

QUESTION PAPERS FOR END TERM THEORY
EXAMINATIONS
November/ December-2025



M.Tech., MTPT, M.Sc., MBA, EMBA, M.Des.,
1st, 3rd & 5th SEMESTER

INDEX

M.Tech./MTPT/PHD

S.no.	Paper Code	Page No.
1.	AM	1-15
2.	AFI	16-23
3.	BIO	24-31
4.	CE	32
5.	CSE	33-41
6.	CAD	42-53
7.	CYS	54-62
8.	C&I	63-72
9.	DSC	73-80
10.	EE	81-82
11.	ENE	83-95
12.	GEO	96-104
13.	GTE	105-117
14.	HU	118-121
15.	HWE	122-134
16.	ITY	135-146
17.	IBT	149-160
18.	IEM	161-173
19.	MST	174-176
20.	MOC	177-186
21.	O- Series	187-197
22.	PES	198-206
23.	PSY	207-217
24.	R- Series	218-237
25.	SPD	238-252
26.	STE	253-267
27.	SM	268-270
28.	SWE	271-280
29.	UCC	281-282
30.	UEC	283-290
31.	VLS	291-302
32.	HU-PHD	382-383

B.Sc. M.Sc. Integrated

S.no.	Paper Code	Page No.
1.	IMSBT	303-316
2.	IMSPH	317-328
3.	IMSMA	329-347
4.	IMSAC	348-366
5.	IMSHU	367-381
6.	IAEC/ISECHU/IVAC	384-390

M.Sc.

S.no.	Paper Code	Page No.
1.	MSMA	391-411
2.	MSBT	412-429
3.	MSPH	430-446
4.	MSCH	447-465
5.	MSHU	466
6.	M-Series	467-468

EMBA

S.no.	Paper Code	Page No.
1.	EMBA	485-504

MBA

S.no.	Paper Code	Page No.
1.	MBA	522-584

M.Des.

S.no.	Paper Code	Page No.
1.	DD	585-607

Total no. of Pages: 02

485

Roll no.....

FIRST SEMESTER
EMBA

END TERM EXAMINATION

NOV -2025

COURSE CODE EMBA 101

COURSE TITLE ORGANISATIONAL BEHAVIOUR AND
HUMAN RESOURCE MANAGEMENT

Time: 03:00 Hours

Max. Marks: 50

Note : ATTEMPT ANY FIVE QUESTIONS

All questions carry equal marks.

Assume suitable missing data, if any.

Q1. A company wants to hire 20 sales executives within a short deadline. Recommend a practical recruitment strategy and justify why it is suitable for this situation. [10 Marks] [CO 2 BTL 3]

Q2. An organization finds that customer complaints are increasing due to poor communication skills of employees. Suggest a suitable training method and explain how it will improve performance. [10 Marks] [CO 3 BTL 4]

Q3. A supervisor feels that the current appraisal system is subjective and causes employee dissatisfaction. Propose two techniques to make the appraisal process more objective and fair. [10 Marks] [CO 4 BTL 5]

Q4. A company wants to introduce a new role: "Digital Transformation Specialist." Explain the steps HR should follow to conduct a job analysis and create an accurate job description and job specification. [10 Marks] [CO 1 BTL 6]

486
Q5. Two groups of workers in a large textile factory are in conflict with management regarding changes in shift timings. The dispute escalates and begins to affect production. As per the Industrial Disputes Act, 1947, explain which dispute settlement authorities can intervene in this situation and how the dispute can be resolved using the statutory machinery.

[10 Marks] [CO 4 BTL 3]

Q6. A newly recruited employee is unable to follow safety procedures correctly on the shop floor. As a supervisor, explain how you would apply Operant Conditioning to help the employee learn and consistently follow the required safety behaviors.

[10 Marks] [CO 3 BTL 4]

Total No. of Pages 02

487
SEMESTER I
EMBA 103

Roll no.....

END TERM EXAMINATION NOV-2025

EMBA 103

MANAGERIAL ECONOMICS

Time: 3 Hours

Max. Marks: 50

Note: Attempt any five questions
Use of calculator is allowed.
Use graph wherever possible.
Assume suitable missing data, if any.

Q1 A pharmaceutical company HerbaCure Labs holds exclusive rights to produce a rare medicinal capsule. Market findings show:

$$TR = 200Q - 2Q^2$$

$$TC = 40Q + 100$$

Calculate the deadweight loss created due to monopoly power.

(10 Marks; CO 2; BTL 4)

Q2 In the agricultural market, several small farmers sell identical wheat to many buyers. However, a single private cold-storage provider called FrostVault Pvt. Ltd. supplies storage crates at premium prices, exercising monopoly power.

Using this context:

a) Compare surplus distribution under perfect competition vs monopoly.

b) Graphically show and explain the deadweight loss caused by the monopoly.

(10 Marks; CO 1; BTL 5)

Q3 A new EV scooter brand E-Moto Glide observes inconsistent monthly sales even though prices remain unchanged. During festive periods, sales rise sharply, whereas the entry of two new global EV brands reduces its sales. Additionally, sudden shortages of battery cells disrupt production planning.

488

- a) Using suitable diagrams, explain how these events may be shifting the market equilibrium despite stable prices.
b) Identify and explain four demand-side forces responsible for these fluctuations. (10 Marks; CO 4; BTL 3)

Q4 A metropolitan city launches the "GreenLife 2030" mission. It includes open public gardens, real-time air-quality boards, and low-fare eco-buses. However, local stone-cutting workshops continue releasing dust, damaging houses and impacting residents' health.

- a) Using this scenario, explain why the gardens and air-quality boards behave like public goods.
b) Identify and analyse the externalities present and explain how they cause market inefficiency. (10 Marks; CO 3; BTL 5)

Q5 Graphically explain how a firm operating under perfect competition incurs losses and reaches a shutdown point (10 Marks; CO 1; BTL 3)

Q6 A firm BioExtract Industries owns the only patented technology for extracting a rare mineral. It faces the following cost and revenue structure:

$$P = 120 - 2Q$$
$$TC = 20Q + 100$$

- b) Find the profit-maximising output, price and profit.
c) Show the equilibrium diagrammatically. (10 Marks; CO 2; BTL 4)

Q7 In the telecom sector, SkyTel Networks notices a strange pattern: whenever it reduces its calling and data tariffs slightly, its top two competitors immediately match the cut. But when SkyTel raises prices, competitors do not follow. Despite cost changes over time, the overall market price remains largely stable.

Explain the relevant market behaviour model that fits this situation and illustrate with a clearly labelled diagram. (10 Marks; CO 3; BTL 4)

1st SEMESTER

EMBA

END TERM EXAMINATION

Nov-2025

COURSE CODE EMBA 105 COURSE TITLE FINANCIAL AND
COST ACCOUNTING

Time: 03:00 Hours

Max. Marks: 50

Note : Attempt any five questions.

All questions carry equal marks.

Assume suitable missing data, if any.

Raw Material	24,000
Finished Goods	16,000
Closing Stock	
Raw Material	20,000
Finished Goods	15,000
Purchase of Raw Material	80,000
Sales	2,00,000
Direct Wages	35,000
Factory Wages	2,000
Carriage Inward	2,000
Carriage Outward	1,000
Factory Expenses	4,000
Office Salaries	15,000
Office Expenses	12,000
Factory Rent	2,500
Depreciation Machinery	2,500

(b) A company producing a single product and sells it at Rs. 10 per unit.

Variable cost is Rs. 6 per unit and fixed cost is Rs. 40,000 per annum.
Calculate (a) Breakeven point, (b) Sales volume required to earn a profit of Rs. 60,000 per annum. [M 6+4][CO 4] [BTL 4,5]

Q-6 Explain how accounting concepts, conventions, and Accounting Standards together ensure reliability and comparability in financial reporting. In your answer, highlight the role of GAAP and briefly discuss how specific standards such as AS-2 (Inventory), AS-10 (Fixed Assets including depreciation), and AS-9 (Revenue Recognition) strengthen the quality of financial statements.

[M 10][CO 1,2] [BTL 3,4,5]

1st SEMESTER

EMBA

END TERM EXAMINATION

Nov-2025

COURSE CODE EMBA 105 COURSE TITLE FINANCIAL AND
COST ACCOUNTING

Time: 03:00 Hours

Max. Marks: 50

Note : Attempt any five questions.

All questions carry equal marks.

Assume suitable missing data, if any.

Q.1 (a) Company, Star Electronics Ltd., is facing temporary losses due to a market slowdown. However, it continues to prepare its financial statements assuming that it will keep operating for the foreseeable future. While valuing its inventory, the company reduced the value to market price because market price was lower than cost.

Questions:

- Which accounting concepts/conventions are applied here?
- Why is inventory valued at market price instead of cost?
- "In business accounting, some expenses provide benefits over multiple years, whereas others relate only to the current period. Explain this distinction with examples." [M 5+5] [CO 1] [BTL 3,4]

Q.2 (a) Trendy Footwear Ltd. has been using the straight-line method of depreciation for several years. This year, the accountant suggests switching to the written-down value method to reduce taxable profit. The auditor objects, saying that revenues and expenses should be matched properly.

Questions:

- Which accounting concept is violated if the company changes its depreciation method without valid reason?
- How does the matching concept apply when calculating depreciation?

- (b) "Financial statements serve multiple objectives and cater to diverse parties. Analyse how these objectives guide the preparation of financial statements and how different users interpret the information." [M 5+5][CO2] [BTL 4,5]

Q.3 (a) From the following information prepares the balance sheet of Nature Ltd. as per the schedule III of Companies Act 2013:

	Amount
Inventories	14,00,000
Equity share capital	20,00,000
Plant and machinery	10,00,000
Preference share capital	12,00,000
Debtenture redemption reserve	6,00,000
Outstanding expenses	3,00,000
Proposed dividend	5,00,000
Land and building	20,00,000
Current investments	8,00,000
Cash Equivalent	10,00,000
Short term loan received	4,00,000
Public deposit	12,00,000

- (b) "A company reports that some of its costs change with output, some remain unchanged, and some change partly. Explain this observation." [M 5+5][CO][BTL#]

Q.4 (a) Classify, the following transactions as belonging to operating, Investing or Financing Activities as per AS-3 Cash flow statement:

- Cash sale of goods
- Cash purchase of goods
- Rent received
- Sale of fixed assets
- Income tax paid
- Cash received from debtors

- (b) (i) The details relate to the company's financial statements. Consider only the appropriate items of debt and equity while computing the ratio, and briefly comment on the financial position of the company based on your result.

	7Amount
Cash sales	40,00,000
Credit sales	20,00,000
Cost of goods sold	35,00,000
Other current assets	8,00,000
Current liabilities	4,00,000
6% Debentures	3,00,000
Loan from bank	7,00,000
General reserve	3,00,000
Closing stock	1,00,000
Paid up share capital	17,00,000

- (ii) From the following information compute Current ratio, Gross profit ratio, Net profit ratio, and briefly comment on the financial position of the company based on your result.

Particulars	Amount	Particulars	Amount
Stock	50,000	Creditors	60,000
Debtors	40,000	Bills payable	40,000
Bills receivable	10,000	Bank overdraft	4,000
Advances paid	4,000	Sales (Net)	7,00,000
Cash in hand	30,000	Gross profit	50,000
		Net profit	30,000

[M 3+3+4] [CO 4][BTL 3,4,5]

Q.5 (a) From the following information prepare a statement showing (i) Prime cost (ii) Work cost (iii) Cost of production (iv) Cost of sales of Bird Ltd. Which produced and sold 1000 units in June 2024

Opening Stock

Total no. of Pages: 03

Roll no.....

EMBA

Semester Examination

December-2025

COURSE CODE EMBA 107

COURSE TITLE: MARKETING MANAGEMENT

Time: 3:00 Hours

Max. Marks: 50

Note : Attempt any Five questions.
Assume suitable missing data, if any.

Q.1 Tata Group, a 150 years old conglomerate launched *Tata Neu* a super app in April 2022. A super app is a unified mobile application and offers a wide range of services under one app only. The customers can make seamless integration of various digital functions like payments, e-commerce, messaging etc. under one tool. We-Chat from China, is considered as first super app which is close to the concept of the idea of a true super app. The concept has gained lot of tractions globally. The apps like Gojek and Grab became very popular in Southeast Asia. In India, the apps like Justdial, Paytm, Flipkart, Amazon, Reliance's Jio, and now Meta's WhatsApp are attempting to bring their platforms close to the concept of a super app. The Reliance Jio off late is trying to establish itself as a serious player in this domain with significant investment in technology, services and customer experience. Despite a strong support from Tata Group, the app is unable to differentiate itself and struggling with low usage rate, adoption and engagement. Tata Neu's launch coincided with the 2022 IPL, of which Tata was the title sponsor, giving the app a huge interest initially. It was supported with heavy marketing expenditure in terms of high decibel campaign and allured customers to enjoy the benefits of a unified app. All this fueled a high early adoption surge but a gradual decline in terms of download, active users and sustaining user interest. To the extent that the monthly active users were down to almost 20 percent YoY in the initial months of 2025. Another study observed that approximately 86 percent customers who have downloaded, did not use Tata Neu app. The app is struggling to convert downloads into

active users and unable to create a differentiation from variety of niche and other apps available in the market.

Design a suitable segmentation, targeting and positioning strategy for Tata Neu to restore user trust, accelerate growth, gain a greater market presence, and realize better user adoption and engagement. [10][CO 2,3][BTL#4]

Q.2 Air pollution has become a persistent problem in Indian cities especially during winter season. A significant number of customer could not buy the existing air purifier brands just because of high pricing and after sale maintenance of the the products despite air being in severe category. Ravi Kaushik, a Delhi-based aerosol scientist, has launched Airth Research Private Limited a startup that turns air conditioners into affordable air purifiers. Kaushik has studied aerosol science and collaborated with experts from IIT Bombay, IIT Kanpur, IISc Bangalore, and other national labs to make clean air affordable for everyone, The company launched its first AC air purifier, FiltrIX in 2023. The brand comes as a simple attachment, converting any air conditioner—split, window, or commercial—into a high-efficiency purifier which can be conveniently integrated with any existing AC. FiltrIX works on an efficient three-layer filter technology. The device also helps solve the technical air conditioning issue of pressure drop, when airflow slows down due to dense filters, reducing both cooling and air purification efficiency. The start up is following very aggressive pricing strategy. The brand costs around Rs 2,500, while replacement filters (needed every 8–12 months) are priced at Rs 1,200. The start up emphasizes on affordability and ease. The product don't require any service. The users can install and replace it themselves.

You are assigned with the responsibility to design the distribution channel strategy for the brand. Provide a list of channels which you feel the company may use to maximize its availability considering the nature, cost, price and competition in the market. [10][CO 2,3][BTL#6]

Q.3 Differentiate between paid, owned and earned media? Can any channel be part of all the three types of media? Develop a suitable canvass of earned media which you would suggest to sell a low cost trolly bag brand positioned

as a low frill low price category with a budget of around 2 crores for a month long campaign. [10][CO 2,3][BTL#5]

Q.4 How does distribution strategy provide a long term sustainable competitive advantage to a firm? Support your answer by taking two-three example from Indian FMCG category. [10][CO3][BTL#3]

Q.5 Differentiate between predatory and bait and switch pricing. Identify any marketer which you feel has used the predatory pricing in recent years. [10][CO1,2][BTL#2]

Q.6 Write short note on the following:
A. Customer engagement [5][CO1][BTL#1]
B. Marketing environment scanning [5][CO1][BTL#2]

Total no. of Pages: 02

493

Roll no.....

I SEMESTER

MBA (Executive) END TERM EXAMINATION

Nov-2025

EMBA- 109

Perspectives in Business Law

Time: 3:00 Hours

Max. Marks: 50 Marks

NOTE: Attempt any five questions. All questions carry equal marks (10 marks each). Assume suitable missing data, if any.

Question 1: A agrees to supply 500 chairs to B for an event on 15th August. A sends only 300 chairs claiming a shortage of raw materials. B suffers loss as he has to rent chairs at a higher price. Under the Indian Contract Act, explain A's liability and whether B is entitled to claim compensation. What could be the other possible remedies under this act. (CO 3,4; BT 2,3)

Question 2. P buys a washing machine from a retailer who claims it is "brand new." After 10 days, the machine begins to leak. The retailer refuses repair, saying the manufacturer is responsible. Discuss the rights of P under the Sale of Goods Act, 1930, with reference to implied conditions and warranties. Also discuss the implied conditions with suitable examples. (CO 5; BT 4,5)

Question 3. A customer purchases a smart TV online that arrives damaged. The seller refuses replacement, stating the return period has expired. Identify the consumer's rights and the appropriate Consumer Commission for remedy under the Consumer Protection Act, 2019. Also, explain the redressal machinery under the Act. (CO1, 5; BT 3, 5)

Question 4. Three cable TV operators in a region secretly agree to charge the same high monthly fee, eliminating price competition. Customers start complaining about unfair practices. Explain whether this conduct violates provisions of the Competition Act, 2002, and identify the type of anti-competitive practice involved. Discuss the type of Vertical and Horizontal agreements with examples. (CO1, 2; BT 1, 4)

494

Question 5. A group of promoters decide to start a new company. They prepare the Memorandum of Association, appoint the first directors, file all the required documents with the Registrar, and receive the Certificate of Incorporation. However, before issuing the company's first set of financial statements to shareholders, the promoters start raising funds from the public and entering into major contracts. Some shareholders allege that the promoters have ignored an essential step required during the formation and commencement of a company under the Companies Act, 2013. Based on the Companies Act, 2013, discuss whether the promoters' actions are valid and identify which essential requirement of company formation or commencement of business has been violated. (CO1, 2,3; BT 4, 5)

Question 6. Answer both cases briefly. (5 marks each) (CO 1,2,3; BT2, BT3)

A) A agrees to sell his old car to B for ₹1,50,000. B pays an advance of ₹20,000 as part of the agreed consideration. Later, A receives a higher offer from another buyer and refuses to complete the sale unless B pays more money. Based on the concept of valid consideration under the Indian Contract Act, 1872, discuss whether A's demand for additional money is enforceable and what rights B has in this situation.

B) M sells 50 office chairs to N. N takes delivery of 20 chairs but fails to pay for them and refuses to collect the remaining chairs. M still holds possession of 30 chairs for which payment is due. Under the Sale of Goods Act, 1930, explain the rights of an unpaid seller available to M in this situation.

Total No. of Pages: 03

Roll No.

FIRST SEMESTER

MBA (E)

END SEMESTER EXAMINATION

NOV/DEC-2025

EMBA-111 DECISION SCIENCES

Time: 3:00 Hours

Max. Marks: 50

Note: Question 1 is compulsory. Do any 4 out of remaining 5 Questions. Use of calculators is allowed. Assume suitable missing data, if any.

