SOMAIYA
VIDYAVIHAR UNIVERSITY
Dr. Shantilal K. Somaiya School of Commerce and Business Studies

QUESTION PAPERS

BRANCH: Bachelor of Business Management	SEM: II
	MAR/APR-2023

Sr. No.	Subject	Available
1.	131U06C201 – Basics of Cost Accounting (A)	
2.	131U06C201 – Basics of Cost Accounting (B)	
3.	131U06C201 – Basics of Cost Accounting (C)	
4.	131U06K201 – Basics of Computers	
5.	131U04C201 – Financial Accounting II	
6.	131U06K201 – Business Ethics	
7.	131U06K201 – Business Ethics	
8.	131U06C202 – Business Law (A)	
9.	131U06C202 – Business Law (B)	
10.	131U06C203 – Principles of Management (A)	
11.	131U06C203 – Principles of Management (B)	
12.	131U06C204 – Business Mathematics (A)	
13.	131U06C204 – Business Mathematics (B)	
14.	131 U06 C203 - Principles of Marketing	
15.	131 U06 C 204 - Business mathematics (C)	

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Semester (November 2022 to March 2023) **Examination: End Semester Examination March/April 2023 (UG Programmes)**		
Programme code: 06 **Programme: BBM**	**Class:** FY	**Semester:** II
Name of the Constituent College: S.K. Somaiya college	**Name of the Department**: Business studies	
Course Code: 131U06C201	**Name of the Course: Basics of cost accounting**	
Duration : 2 Hrs.	**Maximum Marks : 60**	
Instructions: All questions are compulsory		

<table>
<tr><th>Question No.</th><th></th><th>Max. Marks</th><th>CO Attainment</th></tr>
<tr><td>Q.1. A</td><td>The sales turnover and profit of M/s A Ltd. during the two year 2020 and 2021 were as follows:

<table><tr><td>year</td><td>sales</td><td>Profit</td></tr><tr><td>2020</td><td>10,00,000</td><td>1,20,000</td></tr><tr><td>2021</td><td>12,20,000</td><td>1,80,000</td></tr></table>
You are required to calculate:
a) P/V Ratio
b) BEP sales
c) Sales required to earn a profit of Rs 2,20,000
d) The profit made when sales are Rs. 15,00,000</td><td>15</td><td>Co 4</td></tr>
<tr><td></td><td>OR</td><td></td><td></td></tr>
<tr><td>Q.1. B</td><td>From the following particulars calculate:
a) P/V ratio
b) Break- even point
c) Margin of safety
d) Sales required to earn a profit of Rs. 5,00,000
e) Profit when sales are of Rs. 25,00,000
f) Margin of safety if company is earning profit of Rs. 6,00,000
Fixed cost- Rs 4,00,000
Profit- Rs 2,50,000
Sales- Rs 12,00,000</td><td>15</td><td>Co 4</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>Q.2. A</td><td>Explain cost unit and different type of cost centers</td><td>15</td><td>Co 1</td></tr>
<tr><td></td><td>OR</td><td></td><td></td></tr>
<tr><td>Q.2. B</td><td>Explain advantages and disadvantages of job costing</td><td>15</td><td>Co 3</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>Q.3. A.</td><td>From the following particulars, prepare a statement of cost for the year 2021.

<table><tr><td>Particulars</td><td>Amount</td></tr><tr><td>Opening stock of raw materials</td><td>1,00,000</td></tr><tr><td>Raw material returned to suppliers</td><td>8,000</td></tr><tr><td>Wages paid to productive workers</td><td>36,000</td></tr><tr><td>Wages paid to non-productive workers</td><td>8,000</td></tr></table></td><td>15</td><td>Co 2</td></tr>
</table>

		Rent of workshop 10,000 Repairs to plant 2,400 Office expenses 6,000 Advertisement expenses 4,800 Purchase of material 2,80,000 Closing stock of material 38,400 Staff salaries 10,000 Carriage on purchases 2,000 Carriage on sales 6,000 Fuel, gas, water etc. 4,000 Depreciation on machinery 2,800 Direct expense 1,600		
	OR			
Q.3. B.	From the following information prepare a statement showing (i) Prime cost (ii) Works cost (iii) Cost of Production (iv) Cost of Sales (v) Net profit of X Ltd. which produced and sold 1000 units in June 2019. **Opening Stock**: Raw Materials 24,000 Finished goods 16,000 **Closing stock**: Raw Materials 20,000 Finished goods 15,000 Purchase of Raw Materials 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 & Rates 2,500 Depreciation - Machinery 2,500 Bad Debts 1,500	15	Co 2
Q.4	Write the following concepts (5 Marks each)	15	
A.	Explain cost accounting		Co 1
B.	Explain process costing		Co 3
C.	Elaborate contract costing		Co 3

