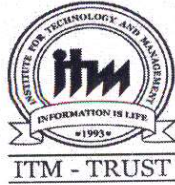# I T M

(INSTITUTE FOR TECHNOLOGY & MANAGEMENT)

PROGRAMM:

PGDM – 2023-25 BATCH

QUESTION PAPERS

SEMESTER – 1

INSTITUTE FOR TECHNOLOGY AND MANAGEMENT
KHARGHAR, NAVI MUMBAI
SEMESTER – I (END TERM) EXAMINATION SCHEDULE

PROGRAMME OF
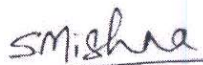## POST GRADUATE DIPLOMA IN MANAGEMENT
BATCH: 2023 – 2025

The written examination will be conducted in the following order: -

EXAM DATE & DAY	TIME	CREDIT	SUBJECT	SPECIALISATION
20-10-2023 Friday	11.00am to 01.30pm	FC	Accounting for Managers	[PGDM – All Specialisation]
23-10-2023 Monday	11.00am to 01.30pm	FC	Marketing Management	[PGDM – All Specialisation]
25-10-2023 Wednesday	11.00am to 01.30pm	FC	Decision Sciences	[PGDM – All Specialisation]
27-10-2023 Friday	11.00am to 01.30pm	FC	Leading and Managing Organisation	[PGDM – All Specialisation]
30-10-2023 Monday	11.00am to 12.30pm	HC	Managerial Economics	[PGDM – All Specialisation]
31-10-2023 Tuesday	11.00am to 12.30pm	HC	Enterprise system Management	[PGDM – All Specialisation]
02-11-2023 Thursday	11.00am to 12.30pm	HC	Introduction to Operations Management	[PGDM – All Specialisation]
04-11-2023 Saturday	11.00am to 12.30pm	HC	Technology Based Business Transformation	[PGDM – All Specialisation]

Note: The following subjects will be evaluated through several parameters which will be continuous in nature. There will be no end term examination for the subjects mentioned below.

1. Lifestyle Management
2. Managerial Communication-1
3. Career Management-1
4. Verbal Skills & Quantitative Analysis-1
5. Introduction to MS Excel & Advanced Methods
6. Entrepreneurship

Navi Mumbai
03rd October 2023

Registrar / Controller of Examination

Notice Board copy

INSTITUTE FOR TECHNOLOGY AND MANAGEMENT

(ITM BUSINESS SCHOOL – NAVI MUMBAI)

PGDM 2023-2025 BATCH

SUBJECT: ACCOUNTING FOR MANAGERS

[SEMESTER-1 TERM END EXAMINATION OCTOBER - 2023]

Max. Duration: 2.30 minutes   **Max. Marks: 60**

Instructions: All questions are compulsory.

Section -A

Q.1 Hero Petroleum Corporation is engaged in the business of refining crude oil and marketing of petroleum products, Aviation Bulk Fuels and Specialities, International Trade, LPG, Lubes, Retail (Petrol Pumps, etc.), Exploration and production, and Alternate Energy. The company has been providing aviation refuelling services at various airports in India for more than half a century. It will invest Rs 1 lakh crore by 2030 on energy transition projects as it targets net zero carbon emissions by 2038. Refer the financial statements of Hero Petroleum Corporation given bellow for the year ended 2022 and 2023.

Income Statement for the year ended.

(Rs in lakhs)

	Particulars	2021-2022	2022-2023
I	**Revenue**		
	Revenue from Operations	63.50	73.10
II	**Expenses**		
	Purchases	24.00	23.50
	Changes In Inventories	4.40	4.00
	Depreciation	1.95	1.79
	Other Expenses	21.50	21.90
	Total Expenses	51.85	51.19
	Profit Before Tax	11.65	21.91
	Less-Provision for taxation	3.50	6.57
	Profit After Tax	**8.15**	**15.34**

Balance sheet as on

(Rs in lakhs)

Particulars	2021-2022	2022-2023
ASSETS		
Non Current Assets		
Property and plant Equipment	41.80	39.59
Current Assets		
Inventories	4.000	5.90
Trade Receivable	12.45	15.80
Cash and Bank Balances	2.50	2.60
Other Current Assets-Prepaid Expenses	3.30	3.61
TOTAL ASSETS	64.05	67.50
EQUITY AND LIABILITIES		
Equity (Face value of Rs.10 each)	9.00	9.00
Other Equity	11.74	27.08
Non-Current liabilities		
Unsecured Loans	23.35	10.20
Current liabilities		
Trade payables	8.90	6.80
Provision for Tax	3.50	6.57
Other Current Liability-Outstanding Expenses	7.56	7.85
TOTAL EQUITY AND LIABILITIES	64.05	67.50

Additional Information: Market Price of Share on March 2023 is Rs 10.