Q1. [i] The arithmetic mean and variance of series of 10 items were calculated as 30 and 5 cm. But while calculating 10 and 5 was misread as 20 and 10, find correct mean and variance.

[ii] By investing in a particular stock, a person can make a profit of Rs. 5000 with probability of 0.4 or take a loss of Rs. 2000 with probability 0.6. What is the person's expected gain/loss? **[Show calculations]**

[iii] A cricket team A has to play with two matches against competing teams – one each with team B and team C. The probability that team A wins the match against team B is 0.55. Further, if the team A wins the match against team B, then there is 0.80 probability that the team A will also win the match against team C. What is the probability that team A wins both the matches?

[iv] What is the range of values which a random variable X can take if its probability distribution is:

(a) Binomial (number of trials = n) (b) Poisson (c) Normal (d) Chi Square (e) F

[2.5*4=10] [CO2] [BTL 4]

Q2. [i] One of the products of a company's products is a gas cylinder used in welding. The amount of nitrogen gas in a cylinder is a normally distributed random variable with mean 130 units of volume and standard deviation 10. Find the amount of nitrogen X such that 15% of the cylinders contain more nitrogen than this amount. **[Draw rough sketch as part of the solution]**

[ii] A nutritionist selected a random sample of $n = 50$ male adults. It was found that the average daily intake of carbohydrate rich products was $\bar{x} = 850$ grams per day with a standard deviation of 40 grams per day which can be taken as population standard deviation. Based on the given data, Develop a 95% confidence interval for the mean daily intake of carbohydrate rich products for men.

[5*2=10] [CO4] [BTL 4]

Q3. Decision Sciences subject is being taught by the same faculty to students of MBA, MBA(Business Analytics) and MTech (Biotechnology) students. The following data are Quiz marks (out of 10) of some randomly selected students of these three different programmes. Formulate the suitable Null and Alternate Hypothesis and test whether there is a significant difference in the performance (based on marks obtained) of students according to programme. Assume level of significance as 5%. [Given: Tabulated value of $F_{2,150,0.05}=3.682$ and $F_{3,180,0.05}=3.160$]

MBA	MBA (BA)	BBA
6	7	4
6	8	5
7	7	4
6	9	6
8	8	3
7	9	7

[10] [CO3] [BTL 5]

Q4. The following table shows time (in minutes) spent on social media after 11 PM every day and marks (out of 100) in Decision Sciences in respect of 5 students.

Student	1	2	3	4	5
Social Media	40	65	60	70	55
Marks	70	58	50	55	75

[i] Develop a scatter chart. What does the scatter chart indicate about the relationship between the time spent on Social Media and Marks?

[ii] Identify dependent and independent variables and fit simple linear regression equation using the above data. Estimate the score of a student in Decision Sciences who daily spends 45 minutes on social media after 11 PM. Write the steps and calculations involved.

[10] [CO3] [BTL 4]

Q5. [i] A cement manufacturer has three plants. The daily cement production at each plant is as follows:

Plant 1 (P_1): 6 MT; Plant 2 (P_2): 1 MT; and Plant 3 (P_3): 10 MT Each day, the firm must fulfill the needs of its four distribution centres (DC). Minimum requirements at the centres are:

DC_1 : 7 MT; DC_2 : 5 MT; DC_3 : 3 MT; DC_4 : 2 MT. Cost in hundreds of rupees of shipping one MT cement from each plant to each distribution centre is given in the following table:

	Distribution Centres			
	DC_1	DC_2	DC_3	DC_4
P_1	2	3	11	7
P_2	1	0	6	1
P_3	5	8	15	9

Find the initial basic feasible solution using North-West Corner Rule, least cost method or Vogel's approximation method.

[ii] A project manager has four team members and four tasks to be performed. The team members (TM) differ in efficiency and the tasks differ in complexity. The manager has estimated the times required by each team member to perform each task which are shown in the following matrix:

	Tasks			
	I	II	III	IV
TM_1	8	26	17	11
TM_2	13	28	4	26
TM_3	38	19	18	15
TM_4	19	26	24	10

How should the tasks be allotted to team members so as to minimize the total man-hours.

Q6. Write short notes on any two:

[5*2=10] [CO4] [BTL 3]

[i] Steps of Hypothesis Testing, Type I and Type II errors

[ii] Chi Square Test of independence of attributes

[iii] Linear programming Problem

[iv] Central Limit Theorem and its significance [5*2=10] [CO1,CO2] [BTL 1]

Total No. of Pages ____

EMBA

497

____ 1st ____ SEMESTER

END SEMESTER EXAMINATION

Nov/Dec-2025

PAPER CODE: EMBA113

TITLE OF PAPER: MANAGERIAL SKILL DEVELOPMENT

Time: 2:00 Hours

Max. Marks : 40

Note : Attempt any 5 questions.
All questions carry equal marks.

Q.1 You have recently been appointed as the Operations Manager of a fast-growing food delivery company. The business is expanding into three new cities within six months. Explain which managerial roles you will perform most frequently during this expansion. (Write any 4)

[8M][CO1,2][BTL1,2,3]

Q.2 The essential management skills can be broken down into different levels that might help a manager identify which skills to focus on now, and what you'll need to develop to become a more effective and inspiring leader. In the light of the above statement, discuss the breakdown of essential management skills in detail.

[8M][CO1,2,4][BTL4,5]

Q.3 'Not all managers are leaders.' Using this statement as a foundation, critically examine the differences between management and leadership in an organisational context. Illustrate your answer with practical workplace examples showing situations where a manager performs administrative duties without demonstrating leadership, and situations where leadership goes beyond formal managerial authority.

[8M][CO1,2,4][BTL4,5]

Q.4 A mid-sized electronics distributor is negotiating a supply contract with a new component manufacturer. The distributor wants lower prices and faster delivery timelines, while the manufacturer wants a long-term contract and higher minimum order quantities. As the procurement manager of the distributor, outline how you would negotiate using the five-step negotiation process.

[8M][CO1,2,4][BTL4,5,6]

Q.5 A project team is under pressure to meet a tight deadline. One team member becomes frustrated during a meeting, raises his voice, and blames others for the delays. The rest of the team becomes defensive, and the discussion breaks down. As the team leader, describe how you would use Emotional Intelligence to handle this situation effectively and get the team back on track.

[8M][CO1,2][BTL5,6]

Q.6 Write a short note on:

- (a) The ladder of inference
- (b) McKinsey's Pyramid Principle

[8M][CO1,2][BTL1,2,3]

organizational learning? Discuss the relationship between these strategic concepts in the context of Western versus Japanese corporate strategies.

[5][CO1,CO2] [BTL2]

Q.6 (a) Given below are few trends emerging in different sectors of macro environment in India. Describe their strategic implications (in terms of opportunities/ threats) for the stated businesses:

- i. Rising interest rates- for banks and financial companies.
- ii. Growing internet connections in India- for financial services.
- iii. Increasing environmental concerns- for plastic industry.
- iv. Depreciating exchange rates- for Jewelry industry.

[4][CO1] [BTL4]

Q.6(b) A new electric two-wheeler startup, VoltRide Mobility, is preparing to enter the Indian EV market. As the strategy consultant, conduct a macro-environmental analysis to identify the key external factors that could influence the firm's entry and long-term growth. Further, analyse the competitive forces shaping the EV industry using. Based on your analysis, explain how these external and industry factors will affect VoltRide's profitability and strategic positioning in the coming years.

[6][CO1] [BTL6]

END

Total no. of pages: 4

THIRD SEMESTER

Roll no.....

EMBA

END TERM EXAMINATION
EMBA301: STRATEGIC MANAGEMENT

Nov./Dec.-2025

Time: 3:00 hours

Max Marks: 50

Note: Attempt any five (5) questions
All questions carry equal marks

Q.1 (a) You are the strategy head of an Indian startup manufacturing plant-based protein beverages. Over the past five years, the company has built a strong domestic presence and now plans to internationalize. Using the Uppsala Internationalization Model, outline the sequence of countries you would enter. Additionally, identify two real-world scenarios where following the Uppsala model may not be appropriate, and explain the exceptions that could lead a firm to "jump stages" or internationalize rapidly.

[5][CO5][BTL3,5]

Q.1 (b) Identify the type of defensive tactic in the following situations:

- i. Before Nykaa launches its own shampoo line, L'Oréal releases teasers of a new premium haircare product, signalling competition and discouraging Nykaa from aggressive expansion.
- ii. Big Bazaar, after financial issues, shuts down underperforming stores and focuses its resources only on metros and profitable cluster markets to prevent further market erosion.
- iii. Amul maintains its dominance in the butter category by strengthening brand communication ("India's Taste Since 1946"), increasing availability, and ensuring consistent low pricing to make entry difficult for rivals.
- iv. To protect its leadership in online payments, Paytm expands into insurance, credit cards, UPI Lite, and wealth management, thereby broadening its domain before Google Pay and PhonePe grow further.

v. Before a new entrant launches an affordable smart TV brand in India, Samsung floods the market with heavy promotions, extended warranties, and limited-time discounts on its mid-range models to discourage customer switching. [5] [CO4] [BTL4]

Q.2 (a) You are the international expansion head of an Indian company that manufactures smart home devices such as smart speakers, home-security cameras, and IoT-based lighting systems. The firm has a strong presence in India and now plans to enter new global markets. Using the CAGE Framework, rank the following countries in terms of ease of expansion for your smart home devices: UAE, France, Indonesia, and Canada. Provide suitable reasons for your ranking. [5] [CO5] [BTL3]

Q.2 (b) Stihl is the world's leading manufacturer and marketer of chain saws with annual sales exceeding \$2 billion. With innovations, the company holds over 1,000 patents related to chain saws and outdoor power tools. The company's products are sold at price points well above competing brands and are sold only by its network of 8,000 independent dealers. How would you characterize Stihl's business level competitive strategy? Explain your answer by giving advantages. [5] [CO3] [BTL3,5]

Q.3 Identify, with suitable reasons, the type of *corporate-level strategy* followed in the following recent business situations:

i. *Swiggy* launched "Swiggy Chef's Table," where it prepares its own curated meal bowls in cloud kitchens, expanding beyond delivery into its own branded food line.

ii. *Tata Consumer Products* acquired *Yogabar*, a rapidly growing health-food brand, to strengthen its portfolio in the nutrition and wellness category.

iii. *Micromax*, after losing significant market share in the low-budget smartphone segment, continues selling old models only to clear inventory while discontinuing new investments in this line.

iv. *Hyundai Motors India* postponed the launch of its upcoming electric SUV after recent EV accidents and pending safety guidelines, opting to first conduct additional battery tests and compliance checks.

v. *Briannia* reduces investment in its bread division after consistent decline in margins. [10] [CO3, CO4] [BTL3,5]

Q.4 "Good strategy execution requires a team effort. All managers have strategy executing responsibility in their areas of authority and all employees are active participants in the strategy execution process." In the light of the above, discuss in brief, various measures which management should take to execute strategy effectively. [10] [CO2] [BTL1,2]

Q.5 (a) *EduTech Global*, an international online learning platform, has been experiencing declining enrollments in its traditional recorded courses due to growing competition from interactive platforms offering live classes and the rising popularity of AI-driven personalized learning tools. The management is evaluating strategic options such as expanding into AI-based adaptive learning, partnering with universities to offer accredited degrees, and launching a premium subscription model with career services. What specific scenarios might the company consider, and how could these scenarios influence its strategic decision-making? How can the company apply the concept of *scenario planning* in this context? [5] [CO1, CO2] [BTL5]

Q.5(b) *Hamel and Prahalad* suggest that "Western companies often limit their strategic ambitions to fit available resources, seeking only sustainable advantages, whereas Japanese firms stretch their resources, foster rapid organizational learning, and pursue ambitious, seemingly unattainable goals." How do these strategic approaches reflect differing perspectives on resource utilization, competitive advantage, and

restructuring: Argentina's IMF debt was refinanced into longer-term Extended Fund Facility (EFF) repayments totalling US\$44 billion, Inflation: Although the IMF projected inflation to moderate to 140% by end-2024, real stabilization was elusive due to devaluation cycles, Exchange rate stability: Persistent volatility led to tensions between the Central Bank and IMF over maintaining a crawling exchange rate band, Social impact: Poverty rates remained above 40%, and inequality widened despite social spending floors.

Nonetheless, some progress was seen in export competitiveness, improved fiscal discipline, and renewed confidence in institutional reform processes by mid-2025.

Based on above Case Answer following Questions:

1. Why did the 2018 IMF Stand-By Arrangement fail to restore economic stability in Argentina despite significant financial support? (2.5) (CO2) (BTL5)
2. How can IMF conditionality be redesigned to ensure macroeconomic discipline without exacerbating poverty? (2.5) (CO2) (BTL5)
3. What role did domestic politics and policy credibility play in program implementation? (2.5) (CO2) (BTL5)
4. Should the IMF have insisted on debt restructuring at the program's inception in 2018? (2.5) (CO2) (BTL5)

Total no. of Pages: 04

Roll no.

III Semester

EMBA

END TERM EXAMINATION NOVEMBER -2025

EMBA 302- International Business

Max. Marks 50

Time: 3 Hours

Note: Answer any five questions out of seven questions, give relevant answers. Detail of Marks of parts of each question is written at the end of the question. All questions carry equal marks.

Q1. Pick a foreign country of your choice and analyze any five of Physical, Demographic, Economic, Socio-cultural, Political, Legal and Technological Environment of the Country. (10) (CO2) (BTL5)

Q2. a) The European Union enforces stringent carbon-border adjustment mechanisms. Discuss how such environmental trade regulations test the balance between trade liberalization and sustainable development. (5) (CO1) (BTL5)

b) A developing country faces large-scale tax avoidance by digital MNCs through transfer pricing. What regulatory and tax strategies can a developing country employ without deterring future investment? (5) (CO1) (BTL5)

Q3. Infosys, a leading Indian IT company, collaborated with Microsoft Corporation for cloud computing and AI-based enterprise solutions. Microsoft transferred software development tools, cloud infrastructure, and technical training through joint development programs.

This vertical and international technology transfer strengthened India's capability in advanced digital solutions and enhanced its IT export competitiveness.

Answer Questions based on above Case-let:

1. How did this partnership help Infosys expand globally? (2.5) (CO2) (BTL5)
2. In what ways does technology transfer drive innovation in the IT industry? (2.5) (CO2) (BTL5)
3. What challenges exist in transferring digital technologies between companies and countries? (2.5) (CO2) (BTL5)
4. How can Indian IT firms use such collaborations for future readiness? (2.5) (CO2) (BTL5)

Q4. Global Tech Inc., a U.S.-based electronics manufacturer, plans to set up a production unit in Vietnam. The company estimates a \$400 million investment and is considering two entry modes: a 100% greenfield subsidiary or a joint venture with a local firm. Recent policy reforms in Vietnam have eased FDI regulations, but political tensions in the region have raised risk perceptions.

Following information is available:

Factor	Vietnam	Indonesia	Thailand
Corporate tax rate	20%	22%	21%
FDI inflows (2024, USD bn)	17.3	27.1	23.2
Ease of Doing Business score	69	67	75
Average labour cost (USD/hr)	2.3	2.6	3.1

Based on above case answer following questions:

1. Evaluate the relative attractiveness of Vietnam compared to Indonesia and Thailand using the data above.
 2. Recommend whether Global Tech should opt for a greenfield investment or a joint venture. Justify with strategic and financial reasoning. (2) (CO1) (BTL4)
 3. Assess how regional political instability, and policy reforms of eased FDI regulations, could influence FDI risk and cost of capital in case of investment in Vietnam. (3.5) (CO1) (BTL5)
 4. What do you understand about "Ease of Doing Business Score"? (3.5) (CO1) (BTL5)
- Q5. International Economic Institutions play important role in growth of World Economy. What has been central role of IMF, World Bank, UNCTAD, and WTO? What are contemporary fields in which these organizations are working? (7+3) (CO3) (BTL4)

Q6. There are two forms of International Economic Cooperation, Multilateralism and Regionalism. What are broadly objectives of Multilateral Organization, and Regional Organization? Also support the answer with one example of each. Critically analyze whether they also play complementary and supplementary roles. (6+4) (CO4) (BTL 4+BTL5)

Q7. In June 2018, Argentina negotiated a Stand-By Arrangement (SBA) with the International Monetary Fund worth US\$57 billion, the largest loan in IMF history. The program aimed to restore market confidence, reduce inflation, and stabilize the exchange rate after a wave of capital flight and currency depreciation. The main IMF conditionalities included:

Achieving a primary fiscal balance by 2019, Ending monetary financing of the budget deficit, switching to a floating exchange rate regime, Strengthening the independence of the Central Bank (BCRA), and protecting social spending to shield vulnerable groups from austerity.

However, despite renewed IMF support and policy recalibration in October 2018, macroeconomic shocks — including global volatility, drought, and political uncertainty — undermined the stabilization plan. Inflation soared above 100% by 2023, real wages collapsed, and public discontent intensified.

Reform Measures and Conditionality Evolution

By 2022, Argentina transitioned to a 30-month Extended Fund Facility (EFF) to refinance outstanding Stand-By Arrangement (SBA) obligations. This program emphasized:

Gradual fiscal adjustment through expenditure control and tax reform, rebuilding foreign exchange reserves by limiting central bank intervention, Structural reforms in energy subsidies, public employment, and agricultural exports, and Debt competitiveness actions centered on restoring primary surpluses and improving competitiveness.

However, compliance remained mixed. Delays in passing fiscal and labour reforms led to repeated target breaches and renegotiations with the IMF. Social protests rose as declining real wages and subsidy cuts hit middle- and low-income households hardest. Outcomes by 2025

Total No. of Pages:- 2

583
I - SEMESTER
MBA

Roll no.....

END EXAMINATION

NOV-2025

COURSE CODE: EMBA-303

COURSE TITLE: Information
Technology Management

Max. Marks: 50

Time: 03:00Hours

Note: Attempt any five.
All questions carry equal marks.
Assume suitable missing data, if any.

Question 1

- a) Define Information Systems. Explain its major components with examples. [5][CO2][L1]
- b) Differentiate between TPS, MIS, DSS and ESS with examples. [5][CO1][L2]

Question 2

- a) Explain the phases of the System Development Life Cycle (SDLC) with a neat diagram. [5][CO3][L5]

- b) Write the basic SQL Queries for :

- INSERT a new employee record.
- UPDATE employee salary.
- DELETE an employee record.
- Find name of employee start with 'A' and ends with 'T'.
- Write the Query to find EmpName whose name starts Between A to D.

[5][CO4][L3]

EmpID	EmpName	EmpDeptt	EmpSalary
6789	Alisha	IT	85000
3452	Anand	Mech.	45000
7657	Tarun	CSE	63400
0987	Amit	MBA	50000
7444	Arpit	Civil	78000
8990	Jaideep	CSE	98000

Question 3

a) Explain E-Commerce models: B2B, B2C, C2C and C2B with examples.