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Semester (November 2022 to March 2023) **Examination: End Semester Examination March/April 2023 (UG Programmes)**		
Programme code: 06 **Programme: BBM**	**Class:** FY	**Semester:** II
Name of the Constituent College: S.K. Somaiya college	**Name of the Department**: Business studies	
Course Code: 131U06C201	**Name of the Course: Basics of cost accounting**	
Duration : 2 Hrs.	**Maximum Marks : 60**	
Instructions: 1) All questions are compulsory		

Question No.		Max. Marks	CO Attain
Q.1. A	The sales turnover and profit of M/s A Ltd. during the two year 2020 and 2021 were as follows: year | sales | Profit 2020 | 9,00,000 | 1,20,000 2021 | 10,20,000 | 1,50,000 You are required to calculate: a) P/V Ratio b) BEP sales c) Sales required to earn a profit of Rs 2,40,000 The profit made when sales are Rs. 15,00,000	15	Co 4
	OR		
Q.1. B	From the following particulars calculate: a) P/V ratio b) Break- even point c) Margin of safety d) Sales required to earn a profit of Rs. 1,50,000 e) Profit when sales are of Rs. 10,00,000 f) Margin of safety if company is earning profit of Rs. 2,00,000 Fixed cost- Rs 1,50,000 Profit- Rs 1,00,000 Sales- Rs 5,00,000	15	Co 4
Q.2. A	Explain features of operating costing	8	Co 3
B.	Elaborate job costing and its limitations	7	Co 3
	OR		
Q.2. C	Explain limitations of financial accounting	8	Co 1
D.	Explain objectives of cost accounting	7	Co 1
Q.3. A.	From the following particulars, prepare a statement of cost for the year 2021.	15	Co 2

Particulars	Amount
Opening stock of raw materials	50,000
Raw material returned to suppliers	4,000
Wages paid to productive workers	36,000
Wages paid to non-productive workers	4,000
Rent of workshop	5,000
Repairs to plant	1,200
Office expenses	3,000
Advertisement expenses	2,400
Purchase of material	1,40,000
Closing stock of material	38,400
Staff salaries	10,000
Carriage on purchases	1,000
Carriage on sales	3,000
Fuel, gas, water etc.	2,000
Depreciation on machinery	2,800
Direct expense	1,600

OR

Q.3. B. The trading profit and loss account of Vijaya manufacturing company for the year ending 31st December, 2020 was as follows — 15 — Co 2

Trading profit and loss account
For the year ended 31st December, 2020

Particulars	Amount	Particulars	Amount
To raw material purchases	80,000	By sales (2,500 units)	2,50,000
To direct wages	30,000	By closing stock of Raw material	5,000
To direct expenses	25,000		
To factory expenses	40,000		
To gross profit c/d	80,000		
	2,55,000		**2,55,000**
To office salaries	25,000	By gross profit b/d	80,000
To office rent	12,000	By dividend received	10,000
To selling expenses	12,500	By discount received	7,500
To preliminary expenses written off	2,500		
To goodwill written off	5,500		
To net profit c/d	40,000		
	97,500		**97,500**

For the year 2021, it is estimated that:

a) Units produced and sold will rise by 20%
b) Prices of raw material per unit will rise by 10%
c) Direct wages per unit will increase by 25%
d) Direct expenses will increase by Rs 5000 in total

	e) Factory expenses per unit will increase by 25% f) The office premises which was on rental basis in 2014 would be purchases by company, on which depreciation would be Rs. 6,000 in 2015 g) Selling expenses per unit will remain same You are required to prepare a statement showing estimated cost and profit for the year ended 31st December 2021 considering that company shall charge a profit at 20% on sales		
Q 4	Write the following concepts (5 Marks each)	15	
A.	Explain labour costing		Co 2
B.	Explain process costing		Co 3
C	Explain marginal costing		Co 4

