a) Ends a loop
 - (b) Does nothing
 - (c) Skips an iteration
 - (d) Exits a function

4. What does print() do in Python?
 - (a) Reads input
 - (b) Outputs data
 - (c) Processes logic
 - (d) Pauses the program

5. Which loop is guaranteed to execute at least once?
 - (a) for
 - (b) while
 - (c) do-while
 - (d) None of the above

6. How do you define a function in Python?
 - (a) def function_name:
 - (b) function function_name:
 - (c) def function_name():
 - (d) define function_name()

7. How do you create an empty list in Python?
 - (a) list()
 - (b) {}
 - (c) []
 - (d) None

8. What is the correct syntax for list slicing?
 - (a) list[star:end]
 - (b) list(start:end)
 - (c) list[start:end:step]
 - (d) Both (a) and (c)

9. Which function in Matplotlib is used to create a line plot?
 - (a) scatter()
 - (b) plot()
 - (c) lineplot()
 - (d) line()

10. Which of the following is not a file mode?

- (a) w
- (b) a
- (c) m
- (d) r+

Part B

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Explain the features of Python that make it suitable for data analytics.

Or

(b) What are variables and data types in Python? Explain with examples.

12. (a) State the purpose of tuple assignment in Python with a practical example.

Or

(b) Discuss about the mutable and immutable data types with examples.

13. (a) What is a nested loop? Explain with a Python program to print a pattern.

Or

(b) Illustrate fruitful functions in Python with a program example

14. (a) What are the advantages of dictionaries over lists?

Or

(b) Explain the use of list slicing with an example.

15. (a) What are Python modules? Explain their importance.

Or

(b) Write a Python program to read a text file and display its contents.

Part C

(5 × 8 = 40)

Answer **all** questions, choosing either (a) or (b).

16. (a) Enumerate the process of installing Python and working with the Python interactive shell.

Or

- (b) Explain the error-handling mechanism in Python with examples of try and except.

17. (a) Discuss the structure of a Python function. Write a program to demonstrate parameter passing.

Or

- (b) Write a Python program to check if a string is a palindrome using functions.

18. (a) Explain the working of the binary search algorithm and implement it in Python.

Or

- (b) Illustrate a Python program to find the sum of squares of the first 10 natural numbers.

19. (a) Elucidate Python's list comprehension and demonstrate filtering and mapping.

Or

- (b) Write a Python program to sort a dictionary by its values in ascending order.

20. (a) Explain how to filter and rank rows in a Pandas DataFrame.

Or

- (b) Discuss the difference between NumPy and Pandas, with examples of operations performed in both.

C-6814

Sub. Code

30133

M.B.A. DEGREE EXAMINATION, NOVEMBER 2025

Third Semester

Business Analytics

MACHINE LEARNING

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. Which of the following assumptions does a Naive Bayes classifier make?
 - (a) Features are dependent on one another
 - (b) Features are conditionally independent given the class
 - (c) Classes are uniformly distributed
 - (d) Decision boundaries are non-linear

2. In linear regression, the cost function is minimized to:
 - (a) Maximize the likelihood of the training data
 - (b) Minimize the sum of squared residuals
 - (c) Maximize classification accuracy
 - (d) Minimize the variance of the data

3. Back propagation in neural networks is primarily used to:
 - (a) Initialize weights
 - (b) Optimize learning rate
 - (c) Minimize the error by updating weights
 - (d) Perform feature scaling

4. The K in K-Nearest Neighbor represents:
 - (a) Number of classes
 - (b) Number of data points in the dataset
 - (c) Number of neighbors considered for classification
 - (d) Number of decision boundaries

5. PCA uses which of the following mathematical techniques?
 - (a) Singular Value Decomposition (SVD)
 - (b) Fourier Transform
 - (c) Neural Networks
 - (d) Convolution

6. LDA works by maximizing which of the following?
 - (a) Within-class variance
 - (b) Between-class variance
 - (c) Overall variance in the data
 - (d) Noise in the data

7. Which CNN architecture is commonly used for image classification tasks?
- (a) ResNet
 - (b) RNN
 - (c) BERT
 - (d) LSTM
8. What is the key feature of Recurrent Neural Networks (RNN)?
- (a) Ability to process non-sequential data
 - (b) Ability to remember previous inputs in the sequence
 - (c) Ability to reduce dimensionality
 - (d) Ability to perform clustering
9. Fine-tuning an ensemble typically involves:
- (a) Training new models to replace weak learners
 - (b) Adjusting hyper parameters of individual learners or weights in the ensemble
 - (c) Removing outliers in the training dataset
 - (d) Reducing the size of the dataset for faster processing
10. In the Mixture of Experts approach, the role of the gating network is to:
- (a) Combine the output of experts using simple averaging
 - (b) Assign weights to experts based on their performance
 - (c) Identify and remove irrelevant experts
 - (d) Randomly select experts for predictions

Part B

(5 × 5 = 25)

Answer **all** questions, Choosing either (a) or (b)

11. (a) Explain the role of feature extraction in machine perception. How does it impact classification and clustering?

Or

- (b) What are the different types of learning in machine learning? Briefly explain with examples.

12. (a) What is a Random Forest and how does it differ from a single decision tree?

Or

- (b) Distinguish between classification trees and regression trees in terms of structure and application.

13. (a) Explain how membership degrees are assigned in Fuzzy K-means clustering.

Or

- (b) Briefly explain the two main steps of the EM algorithm: Expectation and Maximization.