524

[5][C32][L2]

b) Describe the concept of E-Governance. Explain G2C, G2B, G2E, and G2G models.

[5][CO3][L4]

Question 4

a) What is Business Process Re-Engineering (BPR)? Explain the role of IT in BPR with examples.

[5][CO2][L6]

b) Explain Website Management. Differentiate between Front-End and Back-End development with examples.

[5][CO1][L5]

Question 5

a) Explain the following terms :-

[5][CO5][L3]

1.) Protocols of the Application layers

2.) ORDERBY Clause in SQL.

b) What is Computer Network? Explain different types of Topologies with examples.

[5][CO4][L5]

Question 6

a) Explain different types of Enterprise Resource Planning Systems. What are the challenges involved in implementing the ERP System.

[5][CO4][L2]

b) Explain the layers of OSI Model with their functions.

[5][CO3][L1]

4522
Total no. of Pages:02

Roll no.....

FIRST SEMESTER

MBA

END TERM EXAMINATION

November-2025

COURSE CODE: MBA 101

COURSE TITLE: Management Process and
Organisational behaviour

Time: 03:00 Hours

Max. Marks: 50

Note : ATTEMPT ANY FIVE QUESTIONS

All questions carry equal marks.

Assume suitable missing data, if any.

Q1. Discuss in detail the Ego States and types of Transactions in the Transactional Analysis. [10 Marks] [CO 1 BTL 2]

Q2. A new employee is struggling to adapt to the organization's workflow. Using any learning theory (Classical Conditioning / Operant Conditioning / Social Learning), explain how the manager can help the employee learn appropriate behavior. [10 Marks] [CO 2 BTL 3]

Q3. An organization plans to introduce a new digital reporting system. Employees show resistance. Explain how Lewin's Change Model can be applied to reduce resistance and make the transition smoother. [10 Marks] [CO 3 BTL 3]

Q4. A manager gives low ratings to an employee because of one recent mistake, ignoring their past good performance. Identify the perceptual error and explain how managers can avoid such biases. [10 Marks] [CO 1 BTL 4]

2 523

Q5. A project team is failing to meet deadlines because members are unclear about their roles. Explain how understanding group norms and roles can improve the team's effectiveness.

[10 Marks] [CO 4 BT1 3]

• April 15: Paid ₹15,000 to Ramesh & Co.

• April 20: Paid salary to staff ₹5,000

• April 25: Withdrew ₹3,000 from bank for personal use

a) Prepare Journal Entries for the above transactions.

b) Ledger Accounts for relevant accounts

c) Trial Balance as on 30th April 2025.

d) List down any two adjustment entries that are usually done at the end of the accounting period.

[3+3+3+1M] [CO 2,3: BTL1,3,4,5]

Q6) Dreamz Ltd. provides the following cost details for a small production batch:

Particulars	Amount (₹)
Wood used for making tables	15,000
Wages paid to carpenters	8,000
Nails, glue, and polish used	1,000
Carriage expenses on raw material	2,000
Factory rent	5,000
Salary of factory supervisor	3,000
Electricity bill	2,000
Advertisement expenses	5,000
Depreciation expenses	6,000
Primary packing material expenses	5,000

a) What are the objectives of cost accounting? Explain and Distinguish between Direct and Indirect Cost, Fixed, Variable and Semi-Variable cost?

b) Classify each item of the above table (with explanation) as: Direct or Indirect; Fixed, Variable or Semi- Variable and calculate the Total: Direct Costs, Indirect Costs, Fixed Costs, Variable Costs and Semi Variable costs from the above table.

c) Explain how cost classification can be developed to be relevant to the circumstances of planning, decision making and control?

[4+4+2 M] [CO 1,2,3: BTL1,3,4,5]

XXXXX

Total no. of Pages: 04

MBA Sem I

END TERM EXAMINATION

MBA-105: Financial and Cost accounting

Time: 03:00 Hours

Max. Marks: 50

Note: Case study is compulsory, attempt any 4 questions from the remaining five. All questions carry equal marks. Assume suitable missing data, if any.

Case study (Compulsory)

Q1. You have been hired as a consultant for a Bank and your team is working on an independent assessment of Alta mfg. ltd. for granting loan. This firm specializes in the production of ready-made garments. Your assistant has provided you with the following data for Alta mfg. Ltd. and the bank has asked you to evaluate the Liquidity, Profitability, and Solvency ratio of the company. Calculate any two relevant ratios in each of the mentioned group (i.e. liquidity, Profitability and Solvency), compare with previous year and give your suggestions to the Bank manager based on your calculation.

Balance Sheet Particulars		2024	2025
Asset			
Cash		20,000	45,000
Accounts Receivable		25,000	35,000
Inventory		32,000	60,000
Total Current Assets		77,000	1,40,000
Plant and equipment		50,000	74,000
Accumulated Depreciation		-15,000	-22,000
Land		50,000	60,000
Total		1,62,000	2,52,000
Liabilities and Equity			
Accounts Payables		18,000	33,000
Short Term Payable		10,000	7,000
Total Current liabilities		28,000	40,000
Term Loan		0	42,000
Equity Share capital		100,000	100,000
Retained Earning		34,000	70,000
Total		162,000	2,52,000

Income Statement particulars		2024	2025
Revenue		160,000	220,000
COGS		(110,000)	(150,000)
Gross Profit		50,000	70,000
Other expenses:			
Administrative salaries	15,000	17,000	
Depreciation	9,000	7,000	
Other operating expenses	7,000	3,000	
Income from operations		(31,000)	(27,000)
Interest expenses		19,000	43,000
Income before tax		(800)	(1,800)
Income tax		18,200	41,200
Net Income		(5,000)	(10,000)
		13,200	31,200

[3+3+3+1 M] [CO 2, 3#BTL 3,4,5]

Q2) a. Why do companies charge Depreciation? What is the difference between Depreciation and Amortization? Also distinguish between Straight line method and written down value of calculating depreciation. ABC Ltd. has acquired a land to construct a plant for manufacturing of goods along with following Items:

- o Building for rental purpose
- o Truck for transportation of goods
- o Laptops for employees
- o SAP software for maintaining records
- o Furniture for Office administration

Identify whether above items are PPE or not as per Ind-AS 16?

b. Calculate amount of annual depreciation and rate of depreciation under straight line method (SLM) from following information, ABC Ltd. purchased a secondhand machinery for 1,96,000, spent 24,000 on its carriage, repairs and installation, estimated useful life of machine is 5 years. Estimated residual (scrap) value is Rs. 52,000.

[5*2] [CO1,2#BTL 2,3,4]

Q3) a. What is a cash flow statement? Explain the importance of Cash flow statement for the user of financial statements. Also classify the following transactions as belonging to operating, investing or financing activities, while preparing a cash flow statement.

Cash sale of goods	Sale of fixed assets
Rent received	Income tax paid
Cash purchase of goods	Loss on sale of machinery
Cash received from debtors	Purchase of land and building
Issue of equity shares	Repayment of bank loan

b. What is the primary purpose of IFRS? How does the adoption of IFRS impact a company's financial statements. If IFRS were already available globally, what necessitated the introduction of Ind AS in India?

[5*2] [CO1,2#BTL 2,3]

Q4) A company uses the FIFO method for valuing inventory. The following transactions relate to Product X during January 2025:

Purchases:

- Jan 2: Purchased 500 units @ ₹20 each
- Jan 8: Purchased 300 units @ ₹22 each
- Jan 15: Purchased 400 units @ ₹25 each
- Jan 22: Purchased 350 units @ ₹24 each
- Jan 28: Purchased 250 units @ ₹26 each

Issues

- Jan 5: Issued 400 units
- Jan 12: Issued 350 units
- Jan 18: Issued 300 units
- Jan 25: Issued 200 units
- Jan 30: Issued 250 units

The Net Realizable Value (NRV) of the closing inventory at the end of January is ₹23 per unit. Prepare a Stores Ledger using the FIFO method. Determine the final value of closing inventory to be reported in the financial statements. Briefly explain which Accounting standard deals with Inventory valuation.

[10M] [CO 3,4: BTL 4,5]

Q5) Below are the transactions for April 2025 of XYZ Ltd. owned by Mr. Yagnesh:

- April 1: Commenced business with cash ₹1,00,000
- April 2: Deposited ₹40,000 into bank
- April 4: Purchased goods for cash ₹25,000
- April 6: Purchased goods on credit from Ramesh & Co. ₹30,000
- April 8: Sold goods for cash ₹20,000 (Cost ₹12,000)
- April 10: Paid rent ₹3,000
- April 12: Received ₹10,000 from a debtor

Q6. Calculate any two liquidity ratios and two solvency ratios along with the necessary interpretation.

- Current Assets: 4,000
- Inventory: 1,200
- Accounts Receivable: 1,600
- Cash and Bank: 200
- Current Liabilities: 2,500
- Total Debt (Long-term + Short-term): 6,000
- Shareholders' Equity: 4,000
- Total Assets: 10,000
- Net Credit Sales: 12,000
- Cost of Goods Sold (COGS): 8,000
- Earnings Before Interest and Tax (EBIT): 1,200
- Interest Expenses: 150

(10 marks; CO 3; BTL 4)

Q7. Pass journal entries for the following business transactions and prepare ledger accounts.

1. The company acquires a machine worth ₹1,50,000 by paying ₹50,000 cash and the remaining on credit.
2. The business sells goods worth ₹20,000 on credit, and the customer agrees to pay within 30 days.
3. The company takes a loan of ₹5,00,000 from the bank and incurs ₹10,000 as processing fees, paid immediately in cash.
4. The business purchases office furniture worth ₹1,00,000, out of which ₹20,000 is paid in cash and the balance is on credit.
5. The company pays salaries amounting to ₹25,000, of which ₹15,000 is paid in cash and ₹10,000 via bank transfer. (10 marks; CO 1; BTL 4)

Total No. of Pages 4

Roll no.....

MBA

END TERM EXAMINATION

NOV-2025

MBA 105

Financial and Cost Accounting

Time: 3 Hours

Max. Marks: 50

Note: All questions are compulsory.
Use of calculator is allowed.
Attempt any five questions.
Assume suitable missing data, if any.

Q1. The following details relate to "ABC Ltd." for the month of September 2025:

- Opening stock of raw materials: ₹30,000
- Purchases of raw materials: ₹90,000
- Closing stock of raw materials: ₹20,000
- Direct wages: ₹50,000
- Direct expenses: ₹10,000
- Factory overheads: ₹25,000
- Opening work-in-progress: ₹7,000
- Closing work-in-progress: ₹5,000
- Office and administrative overheads: ₹15,000
- Selling and distribution overheads: ₹12,000
- Opening stock of finished goods: ₹10,000
- Closing stock of finished goods: ₹8,000

Calculate the following

- Prime Cost
- Works Cost (Factory Cost)
- Cost of Production
- Cost of Goods Sold
- Cost of Sales

(10 marks; CO 4; BTL 3)

Q2. Short note on the following

5526

- a. Users of accounting
b. Accrual Concept

(10 marks; CO 2; BTL 2)

Q3. Prepare the Cash flow statement of X ltd from the following information

Liabilities & Equity	1-1-2012 (₹)	31-12-2012 (₹)	Assets	1-1-2012 (₹)	31-12-2012 (₹)
Share Capital	2,00,000	2,00,000	Cash	8,000	10,000
Profit & Loss Account	50,000	90,000	Bank	22,000	20,000
Bank Loan	10,000	-	Debtors	10,000	20,000
Outstanding Expenses	5,000	1,000	Stock	25,000	15,000
Creditors	15,000	20,000	Non-current Asset	2,35,000	2,75,000
Provision for Tax	20,000	25,000			
Unclaimed Dividend	-	4,000			

Additional Information

Net profit for the year 2012 after providing Rs.20,000 as depreciation was

Rs.60,000. During 2012, company declared equity dividend @ 10% and paid

Rs. 15,000 as Income tax.

(10 marks; CO 3; BTL 3)

Q4. A company uses the LIFO method for valuing inventory. The following transactions relate to Product X during January 2025:

Purchases

- a. Jan 2: Purchased 500 units @ ₹20 each
b. Jan 8: Purchased 300 units @ ₹22 each

- c. Jan 15: Purchased 400 units @ ₹25 each
d. Jan 22: Purchased 350 units @ ₹24 each
e. Jan 28: Purchased 250 units @ ₹26 each

Issues

- a. Jan 5: Issued 400 units
b. Jan 12: Issued 350 units
c. Jan 18: Issued 300 units
d. Jan 25: Issued 200 units

Prepare a Stores Ledger using the LIFO method. Determine the final value of closing inventory to be reported in the financial statements.

(10 marks; CO 3; BTL 3)

Q5. The following figures pertain to DEF Ltd. for the years ended 31st March 2024 and 31st March 2025.

Particulars	2024	2025
Revenue from Operations	6,200	7,500
Other Income	150	200
Total Income	6,350	7,700
Cost of Goods Sold	3,900	4,700
Gross Profit	2,450	3,000
Operating Expenses	1,200	1,400
Operating Profit	1,250	1,600
Finance Cost	80	120
Depreciation and Amortisation	180	220
Profit before Tax	990	1,260
Tax Expense	300	380
Net Profit for the Year	690	880

Prepare a comparative income statement for DEF Ltd. (10 marks; CO 3; BTL 3)

Total no. of Pages: 02

Roll no.....

MBA

Semester Examination

December-2025

COURSE CODE MBA 107

COURSE TITLE MARKETING MANAGEMENT

Time: 3:00 Hours

Max. Marks: 50

Note : Attempt any Five questions.

Assume suitable missing data, if any.

Q.1 Tata Group, a 150 years old conglomerate launched *Tata Neu* a super app in April 2022. A super app provides seamless integration of various digital functions like payments, e-commerce, messaging etc. under one tool. We-Chat from China, is considered as first super app which is close to the concept of the idea of a true super app. The concept has gained lot of tractions globally. The apps like Gojek and Grab became very popular in Southeast Asia. In India, the apps like Justdial, Paytm, Flipkart, Amazon, Reliance's Jio. and now Meta's WhatsApp are attempting to bring their platforms close to the concept of a super app. The Reliance Jio off late is trying to establish itself as a serious player in this domain with significant investment in technology, services and customer experience.

Despite a strong support from Tata Group, the app is unable to differentiate itself and struggling with low usage rate, adoption and engagement. Tata Neu's launch coincided with the 2022 IPL, of which Tata was the title sponsor, giving the app a huge interest. It was supported with heavy marketing expenditure in terms of high decibel campaign and allured customers to enjoy the benefits of a unified app. All this fueled a high early adoption surge but a gradual decline in terms of downloads, active users and sustaining user interest. To the extent that the monthly active users were down to almost 20 percent YoY in the initial months of 2025. Another study observed that approximately 86 percent customers who have downloaded, did not use Tata Neu app. The app is struggling to convert downloads into active users and unable to create a differentiation from variety of niche and other apps available in the market.

Design a suitable repositioning strategy to restore user trust, acc growth, gain a greater market presence, and realize better user adoption engagement. [10][CO2,3][BTL

Q.2 "Future of segmentation will be the level where marketers are able tailor their marketing mix to meet the individual customer needs". Critically examine the statement giving suitable examples. [10][CO2][BTL#4]

Q.3 Differentiate between paid, owned and earned media? Can any channel be part of all the three types of media? Develop a suitable portfolio of earned media which you would suggest to sell a low cost airpurifier brand positioned as a low *frill low price* category with a budget of around 5 lacs for a six month long campaign. [10][CO3][BTL#4,5]

Q.4 How does efficient distribution strategy provide a long term sustainable competitive advantage to a firm? Support your answer by taking example: from Indian FMCG category and service sector each [10][CO3][BTL#3]

Q.5 Identify two three brands from different categories which are predominantly known for using penetration pricing strategy. What are the pros and cons of using such strategy? [10][CO3][BTL#3]

Q.6 Write short note on the following:

A. Customer Touch Points

B. Marketing Audit

[5][CO1][BTL#1]

[5][CO1][BTL#1]

528

8-529

Total no. of Pages: 02

Roll no.....

I SEMESTER

END TERM EXAMINATION

Dec-2025

MBA- 109

Legal Aspects of Business

Time: 3:00 Hours

Max. Marks: 50 Marks

NOTE: Attempt any five questions. All questions carry equal marks (10 marks each). Assume suitable missing data, if any.

Question 1: Answer both cases briefly. (5 marks each)

a) A promises to sell his bike to B for ₹40,000. Before delivery, A says he is no longer willing to sell the bike unless B pays an additional ₹10,000. B agrees under pressure and pays the extra amount. Based on the concept of valid consideration, discuss whether the additional ₹10,000 paid by B is enforceable under the Indian Contract Act, 1872. (CO 1,2,3; BT2, BT3)

b) X contracts with Y to deliver 100 bags of rice by 1st November. Before the due date, the warehouse storing X's rice is destroyed in a fire not caused by X's negligence, making delivery impossible. Explain whether the contract is discharged, and identify the mode of discharge applicable in this situation. (CO 2,3; BT2, BT3)

Question 2: R bought a refrigerator from a dealer. The dealer assured that it was new and in perfect working condition. After two days, it stopped working due to a manufacturing defect. The dealer refused to repair or replace it. Discuss R's rights under the Sale of Goods Act, 1930, focusing on the concept of conditions and warranties. Also, discuss the various implied conditions. (CO 2, 4; BT 1,4)

Question 3: A consumer files a complaint about a defective mobile phone costing ₹1,50,000. The seller denies the defect. The consumer now wants to seek legal remedy. Identify the appropriate Consumer Disputes Redressal

9530

Commission for filing the complaint and explain why this forum has jurisdiction. Also discuss in detail the redressal machinery. (CO 3,4; BT 2,3)

Question 4: A company calls an Annual General Meeting (AGM) with only 12 days' notice instead of the required legal notice period. Some shareholders claim that the meeting is invalid. Explain whether the meeting is valid based on the essential requirements of a shareholders' meeting under company law. Also discuss the various essentials of a general meeting. (CO 5; BT 4,5)

Question 5: A software developer creates a unique inventory management program and wants to legally protect it from unauthorized copying or distribution. Identify which type of Intellectual Property Right is most appropriate and discuss the various types of Intellectual Property Rights. (CO1, 5; BT 3, 5)

Question 6: M issues a cheque to N for payment of services. When N deposits the cheque, it is dishonoured due to insufficient funds. Discuss N's rights and possible legal remedies under the Negotiable Instruments Act, 1881, in the case of cheque dishonour. Also, discuss the various types of Negotiable instruments. (CO 3,4; BT 4, 5)

were circulated. Resistance grew as medical staff viewed the change as an added burden rather than an improvement. Departments worked in isolation. Worsening the situation, the HR department continued evaluating staff using traditional performance indicators—such as patient volume and paperwork completion—while the strategic plan demanded digital adoption and data accuracy. Employees faced conflicting expectations and became frustrated and demotivated.