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Semester (November 2022 to March 2023) **Examination: End Semester Examination March/April 2023 (UG Programmes)**		
Programme code: 06		
Programme: BBM	**Class:** FY	**Semester:** II
Name of the Constituent College: S.K. Somaiya college	**Name of the Department**: Business studies	
Course Code: 131U06C201	**Name of the Course: Basics of cost accounting**	
Duration : 2 Hrs.	**Maximum Marks : 60**	
Instructions: 1) All questions are compulsory		

Question No.		Max. Marks	CO Attainment
Q.1. A	The sales turnover and profit of M/s A Ltd. during the two year 2020 and 2021 were as follows: You are required to calculate: year | sales | Profit 2020 | 7,00,000 | 90,000 2021 | 9,20,000 | 1,20,000 a) P/V Ratio b) BEP sales c) Sales required to earn a profit of Rs 1,80,000 d) The profit made when sales are Rs. 20,00,000	15	Co 4
	OR		
Q.1. B	From the following particulars calculate: a) P/V ratio b) Break- even point c) Margin of safety d) Sales required to earn a profit of Rs. 3,00,000 e) Profit when sales are of Rs. 20,00,000 f) Margin of safety if company is earning profit of Rs. 4,00,000 Fixed cost- Rs 3,00,000 Profit- Rs 2,00,000 Sales- Rs 10,00,000	15	Co 4
Q.2. A	Explain features of process costing	8	Co 3
B.	Elaborate basic concepts of contract costing	7	Co 3
	OR		
Q.2. C.	Explain objectives of cost accounting	8	Co 1
D.	Explain limitations of cost accounting	7	Co 1
Q.3. A.	From the books of accounts of M/s Aryan Enterprises, the following details have been extracted for the year ending March 31, 2020 Amount Stock of materials: Opening 1,88,000 closing 2,00,000 Material purchased during the year 8,32,000	15	Co 2

		Direct wages paid	2,38,400		
		Indirect wages	16,000		
		Salaries to administrative staff	16,000		
		Freights: Inward outward	 32,000 20,000		
		Cash discount allowed	14,000		
		Bad debts written off	18,800		
		Repairs to plant and machinery	42,400		
		Rent, rates and taxes: Factory office	 12,000 6,400		
		Travelling expenses	12,400		
		Salesmen's salaries and commission	33,600		
		Depreciation written off: Plant and machinery furniture	 28,400 2,400		
		Director's fees	24,000		
		Electricity charges (factory)	48,000		
		fuel	64,000		
		General charges	24,800		
		Managers salary	48,000		
		The manager's time is shared between the factory and the office in the ratio of 20:80 Prepare cost sheet			
		OR			
Q.3. B.		Super vision company furnishes you with the following information about its 1000 TV sets manufactured and sold during the year:		15	Co 2

Particulars	Amount	Particulars	Amount
materials	18,00,000	Office and administrative expenses	6,80,000
Direct wages	10,00,000	Selling and distribution expenses	1,20,000
Power and stores	2,40,000	Sale of scrap	40,000
Indirect wages	3,00,000	Sale of 1000 TV sets	62,00,000
Factory lighting	1,20,000	Repairs and depreciation of machinery	2,00,000
Cost of rectifying defective work	60,000		

Prepare the cost sheet for the above year, showing the elements of cost per unit.

Also prepare the estimated cost sheet for the year assuming that:

a) Materials cost and direct wages cost will increase by 10% and 15% respectively.

	b) Factory overheads will increase by 10% c) Office overheads and selling overheads will increase by 10% and 12% respectively. 1500 TV sets will be produced and sold at Rs 6,600 each in the next year		
Q.4	Write the following concepts (5 Marks each)	15	
A.	Elaborate material costing		Co 2
B.	Explain Marginal costing		Co 4
C.	Explain job costing		Co 3

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Semester (November 2022 to March 2023) Examination: End Semester Examination March/April 2023 (UG Programmes)		
Programme code: 06 **Programme: BBM**	**Class:** FY	**Semester:** II
Name of the Constituent College: S.K Somaiya College	**Name of the Department** : Business studies	
Course Code: 131U06K201	**Name of the Course: Basic Of Computers**	
Duration : 2 Hrs.	**Maximum Marks : 60**	
Instructions: 1)Draw neat diagrams 2)Assume suitable data if necessary		