You are required to:

a) Prepare a Comparative statement and interpret their results. (CO5-K3) (10 Marks)
b) Calculate the following ratios for the financial year 2022-23. (CO5-K3) (10 Marks)
   i.   Current Ratio
   ii.   Quick ratio
   iii.   Debt Equity ratio
   iv.   Capital Gearing Ratio
   v.   Debtors Turnover Ratio
   vi.   Debtors Collection period
   vii. Net Profit ratio
   viii. Return on Investment (ROI)
   ix.   P/E ratio
   x.   EPS

Section -B

Q2. Following is the Trial Balance of Ozone Ltd for the year ended 31ˢᵗ March,2023.
Prepare the Profit and Loss Statement and Balance Sheet as per Schedule III of the Companies Act, 2013. **(CO4-K2)**
(10 Marks)

Particulars	Debit	Credit
	Rs.	Rs.
Cash	20,000	
Bank	40,000	
Purchases of Raw Materials	1,85,000	
Share Capital		5,00,000
Long Term Investments	2,13,000	
Sales		4,15,000
Opening Stock -Raw materials	75,000	
Opening Stock -Finished goods	50,000	
Plant & Machinery	3,37,000	
Sundry Debtors	88,000	
General Expenses	7,500	
Salaries	14,500	
Sundry creditors		40,000
Commission received		30,000
Provision for Depreciation – Machinery		45,000
Total	**10,30,000**	**10,30,000**

Additional Information:
i)   The authorized capital of Rs. 6,00,000 in equity shares of Rs. 10 each.
ii)   The company charges depreciation on plant and machinery @ 10% following straight line method.
iii)   Closing stock of Finished goods - Rs.1,00,000 & Closing stock of Raw materials - Rs.80,000.
iv)   Provision for tax @ 50%.

<center>OR</center>

Q.2.
a) Explain any 6 components of Income Statement of Company as per Schedule III of the Companies Act 2013.
(CO4-K2) (06 Marks)

b) Differentiate between Equity and Non-Current Liabilities. **(CO4-K2) (04Marks)**

Q3. Explain any 10 Accounting Concepts and Conventions with examples. **(CO1-K1)(10 Marks)**
<center>OR</center>
Q3. Explain Ind AS 2 and Ind AS 16 in brief. **(CO1-K1) (10 Marks)**

Q4 Following are the two Balance sheets of a M/S Vinayak Ltd. as on 31ˢᵗ March 2021 and 31ˢᵗ March 2022.

	ASSETS	31.3.2021	31.3.2022
		Rs.	Rs.
I	Non-current assets		
	Land & Building	8,30,000	10,05,000
	Plant & Machinery	4,75,000	4,20,000
	Sub Total Non-Current Assets	13,05,000	14,25,000
II	Current assets		
	Inventories	2,00,000	2,50,000
	S. Debtors	1,75,000	2,55,000
	Cash and cash equivalents - Cash & bank	70,000	85,000
	Sub Total Current Assets	4,45,000	5,90,000
	Total Assets	**17,50,000**	**20,15,000**

	Equity and Liabilities	31.3.2021	31.3.2022
	Equity	Rs.	Rs.
A	Equity Share capital	9,50,000	11,70,000
B	Other Equity		
	Profit & Loss A/C	2,50,000	3,50,000
	Sub Total Equity	12,00,000	15,20,000
	Liabilities		
I	Non-Current Liabilities		
	Borrowings - Term Loan	4,10,000	3,60,000
	Sub Total Non-Current Liabilities	4,10,000	3,60,000
II	Current Liabilities		
	Trade payables		
	Sundry creditors	90,000	80,000
	Current Tax Liabilities (Net) - Provision for tax	50,000	55,000
	Sub Total Current Liabilities	1,40,000	1,35,000
	Total Equity and Liabilities	**17,50,000**	**20,15,000**

You are required to prepare a Cash Flow Statement for the year ended March 31, 2022, after taking into consideration the following additional information: **(CO4 – K2)(10 Marks)**

a) One machine having original cost of Rs. 70,000 was sold during the year for Rs. 35,000. The total depreciation accumulated on this machine was Rs. 30,000.
b) Accumulated depreciation on plant & machinery as on March 2021 and March 2022 is Rs 1,75,000/- and Rs 2,25,000/- respectively.
c) Income Tax Paid during the year Rs. 55,000.

OR

Q. 4. Explain the Cash FlowStatement as per Ind As 7 with examples. **(CO4 – K2)(10 Marks)**

Q5(a). ABC Ltd. is a shoe manufacturing unit. The budgeted expenses for the production of 10000 units is provided below: -

Cost and other Expenses	Per Unit (Rs.)
Material	70
Labour	25
Variable overheads	20
Fixed overheads (Rs.100000)	10
Variable Expenses (Direct)	5
Distribution Expenses (20% Fixed)	7
Total Cost per Unit	**137**

You are required to prepare Flexible budget for 6000 units in order to help the management to do planning with regards to Variable Cost, Total Cost and Profit, if the selling price per unit is Rs.189. **(CO3-K2)(05 Marks)**

Q.5.(b) Tyre manufacturing company submits the following information on March 31,2022.