Using the case of Aarav Healthcare's Project MedVision, identify the key issues that led to poor strategy execution. Which components of the strategy execution process were neglected, and how could Aarav Healthcare have addressed these gaps? Also explain how the case illustrates the relationship between strategy formulation and strategy implementation. [10][CO4] [BTL4]

Q.5 (a) Comment on the following (any 2):

- i. "Emergent strategy can be more successful than intended strategies"
- ii. "Operational Effectiveness is not a strategy"- Michael Porter
- iii. "Even though a distinctive competency is considered to be a corporations' key STRENGTH, a key strength may not always be a DISTINCTIVE COMPETENCY" [5] [CO2] [BTL2]

Q.5 (b) A dairy products company, FreshDairy Foods, is considering entering the plant-based milk segment in India. Using a structured environmental appraisal technique, identify the major external opportunities and threats arising from changing customer preferences, regulatory developments, supply chain conditions, and technological shifts. Based on this analysis, evaluate how these external forces could impact FreshDairy's profitability and its competitive positioning in the plant-based milk market. [5] [CO1][BTL4]

END

Total no. of pages: 4

THIRD SEMESTER

■■■

END TERM EXAMINATION

MBA201: STRATEGIC MANAGEMENT

Time: 3:00 hours

Max Marks: 50

Note: All questions are compulsory
All questions carry equal marks

Q.1 (a) Imagine you are responsible for formulating the global strategy for a multinational company that sells its products in nearly 30 countries worldwide. For each of the following product categories, identify which type of international/global strategy would be most appropriate. Justify your choice with suitable reasons.

- i. Smartphones [5] [CO3,CO5][BTL5]
- ii. Movies

Q.1 (b) BreezeWear is a mid-sized clothing brand that originally competed in the crowded fashion market by offering frequent discounts, trend-based designs, and influencer promotions—just like its rivals. As price wars intensified and profits fell, the company shifted direction and launched "BreezeWear Adaptive," a new line of smart clothing for elderly customers and people with mobility challenges. No fashion brand had previously created tech-embedded adaptive clothing at an affordable price. While the original business continues to fight in the competitive market, the Adaptive line has opened an entirely new customer segment with little competition and new demand. Identify the strategies used in both segments of BreezeWear's business. Based on the two different approaches described in the case, differentiate between them using strategic parameters. [5][CO4] [BTL4]

OR

Q.1(c) Assess and explain the international entry modes adopted in the following cases:

- i. U.S.-based medical equipment manufacturer sold advanced MRI machines to South Africa. As part of the payment agreement, South Africa required the company to reinvest the payment amount in

purchasing South African-made diagnostic tools and healthcare supplies.

ii. A construction company from Japan undertook the complete development of a metro station in Dubai—from land surveying and design to full construction and system installation—and returned the operational station to the city's transport authority.

iii. A European aerospace firm signed a contract with Brazil to supply four civilian aircraft. Brazil agreed to pay a large portion in cash, while the remaining payment was made through shipments of Brazilian coffee, leather goods, and packaged meat products. [5] [CO5] [BTL3,5]

Q.2 Identify, with suitable reasons, the type of *corporate-level strategy* followed in the following recent business situations:

a. Zomato has launched "Zomato Everyday," expanding into home-style meal offerings—a move beyond food delivery to create an in-house food brand.

b. Reliance Retail acquired the India business of international beauty brand Sephora, expanding its footprint in the premium beauty and personal care market.

c. HUL (Hindustan Unilever Ltd.) has decided to scale down investment in its laundry bar category due to decline in sale.

d. An Indian smartphone company observes a decline in demand for its low-end phone models due to strong competition. The firm decides to stop further investment in this product line and continue selling it only to maximize remaining profits before eventually phasing it out.

e. A leading electric scooter manufacturer plans to launch a new high-speed model. However, after recent battery fire incidents in the EV industry, the company temporarily deferred the launch to conduct additional safety checks and review regulatory changes before moving ahead. [10] [CO3, CO4] [BTL3]

Q.3(a) Many pioneering companies introduce breakthrough technologies but still fail to build a sustainable business model, losing their early market leadership over time. Why does this happen? Using a recent industry example (such as electric vehicles, fintech, ed-tech, or renewable energy), explain how a pioneering firm can successfully

"cross the chasm" to move from early adopters to the mainstream market. [5] [CO2] [BTL2]

Q.3(b) Identify the type of offensive tactic in the following situations

i. Samsung introduces a smartphone with an advanced AI-powered camera system that sets new benchmark standards in mobile photography.

ii. Zara rolls out a rapid trend-replication model in India, offering the latest global fashion styles faster and cheaper than Westside, Pantaloon, and H&M.

iii. Oppo targets rural and tier-3 markets with affordable smartphones after noticing that premium brands are focusing mainly on metro and tier-1 customers.

iv. During IPL season, Pepsi is the official beverage sponsor, but Coca-Cola launches celebrity ads, digital campaigns, and store-level promotions to divert consumer attention.

v. Amazon India expanded into groceries, pharmacy, fashion, payments, and home services—surrounding competitors like Flipkart [5] [CO6] [BTL3]

Q.4 Aarav Healthcare, a well-established Indian hospital chain, announced Project MedVision, an ambitious plan to transition from traditional, paper-based operations to a fully digital, AI-assisted healthcare system. The initiative included electronic health records (EHRs), AI-based diagnostic tools, telemedicine services, and an integrated patient-management portal. The top leadership proudly unveiled the strategy, believing that advanced technology and partnerships with global health-tech firms would ensure seamless execution. However, after the announcement, senior leaders moved on to other priorities. Problems emerged quickly. Doctors and nurses—already overloaded with patient responsibilities—struggled to use the new digital systems. Many clinicians were uncomfortable with EHRs and felt the technology slowed down their workflow. No comprehensive training was provided, and only basic user manuals

533 12

Total no. of Pages: 02

Roll no.....

**3rd SEMESTER
MBA**

END TERM EXAMINATION

Nov 2025

MBA 203

Corporate Governance and Social Responsibility

Time: 3:00 Hours

Max. Marks: 50

NOTE: Attempt any five questions. All questions carry equal marks (10 marks each). Assume suitable missing data, if any.

Question 1: A new manager in a company struggles to distinguish between actions that are legally permissible and those that are ethically right. Explain the concepts of beliefs, ethics, and morality in corporate governance and describe how they guide ethical conduct in business. (CO 1; BT 1,2)

Question 2: A business school is conducting a session on governance failures in India and wants students to understand their causes. Examine a major corporate governance failure in India and explain the key causes that led to the breakdown of governance. (CO 1, 2; BT 2,3,4)

Question 3: A mid-sized listed company must comply with CSR requirements under the Companies Act 2013 and seeks clarity. Apply the key provisions of the Companies Act 2013 related to CSR to explain which companies must comply, what activities can be funded, and how CSR reporting must be done. (CO 3, 5; BT 4, 5)

Question 4: A social enterprise team is planning business solutions for low-income rural communities and wants context-specific ideas. Analyse the process of generating ideas for subsistence marketplaces and explain how cultural context, affordability, and local resources shape product or service innovation. Use any example to substantiate your answer. (CO 3; BT 4)

Total No. of Pages 2

Roll No.

IIIrd SEMESTER

END TERM EXAMINATION

MBA

December-2025

MBA-205 Applied Business Analytics and Intelligence

Time: 3 Hours

Max. Marks: 50

Note: Attempt any 4 questions from Q1 and attempt any 4 questions from Q2-Q6. Assume missing data, if any.

Q1.(i) Differentiate between Supervised and Unsupervised Learning.
(5 Marks) (CO2)(L2)

(ii) Define the null hypothesis, alternative hypothesis, significance level, p-value and explain the steps involved in hypothesis testing.
(5 Marks) (CO1) (L1)

(iii) A spam detection system analysed 10000 emails. The system correctly identified 3000 spam emails. It failed to identify 500 spam emails. It incorrectly classified 1000 non-spam emails as spam. Calculate precision and recall of the system. (5 Marks) (CO3)(L3)

(iv) Why do we need a HAVING clause in SQL when we already have a WHERE clause? Describe what types of conditions can be placed in HAVING but not in WHERE. (5 Marks) (CO1)(L2)

(v) Using a suitable example, demonstrate how JOIN operations can be applied in SQL to retrieve combined information from two or more related tables. (5 Marks) (CO1)(L3)

Q2. How classification differs from regression in terms of purpose and output. Also, examine the key steps of the classification process and illustrate them using a simple schematic diagram.
(7.5 Marks) (CO3)(L4)

Q3. What is market basket analysis? Explain with the help of an example how can we determine association rules from the transactional databases?
(7.5 Marks) (CO3)(L4)

(b) Health care	(ii) Superheated economy, rapidly rising GDP, increasing inflation and interest rates
(c) Gold mining	(iii) Healthy expansion, rising GDP, mild inflation, low unemployment
(d) Steel production	(iv) Stagflation, falling GDP, high inflation

[BTL#2,3,4 CO#1,2,3] [5+5 Marks]

Total No. of Pages: 4

Roll no.

III SEMESTER

MBA.

END TERM EXAMINATION

Nov/Dec-2025

COURSE CODE: MBAFM211

INVESTMENT MANAGEMENT

Time: 03 Hour

Max. Marks: 50

Note: Attempt any 5 questions out of 6.
Assume suitable missing data, if any.

Q.1(A) You have just come across a new dataset that enables you to compute historical rate of returns on all Indian stocks listed in BSE since 1875. What are the advantages and disadvantages in using these data to help estimate the expected rate of return on Indian stocks over the coming years.

(B) In principle, the free cash flow approach is fully consistent with the dividend discount model and should provide the same estimate of intrinsic value, however, in practice, you will find that values from these models may differ, sometimes substantially. Comment

(C) Suppose your expectations regarding the stock price of ABC Ltd. are as follows:

State of the Market	Probability	Ending Price (Rs.)	HPR (including dividends)
Boom	.35	140	44.5%
Normal growth	.30	110	14.0%
Recession	.35	80	-16.5%

Compute the mean and standard deviation of the HPR on stocks.

[BTL# 2,3,4 CO1,2] [3+3+4 Marks]

Q.2 (A) "A top-down analysis of a firm's prospects must start with the global economy. The international economy might affect a firm's export prospects, the price competition it faces from competitors, or the profits it makes on investments abroad". Illustrate with the help of a suitable example in current context.

(B) As an Equity research analyst choose any one industry , analyse the relationship among industry structure, competitive strategy, and profitability using a suitable model and give recommendation to your client about investing in that Industry? [BTL 2,3,4 CO2,3] [5*2 Marks]

Q.3 (A) Mr. Jayesh is required to make the following payments at the end of each year for next 6 years:

Year	Payment (Rs. Lakh)
1	26
2	20
3	18
4	17
5	19
6	18

He is planning to immunize his liability by investing in following Two bonds:

Bond X: 11% coupon Bond of FV Rs. 1000/- maturing after 5 years redeemable at 5% premium and currently traded at Rs.966.38/-

Bond Y: 13% coupon Bond of FV Rs.1000/- maturing after 3 years, redeemable at 5% discount and currently traded at Rs.988.66/-

Answer the following questions:

a) If the interest rate is 12%, calculate the proportion of Funds to be invested in Bonds X and Y, so that Mr. Jayesh's payment is immunized. Will he remain immunized after one year if the interest rate changes to 14%. Give reasons.

b) Suppose the 8% coupon payment done semi-annually, 30-year maturity bond sells for \$1,150 and is callable in 10 years at a Call price of \$1,100. Calculate it's YTM and YTC and comment.

[BTL# 3,4 CO#2,3][5*2 Marks]

Q.4 (A) "Technical analysis can generally be viewed as a search for trends or patterns in market prices". In the context of this statement, explain the significance of any two indicators for a trader in the stock market?

(B) "A bond's coupon interest payments and principal repayment are not affected by changes in market rates". Explain with suitable reason? What is yield curve? Explain its significance for bond portfolio manager?

[BTL#2,3,4 CO#2,3] [5*2 Marks]

Q.5 (A) Fly Ash Corporation is expected have EBIT of Rs.800,000 this year. Fly Ash Corporation is in the 30% tax bracket, will report Rs.52,000 in depreciation, will make Rs.86,000 in capital expenditures, and will have a Rs.16,000 increase in net working capital this year. What is Fly Ash's FCFE? Also differentiate between FCFE and FCFE?

(B) Antique Products Corporation produces goods that are very mature in their product life cycles. Antiques Products Corporation is expected to pay a dividend in year 1 of \$1.00, a dividend of \$0.90 in year 2, and a dividend of \$0.85 in year 3. After year 3, dividends are expected to decline at a rate of 2% per year. An appropriate required rate of return for the stock is 8%. What should be the worth of the stock?

[BTL#2,3 CO#2,3] [5+5 Marks]

Q.6 (A) What steps are involved in the typical portfolio management process? Define an efficient portfolio and the efficient frontier? How do you use metrics like Sharpe Ratio and Alpha to evaluate a portfolio performance?

(B) Here are four industries and four forecasts for the macroeconomy. Match the industry to the scenario in which it is likely to be the best performer. Explain your answer with reasons.

Industry	Economic Forecast
(a) House construction	(i) Deep recession falling inflation, interest rates, and GDP

END TERM EXAMINATION

Dec-2025

MBAFM213 Investment Banking and Financial Services

Time: 03:00 Hours

Max. Marks: 50

Note : Answer any two questions from 4, 5 and 6
Marks are indicated along with the questions
Assume suitable missing data, if any
Scientific calculator is allowed.

Q.1 a) GlobalTech Ltd., an Indian company, has the following foreign currency assets and liabilities as on 31st March 2025:

Particulars	Amount (in foreign currency)	Nature
Accounts Receivable (USD)	USD 3,000,000	Asset
Accounts Payable (USD)	USD 1,200,000	Liability
Accounts Receivable (EUR)	EUR 1,000,000	Asset
Loan Payable (EUR)	EUR 800,000	Liability
Accounts Payable (GBP)	GBP 400,000	Liability
Forward Contract (USD)	USD 500,000	Hedge

Exchange rates (spot as on 31 March 2025): 1 USD = ₹84.00; 1 EUR = ₹90.00; 1 GBP = ₹104.00

- Compute the net exposure in each currency before and after hedging.
- Calculate the total net foreign currency exposure in INR.
- Interpret the impact of INR appreciation or depreciation on company profitability. (5 Marks) (CO5) (BTL 3,4)

b) A company has: Securities premium ₹50 crore and General Reserve ₹30 crore. It has 20,000,000 shares outstanding, par value ₹10. The board proposes a 1:1 bonus. Determine:

- Change in Share capital due to bonus issue.
- Reserves balances after the bonus.
- New total number of shares and new share capital. (5 Marks) (CO1) (BTL 3,4)

Q2 a) Explain major categories of risk faced by investment banks. 17 538

(5 Marks)(CO5) (BTL 2,3,4)

b) A company issues a 10-year bond with a face value of ₹1,000. The bond pays a coupon rate of 8% annually, meaning the investor receives ₹80 (8% of ₹1,000) each year. If the required rate of return (market interest rate) is 10%, what is the price of the bond?

(5 Marks)(CO2) (BTL 3)

Q3.a) Key Financials for three companies is given below. Based on the data, calculate the key relative valuation ratios of P/E, P/B and EV/EBITDA and rank the companies based on the ratios. Which is the most appropriate ratio to compare the companies. Assume debt is equal to total liabilities of the firms. (5 Marks) (CO1) (BTL 2,3,4)

(Unit INRcr, except mentioned if any)	A	B	C
Sales	24,000	18,000	15,000
EBITDA Margin (%)	25%	22%	18%
PAT Margin (%)	10%	8%	7%
Debt/Equity Ratio	0.6	1.0	1.5
Cash	300	150	100
Shares Outstanding (cr)	3.0	2.0	1.5
Market Price per Share (₹)	900	600	400
Asset Turnover (Sales / Assets)	1.2	0.9	0.7

b) Explain various factors that affect bond yield.(5 Marks)(CO2) (BTL 4)

Q4 a) Explain cross-border listing process and its advantages and disadvantages. (5 Marks) (CO3) (BTL 2,3)

b) Briefly explain Private Equity investments in a company and how exits are provided to PE investors. (5 Marks) (CO3) (BTL 2)

Q5 a) Explain various types of Indices with examples.

(5 Marks)(CO1)(BTL 2, 3)

b) Explain the credit rating scale of corporates.(5 Marks)(CO3) (BTL 2)

Q6 a) What is a Book of Demand, and how is the issue price determined in an IPO? (5 Marks) (CO4) (BTL 2,3)

b) Write a short note on insider trading with examples. (5 Marks) (CO5) (BTL 2,3)

MBAFM 215: FINANCIAL MARKETS AND INSTITUTIONS

Time: 3 Hours

Max. Marks: 50

Note: Attempt any five questions.

1. "Financial intermediaries do not operate in isolation." Using suitable examples, analyse how different intermediaries within the financial system are interconnected through credit, investment, and risk-sharing channels. [10M] [CO 2,3] [BTL4]
2. In the financial services industry, certain financial services require institutions to deploy their own capital and assume financial risks, whereas others rely primarily on professional expertise and advisory role. Discuss these two categories of financial services and evaluate how each influences the revenue structure and risk profile of a financial institution. [10M] [CO2,3] [BTL5]
3. An investment analyst at a financial advisory firm is preparing a report for a corporate client who wants to understand the behaviour of interest rates before issuing new debt. The client is particularly concerned about how returns differ on securities with shorter versus longer maturities and how these differences influence borrowing decisions. Using this context, explain how short-term and long-term yields differ, illustrating your explanation with an appropriate numerical example. The client also assumes that interest rates always rise with maturity. Evaluate whether this assumption holds true in financial markets. Finally, interpret the possible shapes of the yield curve by applying the major theories that attempt to explain its behaviour. [10M] [CO4] [BTL4,5]
4. A policy researcher is examining how changes in the general level of interest rates ripple through an economy. The researcher wants to understand how shifts in borrowing costs, saving incentives, and investment returns influence different segments of the financial ecosystem. Using this perspective, discuss how variations in market interest rates translate into changes across key financial markets and institutions. [10M] [CO4] [BTL4]

- 19 540
5. In the context of digital transformation in financial services, analyse how a leading fintech platform such as Paytm integrates the elements of the SMAC framework – Social, Mobile, Analytics, and Cloud – to deliver its product and service offerings. Illustrate your answer with relevant examples from Paytm's operations.