Question No.		Max. Marks	CO Attainment
Q.1. A	Explain computers . What are the different types of computers in detail ?	15	1
	OR		
Q.1. B	Explain the difference between firmware and humanware .Explain auxiliary devices	15	1
Q.2. A	Explain the types of networks in detail with suitable diagrams	15	2
	OR		
Q.2. B	Explain the impact and non impact printers in detail with examples	15	1
Q.3. A.	Explain booting , Why is it required ? What are the types of booting in a system	15	2
	OR		
Q.3. B.	Explain the types of ROM in detail with their full forms	15	1
Q.4	Convert the following (5 Marks each)	15	1
1.	hexadecimal to binary - E9A		
2.	11011 + 111		
3.	11011 X 10		

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Semester - April 2023 **Examination: End Semester Examination April 2023 (UG Programmes)**		
Programme code: 04 **Programme: B.com -FINANCIAL MARKET**	**Class:** FY	**Semester:** II
Name of the Constituent College: **S K SOMAIYA COLLEGE**	**Name of the Department :** **COMMERCE AND BUSINESS STUDIES**	
Course Code: 131U04C201	**Name of the Course: FINANCIAL ACCOUNTING -II**	
Duration : 2 Hrs.	**Maximum Marks : 60**	
Instructions: Question no 4 is compulsory.		

<table>
<tr><th>Question No.</th><th></th><th>Max Marks</th><th>Co Attainment</th></tr>
<tr><td>Q.1.</td><td>
A. A company issued Rs. 1,80,000 redeemable preference shares at par on 1st Jan2018, redeemable at the option of the company on or after 31st December 2019 in whole or in part.
The following redemptions were made out of profits:
On 30th June2020 Rs. 60,000
On 30th June 2021 Rs. 40,000
On 15th December 2021, the company issued equity shares of Rs.100 each, the face value of Rs. 60,000 at a premium of 2% and redeemed the balance of Preference shares. On 20th December the company used CRR to issue fully paid bonus shares of Rs. 100 each.
Pass the journal entries to record the above transaction. (15 Marks)

B. Discuss objectives and features of IFRS. (15 Marks)
</td><td>15</td><td>CO 1

CO 4</td></tr>
<tr><td>Q.2.</td><td>
A. The Balance sheet of Mahostav Ltd. As on 31st March 2022 was as follows:
Balance sheet
As on 31st March2022
<table>
<tr><th>Liabilities</th><th>Rs.</th><th>Assets</th><th>Rs.</th></tr>
<tr><td>80,000 Equity shares of Rs.10 Each fully
1,000 6% Preference shares of Rs. 1000 each
General Reserve
Profit and Loss a/c
Security Premium
10% Debentures</td><td>8,00,000
1,00,000
90,000
1,40,000
30,000
2,00,000</td><td>Fixed assets
Other current assets
Bank</td><td>8,00,000
3,20,000
2,40,000</td></tr>
<tr><td></td><td>13,60,000</td><td></td><td>13,60,000</td></tr>
</table>
On this date the company bought back 20,000 Equity shares at Rs.12 after satisfying the legal requirements.
Pass journal entries. (10 Marks)

B. Gland Pharmacy company buys 50,000n Equity shares of Rs.10 each @Rs25 per share. The reserves of the company are as follows:
Security premium Rs.15,00,000
General Reserve Rs. 23,00,000
Company issued 100, 12 % Preference shares of Rs.100 each at par for the purpose of Buyback of the Equity shares.
Pass necessary journal entries in the books of the company. (05 Marks)

OR

C. The Balance sheet of Ambani Ltd. As on 31st March 2022 was as follows:
</td><td>15</td><td>CO 2

CO 2

CO 2</td></tr>
</table>

Balance sheet
As on 31st March2022

Liabilities	Rs.	Assets	Rs.
8, 00,000 Equity shares of Rs.10 Each, Rs.8 paid.	64,00,000	Machinery	60,00,000
		Investments	37,00,000
		Bank	1,17,00,000
Profit and Loss a/c	60,00,000		
Security Premium	20,00,000		
10% Debentures	20,00,000		
Bank Term loan	20,00,000		
Sundry creditors	30,00,000		
	2,14,00,000		**2,14,00,000**

The company decided to buyback the maximum number of Equity shares as may be permitted at a price of Rs.20 per share being the current market price. Assuming the Buyback is actually carried out.