Particulars	Amount
Opening stock of Raw material	6,000
Closing stock of Raw material	7,500
Purchase of Raw material	51,000
Direct Wages	21,000
Direct Expenses	3,000
Factory rent	6,000
Salaries of salesmen	3,000
Office Printing Stationary	1,200
Office employee salaries	4,000
Indirect Wages	1,500
Sales	1,00,000

Prepare a cost sheet for manufacturing company. **(CO3-K2) (5 Marks)**

OR

Q.5(a). Explain the difference between Fixed and Variable cost. **(CO3-K2)(05 Marks)**

Q.5(b). State the difference between Prime cost, Work cost and Cost of production. **(CO3-K2) (5 Marks)**

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ITM INSTITUTE FOR TECHNOLOGY AND MANAGEMENT

(ITM BUSINESS SCHOOL – NAVI MUMBAI)
PGDM 2023-2025 BATCH

SUBJECT: MARKETING MANAGEMENT

[SEMESTER-1 TERM END EXAMINATION OCTOBER - 2023]

Max. Duration: 2.30 minutes   **Max. Marks: 60**

SECTION A – Case Study (Compulsory)

Q1. Study the following case carefully and answer the questions below.
(4 Questions X 5 Marks Each = 20 Marks)

Introduction:
Kapiva is a health and wellness company founded in 2016 in India. It has rapidly grown into a prominent player in the herbal and Ayurvedic products industry. This case study explores the journey of Kapiva, from its inception to its current success, and examines the strategies that have propelled it to the forefront of the market.

Background:
Kapiva was founded by Ameve Sharma and Shrey Badhani with a vision to provide natural, Ayurvedic, and nutritionally rich products to promote a healthy lifestyle. The company's product range includes herbal juices, ghee, honey, and dietary supplements.

Key Milestones:
1. Product Innovation: Kapiva's commitment to quality and innovation set it apart from the competition. They developed unique products such as wheatgrass juice and amla ghee, which gained popularity among health-conscious consumers.
2. Quality Assurance: Kapiva focused on ensuring the purity and authenticity of its products. They adopted stringent quality control measures and sourced ingredients directly from trusted farms.
3. Digital Presence: The company capitalized on the e-commerce boom in India, establishing a strong online presence. Their user-friendly website and active social media engagement helped them connect with a broader audience.
4. Branding and Marketing: Kapiva invested in effective branding and marketing strategies. They collaborated with influencers, ran educational campaigns about Ayurveda, and participated in health and wellness events.

Challenges Faced:
1. Competition: The herbal and Ayurvedic products market in India is highly competitive. Kapiva had to differentiate itself to gain market share.
2. Supply Chain: Sourcing high-quality herbs and maintaining a consistent supply chain posed logistical challenges.
3. Consumer Education: Educating consumers about the benefits of Ayurveda and herbal products required considerable effort.

Strategies for Success:
1. Product Diversification: Kapiva continuously expanded its product line to cater to a wider audience, offering everything from immunity-boosting products to skincare solutions.
2. Transparency: They emphasized transparency in product labelling and ingredients, gaining trust among consumers.
3. Customer Engagement: Kapiva focused on building a loyal customer base by engaging with customers through informative content and personalized recommendations.

4. Scalability: The company strategically expanded its distribution network, reaching both urban and rural markets. They also expanded internationally, tapping into the global demand for Ayurvedic products.

Results:

Kapiva's dedication to quality, innovation, and consumer education paid off. They have witnessed exponential growth and are now recognized as a leading brand in the health and wellness sector in India. Their annual revenue has consistently grown, and they have expanded to international markets.

Questions:

A) What were the key factors that contributed to Kapiva's success in the herbal and Ayurvedic products market?
- 5 Marks (CO5_K3)

B) How did Kapiva differentiate itself from its competitors in a crowded market?   - 5 Marks (CO5_K3)

C) What challenges did Kapiva face in its journey, and how did it overcome them?   -5 Marks (CO5_K3)

D) How did Kapiva use digital marketing and e-commerce to grow its customer base? -5 Marks (CO5_K3)

SECTION B – Answer any one of the following pairs of questions Q2 and Q3.
(2 Questions X 10 Marks Each = 20 Marks)

Q2. Apply Porter's Five Forces Model, taking example of any Indian Company. (CO2) (K3)
OR
Q2. Compare Core Competency and Competitive Advantage, taking example of McDonalds. (CO2) (K3)

Q3. "STP is called as pillar of Marketing" elaborate taking example of automobile industry. (CO3) (K4)
OR
Q3. Discuss Product Classifications, giving examples of at least one product of each type. (CO3) (K4)

SECTION C – Write Short notes on any 4 of the 6 topics below. (4 Questions X 5 Marks Each = 20 Marks)

Q4. Marketing Channel's Conflict (CO1) (K2)

Q5. Fair Value (CO1) (K2)