[10M] [CO5] [BTL 3,4]

6. a. India's bond market showed contrasting patterns this week. Government securities (G-secs) attracted strong demand from banks and mutual funds, leading to a decline in benchmark yields amid expectations of stable inflation. In contrast, the corporate bond market remained relatively subdued, with only a few high-rated companies issuing new debt. Analysts attribute this divergence to the higher risk premiums demanded by investors in the corporate segment, despite robust liquidity in the financial system. Market experts noted that while G-secs continue to dominate trading volumes due to their lower risk and high liquidity, the corporate bond market is expanding gradually as firms seek alternative funding sources beyond bank credit. Based on the news report, compare the key differences between India's government bond market and corporate bond market, and explain why investor behaviour may vary across these two segments.

[5M] [CO2] [BTL2,3]

- b. Explain the role of a depository in the securities market. How does it facilitate safer and more efficient trading and settlement for investors and market participants?

[5M] [CO2] [BTL 2]

7. The 1992 Harshad Mehta securities scam exposed major weaknesses in India's financial market infrastructure and regulatory framework. Discuss the key features of the scam, highlighting the loopholes that enabled large-scale market manipulation. Further, explain how SEBI's regulatory powers, surveillance mechanisms, and market oversight were strengthened in the aftermath of the scam to restore investor confidence and improve market integrity.

[10M] [CO1] [BTL3,4]

Q5 (b) Arjun, a 37-year-old marketing consultant, earns ₹12 lakhs annually. He is married and has one 10-year-old child. He owns an apartment (market value: ₹65 lakhs, outstanding loan: ₹30 lakhs) and a car worth ₹10 lakhs. His annual household expenses are ₹4 lakhs. He has saved ₹7 lakhs in mutual funds and holds only a ₹3 lakh employer-provided health cover. Arjun expects his child's higher education to cost ₹25 lakhs in today's value, with inflation at 6%. His work requires extensive travel, frequent highway driving, and regular online transactions. His mother has a history of diabetes and cardiac issues. If Arjun faces a permanent disability due to an accident, his family would lose its main income source. He can allocate up to ₹1.2 lakhs per year (10% of his income) towards insurance premiums.

Answer the following:

- Identify all the insurance needs Arjun has based on the scenario.
- Calculate the minimum life insurance cover he should take using the Human Life Value (HLV) approach.
- Assess the sufficiency of his existing employer-provided health cover.
- Prioritise insurance products within the premium limit of ₹1.2 lakhs per year.

[5][CO2,CO3][BTL-4,5]

Q6. Retail investors often make poor stock-selection decisions due to behavioural errors, lack of fundamental analysis, or overreliance on market noise. As a wealth advisor, prepare a detailed note for a first-time equity investor explaining:

- The common mistakes investors must avoid while selecting individual stocks,
 - The key red flags to watch out for in a company before investing (moats)
 - How to identify stocks with durable competitive advantage (moats)
- using quantitative indicators. END

[10][CO1,CO2][BTL-2,4]

Total No. of pages: 04

Roll No.....

ODD SEMESTER
MBA (Sem III)

Nov/Dec-2025

END TERM EXAMINATION
MBAFM-217: WEALTH MANAGEMENT AND FINANCIAL PLANNING

Time: 3:00 Hours Max. Marks: 50

Note: Attempt any five (5) questions. All questions carry equal marks. Use of scientific calculator is allowed. Assume suitable missing data, if any.

Q1. An investor had a portfolio worth ₹60 lakhs before a recent market correction, which has now fallen to ₹52.2 lakhs. Before the fall, the portfolio consisted of ₹30 lakhs in Equity Mutual Funds, ₹12 lakhs in Debt Funds, ₹6 lakhs in a Gold ETF, ₹4 lakhs in REITs, and ₹8 lakhs in Liquid Funds. After the correction, Equity Mutual Funds are down by 22%, Debt Funds have gained 3%, the Gold ETF has gained 10%, REITs have declined by 5%, and Liquid Funds have not changed in value. The investor is feeling stressed due to the decline in equity and asks for your professional advice. As a Wealth Manager, what would you recommend:

- exit equity and shift the entire equity portion equally into Debt Funds and the Gold ETF,
- continue SIPs in equity of ₹40,000 per month with an expected 12% annual recovery in equity, or
- rebalance the overall portfolio back to the original target allocation?

You must choose one recommendation with justification, but you are required to perform the calculations for all three scenarios, including: the post-correction value of each asset class, the revised portfolio values and allocations if equity is exited, the expected 12-month portfolio value if SIPs continue, and the buy/sell adjustments needed to restore the portfolio to the target allocation in the rebalancing scenario. Also, identify any two behavioural biases visible in the investor's reaction and explain their impact.

[10][CO3, CO4][BTL-5,6]

Q2. An investor approaches you for guidance on selecting a suitable mutual fund for long-term wealth creation. As a financial advisor, you explain that mutual fund selection is not based only on past returns but on multiple evaluation parameters. To simplify the decision-making process, you also decide to use the 10-5-3-1 framework.

(a) Explain the key factors an investor should consider when selecting a mutual fund. Also elaborate on 10-5-3-1 framework can be applied?

(b) To understand the practical impact of loads and NAV changes, the investor invests ₹2,00,000 in Fund A, which has an entry load of 1%. The NAV on the date of purchase is ₹40. After 2 years, the NAV increases to ₹50, and the fund charges an exit load of 0.75% at redemption.

Calculate:

- I. The number of units purchased
- II. The redemption value after applying exit load
- III. The post-tax amount received and the effective (CAGR). Assume STCG @ 15% and LTCG @ 10% [10][CO2][BTL-2,3]

Q3. Mr. Rohan, aged 40, is preparing his annual financial plan. As part of his portfolio review, he decides to book profits from some equity investments. He had purchased 1,000 shares of ABC Ltd. at ₹150 per share in May 2022. He sold all the shares in January 2025 at ₹230 per share. He paid brokerage @ 0.5% on both buy and sell transactions. During the same year, he also sold another stock, generating a Short-Term Capital Gain (STCG) of ₹22,000.

He has the following losses carried forward from the previous year:

- Short-Term Capital Loss (STCL): ₹25,000
- Long-Term Capital Loss (LTCL): ₹18,000
- Speculative loss (intraday equity trading): ₹15,000

His other taxable income for the year is ₹9,00,000.

- (a) Compute the tax payable on this capital gain and explain how it should be planned/settled as part of his financial plan.
- (b) Briefly explain how capital gains/loss set-off and carry-forward rules impact an individual's financial planning.
- (c) Explain how strategic tax planning can enhance long-term wealth creation for an individual investor. Discuss the role of instruments such as ELSS, NPS, and capital gains management in reducing tax liability while improving portfolio returns. [10][CO3,CO4][BTL-3]

Q4. Ravi, aged 40, earns a monthly take-home salary of ₹2,80,000. He wants to buy a house and a car in the next few years and also check his retirement readiness. However, he has never followed a structured financial planning process. His expenses are not tracked, he has no clarity

about his emergency fund, insurance requirements, risk profile, or investment allocation, and his goals are not prioritised.

At the same time, consider the case of Rohan, a 35-year-old software engineer earning ₹15 lakhs annually, who is planning for two major goals: accumulating ₹50 lakhs for his child's education in 15 years and ₹3 crores for retirement in 25 years. Although Rohan is comfortable with equity market volatility, his wife is highly risk-averse due to negative experiences shared within her social circle. A recent 20% drop in Rohan's portfolio created no panic for him, but it reinforced his wife's reluctance toward equity investing. Their differing perceptions create conflict in aligning a common investment strategy.

(a) As his financial advisor, create the *step-by-step process* involved in preparing a comprehensive financial plan.

(b) Evaluate risk profile for Rohan.

(c) Using the relevant financial planning rules, answer the following:

I. Ravi wants to buy a house worth ₹90 lakhs. calculate: Recommended down payment, Maximum affordable EMI and Maximum loan amount he should take.

II. Ravi wants retirement income equal to ₹1,50,000 per month in today's value. Calculate the minimum retirement corpus and monthly SIP he must accumulate to sustain his lifestyle. [10][CO1,CO4][BTL-5,6]

Q5 (a) Meera earns ₹1,20,000 per month. Her monthly expenses include:

Household expenses: ₹45,000

Rent: ₹20,000

EMIs: ₹18,000

Insurance premium: ₹6,000

SIP investments: ₹12,000

Emergency fund balance: ₹1,80,000

Liquid net worth: ₹8,00,000

Calculate the following personal financial ratios and interpret whether Meera is financially healthy:

- I. Savings Ratio
- II. Debt-to-Income Ratio
- III. Emergency Fund Ratio
- IV. Investment Assets to Net Worth Ratio [CO3][BTL-4]

Total No. of Pages- 2

22543
THIRD SEMESTER
MBA

Roll no.

END TERM EXAMINATION Nov-Dec-2025

MBAMK211

DIGITAL MARKETING STRATEGY

Max. Marks: 50

Time: 3:00 Hours

Note: Attempt any FIVE questions.
Assume suitable missing data, if any.

Q.1 A well-established FMCG brand is planning to enter the consumer electronics market by launching a new smartwatch. The company aims to utilize the integrated marketing communication (IMC) across various digital channels to promote its new product. Discuss how IMC can be implemented using digital tools such as display ads, social media, email, and influencer marketing. Develop a plan. Explain why message consistency is critical in digital campaigns.

[10][CO1][BTL5]

Q.2 A telecom e-commerce startup wants to develop its online marketing mix by strategizing its 7Ps. Discuss how digital platforms can shape decisions regarding product display, pricing transparency, promotion channels, online ordering processes, and customer service mechanisms.

[10][CO2][BTL4]

Q.3 An online grocery platform wants to map the customer journey from awareness to loyalty. Describe each stage of the online consumer journey and propose digital touchpoints that can enhance conversion at each stage.

[10][CO3][BTL4]

Q.4 A B2B software company wants to generate qualified leads through digital channels. Design a step-by-step digital marketing strategy including campaign planning, content creation, channel selection, landing page

optimization, and lead nurturing.

23 544
[10][CO4][BTL6]

Q.5 Compare how social media marketing, mobile marketing, search engine marketing, and search engine optimization help businesses achieve traffic-building objectives. Provide examples of situations where each tool is most effective.

[10][CO2][BTL4]

Q.6 A startup implementing a new digital marketing plan faces challenges such as limited budget, lack of skilled staff, inconsistent online messaging, and poor conversion rates. Analyze these challenges and outline strategic solutions for effective campaign management and revenue optimization.

[10][CO4][BTL5]

Q.7 Explain the role of content marketing in building online communities. Discuss different content formats (blogs, videos, infographics, podcasts, user-generated content) and explain how each contributes to customer engagement and brand loyalty. Provide examples of brands that effectively use community-driven content.

[10][CO2][BTL2]

brands). Apply each strategy to how a co-living company (e.g., Zolo, Settl, YourSpace, Houst) could change MBA students' attitudes toward premium co-living rooms that cost more but offer privacy, Wi-Fi, gym access, and housekeeping.

[10 marks] [CO3, CO4, BTL 3/ BTL 4]

Total no. of pages-4

Roll No. _____

SEMESTER III
END TERM EXAMINATION
MBAMK-213
CONSUMER BEHAVIOR

Time: 3 hours

Max Marks: 50

Instructions:

- Section A is compulsory
- All questions in section A carry equal marks
- Attempt only 3 questions from section B
- All questions in section B carry equal marks

Section A

CASE STUDY: BloomPure and the Psychology Behind Clean Beauty Adoption

BloomPure is a new Indian skincare brand offering fragrance-free, alcohol-free, and dermatologically tested products. Unlike traditional herbal brands, BloomPure focuses on minimal ingredients, scientific testing, and clear communication. Their target audience is mainly urban consumers aged 18–30 who are becoming more aware of harmful chemicals and prefer brands that reduce uncertainty and anxiety by showing “evidence of safety” such as pH-testing, dermatological approval, and ingredient transparency.

BloomPure discovered that many young consumers rely on shortcuts while evaluating skincare. For example, some follow the country-of-origin heuristic, assuming “Korean skincare = better skincare.” Others judge products based on packaging cues, clean labels, and influencer reviews. In stores, shoppers compare serums mainly on two attributes:

1. Active ingredients, and
2. Brand trust.

24 595

Peer groups strongly influence product trials. Friends often share recommendations, reels, before-after photos, discount links, or warnings about certain actives like AHA/BHA. Although family influence is low, online peer influence is very high.

For the launch, BloomPure used Instagram creators who posted short unboxing videos and quick reviews. Viewers formed instant impressions. But when a group of consumers received 7-day trial samples, their evaluations changed. Some who initially liked the product based on packaging later changed their opinion after noticing tingling, dryness, or visible improvement. Others who were skeptical at first changed their view positively after "learning through experience."

BloomPure now wants to understand how consumer perception, learning, heuristics, peer influence, and attitude change shape actual product adoption. They will launch two products:

1. AHA-BHA Peeling Solution (Premium line)
2. Aloe-Ceramide Serum (Sensitive-skin line)

Answer all questions based on the above case study:

A. Identify two psychological factors that influence BloomPure consumers. Explain each using examples from the case.

[4 marks] [CO3, BTL 2]

B. Using the tri-component attitude model, explain how a young consumer may form an attitude toward BloomPure's AHA-BHA Peeling Solution. Give one clear point each for Affect, Behavior, and Cognition

[4 marks] [CO3, BTL 3]

C. Explain two ways in which peer groups influence skincare decisions in this case. Use specific behavior mentioned in the case.

[4 marks] [CO3, BTL 4]

D. Identify two heuristics used by consumers in this case and analyse how each affects the evaluation of BloomPure's premium product.

[4 marks] [CO2, CO3, BTL 4]

E. Should BloomPure position itself mainly as a scientific-testing brand or a clean-label minimal skincare brand? Evaluate using two consumer-behaviour-based arguments.

[4 marks] [CO4, BTL 5]

Section B (attempt any three questions)

Q1. Apply the 5-stage Consumer Decision-Making Process to an MBA student choosing a shared commuting service plan (e.g., Rapido Pass, Uber Share Pass, shuttle services such as Shuttle or QuickRide). Write one clear point for each stage.

[10 marks] [CO 2, BTL 3]

Q2. Explain three types of perceptual distortion—using premium chocolates as the product category. Give one example for each distortion.

[10 marks] [CO3, BTL 4]

Q3. Evaluate how Maslow's needs and self-concept influence consumers when choosing a high-end travel backpack. Give two evaluated points for each concept.

[10 marks] [CO3, CO4, BTL 5]

Q4. Influencers and online communities strongly shape preferences for limited-edition sneakers. Explain five clear ways in which social influence affects sneaker buying (e.g., group dynamics, reference groups, etc).

[10 marks] [CO3, BTL 3]

Q5. Explain two attitude-change strategies (e.g., changing beliefs about products, changing brand image, changing beliefs about competing

Total No. of Pages - 2

26 547 Roll no.....

III SEMESTER

M.B.A.

END SEMESTER EXAMINATION

December 2025

COURSE CODE: MBAMK 215

COURSE TITLE: Product and Brand Management

Time: 3 Hours

Max. Marks: 50

Note: Attempt all questions.
Assume suitable missing data, if any.

Q1. Go through the case and answer the questions that follow:

Air pollution has become a persistent problem in Indian cities especially during winter season. A significant number of customers could not buy the existing air purifier brands just because of high pricing and after sale maintenance of the products despite air being in severe category. Ravi Kaushik, a Delhi-based aerosol scientist, has launched Airth Research Private Limited a startup that turns air conditioners into affordable air purifiers. Kaushik has studied aerosol science and collaborated with experts from IIT Bombay, IIT Kanpur, IISc Bangalore, and other national labs to make clean air affordable for everyone. The company launched its first AC air purifier, FiltRIX in 2023. The brand comes as a simple attachment, converting any air conditioner—split, window, or commercial—into a high-efficiency purifier which can be conveniently integrated with any existing AC. FiltRIX works on an efficient three-layer filter technology. The device also helps solve the technical air conditioning issue of pressure drop, when airflow slows down due to dense filters, reducing both cooling and air purification efficiency. The start up is following very aggressive pricing strategy. The brand costs around Rs 2,500, while replacement filters (needed every 8–12 months) are priced at Rs 1,200. The startup emphasizes on affordability and ease. The product doesn't require any service. The users can install and replace it themselves.

548 27

- A. Develop a B2C segmentation and targeting strategy for FiltRIX. Based on your chosen target segment, craft a clear and competitive positioning statement. (7 Marks) (CO 1,2) (BTL 4, 5)
- B. Using the case context, propose how Airth should develop a distinct brand identity and brand persona for FiltRIX in the B2C markets to build trust, recall, and emotional connection. (8 Marks) (CO 3,4) (BTL 4, 5)

Q2. Distinguish Between (Attempt any TWO) (10 Marks) (CO 1,3,4) (BTL 2,3) (Each part carries 5 marks)

- A. Brand Equity and Brand Image
- B. Line Extension and Category Extension
- C. Maturity and Decline Stage of Product Life Cycle

Q3. Attempt any TWO (15 Marks) (CO 3,4,5) (BTL 4,5) (Each part carries 7.5 marks)

- A. A multi-brand Indian company in the personal care category finds that several of its brands are competing with each other and confusing consumers. Using an appropriate example, recommend a suitable brand architecture model for the company. Explain how this model would clarify brand roles, reduce overlap, and strengthen overall portfolio positioning.
- B. A new Indian D2C shampoo brand wants to compete with established players such as Dove, Pantene, and L'Oréal. To gain clarity in its positioning, the brand must identify its Points of Parity (POP) and Points of Difference (POD). Recommend suitable POPs and PODs for this new brand and explain how this combination will help it build a differentiated yet credible market position.
- C. A new Indian athleisure brand wants to build a clear and differentiated identity. Using the Kapferer Brand Identity Prism, outline the six facets of identity for this brand and explain how this prism can help strengthen its positioning and appeal among young consumers.

Q4. Attempt all parts (10 Marks) (CO 2,4,5) (BTL 3, 4,5)

- A. A consumer electronics company plans to launch a smart wearable for teens. Apply the New Product Development (NPD) process to outline the steps the firm must undertake.
- B. Explain how brand communication and e-communities co-shape brand loyalty in digital-first industries.

Total no. of Pages - 2

28 549

Roll no.....

MBA

END TERM EXAMINATION

Dec-2025

COURSE CODE: MBAMK219

COURSE TITLE: MARKETING RESEARCH

Time: 03:00 Hours

Max. Marks: 50

Note: All questions carry equal marks (10 Marks).

Attempt any FIVE questions.

Assume suitable missing data, if any.

Q.1 You are conducting research for a luxury hotel chain that wants to understand customer satisfaction across its properties in three European cities: Paris, Barcelona, and Amsterdam.