You are required to pass necessary journal entries in the books of Ambani Ltd. **(15 Marks)**

Q.3.

A. On 1st April 2014,200 6% Debentures of Rs. 100 each of Excellence Ltd were held as investment by Tushar at a cost of Rs. 18,200. Excellence Ltd pays interest on 1st May and 1st November every year.

The following other transactions entered by him during the year ended 31st March 2015. In regards of these debentures.

Date	No. of Debentures	Transact - ion	Rate
1st April 2014	100	Sale	Rs.98 Cum-Int
1st October 2014	100	Purchase	Rs.104 Ex-int
1st December 2014	200	Purchase	Rs.97 Cum -int
1st February 2014	100	Sale	Rs.103 Cum int

You are required to prepare investment in 6% debentures in excellent Ltd account for the year ended 31st March 2015 as it would appear in the books of Mr. Tushar. (Apply AS-13) **(15 Marks)**

OR

B. Mr. Jayant holds, 6 % Debentures of Rs. 100 each in Gemini Ltd on 1st April 2021 at a cost of Rs. 2,80,000. Interest is payable on 30 June and 31st Dec. every year.

Other details are as follows: -

On 1st June 2021, 800 6% Debentures are purchased cum-interest at Rs.81,600.

On 1st November 2021, 800, 6% Debentures are purchased Ex-interest at Rs.76,800.

On 30th November 2021, 1,200, 6% Debentures are sold Cum-interest for Rs.1,29,000.

On 31st December 2021, 1,600, 6% Debentures are sold Ex-interest at for Rs. 1,54,600.

Prepare a 6% debentures account in the books of Mr. Jayant valuing closing balance on 31st March 2022 at cost or market price whichever is lower. The debenture are quoted at par on 31st March 2022. (Apply AS-13) **(15 Marks)**

15 **CO 3** **CO 3**

Q.4.

Attempt the followings: **(05 Marks Each)**

A. On 1st April 2022 Dakshinamukhi purchases 1,000 Equity shares of Rs. 100 each in laxmi Ltd at Rs.120 each from a broker, who charged 2% brokerage. He incurred 50 paise per Rs.100 as cost of share transfer stamps.

On 31st January 2023 Bonus was declared in the ratio of 1:2. Before and after the record date of bonus shares, the shares were quoted at Rs. 175 per share and Rs.90 per share respectively.

On 31st March 2015Dakshinamukhi sold bonus shares to a broker who charged 2% brokerage.

15 **CO 3**

	Show the investment account in the books of Dakshinamukhi. **Closing value of investment in shares shall be made at cost or market value whichever is less.** **B.** Explain the sources of Buyback. **C.** What do you mean by Revenue reserves.		**CO 2** **CO 1**

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Semester (November 2022 to March 2023) Examination: End Semester Examination March/April 2023 (UG Programmes)		
Programme code: 06 **Programme:** FY BBM	**Class:** FY	**Semester:** II
Name of the Constituent College: S.K.Somaiya College	**Name of the Department:** Business Studies	
Course Code: 131U06K201	**Name of the Course:** Business Ethics	
Duration : 2 Hrs.	**Maximum Marks** : 60	
Instructions: 1)Draw neat diagrams 2)Assume suitable data if necessary		

Question No.		Max. Marks	CO Attainment
Q.1. A	Distinguish between Entrepreneur and Manager.	15	1,2
	OR		
Q.1. B	Elaborate on Deontological theories.	15	1,2
Q.2. A	Elaborate on Scope of CSR.	15	1,2
	OR		
Q.2. B	Inspect on Impact of CSR on Education.	15	1,2
	OR		
Q.3. A.	Extend on Principles and Scope of Corporate Governance.	15	1,2
	OR		
Q.3. B.	Elaborate on models of Corporate Governance.	15	1,2
Q.4	Solve the following Case Study	15	1,2
	In the wake of the December 2015 terrorist attack in San Bernardino, attention turned to the perpetrator's iPhone. A federal judge asked Apple, maker of the iPhone, to provide "reasonable technical assistance" to the FBI in accessing the information on the phone with that hope of discovering additional threats to national security. Apple provided the FBI with data it had in their possession and sent Apple engineers to advise the FBI, but refused to comply with the court order to bypass the phone's security measures: specifically the 4-digit login code and a feature that erases all data after ten incorrect attempts. The FBI argued that the bypass could only be used for this phone, this one time. The agency also cited national security concerns, given the phone may lead to better understanding the attack and preventing further incidents. Apple CEO Tim Cook issued a public letter reiterating Apple's refusal to cooperate. Cook advocated for the benefits of encryption in society to keep personal information safe. He stated that creating the backdoor entry into the iPhone would be akin to creating a master key capable of accessing the tens of millions of iPhones in the U.S. alone. Cook also had concerns that the FBI was outstepping its bounds - by using the court system to expand its authority - and believed the case should be settled after public debate and legislative		