Q6. PESTEL Analysis (CO1) (K2)

Q7. Types of Marketing Channels (CO1) (K2)

Q8. Holistic Marketing (CO1) (K2)

Q9. Differentiation - Products Vs Services. (CO1) (K2)

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INSTITUTE FOR TECHNOLOGY AND MANAGEMENT

(ITM BUSINESS SCHOOL – NAVI MUMBAI)
PGDM 2023-2025 BATCH

SUBJECT: DICISION SCIENCES

SEMESTER-1 TERM END EXAMINATION OCTOBER - 2023

[SET – B]

Max. Duration: 2.30 minutes   **Max. Marks: 60**

Instructions: This paper is divided into two parts. Section A is compulsory. In Section B, attempt all the questions. There is an internal choice in (Q2-Q4).

Section A

SUMMARY
OUTPUT

Regression Statistics	
Multiple R	0.764
R Square	0.584
Adjusted R Square	0.552
Standard Error	6.09274
Observations	15

ANOVA

	df	SS	MS	F	Significance F
Regression	1	678.353	678.353	18.274	0.001
Residual	13	482.580	37.122		
Total	14	1160.933			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-40.625	24.307	-1.671	0.119	-93.138	11.888
Hours of Study	0.623	0.146	4.275	0.001	0.308	0.937

Q1. The above table shows the regression output of student's performance in an exam. Based on above information answer the following questions: (20marks)
  a) List the independent and dependent variables.   (CO5_K-3)
  b) Frame the necessary hypothesis?   (CO5_K-3)
  c) Comment on value and strength of model.   (CO5_K-3)
  d) Frame the Equation of regression.   (CO5_K-3)
  e) Is the hypothesis accepted or rejected.   (CO5_K-3)

Section B
Attempt all questions. Each question carries 10 marks. In Q2 to Q4 there is an internal choice.

Q2: Attempt any one question from question Q2.   (10Marks)

A] A random sample of 11 statistics students produced the following data, where x is the third exam score out of 80, and y is the final exam score out of 200.

Third Exam score	Final Exam Score
65	175
67	133
71	185
71	163
66	126
75	198
67	153
70	163
71	159
69	151
69	159

a) Obtain the regression equation. (CO4_K-2)
b) Forecast the final exam score if the third exam score is 50. (CO4_K-2)

OR

B] Given below is data on Price (X) and amount demanded (Y)

Price (Rs.)	10	12	13	12	16	15
Amount demanded	40	38	43	45	37	43

a) Obtain the regression equation. (CO4_K-2)
b) Forecast the amount demanded when the price is Rs. 20. (CO4_K-2)

Q3: Attempt any one question from Q3.   (10 marks)

A] The following time series shows the sales of a particular product over the past 12 years. Calculate 3 yearly moving average. (CO3_K-3)

Year	Sales
1	105
2	135
3	120
4	105
5	90
6	120
7	145
8	140
9	100
10	80
11	100
12	110

OR

B] Toss a fair coin thrice. What is the probability of observing at least one head? (CO3_K-3)

Q4: Attempt any one question from Q5   (10 Marks)

A] Calculate Karl Pearson co-efficient of co-relation between cost of living and wages. (CO2_ K-2)

S.no	Cost of Living	Wages
1	100	100
2	105	107
3	104	115
4	106	115
5	99	115
6	96	121
7	107	125
8	112	128
9	118	133
19	123	125

OR

B] Compute the spearman rank correlation coefficient for the following data of the marks obtained by 8 students in Commerce and Mathematics. (CO2_ K-2)

Marks in Commerce	15	20	28	12	40	60	20	80
Marks in Mathematics	40	30	50	30	20	10	30	60

Q5: Theory Questions: (10 marks)

a) Explain the difference between co-relation and regression along with examples. (CO1_ K-1)

b) Describe the Coefficient of determination and its importance. (CO1_ K-1)

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⅄ INSTITUTE FOR TECHNOLOGY AND MANAGEMENT

(ITM BUSINESS SCHOOL – NAVI MUMBAI)

PGDM 2023-2025 BATCH

SUBJECT: LEADING AND MANAGING ORGANISATION

[SEMESTER-1 TERM END EXAMINATION OCTOBER - 2023]

Max. Duration: 2.30 minutes   Max. Marks: 60

SECTION – A

Short Notes (Answer any four, There is an internal choice in Q1 to Q4) 4 X 5 = 20 Marks   (Word limit – 100)

1. Glass ceiling effect **(CO1_K1)** or Bases of Power **(CO1_K1)**
2. Feed Forward Control **(CO1_K1)** or Managerial Skills **(CO1__K1)**
3. Stereotype **(CO3_K1)** or Halo Effect **(CO3_K1)**
4. Blake and Mouton's Managerial Grid **(CO2_K1)** or Components of Compensation **(CO2_K1)**

SECTION – B Long Questions (Any Two) 7.5x 2 (15 Marks)