[CO4][BTL5]

- (A) Describe how you would define the target population for this study.
- (B) Recommend three external secondary data sources.
- (C) Which sampling technique (probability vs non-probability) would you use?
- (D) Identify at least three potential sources of sampling frame error you might encounter.
- (E) How would you attempt to minimise these errors?

Q.2 A leading Indian FMCG company wants to conduct market research for its new range of organic food products across urban and rural India. For each of the following research questions, identify the most appropriate scale of measurement (nominal, ordinal, interval, or ratio).

Justify your choice and explain what statistical operations would be ideal for each:

[CO3][BTL4]

- 558
- (A) Which retail channel do you primarily use for grocery shopping? ²⁹
(Kirana store/Supermarket/Online/Modern retail)
- (B) Rank these five organic product attributes in order of importance to you (Price/Quality/Availability/Brand trust/Certification)
- (C) Rate your satisfaction with the availability of organic food on a scale of 1-7.
- (D) How much did you spend on organic products last month?

Q.3 You are designing an online customer satisfaction survey for Swiggy/Zomato food delivery service. Give a step-by-step review of the marketing research process.

[CO1][BTL3]

Q.4 Write brief notes on the following:

[CO3,6][BTL1,2]

1. Reliability and validity of scales
2. Mystery shopping

Q.5 (A) Briefly define the following terms in the context of causal research: independent variable, dependent variable, test variable, extraneous variable, and experimental design.

(B) Compare the advantages and disadvantages of using participant interviews vs surveys.

[CO2][BTL2,3]

Q.6 Explain the concept of brand equity using any one model. What are some concerns linked to this concept? What are its benefits for a company?

[CO6][BTL2]

Q.7 A beverage company wants to understand how young adults perceive the "atmosphere" of its newly redesigned café locations. Which research design (exploratory, descriptive, or causal) would be most appropriate? Justify your answer with examples/ideas of the study.

[CO1][BTL6]

Total no. of Pages: 03

Roll no.....

_____ SEMESTER

MBA/ /Ph.D/ B.Tech.

END TERM EXAMINATION

Nov-2025

COURSE CODE: MBAMK219: MARKETING RESEARCH

Time: 03:00 Hours

Max. Marks: 50

**Note: Read all questions carefully.
Assume suitable missing data, if any.**

- Q.1 Describe the characteristics of the scientific method and discuss why each characteristic is important for rigorous marketing research. Use one concrete marketing example to illustrate each characteristic.
[10] [CO 1] [BTL3]
- Q.2 FreshSip is a three-year-old beverage start-up founded by two food-science graduates, focused on low-sugar, natural-ingredient drinks for urban professionals aged 22–35. After a successful crowdfunding mini-launch in one city, they plan a roll-out of a ready-to-drink iced tea (herbal blend with a mild adaptogen) across Delhi, Bengaluru, and Pune. Crowdfunding backers praised health messaging and packaging, but paid pilot sampling converted poorly to repeat purchase. Competitor shelf space is crowded and local cafés offer house blends; retailers report that visibility, price points, and regional taste preferences differ widely. With a marketing budget of INR 12 lakh, founders must choose whether to refine positioning, test localized flavors, or run a nationwide sampling campaign. Data resources include three months of pop-up and e-commerce sales, notes from six focus groups, social metrics, and 2,500 email subscribers skewed to Bengaluru. Time and personnel are limited; founders require a research-based launch decision within eight weeks.
- 551

2.1 State clear research problem Fresh Sip should investigate and list two concise research objectives that follow. [3] [CO 2] [BTL3]

2.2 Recommend an exploratory research plan, choose two exploratory methods, justify each in this context. [3] [CO 2] [BTL4]

2.3 Choose between a cross-sectional or longitudinal descriptive design to estimate short-term market demand in the three cities; justify your choice. [4] [CO 2] [BTL3]

3.1 Briefly define the four levels of measurement. For each level, give one marketing example variable. [5] [CO 3] [BTL3]

3.2 For a product-choice study comparing four snack brands, recommend two comparative scaling techniques and two non-comparative scaling techniques that could be used. [5] [CO 3] [BTL3]

Q.4 Distinguish primary and secondary data. Give three distinct types of primary and secondary sources commonly used in marketing research and for each, state one specific limitation and one situation where that source is nevertheless the best choice. [10] [CO4] [BTL5]

Q.5 FreshBite is a small café chain with 18 outlets. Sales have been stable, but repeat visits have fallen in the last three months. The marketing manager believes the decline may be due to slow service, inconsistent drink quality, or weak promotional messages. FreshBite also plans to introduce a new "Super-Protein Smoothie" and wants to test whether customers like the concept before launch. At the same time, the CEO wants to evaluate the brand's overall strength compared to two competing cafés located nearby.

5.1 Suggest two methods FreshBite can use for customer attitude and satisfaction research, and explain briefly what each method will measure. [4] [CO 5] [BTL4]

5.2 Explain how concept testing should be conducted for the new smoothie. Mention two questions that must be asked. [3] [CO 5] [BTL3]

5.3 Identify two brand equity measure FreshBite should use and explain why it is important for this case. [3] [CO 5] [BTL3]

END TERM EXAMINATION

December-2025

COURSE CODE – MBASC213

COURSE TITLE – Total Quality Management

Time: 03:00 Hours

Max. Marks: 50

**Note: All questions carry equal marks.
Assume suitable missing data, if any.**

Q1. Explain the concept of an Operating Characteristic (OC) Curve in acceptance sampling. Discuss how producers' risk (α) and consumers' risk (β) influence the shape of the OC curve. Using a real or hypothetical example, illustrate how an OC curve helps management decide an appropriate sampling plan.

[10][CO 5][2,4]

Q2. Answer Each of the Following:

A. Explain the DMAIC methodology used in Six Sigma. How does each phase contribute to reducing process variation and improving quality?

[05][CO 6][BTL 2,4]

B. Describe the key steps involved in obtaining ISO 9001 certification. Why is documentation important in this process?

[05][CO 6][BTL 4]

Q3. Company XYZ manufactures precision components for the automobile industry. In recent years, the company has faced an increase in customer complaints, high rework costs, and delivery delays. An internal

audit revealed three major issues: lack of clear quality planning, inconsistent adherence to processes across departments, and minimal employee involvement in continuous improvement activities.

As a consultant, apply Juran's Trilogy to analyze the company's current problems. Explain how Juran's Quality Planning, Quality Control, and Quality Improvement concepts can be used to develop a structured roadmap to restore product quality and customer satisfaction.

[10][CO 1][BTL 3,5]

Q4. Answer Each of the Following:

A. Explain the significance of team-based approaches in Total Quality Management. How do cross-functional teams contribute to solving quality problems?

[05][CO 2][BTL 2]

B. State any four major reasons why organizations adopt benchmarking. How do these reasons support continuous improvement in TQM?

[05][CO 3][BTL 2]

Q5. Differentiate between control charts for variables (such as $\bar{X}$ and R charts) and control charts for attributes. Explain the situations where each type is appropriate. Using an example, illustrate how the choice of chart affects the interpretation of process stability and quality performance.

[10][CO 4][BTL 3,4]

END-TERM EXAMINATION
November – December, 2025
M.B.A. SEMESTER III
MBASC 215: Logistics Management (Elective)

Time: 03 Hours**Max Marks: 50**

Note: Attempt any five questions. Each question carries equal marks.

- Q1. How does efficient logistics contribute to a nation's Gross Domestic Product (GDP) and enhance its global competitiveness? 10 CO1
- Q2. How does logistics, as the "Place" element of the marketing mix, directly affect customer service levels and overall market share? Explain the logistical requirements and challenges when a firm adopts a Just-in-Time (JIT) manufacturing strategy. 10 CO2
- Q3. Explain the concept of the Total Logistics Cost approach, and provide an example of a potential cost trade-off that must be managed to achieve this optimality. 10 CO3
- Q4. What specific logistics activities are most commonly outsourced by companies, and what is the primary business reason for this decision? 10 CO4
- Q5. Identify the key dimensions of service quality, and explain how a logistics failure impacts a customer's perception of service quality. 10 CO5
- Q6. What is the fundamental difference between a 3PL (Third-Party Logistics) and a 4PL (Fourth-Party Logistics) provider in terms of asset ownership and core role? 10 CO4
- Q7. Differentiate between a service location decision and a service layout decision, and explain how each affects service response efficiency. 10 CO5

III SEMESTER

MBA

END SEMESTER EXAMINATION

MBAAN211 Business Intelligence and Analytics

Nov/Dec-2025

Time: 3:00 Hours

Max. Marks: 50

Note: Question 1 is compulsory and its each part is of 1 mark. Attempt any four from remaining five questions. Assume suitable missing data, if any. Use of calculator is allowed.

[ii]) Distinguishing between 'Operational Data' (context: Transactions processing systems and 'Decision Support Data' (context: Data Warehouse). Present in tabular form under the columns: 'Characteristic', 'Operational Data' and 'Decision Support Data' [Limit to Any 5 characteristics]

(CO1; BTL2) 5 Marks

Q5. [i] Given below is training set data of e-mails classified as Spam or No-spam based on presence of certain keywords (coupon, win, project) in the mail. taken from a student database of B-School. Apply Bayesian Classification to classify a new e-mail having presence of the keywords: coupon, project. [treat each feature as binary, i.e. present: 1, absent: 0]. Show the calculations involved.

ID	Keywords	Label
1	coupon, win	Spam
2	Project	No-Spam
3	Coupon	Spam
4	Project	No-Spam
5	Win	Spam
6	coupon, project	No-Spam
7	None of these words	No-Spam
8	coupon, win	Spam

(CO2; BTL3,4) 5 Marks

[ii] Suggest any 3 ways in which Analytics can help in improving performance of a B-School [Performance of students is one of the factors influencing B-School performance]. For each of these suggestions, what type of data is required for developing intelligence through analytics to initiate suitable actions by the B-School. In each case, suggest suitable algorithm and justify its applicability. Present your answer in a Table.

(CO2,3;BTL1,2) 5 Marks

Q6. Write short notes on any two of the following: (CO1,2,4;BTL1,2,4) 10 Marks

- Recommended systems with 2 business illustrations
- Gradient descent and its application
- Artificial Neural Network (Concept)
- Challenges involved in Text Mining and any related five functions in R or Python.

Q1. Fill in the blank/ choose correct option/give short answer: (CO1,2,3; BTL1,2)

10 Marks

i. Which is true in respect of "Strong association rules"?

- (a) always lead to best decisions (b) can be misleading (c) are based on the concept of entropy

ii. Multi-collinearity exists when :

- (a) there is correlation between some dependent variables (b) there is correlation between some independent variables (c) there is correlation between dependent and independent variables (d) None of these

iii. OLAP cube is also called:

- (a) Metacube (b) Hexcube (c) Hypercube (d) None of these

iv. In linear regression, the dependent variable is:

- (a) Discrete (b) Continuous (c) Can be discrete or continuous (d) None of these

v. While designing a database, the process of "Normalization" transforms data structures into:

- (a) Procedures (b) Views (c) Relations (d) None of the above

vi. In logistic regression, Wald's test is based on:

- (a) F test (b) Z test (c) t test (d) Chi Square Test

vii. If the $COV(X,Y) = 21$, $Var(X) = 9$, $Var(Y) = 16$, the $Corr(X,Y) = ?$ [show calculations]

- (a) +3 (b) -3 (c) +3 or -3 (d) None of these

viii If two regression lines are $x + 3y = 7$ and $2x + 5y = 12$ then $\text{Mean}(x)$ and $\text{Mean}(y)$ are respectively (show calculations):

- (a) 1 and 2 (b) 2 and 3 (c) 3 and 1 (d) 4 and 5

ix. What is true of maximum likelihood estimates (MLEs):

- (a) MLEs always exist (b) MLEs are unique (c) MLEs always exist and are unique (d) MLEs may not exist

x. If occurrence of item A is likely to lead to absence of item B, then:

- (a) $\text{Lift} = 1$ (b) $\text{Lift} < 1$ (c) $\text{Lift} > 1$ (d) None of these

Q2. [i] A sample of retail database has 10 transactions as shown below:

TID	Items
1	Smartwatch, Charger, Pendrive
2	Laptop, Printer, Charger
3	Smart watch, Earplugs, Pendrive
4	Monitor, iPad
5	Laptop, Charger, Printer
6	Smartwatch, Charger
7	Monitor, iPad
8	Laptop, Printer, Earplugs
9	Smartwatch, Pendrive, Charger
10	Earplugs, Pendrive

Use Apriori method to generate association rules (Assume support threshold $\text{minsup} = 3$).

(CO1; BTL3) 6 Marks

[ii] Compute confidence (*minconf*) and *Lift* for each association rule generated in part [i] above and interpret.

(CO1; BTL3) 4 Marks

Q3. [i] For four patients labeled P1, P2, P3, P4, the symptoms are given in the following Table:

Patient ID	Fever	Cough	Breathing Issues	Sore Throat	Burning Eyes
P1	Yes	No	Yes	Yes	No
P2	Yes	Yes	Yes	No	No
P3	No	No	No	Yes	No
P4	Yes	No	No	No	No

Use Jaccard similarity coefficient to find patients who may be considered suffering from same disease (i.e. who are closest in terms of symptoms). (CO2; BTL3) 5 Marks

[ii] The table below shows the actual class and the predicted target class probability for 10 observations of a categorical variable. Assuming a cut-off probability value of 0.25, compute Misclassification rate, Accuracy rate, Sensitivity, Precision and Specificity.

Obs.	Actual Class	Target Class Probability
1	1	0.73
2	1	0.48
3	0	0.22
4	1	0.33
5	0	0.52
6	0	0.10
7	1	0.98
8	0	0.05
9	0	0.12
10	1	0.78

(CO1; BTL3) 5 Marks

Q4. [i] Given below is training set weather data for past 10 days based on which a decision tree has to be prepared (using information gain as the attribute selection measure) for the concept 'Rain', i.e. for the last attribute. Calculate information gain with respect to only the first attribute, i.e. 'Outlook'. Write steps for forming the decision tree. [Given: $\text{Log}_2(X) = \text{Log}_{10}(X) / \text{Log}_{10}(2)$]

(CO2; BTL3,5) 5 Marks

Day	Outlook	Temp	Rain
1	Sunny	Hot	No
2	Sunny	Hot	No
3	Cloudy	Hot	Yes
4	Cloudy	Mild	Yes
5	Sunny	Mild	No
6	Cloudy	Hot	Yes
7	Sunny	Mild	No
8	Cloudy	Mild	Yes
9	Sunny	Hot	No
10	Cloudy	Mild	Yes

END TERM EXAMINATION

Nov/Dec-2025

MBAAN-213 Data Analytics in Finance

Time: 03:00 Hours

Max. Marks: 50

Note : All questions carry equal marks.

Choose any 5 questions.

Assume suitable missing data, if any.

Q.1 Explain Call and Put options with payoff diagrams.

[Marks 10][CO#1][BTL#1]

Q.2 Explain Macaulay Duration and Modified Duration.

[Marks 10][CO#2][BTL#3]

Q.3 A call option on the NIFTY has a strike price $K = 26,000$ and is currently trading (premium) at ₹30. The NIFTY spot price today is 26,000. The option expires on Tuesday. For each of the following spot prices at expiry S_T , calculate call price at expiry:

(a) $S_T = 26,100$

(b) $S_T = 26,300$

(c) $S_T = 25,900$

[Marks 10][CO#1][BTL#2]

Q.4 Write a Python code snippet to download the last 1 year of daily data for the stock TCS.NS.

[Marks 10][CO#3][BTL#4]

Q.5 Explain and Discuss the importance of the Current Ratio & Quick Ratio.

[Marks 10][CO#2][BTL#3]

Q.6 Explain black scholas formula

[Marks 10][CO#3][BTL#2]

Total No. of pages : 02

55938

Roll No.....

III Semester
MBA

END TERM EXAMINATION

MBAAN- 215

Nov/Dec- 2025

Operations Analytics

Time: 3:00 HR

Max Marks:50

NOTE:

1. Answer Any Five questions. All questions carry equal marks.
2. Assume suitable missing data if any.

Q1. Solve the following assignment problem by using Hungarian method.

	1	2	3	4	5	6
A	12	10	15	22	18	8
B	10	18	25	15	16	12
C	11	10	3	8	5	9
D	6	14	10	13	13	12
E	8	12	11	7	13	10

L1,2,3 CO1,2,3 [10]

Q2. A company manufacturing chemical has four independent investment projects and must allocate a fixed capital budget to one or more of them so that company total assets are maximized. The estimated investments and the anticipated cash out flow associated with these projects are as follows.

Projects	Investment (Rs Lakhs)		Cash Inflows (Rs Lakhs)
	Ist Year	IInd Year	
A	60	160	105
B	108	140	140
C	200	150	80
D	90	70	100

The company has earmarked Rs 600 lakhs for investment in the first year and Rs 700 lakhs in the second year. If project A and C are mutually exclusive, how should the investment be made so that company's total assets are maximized? Formulate the problem.

L1,2,3 CO1,2,3 [10]

Q3. Solve the following Linear Programming Problem.

Maximize $Z = 5X_1 + 7X_2$

Subject to $-2X_1 + 3X_2 \leq 6$,

$6X_1 + X_2 \leq 30$,

$X_1 \geq 0, X_2 \geq 0$ and integer

L1,2,3 CO1,2,3 [10]

560 39

Q4. A company is having three machines to produce 8000 units with fixed setup cost, variable cost, variable production costs/unit and maximum production are as follows.

Machine	Setup Costs (Rs)	Production Costs/unit (Rs)	Maximum Production (Units)
1	10000	5	6000
2	7000	4	5000
3	6000	8	4000

Formulate an integer programming problem to minimize the total cost.

L1,2,3 CO1,2,3 [10]

Q5. Discuss the steps involved in the implementation of Analytic Hierarchical Process (AHP) by using suitable real-life example.

L1,2,3 CO1,2,3 [10]

Q6. A company wants to produce three products A, B and C. The unit profits on these products are Rs 4, 6, and 2 respectively. These products require two resources manpower and material. Following LP model is formulated.

$$\text{Maximize } Z = 4 X_1 + 6 X_2 + 2 X_3$$

Subject to $X_1 + X_2 + X_3 \leq 3$,

$$X_1 + 4 X_2 + 7 X_3 \leq 9,$$

$$X_1 \geq 0, X_2 \geq 0, X_3 \geq 0$$

X_1, X_2, X_3 are the number of products A, B and C produced.

(i) Find the optimal mix of the problem.

(ii) What happens if C3 is increased to Rs 12? Find new optimal mix.

L1,2,3 CO1,2,3 [10]

Q7. Write the short notes on any four of the following.