	action through Congress instead. Public opinion polls on the issue were split. A number of major tech firms filed amicus briefs in support of Apple. The White House and Bill Gates stood behind the FBI. In anticlimactic fashion, the FBI withdrew its request a day before the hearing, claiming it no longer needed Apple's help to assess the phone. It is speculated that an Israeli tech firm, Cellebrite, helped the FBI gain assess.		
	Questions: 1: Elaborate on Ethical issues in IT Department of Business. 2: Was Apple wrong for not complying with the FBI's request? If so, why? If not, why not?		

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Programme code: 06 **Programme:** FY BBM	**Class:** FY	**Semester:** II
Name of the Constituent College: S.K.Somaiya College	**Name of the Department:** Business Studies	
Course Code: 131U06K201	**Name of the Course:** Business Ethics	
Duration : 2 Hrs.	**Maximum Marks :** 60	
Instructions: 1)Draw neat diagrams 2)Assume suitable data if necessary		

Question No.		Max. Marks	CO Attainment
Q.1. A	Compare Indian Ethics v/s Western Ethics	15	1,2
	OR		
Q.1. B	Elaborate on Principles of Business Ethics.	15	1,2
Q.2. A	Design a plan on how to measure CSR in an organization.	15	1,2
	OR		
Q.2. B	Explain Triple Bottom Line.	15	1,2
Q.3. A.	Extend on Agency Principle Theory.	15	1,2
	OR		
Q.3. B.	Formulate a plan on how to assess Corporate Governance.	15	1,2
Q.4	Solve the following Case Study	15	1,2
	You are the Managing Director of Metro Rail Corporation (MRC) of a metropolitan city and you have received orders and funding for construction of the metro track and a parking space in a densely forested area of the city with houses of few underprivileged families as well in it. For the construction, the forest has to be cleared and the families have to be moved to some other place. The locals have started a protest after knowing about the order. They are highly raged about cutting down thousands of trees and the affected families have also joined them because the forest holds emotional value for them. On the other hand, the minister who directly controls the MRC is pressuring you to start the felling process as soon as possible. You know that going against his orders will have serious repercussions. (a) What are the ethical issues involved and the options available to you in such a situation? (b) Also, suggest a course of action you would like to follow. (250 words)	7 Marks 8 Marks	

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Semester (April 23) Examination: End Semester Examination March 2023 (UG Programmes)		
Programme code: 06 Programme: BBM	Class: FY	Semester: II
Name of the Constituent College: S. K. Somaiya	Name of the Department: Business Studies	
Course Code: 131U06C202	Name of the Course: Business Law	
Duration : 2 Hrs.	Maximum Marks: 60	
Instructions: 1) Write Sections wherever necessary 2) Give example and Draw flow Charts		

Question No.	Attempt following questions	Max. Marks	CO
Q.1. A	Define Company? Discuss in detail advantages of a Company as per 2013 act	07	CO3
Q.1. B	Explain Memorandum and Articles of Association	08	CO3
	OR		
Q.1. C	Discuss Doctrine of Ultra vires, Cavet Emptor and Constructive notice	07	CO3
Q.1. D	What is Meeting? Explain types and provisions of Meetings in detail	08	CO3
Q.2. A	Define Agreement. Explain any 06 effects of Minor's Agreement	07	CO1
Q.2. B	Differentiate between Void Agreement and Voidable Agreement and between Agreement and Contract (at least 4 points each)	08	CO1
	`OR		
Q.2. C	Explain the term – **'Negotiable Instrument'**, also explain essentials of a Negotiable Instrument.	07	CO2
Q.2. D	Bring out problems in a contract when **Consent is not free** as per section 10 onwards	08	CO1
Q.3. A	Enumerate the objects and reasons for the Consumer Protection Act. Also Explain terms – Defect, Deficiency and Appropriate Laboratory.	07	CO3
Q.3. B	Clarify what is Stipulation. Discuss in detail about conditions and its types	08	CO2
	OR		
Q.3. C	What is GST? Enumerate salient features of GST	07	CO4
Q.3. D	Discuss provisions of Patents, Copyright and Trademark	08	CO4
Q.4	**Solve the following Case Study**	15	
	Facts of the case In the instant case, the directors of Royal British Bank Ltd. (R.B.B) issued a bond to Turquand and borrowed money from him. The Articles of Association authorized the directors to issue such bonds with the approval of a proper resolution. The directors were empowered by the Articles to borrow on bonds only such sums of money as the company in a general meeting resolves to borrow from time to time (through the passing of necessary resolution). However, no such resolution was passed for authorizing the issue of bonds. And the directors issued a bond to Turquand without the authority of a necessary resolution. Later, the repayment of the loan defaulted, and the company was questioned to be liable. The claim was refused by the shareholders in the absence of the resolution.		