5. What do you understand by Personality? Explain the Big Five Model of Personality. **(CO1_K2)**

6. What is a Group? Explain the 5 stages of group formation. **(CO1_K2)**

7. Explain any three methods of Performance Appraisal. **(CO2_K2)**

8. What is Strategic Planning? Discuss different levels of Strategies with suitable examples. **(CO2_K2)**

SECTION – C Application-Based Questions (Any One) 1x10 (10 marks)

9. John has just been appointed the new manager of your local college bookstore. Shweta would like to make sure the store operates according to Weber's Bureaucracy. Describe the characteristics of bureaucracy and answer this question: Is bureaucracy a good management approach for Shweta to follow? Discuss the possible limitations of bureaucracy and the implications for managing people as key assets in an organization. **(CO3_K3)**

10. Mr. Sharma has a small business set up employing 100 workers. Now he is planning to further expand his workforce. He discusses the situation with the new human resource manager of the organization. He expresses his interest in having a mix of old people who have a better understanding of the running processes and new joiners who are more tech-savvy and hold professional degrees. Assuming that you are a human resource manager, What HR strategies would you suggest Mr. Sharma so that he is able to manage his human resources efficiently? **(CO3_K3)**

SECTION – D Case Study. (All questions compulsory 3X5 = 15 Marks)

Lemuel Greene was a trainer for National Home Manufacturers, a large builder of prefabricated homes. National Home had hired Greene fresh from graduate school with a master's degree in English. At first, the company put him to work writing and revising company brochures and helping with the most important correspondence at the senior level. But soon, both Greene and senior management officials began to notice how well he worked with executives on their writing, how he made them feel more confident about it, and how, after working with an executive on a report, the executive often was much more eager to take on the next writing task.

So National Home moved Greene into its prestigious training department. The company's trainers worked with thousands of supervisors, managers, and executives, helping them learn everything from new computer languages to time management skills to how to get the most out of the workers on the plant floor, many of whom were unmotivated high school dropouts. Soon Greene was spending all his time giving short seminars on executive writing as well as coaching his students to perfect their memos and letters.

Greene's move into training meant a big increase in salary, and when he started working exclusively with the company's top brass, it seemed as though he got a bonus every month. Greene's supervisor, Mirela Albert, knew he was making more than many executives who had been with the company three times as long, and probably twice as much as any of his graduate school classmates who concentrated in English. Yet in her biweekly meetings with him, she could tell that Greene wasn't happy.

When Albert asked him about it, Greene replied that he was in a bit of a rut. He had to keep saying the same things over and over in his seminars, and business memos weren't as interesting as the literature he had been trained on. But then, after trailing off for a moment, he blurted out, "They don't need me!" Since the memos filtering down through the company were now flawlessly polished, and the annual report was 20 percent shorter but said everything it needed to, Greene's desire to be needed was not fulfilled.

The next week, Greene came to Albert with a proposal: What if he started holding classes for some of the floor workers, many of whom had no future within or outside the company because many could write nothing but their own names? Albert took the idea to her superiors. They told her that they wouldn't oppose it, but Greene couldn't possibly keep drawing such a high salary if he worked with people whose contribution to the company was compensated at minimum wage.

Greene agreed to a reduced salary and began offering English classes on the factory floor, which were billed by management (who hoped to avoid a wage hike that year) as an added benefit of the job. At first, only two or three workers showed up—and they, Greene believed, only wanted an excuse to get away from the nailing guns for a while. But gradually word got around that Greene was serious about what he was doing and didn't treat the workers like kids in a remedial class.

At the end of the year, Greene got a bonus from a new source: the vice president in charge of production. Although Greene's course took workers off the job for a couple of hours a week, productivity had actually improved since his course began, employee turnover had dropped, and for the first time in over a year, some of the floor workers had begun to apply for supervisory positions. Greene was pleased with the bonus, but when Albert saw him grinning as he walked around the building, she knew he wasn't thinking about his bank account.

11. Analyze the reason for unhappiness in the job of Lemuel Greene. **5marks (CO5_K1)**

12. Suggest any five initiatives to keep the employees motivated in National Home Manufacturers. **5marks (CO5_K1)**

13. Analyze Maslow's Need Hierarchy with special reference to National Home Manufacturers. **5marks (CO5_K3)**

Best of Luck!!

ITM INSTITUTE FOR TECHNOLOGY AND MANAGEMENT

(ITM BUSINESS SCHOOL – NAVI MUMBAI)

PGDM 2023-2025 BATCH

SUBJECT: MANAGERIAL ECONOMICS

[SEMESTER-1 TERM END EXAMINATION OCTOBER - 2023]

Max. Duration: 1.30 minutes   **Max. Marks: 30**

Instructions: Attempt questions for 30 marks.
- Use of calculators is allowed, and mobile phones are not allowed.
- Read the question paper carefully before attempting any question.
- Crisp, precise, and bullet-point answers will be appreciated.
- Keywords/terms should be underlined.