(i) Degeneracy in Transportation Model

(ii) Binary Linear programming

(iii) Goal Programming

(iv) Gamry's Constraint

(v) Muti-Criteria Decision making

(vi) Non-Linear programming

L1,2,3 CO1,2,3 [10]

THIRD SEMESTER

MBA

END TERM EXAMINATION

NOV -2025

COURSE CODE MBAHR211

COURSE TITLE: INDUSTRIAL RELATIONS AND LABOUR
LAWS

Time: 03:00 Hours

Max. Marks: 50

Note : ATTEMPT ANY FIVE QUESTIONS

All questions carry equal marks.

Assume suitable missing data, if any.

Q1. A factory has terminated 25 workers without following proper procedures. As an HR Manager, explain the steps under the Industrial Disputes Act, 1947 that should have been followed to avoid legal repercussions.

[10 Marks] [CO 1 BTL 3]

Q2. A company wants to implement a policy for safe and healthy working conditions in accordance with the Factories Act, 1948. Propose practical measures to comply with the law and ensure employee safety.

[10 Marks] [CO 2 BTL 3]

Q3. Workers at a chemical plant have formed a union and are demanding higher wages. Explain how management should engage in collective bargaining and maintain a healthy industrial relation climate.

[10 Marks] [CO 1 BTL 3]

562 HT

Q4. An employee has completed 6 years of continuous service in a company and is resigning. As an HR manager, calculate the gratuity payable and explain the steps to ensure compliance with the Payment of Gratuity Act, 1972. [10 Marks] [CO 1 BTL 4]

Q5. A female employee in a private company is 3 months pregnant. The company wants to adjust her work schedule and leave benefits. Explain how the Maternity Benefit Act, 1961 governs her leave entitlement, work conditions, and benefits, and recommend HR practices to comply with the law.

[10 Marks] [CO 2 BTL 3]

Q6. Explain the objectives and scope of the Payment of Bonus Act, 1965. Discuss who is eligible to receive a bonus, the minimum and maximum bonus limits, and the role of profit sharing in determining the bonus amount.

[10 Marks] [CO1 BTL 2]

Total No. of Pages- 2 563 42

Roll no.....

FIRST SEMESTER

MBA

END TERM EXAMINATION

September-2025

COURSE CODE- MBAHR 215

ORGANISATIONAL DEVELOPMENT

Time: 03:00 Hours

Max. Marks: 50

Note: All Questions are compulsory. Assume suitable missing data, if any.

Q.1 Describe the diagnostic process at the organizational, group, and individual levels. Identify the challenges faced during diagnosis and how they can be managed. [10][CO1][BTL1]

Q.2 Organizations often struggle to maintain alignment between their structure, people, and processes. Illustrate how misalignment among these elements can affect organizational performance, and explain what an OD practitioner should examine first when such a situation arises. [10][CO2][BTL2]

OR

In a VUCA environment, organizations must adapt continuously to sustain competitiveness. Explain how learning-organization principles can support continuous improvement and illustrate how these principles can be embedded in daily practice. [10][CO3][BTL3]

Q.3 An organization wants to transition from a centralized to a more participative culture. Analyze the cultural and structural barriers to this transition and evaluate how OD interventions can enable this shift. [10][CO3][BTL4]

OR

43 564
A healthcare organization introduced a new digital record system, but some departments fully adopted it while others continue manual processes, leading to quality issues. Analyze why this inconsistency has emerged and recommend an intervention plan to achieve organizational alignment. [10][CO3][BTL4]

Q.4 A leading consumer goods company recently reorganized its operations to encourage greater collaboration among its marketing, production, and supply chain teams. However, despite having clearly defined KPIs and shared performance targets, the cross-functional teams continue to underperform. Team members have reported frequent misunderstandings regarding responsibilities, and meetings often end without concrete action plans. Employees tend to work in isolation, completing their tasks independently rather than through coordinated efforts. Some team members feel their expertise is undervalued, while others believe that decision-making authority is unclear. As a result, conflicts have increased, and deadlines are being missed more frequently. The HR department's internal assessment also indicates declining trust levels among team members. Senior leadership is concerned that the organization is not fully benefiting from the cross-functional structure. They are considering bringing in an OD consultant to diagnose the core issues and propose effective interventions.

Answer the following using the socio-technical systems perspective [20][CO4][BTL5]

- A) Identify two possible reasons why cross-functional teams may be avoiding collaboration in this scenario. [5][CO4][BTL1]
- B) How might unclear decision-making authority contribute to the inefficiency of these teams? [5][CO4][BTL4]
- C) Evaluate, what diagnostic methods could an OD consultant use to uncover the root causes of the declining trust levels? [5][CO4][BTL5]
- D) Recommend one OD intervention that could improve collaboration and justify why it would be effective in this situation. [5][CO4][BTL5]

- b) How do you categorize employees in SHRM?
 c) Describe four types of HR Analytics.
 d) Describe the *one-size-fits-all* trap
 e) Gen Z versus Millennials
 (If you are attempting this, all 5 parts of this question are mandatory to attempt.)

[10][CO2][BTL1]
 [2 Marks Each]

Q.7

a) A company had 500 employees at the beginning of the year. During the year, 40 employees left the company. Find the annual turnover rate.

b) Total working days in a month = 22
 Total employees = 60
 Total absent days recorded = 66 days
 Calculate the absenteeism rate.

c) Recruitment expenses for a quarter = ₹1,20,000
 Number of new hires = 15
 Find the cost per hire.

d) Before process improvement, employees produced 1,000 units. After improvement, they produced 1,200 units. Calculate the percentage productivity increase.

e) A training program costs ₹50,000.
 After training, productivity increased by ₹70,000.
 Calculate the Return on Investment (ROI).

[10][CO2][BTL1]
 [2 Marks Each]

FIRST SEMESTER
 MBA

END TERM EXAMINATION

NOV-2025

MBAHR217 Strategic Human Resource Management

Time: 3 Hours

Max. Marks: 50

Note : Attempt any five questions.

-All questions carry equal weightage.

All the very best!

Q.1 GlobalTech Solutions is a rapidly expanding international IT firm. Over the past five years, the company has made significant efforts to diversify its workforce, which now includes employees from over 30 countries, a wide range of age groups (from Gen Z to Baby Boomers), and varied educational and socioeconomic backgrounds. The company's leadership strongly believes that this diversity is a key driver of innovation and market expansion. However, recent internal surveys have revealed a concerning trend:

Communication Barriers: Teams that are highly culturally and geographically diverse often report delays in decision-making and frequent misunderstandings. Employees from certain cultures may perceive direct, critical feedback, which is common in the main office, as aggressive or disrespectful, leading to withdrawal and reduced participation in brainstorming sessions.

Inclusion Gaps: Despite having diverse hiring numbers, the company's senior leadership remains largely homogenous (male, 40+, from the founding country). Younger, non-local, and female employees report feeling their contributions are undervalued and that they lack clear pathways for advancement. They feel they have a seat at the table but are not truly included.

High Turnover: The overall employee turnover rate has increased by 15% in the last year, with the highest rates observed among newly hired minority groups and women, indicating an issue with retention and belonging.

GlobalTech's CEO aims to address these issues promptly, recognizing that a diverse workforce without a truly inclusive culture cannot deliver the expected business benefits.

Answer the following questions:

1. What are the five primary challenges related to Diversity and Inclusion (D&I) that GlobalTech is currently facing, as highlighted in the above scenario?
2. Give five specific, actionable strategies that GlobalTech's leadership can implement to overcome the identified challenges and foster a genuine culture of inclusion.

[10][CO3][BTL5]
[5 Marks Each]

Q.2 Write short notes on the following with relevant examples:

- a) Cognitive Diversity Hypothesis
- b) Lewin's Theory of Change
- c) Resource-Based View
- d) Telecommuting, Flextime, and Virtual Teams
- e) Gig worker

[10][CO2][BTL1]
[2 Marks Each]

Q.3 Percentage of working women at SHRM TECH :

Level	Total Employees	Percentage of Women
Entry/Mid-Level Roles	500	48%
Senior Manager	150	25%
Director	50	10%
VP/Executive Leadership	10	0%

The C-Suite and the Board are entirely male.

1. Which phenomenon is being highlighted in the above scenario? Explain the phenomenon in detail.
2. Based on the scenario, identify and explain the two primary mechanisms (e.g., specific policies or cultural issues) at SHRM TECH that are preventing women from reaching executive roles.
3. Propose three specific, actionable strategies that SHRM TECH leadership can implement to shatter the glass ceiling and foster true gender equity at the top.
4. Is perception trap important in this situation? Please elaborate.
5. What is the role of male middle level managers in this scenario?

[10][CO2][BTL1]
[2 Marks Each]

- Q.4 a) *"Hum Angrezo Ke Jamane Ke Jailor Hain"*
- Which form of HRM is being highlighted in the above dialogue? Give some reasoning to support your answer using some stances from the movie.
- Is that form of HRM effective in 2025? If yes, why, and if not, why? Please elaborate.

- b) *"Mujhe States ke naam na sunai dete hain, na dikhai dete hain. Sirf ek mulk ka naam sunai deta hai: I-N-D-I-A!"*
- Which form of HRM is being highlighted in the above dialogue? Give some reasoning to support your answer using some stances from the movie.
- Is that form of HRM effective in 2025? If yes, why, and if not, why? Please elaborate.

[10][CO3][BTL5]
[5 Marks Each]

- Q.5 a) What are the three phases in HR Planning and in Acquisition. Describe each phase in detail with relevant examples.
- b) What are the primary areas that HR must investigate during the due diligence phase of an acquisition (the "People, Pay, and Process" framework)? In the context of the deal, which group of employees does HR need to identify and analyse first to develop a robust retention strategy? Why are they the priority?

[10][CO3][BTL5]
[5 Marks Each]

567

Page No. of Page: 01

Roll no.....

SEMESTER III
MBA BA

END TERM EXAMINATION

NOV-2025

MBG015: Operations Research and strategy

Time: 3 Hours

Max. Marks: 50

Note: Assume suitable missing data.

1. Explain different types of competitive advantages that a organisation can use to overcome its competition using examples from today's world.
[5M] [BTL1]
2. Explain different components of value chain using an example.
[5M] [BTL4]
3. As the head of Operations department design an operation strategy for a new makeup brand XYZ limited that wish to launch its new sunscreen in price range of Rs.350 – Rs.450 in Tier 1 city.
[10M] [BTL6]
4. As the head of risk assessment and management department of a leading smartphone brand, design a risk contingency plan to overcome the challenges like covid and trade wars.
[10M] [BTL6]
5. Explain the following:
 - a) Define the necessary steps in change management process.
[5M] [BTL2]
 - b) As a concerned manager in the a MNC explain how would you use triple bottom line process for betterment of your company and environment.
[5M] [BTL5]
6. Write short note on:
[2.5*4=10] [BTL1]
 - a) Sustainable Manufacturing
 - b) Downsizing
 - c) Market Driven View (Demand Pull)
 - d) Manufacturing Led View

**MBA (BUSINESS ANALYTICS)
(THIRD SEMESTER)
END TERM EXAMINATION, NOVEMBER-2025
INTERNATIONAL MARKETING**

Time: 03 Hours

MBG-016

Max. Marks: 50

**Note: Attempt Any Five Problems.
Problem 05 and Problem 06 is based on assumed Case Study.
Assume suitable missing data, if any.**

568

Problem-01- What probable feasible suggestions you will give as a 'Learned Consultant' to an Indian Cosmetics Company 'XYZ', for entering and achieving success in the Canada market?
[10 Marks] [CO1, CO2, CO3][BTL2, BTL3, BTL4, BTL5, BTL6]

Problem-02- Briefly describe the significance of 'International Promotion Mix' for the success of an Indian Apparel Company, in the United States market?
[10 Marks] [CO1, CO2] [BTL2, BTL3, BTL4, BTL5]

Problem-03- Why companies are focussing on 'Marketing Research' for identifying new opportunities in the international markets? Explain with the support of suitable examples?
[10 Marks] [CO1, CO3] [BTL2, BTL3, BTL4, BTL5, BTL6]

Problem-04- Explain the role and importance of International markets like India, China, etc. for the success of German luxury cars like BMW, Mercedes-Benz and Audi?
[10 Marks] [CO1, CO2, CO3] [BTL2, BTL3, BTL4, BTL5]

USE CASE - LENSKART

Founded in 2008, Lenskart was originally incorporated by Peyush Bansal, Neha Bansal, Amit Chaudhary and Sumet Kapahi. Lenskart Solutions Limited is a technology-driven eyewear company, with a belief that clear vision is fundamental to personal development and well-being. Lenskart aim is to build tech-enabled solutions that improve access to affordable and quality Eyewear for All.

Lenskart sell a wide range of eyewear products including prescription Eyeglasses, Sunglasses, and other products such as Contact Lenses and eyewear accessories. Lenskart brands are designed to be aspirational and appeal to a wide range of customer segments.

Lenskart commenced its operations in India as an online business in 2010 and opened its first retail store in New Delhi in 2013. Since then, Lenskart have scaled through both the online and offline channels and have established a presence through Lenskart Retail Stores, Websites, Mobile Applications, and other channels.

In 2010, Lenskart launched its Website, Online Mobile application and 3D Try-on feature and in 2013 Lenskart, opened its first physical store in Delhi, making Lenskart debut as an Omni-channel brand. So, in 2019, Lenskart goes International with its website and one store in Singapore and in 2021 Lenskart, Commenced its operations in United Arab Emirates.

Lenskart, acquired majority stake in Japan headquartered, eye wear business, OWNDAYS in 2022. Lenskart also commenced its operations in Kingdom of Saudi Arabia in 2022. Lenskart has a significant international presence in Asia, the Middle East, Europe, with key markets including Japan, Singapore, Thailand, the UAE, and Spain. Lenskart reached more than 2,000 Stores in India in 2025

"Lenskart's Management Team, generally invest significant time on Screening and Selection of International Markets, International Distribution and International Promotion Mix. Currently we are thinking on entering the Canada market," said, Peyush Bansal, Chairman, Managing Director, CEO and Co-founder of Lenskart.

Based on the assumed Use Case - Lenskart - Answer following problems:-

Problem-05- Why Lenskart's 'Management Team' is significantly investing time on 'Screening' and 'Selection of International Markets'?
[10 Marks] [CO1, CO2, CO3] [BTL3, BTL4, BTL5, BTL6]

Problem-06- Explain the significance of 'International Distribution Channels' in the success of Lenskart's eyewear products and accessories, in the international markets?
[10 Marks] [CO1, CO3] [BTL2, BTL3, BTL4, BTL5]

Total No. of Pages- 2

570
THIRD SEMESTER
MBA BA

Roll no.....

END TERM EXAMINATION

NOV-DEC-2025

MBD002

MARKETING ANALYTICS

Time: 3:00 Hours

Max. Marks: 50

Note: Attempt any FIVE questions.
Assume suitable missing data, if any.

- Q.1 What is A/B testing? Explain the role of A/B testing in determining whether a marketing change is effective. A company tests two website pages. Page A had 1,200 visitors and 156 conversions, while Page B had 1,000 visitors with 170 conversions. Calculate the conversion rates for both pages. Which page performs better?

[10][CO2][BTL3]

- Q.2 Define RFM segmentation. How does RFM help managers make better decisions in CRM and targeted campaigns? A retailer assigns R, F, and M scores (1–5 scale) to three customers:

Customer	Recency	Frequency	Monetary
A	5	3	4
B	2	5	5
C	4	2	1

Identify the most valuable customer using RFM scoring.

[10][CO3][BTL4]

- Q.3 Explain how the BCG Matrix assists in strategic marketing decisions. Describe the characteristics of the quadrants in the BCG matrix. For a particular product, the firm's sales are ₹40 crore, the Total market sales are ₹160 crore, and the largest competitor's sales are ₹60 crore. Compute its Market Share.

[10][CO3][BTL4]

Q.4 A retail fashion brand has data on customer demographics, purchase frequency, and average order value. The marketing team wants to design targeted campaigns for different customer groups, but is unsure how to segment the market. Discuss the steps involved in segmentation, the criteria for selecting the target market, and how the brand can develop differentiated positioning strategies using analytics.

[10][CO3][BTL4]

Q.5 Explain the sales funnel stages. Why are funnel metrics critical in e-commerce analytics? In an online store, there are 20,000 website visitors, with 4% adding products to their cart, 45% proceeding to checkout, and 60% completing the purchase. Calculate the number of customers at each stage. Compute the overall conversion rate. Identify one stage that requires improvement, along with a justification.

[10][CO1][BTL4]

Q.6 Explain Conjoint Analysis. How do part-worth utilities help marketers understand consumer preference structures? A smartphone has two attributes:

- Battery Life: 8 hrs (utility = 10), 12 hrs (utility = 18)
- Price: ₹25,000 (utility = 20), ₹30,000 (utility = 12)

Calculate total utility for the following options:

- Option A: 8 hrs battery + ₹25,000 price
- Option B: 12 hrs battery + ₹30,000 price

[10][CO3][BTL4]

Q.7 How can NPS guide strategic decision-making for product improvement and customer experience design? A survey shows that the Promoters are 420, the Passives are 180, and the Detractors are 150. Calculate NPS. Interpret the score. Recommend one strategic action for improving customer advocacy.

[10][CO4][BTL5]

END TERM EXAMINATION

Nov/Dec-2025

MBD004 - Financial Analytics

Time: 03:00 Hours

Max. Marks: 50

Note : All questions carry equal marks.
Choose any 5 questions.
Assume suitable missing data, if any.

- Q.1 Explain the terms In-the-Money (ITM), At-the-Money (ATM), and Out-of-the-Money (OTM) with examples.
[Marks 10][CO#1][BTL#1]
- Q.2 Explain Zero coupon Bonds. Explain the relationship between bond price and interest rates.
[Marks 10][CO#2][BTL#3]
- Q.3 What is hedging in financial markets? Explain how a Put Option can be used as a hedging tool.
[Marks 10][CO#1][BTL#2]
- Q.4 Write a Python code snippet calculate daily returns of stock TCS.NS.
[Marks 10][CO#3][BTL#4]
- Q.5 Explain Debt-to-Equity Ratio, Interest Coverage Ratio, and Debt Ratio.
[Marks 10][CO#2][BTL#3]
- Q.6 Explain Monte Carlo simulations
[Marks 10][CO#3][BTL#2]

I SEMESTER

MBA-BA

END TERM EXAMINATION

Nov-2025

MB103n

Fundamentals of Finance

Time: 03:00 Hours

Max. Marks: 50

Note : Answer any two questions from 4,5 and 6
Marks are indicated along with the questions
Assume suitable missing data, if any.
Scientific calculator is allowed.