	According to principle related to this case, if an act is authorized by the articles or memorandum of a company, an outsider is entitled to believe that all of the specified formalities for carrying out that act have been followed by the company.		
	In other words, persons dealing with a company who have satisfied themselves that the intended transaction is not inherently inconsistent with the Memorandum and Articles, are not required to enquire about the validity of internal proceedings of the company. That is to say that when they contract with a company considering that the intended transaction falls within the purview of its Memorandum and Articles, they are entitled to presume that the provisions of the Memorandum/Articles have been observed by the officers of the company. It is not the duty of outsiders to ensure that the company fulfills its internal regulations. It is sufficient that they ensure that the proposed transaction is permitted by the charter documents of the company. They by no means can know what does or does not take place inside the company. 1. Identify and Explain the Doctrine related to above case 2. Discuss the exceptions applicable to the above Doctrine 3. Write appropriate judgement according to you with proper reasons, assuming you are the authority	**04** **04** **07**	**CO3** **CO3** **CO4**

SOMAIYA VIDYAVIHAR UNIVERSITY

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Semester (April 23) Examination: End Semester Examination March 2023 (UG Programmes)		
Programme code: 06 **Programme: BBM**	**Class:** FY	**Semester:** II
Name of the Constituent College: S. K. Somaiya	**Name of the Department: Business Studies**	
Course Code: 131U06C202	**Name of the Course: Business Law**	
Duration : 2 Hrs.	**Maximum Marks: 60**	
Instructions: 1) Write Sections wherever necessary 2) Give example and Draw flow Charts		

Question No.	Attempt following questions	Max. Marks	CO
Q.1. A	What is **Meeting**? Discuss concept of quorum for a meeting. Write a note on AGM and EGM with provisions	07	CO3
Q.1. B	What is **Prospectus**? Enumerate different type of Prospectus Also explain content of a prospectus	08	CO3
	OR		
Q.1. C	Define offer. Discuss different modes of revocation of an offer	07	CO1
Q.1. D	Bring out and discuss different possibilities when Consent is not free	08	CO1
Q.2. A	**Define Goods**. Explain different types of Goods. Differentiate between Sale and Hire purchase sale (at least 3 points)	07	CO2
Q.2. B	Bring out Differences between MOA and AOA (Memorandum and Articles of Association). Also explain doctrine of Cavet emptor.	08	CO3
	`OR		
Q.2. C	Explain the Doctrine of 'Caveat Emptor'. Also explain Right of – Lien, Stoppage in transit and Resale.	07	CO3
Q.2. D	Discuss provisions of Copyright, Geographical indicator, and Trademark	08	CO4
Q.3. A	Define Stipulation. Explain in detail about Warranty and types of warranties	07	CO4
Q.3. B	What is Patent? Explain the procedure for obtaining a Patent	08	CO4
	OR		
Q.3. C	Due to emergence of other monetary instruments, traditional negotiable instruments are outdated, discuss, and also explain essentials of a Negotiable instruments	07	CO2
Q.3. D	With reference to features, discuss in detail GST.	08	CO4
Q.4	**Solve the following Case Study**	15	
	The facts of this case were as follows: - Dharmodas Ghose, was the respondent in this case. He was a minor (i.e. has not reached the 18 years of age) and he was the sole owner of his immovable property. The mother of Dharmodas Ghose was authorized as his legal custodian by Calcutta High Court. When he went for the mortgage of his own immovable property which was done in the favor of appellant i.e. Brahmo Dutta, he was a minor and he secured this mortgage deed for Rs. 20,000 at 12% interest rate per year. Bhramo Dutta who was a money lender at that time and he secured a loan or amount of Rs. 20,000, and the management of his business was in the		