14. (a) Explain how RNNs are applied in speech-to-text conversion.

Or

- (b) What is the significance of “sequence-to-sequence” models in RNNs?

15. (a) What is stacked generalization (stacking) in ensemble learning? Explain its structure.

Or

- (b) Why is fine-tuning important in ensemble learning? Describe one technique for fine-tuning

Part C

(5 × 8 = 40)

Answer **all** questions, Choosing either (a) or (b)

16. (a) Discuss the role of discriminant functions in Bayesian classifiers.

Or

- (b) Explain the significance of normal distribution in Bayesian decision-making.

17. (a) Compare linear and non-linear SVMs. Provide an example of when a non-linear SVM is required.

Or

- (b) Explain the working of the Perceptron algorithm. How does it handle linear classification problems?

18. (a) Discuss the advantages of GMM over K-means clustering for modeling data distributions.

Or

- (b) Describe the steps involved in performing Principal Component Analysis (PCA).

19. (a) Explain the difference between max pooling and average pooling in CNNs

Or

- (b) Compare popular CNN architectures like AlexNet, VGG and ResNet in terms of performance and depth.

20. (a) Discuss the advantages of stacking over traditional ensemble methods like bagging and boosting.

Or

- (b) Describe the concept of error-correcting output codes (ECOC) and its application in multi-class classification
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C-6815

Sub. Code

30134/31039C

M.B.A. DEGREE EXAMINATION, NOVEMBER 2025

Third Semester

BUSINESS LAW AND ETHICS

**(Common for M.B.A. Business Analytics / Industry
Integrated)**

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. According to the Indian Contract Act, which of the following is NOT required for an agreement to be valid?
 - (a) Offer and acceptance
 - (b) Lawful consideration
 - (c) Intention to create legal relations
 - (d) Registration with a government body

2. If a contract is made with a minor, it is:
 - (a) Void
 - (b) Voidable
 - (c) Valid with the consent of a guardian
 - (d) Enforceable after the minor turns 18

3. A patent is granted for a new invention if it fulfills the criteria of:
 - (a) Originality, utility, and novelty
 - (b) Originality, market value, and cost-effectiveness
 - (c) Novelty, utility, and market demand
 - (d) Novelty, utility, and non-obviousness

4. Which of the following is the main objective of the Consumer Protection Act, 1986?
 - (a) To regulate business activities
 - (b) To promote fair trade practices
 - (c) To provide a mechanism for the protection of consumer interests
 - (d) To create a national market for goods and services

5. Business ethics primarily refers to:
 - (a) The moral principles and standards that guide behavior in business
 - (b) Rules that govern business competition
 - (c) The company's profit-making objectives
 - (d) The legal framework governing businesses

6. Which of the following is an example of a terminal value in business ethics?
 - (a) Job security
 - (b) Professional development
 - (c) Success
 - (d) Innovation

7. A code of conduct in an organization is:
 - (a) A document outlining employee duties and job responsibilities
 - (b) A set of guidelines detailing acceptable and unacceptable behaviors
 - (c) A list of rewards for achieving organizational goals
 - (d) A statement about the organization's financial goals

8. Ethical decision-making involves:
- (a) Focusing only on profitability
 - (b) Choosing the option that aligns with moral principles
 - (c) Ignoring societal norms
 - (d) Following the majority opinion
9. Ethics in Human Resource Management involves:
- (a) Ensuring fair treatment of employees
 - (b) Maximizing profit at all costs
 - (c) Prioritizing organizational goals over employee welfare
 - (d) Ignoring discrimination issues
10. Ethical marketing involves:
- (a) Using misleading advertisements to attract customers
 - (b) Promoting products honestly and transparently
 - (c) Focusing on competitor defamation
 - (d) Ignoring customer complaints

Part B

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b)

11. (a) State the provisions of sale of Goods Act relating to the conditions and warranties.

Or

- (b) Define lawful consideration and its role in the validity of a contract.

12. (a) Discuss the legal procedures for obtaining protection for industrial designs in India.

Or

- (b) Examine the scope of legal protections for consumers in banking services.
13. (a) Why is it challenging to implement ethical practices in global businesses with diverse cultural norms?

Or

- (b) Evaluate Sun Tzu's principles of strategy in ethical decision-making for conflict resolution.
14. (a) Describe the role of the Government of India in enforcing ethical behavior in businesses.

Or

- (b) What are the main difficulties in ethical decision-making in organizations?
15. (a) Explain the significance of ethics in production and operations management.

Or

- (b) How do human resource laws in different countries impact global businesses?

Part C

(5 × 8 = 40)

Answer **all** questions, choosing either (a) or (b)

16. (a) Discuss the remedies available for breach of contract under Indian law.

Or

- (b) Describe the various modes of discharge of a contract with suitable examples.

17. (a) Describe briefly the procedure for registration of trademarks, copy rights and patents?

Or

- (b) Explain the nature and requisites of negotiable instruments Act 1881.

18. (a) Explain the role of social culture in shaping individual ethics and its impact on business decisions.

Or

- (b) Analyze the relevance of Sun Tzu's The Art of War in ethical strategy formulation for businesses.

19. (a) Explain Kohlberg's study on moral development and its relevance to business ethics.

Or

- (b) Compare codes of ethics, codes of conduct, and codes of practice, emphasizing their significance in managing ethics.

20. (a) Discuss the significance of disclosure norms and their role in promoting transparency in financial statements.

Or

- (b) Analyze the ethical challenges related to privacy issues in HRM in a global context.
-