Q1) From the following data of XYZ Ltd., calculate:

- a) Current Ratio b) Debt-Equity Ratio c) Net Profit Margin d) Cash Conversion Cycle e) DuPont Analysis

Financial Data (₹ in Lakhs):

Cash & Bank: ₹10

Trade Receivables: ₹25

Inventory: ₹15

Trade Payables: ₹20

Short-Term Loan: ₹10

Long-Term Debt: ₹40

Share Capital: ₹30

Reserves & Surplus: ₹20

Net Sales: ₹200

Cost of Goods Sold: ₹130

Operating Expenses: ₹20

Interest Expense: ₹5

Tax Rate: 30%

(CO4) (BTL 3,4) (10 Marks)

573

values:

Equity: 50,000 shares currently trading at ₹120 per share. Cost of equity = 14%

Debt: ₹30 lakh of 10% debentures trading at 95% of face value.

The company's tax rate is 25%.

Calculate: (i) The market value of each component; (ii) The weighted average cost of capital (WACC) using market value weights. (CO3) (BTL 3,4) (5 Marks)

b) XYZ Ltd. is evaluating a project with the following details:

Initial Investment = ₹6,00,000

Expected cash inflows:

Year 1: ₹1,50,000

Year 2: ₹2,00,000

Year 3: ₹2,50,000

Year 4: ₹2,00,000

Cost of capital = 12%

Calculate: (i) Net Present Value (NPV); (ii) Profitability Index (PI)

(Assume discount factors at 12% are: Year 1: 0.893, Year 2: 0.797, Year 3: 0.712, Year 4: 0.636) (CO3) (BTL 3,4) (5 Marks)

Q3) Transactions for April 2025:

April 1: Commenced business with cash ₹1,00,000

April 2: Deposited ₹40,000 into bank

April 4: Purchased goods for cash ₹25,000

April 6: Purchased goods on credit from Ramesh & Co. ₹30,000

April 8: Sold goods for cash ₹20,000 (Cost ₹12,000)

April 10: Paid rent ₹3,000

April 12: Received ₹10,000 from a debtor

April 15: Paid ₹15,000 to Ramesh & Co.

April 20: Paid salary to staff ₹5,000

April 25: Withdrew ₹3,000 from bank for personal use

a) Prepare Journal Entries for the above transactions

c) Trial Balance as on 30.04.2025

Q4) Explain the importance of project evaluation in capital budgeting. Discuss the key differences between discounting and non-discounting project evaluation techniques. (CO3) (BTL 2,3) (10 Marks)

Q5) What are the major types of financial decisions a manager makes in an organization? Briefly explain each. (CO3) (BTL 2, 3) (10 Marks)

Q6) Explain various type of costs and methods of costing. (CO5) (BTL 1,2) (10 Marks)

Total No. of Pages: 03

Roll No.....

___ 1st ___ SEMESTER

MBA (BA)

END SEMESTER EXAMINATION NOV/DEC-2025

MB-105

BUSINESS STATISTICS

Time: 3:00 Hours

Max. Marks: 40

**Note : Answer any five questions. Statistics tables are allowed.
Assume suitable missing data, if any**

Q.1 Discuss the normal distribution. A sample of 36 observations is selected from a normal population. The sample mean is 21, and the population standard deviation is 5. Conduct the following test of hypothesis using the 0.03 significance level.

$$H_0: \mu \leq 20$$

$$H_1: \mu > 20$$

[BTL#1,2,3,4] [CO1,2,4] [8]

Q.2 Experience raising New Jersey Red chickens revealed the mean weight of the chickens at five months is 4.35 pounds. The weights follow the normal distribution. In an effort to increase their weight, a special additive is added to the chicken feed. The subsequent weights of a sample of five-month-old chickens were (in pounds):

4.41, 4.37, 4.33, 4.35, 4.30, 4.39, 4.36, 4.38, 4.40, 4.39

At the .01 level, has the special additive increased the mean weight of the chickens?

[BTL#1,2,3] [CO1,2,3,4] [8]

Q.3 A senior accounting major at Midsouth State University has job offers from four CPA firms. To explore the offers further, she asked a sample of recent trainees from each firm: How many months each worked for the firm before receiving a raise in salary? After completing and using the following ANOVA table, is there a difference in the mean number of months before receiving a raise among the four firms? Use the .05 level of significance.

Source	Sum of Squares (SS)	Df	Mean Square (MS)	F	p
Factor	32.33	3	10.78		
Error	45.67	10	4.57		
Total	78.00	13			

[BTL#1,2] [CO1,2,3] [8]

Q.4 Bradford Electric Illuminating Company is studying the relationship between kilowatt-hours (thousands) used and the number of rooms in a private single-family residence. A random sample of 10 homes yielded the following.

Number of Rooms	Kw-Hr (Thousands)	Number of rooms	Kw-Hr (Thousands)
12	9	8	6
9	7	10	8
14	10	10	10
6	5	5	4
10	8	7	7

- Determine the regression equation.
- Determine the number of kilowatt-hours, in thousands, for a six-room house.

[BTL#2,3] [CO2,3,4] [8]

Q.5 The director of advertising for the Carolina Sun Times, the largest newspaper in the Carolinas, is studying the relationship between the type of community in which a subscriber resides and the section of the newspaper he or she reads first. For a sample of readers, she collected the following sample information.

	National News	Sports	Comics
City	170	124	90
Suburb	120	112	100
Rural	130	90	88

At the .05 significance level, can we conclude there is a relationship between the type of community where the person resides and the section of the paper read first?

[BTL#2,3] [CO2,3,4] [8]

Q.6 Determine the formulae of mean and standard deviation for

- Binomial Distribution
- Chi-Square Distribution

[BTL#2,3] [CO2,3,4] [8]

Q7. Write the short notes on any four of the following.

- Poisson Distribution
- Central Limit theorem
- Nominal-Level, Ordinal-Level, and Interval-Level Data
- Stem leaf diagram
- Box Plot
- Skewness

[BTL#2,3] [CO2,3,4] [8]

FIRST SEMESTER

MBA (odd)

END SEMESTER EXAMINATION

November - 2025

MB 107n- FUNDAMENTALS OF BUSINESS ANALYTICS

Time: 3:00 Hours

Max. Marks: 40

Note: Attempt any five questions. All questions carry equal marks.
Assume suitable missing data, if any.

Q.1 a) How to histograms and bar chart differ in construction and use?

[4][CO1][BTL2]

b) The financial services call center monitors call duration, which is the amount of time spent speaking to customers on the phone. The table below contains the following data for time, in seconds, spent by agents talking to 10 customers:

[4][CO1].[BTL3]

243	290	199	240	125
251	385	239	139	181

a. List the five-number summary.

b. Compute the mean, standard deviation.

577

Q.2 The Sea Wharf Restaurant would like to determine the best way to allocate a monthly advertising budget of \$1,000 between newspaper advertising and radio advertising. Management decided that at least 25% of the budget must be spent on each type of media and that the amount of money spent on local newspaper advertising must be at least twice the amount spent on radio advertising. A marketing consultant developed an index that measures audience exposure per dollar of advertising on a scale from 0 to 100, with higher values implying greater audience exposure. If the value of the index for local newspaper advertising is 50 and the value of the index for spot radio advertising is 80, how should the restaurant allocate its advertising budget to maximize the value of total audience exposure?

- a. Formulate a linear programming model that can be used to determine how the restaurant should allocate its advertising budget in order to maximize the value of total audience exposure.
- b. Solve the problem using graphical method.

[8][CO3] [BTL4]

Q.3 King City Inc. manufactures machine tools. The production planner who oversees the production of two of King City's machines needs to determine how many of each to produce this month. The two machines, TopLathe and BigPress, each require a certain common component. Each TopLathe requires 10 of these components and each BigPress requires 7. Only 49 components are available this month. The sales department requires that the total number of machines produced in a month must be at least 5 (the number TopLathes plus the number BigPresses must be at least 5).

5. The profit for a TopLathe is \$50,000 and \$34,000 for a BigPress.
 - a. Assuming that adequate labor and all other resources are available, formulate an integer programming model to determine how many of each product King City should produce to maximize profit.
 - b. Solve the model formulated in part a without integer requirements. What is the optimal profit? What are the optimal values for TopLathe and BigPress?
 - c. Round the TopLathe and BigPress values found in part b. Is the solution feasible? Why?
 - d. Truncate the TopLathe and BigPress values found in part b (drop the fractional part of each value). Is the solution feasible? Why?

[8][CO2] [BTL5]

Q.4a) Explain the steps involved in data preprocessing.

[4][CO1] [BTL2]

- b) Organizations are competing on analytics not just because they can—business today is awash in data and data crunchers—but also because they should. Examine the statement.

[4][CO2] [BTL3]

Q.5 a) Data visualizations and data storytelling work in tandem to translate raw data into something meaningful for its audience. Examine the statement and provide suitable examples.

[4][CO1] [BTL4]

- b) A particular KPI must be assigned to a person to which it is relevant. Do you agree? Support your argument with suitable examples.

[4][CO1] [BTL4]

Q.6 Write short notes on the following –

- a. Monte Carlo simulation
- b. Salient features of a good metric

[8][CO4] [BTL1]

IIIrd SEMESTER

MBA-Business Analytics

END TERM EXAMINATION

December-2025

Database Management System-MB109

Time: 3 Hours

Max. Marks: 40

Note: Question 1 is compulsory. Attempt any 4 questions from the remaining. Assume missing data, if any.

- Q1. (i) What is referential integrity and explain how it is enforced in a relational database. (4 Marks)(CO1)(L2)
- (ii) What is data independence? Explain with a suitable example. (4 Marks)(CO3)(L3)
- (iii) Differentiate between Strong Entity, and Weak Entity with example. (4 Marks)(CO3)(L2)
- (iv) What is the difference between Primary Key and Super key? Explain with the help of an example. (4 Marks)(CO1)(L4)
- (v) Explain the ACID properties in transaction processing. Why are they essential for maintaining database consistency? (4 Marks)(CO4)(L1)

Q2 Consider a relation R(a, b, c, d, e) having the Functional dependencies:

- FD1 : $a \rightarrow b, c$
- FD2 : $c \rightarrow b$
- FD3 : $d \rightarrow e$
- FD4 : $e \rightarrow d$

Find the attribute closure of all attributes of above relation. Also, determine the candidate keys of this relation. (5 Marks)(CO3)(L3)

Q3 What is the impact of dirty read on database consistency in a multi-transaction environment? Provide a scenario where allowing dirty reads could cause critical errors, and justify why preventing them is necessary. (5 Marks) (CO3)(L5)

580

Q4 Consider the following relation:

CAR_SALE(Car#, Date_sold, Salesperson#, Commission%,
Discount_amt)

Assume that a car may be sold by multiple salespeople, and hence {Car#, Salesperson#} is the primary key. Additional dependencies are
Date_sold $\rightarrow$ Discount_amt and Salesperson# $\rightarrow$ Commission%
Based on the given primary key, is this relation in 2NF, or 3NF? Why or why not? How would you successively normalize it completely?

(5 Marks) (CO4)(L3/L4)

Q5. A university maintains records of its students, courses, and instructors. Each student can enrol in multiple courses, and each course can have many students. Each course is taught by one instructor, and an instructor can teach multiple courses. Draw a ER diagram based on this scenario.

(5 Marks) (CO3)(L6)

Q6. (a) Consider a table Orders (order_id, customer_id, city, order_amount). Write an SQL query to find all cities where the average order amount is greater than 10,000.

(2.5 Marks)(CO4) (L4)

(b) Given the table Employees (emp_id, emp_name, department, salary). Write an SQL query to display the employees whose salary is greater than the average salary of their department.

(2.5 Marks) (CO4)(L4)

Q7. Discuss the key design guidelines for creating a relational database. Why is following these guidelines important for ensuring data integrity?

(5 Marks) (CO3)(L2)

Total No. of Pages - 3

Delhi Technological University

Roll No.....

THIRD SEMESTER

MBA(BA)

END SEMESTER EXAMINATION

NOV-2025

MB302: MACHINE LEARNING

Time: 3:00 Hours

Max. Marks: 50

Note: Marks are indicated against each question. Parts of a question must be answered together.

Q1. Attempt the following questions:

[4* 5 marks = 20 marks]

- a) What is ensemble learning? Differentiate between bagging and boosting with the help of examples. [CO1,3][BTL 1,2,3]
- b) Discuss different metrics for evaluating machine learning models such as accuracy, precision, recall, and RMSE. Why is it important to choose the right metric depending on the problem? [CO1,3][BTL 2,4]
- c) Explain the following: Agent, Environment, Reward, State. Consider a 5x5 grid world environment where an agent can move up, down, left, or right. The agent starts at position S (1,1) and needs to reach the goal G at position (5,5). The reward for each step is -1, and reaching the goal provides a reward of +12. The discount factor γ is 0.9. Given the current value estimates for the neighbouring states of (1,1), as shown below, use the Bellman update equation to determine the optimal action for the agent at state (1,1).

State	(1,1)	(1,2)	(2,1)	(2,2)	(3,3)	(5,5)
Value	4.5	5.3	5.1	5.6	7.4	12.0

[CO1,2,3,4] [BTL 2,3,4]

- d) Explain KNN algorithm. Why is it called a lazy learner? [CO1,3,4] [BTL 2]

Q2. Attempt any three questions out of the following: [3*10 marks=30 Marks]

- a) i) What is the k -means clustering algorithm and discuss its limitations?

otal No. of Pages - 3

Delhi Technological University

Roll No.....

THIRD SEMESTER

MBA(BA)

END SEMESTER EXAMINATION

NOV-2025

MB302: MACHINE LEARNING

Time: 3:00 Hours

Max. Marks: 50

Note: Marks are indicated against each question. Parts of a question must be answered together.

Q1. Attempt the following questions:

[4* 5 marks = 20 marks]

- a) What is ensemble learning? Differentiate between bagging and boosting with the help of examples. [CO1,3][BTL 1,2,3]
- b) Discuss different metrics for evaluating machine learning models such as accuracy, precision, recall, and RMSE. Why is it important to choose the right metric depending on the problem? [CO1,3][BTL 2,4]
- c) Explain the following: Agent, Environment, Reward, State. Consider a 5x5 grid world environment where an agent can move up, down, left, or right. The agent starts at position S (1,1) and needs to reach the goal G at position (5,5). The reward for each step is -1, and reaching the goal provides a reward of +12. The discount factor γ is 0.9. Given the current value estimates for the neighbouring states of (1,1), as shown below, use the Bellman update equation to determine the optimal action for the agent at state (1,1).

State	(1,1)	(1,2)	(2,1)	(2,2)	(3,3)	(5,5)
Value	4.5	5.3	5.1	5.6	7.4	12.0

[CO1,2,3,4] [BTL 2,3,4]

- d) Explain KNN algorithm. Why is it called a lazy learner? [CO1,3,4] [BTL 2]

Q2. Attempt any three questions out of the following: [3*10 marks=30 Marks]

- a) i) What is the k -means clustering algorithm and discuss its limitations?

ii) Find the clusters from the given Euclidean distance matrix of six points by using the single-link hierarchical clustering algorithm and draw the dendrogram.

	P1	P2	P3	P4	P5	P6
P1	0	0.24	0.22	0.37	0.34	0.23
P2		0	0.15	0.20	0.14	0.25
P3			0	0.15	0.28	0.11
P4				0	0.29	0.22
P5					0	0.39
P6						0

[4+6] [CO1,2,3,4] [BTL 1,2,3,4]

b) i) What is reinforcement learning? Explain how it differs from supervised and unsupervised learning.

ii) Consider the following dataset of a company for predicting whether a customer will buy a product (Yes/No) using three categorical attributes: Income (Low, Medium, High), Student (Yes, No), and Credit (Fair, Good). Using the Naive Bayes classifier with Laplace smoothing, compute the posterior probabilities for the new customer $X = (\text{Income} = \text{Low}, \text{Student} = \text{No}, \text{Credit} = \text{Good})$ and predict the class label (Yes/No) for the new customer.

[4+6] [CO1,2,3,4] [BTL 2,3,4,5]

Customer	Income	Student	Credit	Buy
1	Low	No	Fair	No
2	Medium	No	Fair	No
3	High	Yes	Good	Yes
4	Medium	Yes	Fair	Yes
5	Low	Yes	Fair	Yes
6	High	No	Fair	No
7	Medium	Yes	Good	Yes
8	Low	Yes	Good	Yes

c) i) What is market basket analysis? Explain the Apriori property in association rule mining.

ii) Given the following transactions ($N = 6$) and minimum support = 50% and minimum confidence = 80%, find all frequent itemsets and generate the association rules using the Apriori algorithm.

T1: {T, S, B}

T2: {T, S, C}

T3: {T, S, B, C}

T4: {T, B, C}

T5: {C}

T6: {B, C}

where: Tea = T, Sugar = S, Biscuits = B, Coffee = C.

[4+6] [CO2,3,4] [BTL 2,3,4]

d) i) What is a multi-layer neural network? How does it overcome the limitations of a single-layer perceptron?

ii) A robotic inspection system uses a perceptron with two input features to classify components as pass ($y = 1$) or fail ($y = -1$). The training data includes: (2, 5, 1), (-3, 1, -1), (0, -4, 1), (5, 2, -1), where each triplet (x_1, x_2, y) represents the component features and the class label. The perceptron's weights are initialized to [0.1, 0.05], bias to 0, and learning rate to 0.2. Perform two iterations of training and update the weights and bias after each sample using the sign activation function for classification. Show the updated weights and bias after each sample in both iterations.

[4+6] [CO2,3,4] [BTL 2,3,4]

MB-303: Big Data Analytics

Time: 3:00 Hours

Max. Marks: 40

Note: Answer any five questions.
Assume suitable missing data, if any

Q1. (a) Explain the architecture of Hadoop MapReduce (Job Tracker, Task Tracker) [4][CO5][BTL6]

(b) What is the difference between traditional MapReduce and YARN-based execution? [4][CO5][BLT1]

Q2. (a) What is the Apriori algorithm explain in detail. Explain all the components of the Apriori algorithm in the context of its drawbacks. [4][CO3][BLT5]

(b) What is predictive market basket analysis? Write different applications in brief. [4][CO2][BLT3]

Q3. (a) With the help of an architecture, explain Apache Pig and give a detailed diagram of the Pig workflow. [4][CO6][BLT6]

(b) Describe the features of Pig that simplify the operation of Hadoop. [4][CO6][BLT5]

Q4. (a) What is a Neural network? Explain with the help of a feed-forward neural network. [4][CO1][BLT1]

(b) Why does the Euclidean distance become less meaningful in high dimensions? [4][CO1][BLT4]

Q5 (a) Distinguish between Apache Flume and Apache Sqoop?

584
[4][CO6][BLT2]

(b) What challenges arise when applying K-Means to high-dimensional data?

[4][CO2][BLT2]

Q6 Discuss briefly any two:

[4+4][CO6][BLT1]

- a) Apache Flume
- b) Oozie
- c) Architecture of Sqoop