Section - A
Economic Application:
(Attempt any **ONE** question from question no. 1 to 3, 5 marks each = 5 marks).

Question No. 1:

Colgate launches campaign for its new Whitening Toothpaste

Colgate-Palmolive (India) has launched a new product, Visible White O2, with an active oxygen technology that claims to whiten teeth in three days. It has unveiled a 'Smile Out Loud' campaign to promote the premium toothpaste. The campaign showcases the inspiring stories of real women and the role the toothpaste plays in their lives, as they courageously face the world and #SmileOutLoud.

Arvind Chintamani, vice president, marketing, Colgate-Palmolive India, said, "The new Colgate Visible White O2 is a revolutionary whitening toothpaste and the most exciting innovation in teeth whitening in India. In addition to bringing this innovation to the country, our launch campaign also encourages every young Indian to express their unique beauty through their radiant smiles…don't let conventional beauty standards define you, express yourself and 'Smile Out Loud!'"

Explain any five determinants of the demand function for products 'Visible White O2' for Colgate-Palmolive (India). (5 marks) [CO-2] [K-2]

Question No. 2:

Q.2A) The supply and demand schedules for Onions in the APMC Vashi market are as follows:

Price per Quintal	Quantity Supplied per Week (in quintal = 100 kg)	Quantity Demanded per Week (in quintal = 100 kg)
₹ 1400	1000	1400
₹ 1600	1100	1300
₹ 1800	1200	1200
₹ 2000	1300	1100
₹ 2200	1400	1000

Use the information in the table to draw a demand and supply curve and Identify excess of demand(shortage) and excess of supply(surplus) for the given prices for onions (Graph paper is not required). (3 marks) **[CO-2] [K-2]**

Q.2B) In each of the following cases, draw a diagram to show how a decrease in the price of the first good, will affect the demand for the second good: (2 marks) **[CO-2] [K-2]**
   a) Amul milk and Warana milk.

Question No. 3:
Interpret/classify price elasticity of demand: (5 marks) [CO-2] [K-2]

	Point elasticity of demand coefficient	Classify Demand (Elastic, inelastic, unitary elastic, etc)
a) Demand for Cinthol soap	-2.5	
b) Demand for 12th-standard textbooks	-0.45	
c) Demand for Alcohol	-0.65	
d) Demand for COVISHIELD Vaccine	0	
e) Demand for the SONY HD TV	-1.0	

Section - B

Numerical Question (Compulsory Question = 5 Marks).
Question No. 4:
Evaluate profit analysis for a simple firm: [CO-3] [K-2]

Q	TFC	TVC	TC	MC	ATC	AFC	AVC	TR	MR	Profit
0			20	0	0	0	0	0	0	
1					40					
2		60								
3					40					
4				20						

Note: Price is P = 60.

Section - C

Essential Micro and Macroeconomics:
Short Questions (Attempt any ONE question from question no. 5 to 7, 5 marks each = 5 marks).

Question No. 5:
Explain the any two:
   a) Supply Function [CO-1] [K-1]
   b) Law of Supply [CO-1] [K-1]
   c) Supply Curve [CO-1] [K-1]

Question No. 6:
Explain the 'implications' of the following (any two)
   a) 'Market entry and exit - Very easy' under Perfect competition [CO-1] [K-1]
   b) 'Type of product - Unique' under Monopoly [CO-1] [K-1]
   c) 'Product differentiation' under Monopolistic competition [CO-1] [K-1]
   d) 'Market entry and exit - Difficult' under Oligopoly [CO-1] [K-1]

Question No. 7:
Explain the two-sector economy model in the circular flow diagram.

Macroeconomics Policy:
Short Questions (Attempt any ONE question from question no. 8 & 9, 5 marks each = 5 marks).

Question No. 8:
Explain anyone:
   a) Contractionary monetary policy in fast growing economy. [CO-5] [K-3]
   b) Explain the process of money creation by the commercial bank. [CO-5] [K-3]

Question No. 9:
Explain expansionary fiscal policy in a slow-growing economy. [CO-5] [K-3]

Section - D

Macroeconomics Analysis:

Short Questions (Attempt any TWO questions from question no. 10 to 13, 5 marks each = 10 marks).

Question No. 10:
Explain the difference between GDP and GNP. **[CO-4] [K-2]**

Question No. 11:
Explain any one method of measuring inflation. **[CO-4] [K-2]**

Question No. 12:
Explain the following concepts (anyone)
   a) Balance of Trade (BOT) surplus and deficit. **[CO-4] [K-2]**
   b) Assessment of BOP Disequilibrium. **[CO-4] [K-2]**
   c) Current account and capital account. **[CO-4] [K-2]**

Question No. 13:
Explain anyone.
   a) Methods of measuring national income. **[CO-4] [K-2]**
   b) Demand-pull inflation with a diagram. **[CO-4] [K-2]**
   c) Appreciation and depreciation of the rupee against the dollar.. **[CO-4] [K-2]**

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INSTITUTE FOR TECHNOLOGY AND MANAGEMENT

(ITM BUSINESS SCHOOL – NAVI MUMBAI)

PGDM 2022-2024 BATCH

SUBJECT: ENTERPRISE SYSTEM MANAGEMENT

[SEMESTER-1 TERM END EXAMINATION OCTOBER - 2023]

Max. Duration: 1.30 minutes   **Max. Marks: 30**

Part - A

Answer all the Questions   **Marks 1X5 = 5**

1. The three principal levels within a business organization hierarchy are: [CO-1]
   a. senior management, operational management, and service workers.
   b. senior management, middle management, and operational management.
   c. senior management, operational management, and information systems.
   d. senior management, middle management, and service workers.

2. Which of the following factors is crucial for reducing shopping cart abandonment in e-commerce? [CO-3]
   a. High shipping fees
   b. Lengthy checkout process
   c. Transparent pricing
   d. Limited payment options

3. What is the primary objective of an ERP system? [CO-1]
   a. Managing employee schedules.
   b. Streamlining business processes.
   c. Handling customer complaints
   d. Tracking office supplies
   e. All of the above

4. What is ETL in the context of Data Warehousing? [CO-5]
   a) Extract, Transform, Load
   b) Efficient Tracking of Logs
   c) Enhanced Textual Language
   d) Extract, Tag, Learn

5. Which type of analytics is used to analyse historical data to understand past performance and trends? [CO-4]
   a.) Descriptive Analytics
   b.) Predictive Analytics
   c.) Prescriptive Analytics
   d.) Diagnostic Analytics

Part - B

Answer all the questions:
6. Differentiate between TPS, MIS, DSS.   [5] [CO-1]
7. Explain 5 different Digital payment systems with examples. [5] [CO-3]
8. Define:
   a. Architecture of Data warehouse   [2.5][CO-3]
   b. Prescriptive Analytics with examples   [2.5][CO-2]

9. Consider following Tables:
    Customers (CustomerID,FirstName,LastName,Email)
    Orders (OrderID, CustomerID, OrderDate, TotalAmount)

    a. List all customers who have placed orders after 2023-03-01. [2.5] [CO-2]
    b. Write a query to list average, minimum, maximum & total orders placed by customers. [2.5] [CO-2]

Part – C

Answer the following question.   [5] [CO-1]

10. BrightMart Retail is a well-known chain of stores specializing in consumer electronics. They have a complex inventory system to manage the vast array of products in their stores. Suggest which information system they should implement with appropriate reasoning?

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ITM INSTITUTE FOR TECHNOLOGY AND MANAGEMENT

(ITM BUSINESS SCHOOL – NAVI MUMBAI)

PGDM 2022-2024 BATCH

SUBJECT: INTRODUCTION TO OPERATIONS MANAGEMENT

[SEMESTER-1 TERM END EXAMINATION OCTOBER - 2023]

Max. Duration: 1.30 minutes   **Max. Marks: 30**

Section A - True/False – 5Marks

1. At six sigma level there are 3.4 defects per million opportunities. **(CO5) (K1)**
2. DMAIC is used for projects aimed at creating new product or process design. **(CO5) (K1)**
3. Fishbone diagram is one of the seven quality control tools proposed by Prof . Ishikawa that show the causes of a specific event. **(CO5) (K1)**
4. Quality Assurance is a Post Mortem operation carried out after the product is manufactured. **(CO5) (K2)**
5. Cost associated with preventing defects before they happen is called prevention cost. **(CO5) (K1)**

Section B - Answer any 1 questions – (5 x 1 = 5 marks))   (CO2)(K2)

1. Explain in detail the key stages in the New Product Development cycle? **(CO2)(K2)**
2. Difference between offshoring and outsourcing. **(CO2)(K2)**
3. Explain Concurrent Engineering and Value Engineering? **(CO2)(K2)**

Section – C Write short notes on – 6 marks each

1a. Explain 3 types of plant layouts used in either the manufacturing or service industry, highlighting their key characteristics and benefits. **(CO3) (K2)**

OR

1b. What are the key factors that businesses should consider when choosing a location for a new factory? Explain . **(CO3) (K3)**

2a. Explain the any two techniques used to manage and control inventory effectively. **(CO4)(K3)**

OR

2b. Explain Aggregate planning and Master production Schedule (MPS) with appropriate examples. **(CO4)(K2)**

Section -D Answer any one question – 8 Marks.

1. Explain in detail the various types of production systems with examples. **(CO1)(K2)**
2. Explain the transformation process for a purely service organisation. **(CO1)(K2)**
3. Discuss the differences and similarities between a Manufacturing and a Service organization. **(CO1)(K2)**

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INSTITUTE FOR TECHNOLOGY AND MANAGEMENT

(ITM BUSINESS SCHOOL – NAVI MUMBAI)

PGDM 2023-2025 BATCH

SUBJECT: TECHNOLOGY BASED BUSINESS TRANSFORMATION

[SEMESTER-1 TERM END EXAMINATION OCTOBER - 2023]

Max. Duration: 1.30 minutes   **Max. Marks: 30**

Q1. Case Study   *(5 marks)*

Unilever's Journey of Boosting sales and profits with IOT Technology

Unilever is a leading FMCG (Fast-moving consumer goods) company that has been operating for over 90 years. However, in the early 2010s, the company was facing several challenges that were hindering its operations. These challenges included difficulties in connecting devices, managing tasks, analysing opportunities, transferring information securely, and tracking devices. These problems had led to a decline in sales and profits for the company. However, with the implementation of IoT (Internet of Things) technology, the company was able to overcome these challenges and see a boost in sales and profits.

The initiative reduces the cost of managing non-quality/non-compliance by 10%. Renault wants to invest more in blockchain technology for the visibility of product carbon footprints and recycling operations because of the initiative's success, aligning with the company's ESG and circular economy ambitions.

In the early 2010s, Unilever was facing several challenges in its operations. Firstly, the company was not able to connect its devices properly, which was leading to communication breakdowns between different departments. This resulted in delays and errors in completing tasks. Secondly, the company was finding it difficult to manage its tasks effectively, which was leading to a backlog of work. This caused delays in completing orders and delivering products to customers on time. Thirdly, the company was facing challenges in analysing opportunities and making data-driven decisions. This was because the data collected from different devices was not being integrated or analysed effectively. Fourthly, the company was finding it difficult to transfer information in a secure way, which was leading to the risk of data breaches. Lastly, the company was struggling to track the devices that were being used in its operations.

Sales and Profits Decline Due to these challenges, Unilever was experiencing a decline in sales and profits. Customers were becoming dissatisfied with the company's inability to deliver products on time, which was leading to a loss of trust. Moreover, the company was not able to make informed decisions due to the lack of data analysis, which was resulting in missed opportunities and increased costs.

IoT Technology Implementation To overcome these challenges, Unilever decided to implement IoT technology. The company integrated IoT sensors into its devices, which allowed them to connect and communicate with each other seamlessly. This improved the company's communication and enabled the automation of several tasks, such as tracking inventory levels and monitoring equipment performance. Moreover, the data collected from different devices was integrated and analysed using IoT platforms, enabling the company to make data-driven decisions.

The implementation of IoT technology also enabled the company to transfer information securely. The use of encrypted data transfers ensured that data breaches were prevented, thereby safeguarding the company's operations. Additionally, the use of GPS tracking and RFID (Radio Frequency Identification) technology allowed the company to track its devices effectively.

The company saw a big boost in Sales and Profits. The implementation of IoT technology had a significant impact on Unilever's operations. The integration of IoT sensors and platforms allowed the company to overcome its

communication challenges and manage its tasks more effectively. The automation of several processes enabled the company to reduce its operational costs and improve its overall efficiency. Moreover, the data analysis enabled the company to make informed decisions and identify opportunities for future growth.

The use of secure data transfers and device tracking also enabled the company to reduce risks and ensure the safety of its operations. As a result, the company saw a boost in sales and overall profits. Customers were satisfied with the company's improved efficiency and timely delivery of products. The company's ability to make informed decisions also resulted in the identification of new market opportunities, which further contributed to the company's growth.

Question – 2.5 marks each
1. What was the impact of implementing IOT technology on Unilever's operations? **(CO4) (K2)**
2. How did IOT technology help Unilever to improve its communication and management tasks? **(CO4) (K2)**

Q2. Write short notes on any 2:   *(10 marks)*

1. Applications of IOT **(CO3) (K2)**
2. Types of Machine Learning **(CO3) (K2)**
3. AR Vs VR **(CO3) (K2)**
4. Methods of Deep Learning **(CO3) (K2)**

Q.3. Please Explain the Following Technology: (Any 1)   *(10 marks)*

1. Explain the deployments models of cloud computing. **(CO2) (K2)**
2. What are skills required for Digital Transformation? **(CO2) (K2)**

Q4. Multiple Choice Questions: *(5 marks)*

1. What are the 3 Keys to digital transformation? **(CO1) (K1)**
   a) People, Technology, and Data
   b) People, AI, and Data
   c) Technology, IOT, and Data
   d) None of the Above

2. _____ is the most popular paradigm for machine learning. **(CO1) (K1)**
   a) Unsupervised Learning
   b) Supervised Learning
   c) Reinforcement Learning
   d) Transfer Learning

3. An IoT network is a collection of interconnected devices. **(CO1) (K1)**
   a) True
   b) False

4. Which are the following Machine Learning Methods? **(CO1) (K1)**
   a) Self - Learning
   b) Behavior Learning
   c) Deep Learning
   d) Both A and C

5. _____ process involves perfecting a previously trained model. **(CO1) (K1)**
   a) Training from Scratch
   b) Dropout
   c) Learning Rate Decay
   d) Transfer Learning

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