	control of Kedar Nath, and Kedar Nath acted as the attorney of Brahmo Dutta. Dharmodas Ghose's mother sent a notification to Brahmo Dutta informing him about the minority of Dharmodas Ghose on the date on which such mortgage deed was commenced. But the proportion or sum of loan that was actually provided was less than Rs. 20,000. The negotiator or representative of the defendant, who actually acted instead of on behalf of money lender has given money or sum to the plaintiff, who was a minor and he fully had knowledge about the incompetency of the plaintiff to perform or enter into contract and also that he was incompetent legally to mortgage his property which belonged to him. After that, on 10thSept. 1895 Dharmodas Ghose along with his mother brought an legal suit or action against Brahmo Dutta by saying that the mortgage that was executed by Dharmodas was commenced when he was		
	a minor or infant and so such mortgage was void and disproportionate or improper and as a result of which such contract should be revoked or rescinded. When this petition or claim was in process, Brahmo Dutta had died and then further the appeal or petition was litigated or indicted by his executor's. The plaintiff argued or confronted that in such case no relaxation or any sought of aid should be provided to them because according to him, defendant had deceitfully or dishonestly misinterpreted the fact about his age and because if mortgage is cancelled at the request by defendant i.e. Dharmodas Ghose. 1. Discuss effects of Minor's agreement under Unenforceable agreements 2. Discuss any 4 applicable essentials of a valid contract for this case 3. Write suitable judgement for the above given case	**07** **04** **04**	**CO1** **CO1** **CO4**

SOMAIYA VIDYAVIHAR UNIVERSITY

Semester (December 2022 to April 2023) Examination: End Semester Examination March/April 2023 (UG Programmes)		
Programme code:06 **Programme: BBM**	**Class:** FY	**Semester:** II
Name of the Constituent College: **S K SOMAIYA COLLEGE**	**Name of the Department** BUSINESS STUDIES	
Course Code: **131U06C203**	**Name of the Course: PRINCIPLES OF MANAGEMENT**	
Duration : 2 Hrs	**Maximum Marks : 60**	
Instructions: 1)Draw neat diagrams 2)Assume suitable data if necessary		

Question No.		Max. Marks	CO attainment
Q.1. A	Define marketing along with its features.	8 marks	CO1
B	Enumerate different stages involved in the evolution of marketing concept.	7 marks	CO2
	OR		
Q.1. C	Diagrammatically explain product life cycle stages giving suitable examples.	10 marks	CO5
D	Differentiate between packing and packaging.	5 marks	CO4
Q.2. A	Describe factors affecting the channel distribution and also highlight dealers research concept.	8 marks	CO6
B	Discuss the STP marketing analysis model in detail.	7 marks	CO3
	OR		
Q.2. C	"Marketing research is beneficial for the organizations"- Justify the statement.	8 marks	CO3
D	Elucidate different ways of undertaking primary research to collect consumer data.	7 marks	CO3
Q.3. A.	Enumerate key concepts of MIS along with its advantages and challenges.	10 marks	CO2
B	Write a note on ethics in marketing	5 marks	CO1
	OR		
Q.3. C	Discuss the use of AI and IoT in marketing.	8 marks	CO1
D	Highlight some promotional tools used by organizations in detail.	7 marks	CO7
Q.4	Solve the following Case Study	15 marks	
	XYZ Corporation, a leading consumer electronics company, is planning to launch a new smartphone in the market. The company has invested heavily in research and development to create a technologically advanced and feature-rich product. The marketing team is tasked with creating a comprehensive marketing plan to ensure a successful product launch.		

	Questions:		
a.	As a counsellor help the marketing team conduct market research to identify the needs of target market for the new smartphone?	3 marks	CO3
b.	Suggest some pricing strategies to be adopted for the new smartphone and why?	3 marks	CO8
c.	Discuss the importance of branding and positioning in the marketing plan for the new smartphone.	3 marks	CO2
d.	What marketing strategies and tactics should the marketing team use to create awareness and generate interest in the new smartphone among consumers?	6 marks	CO7

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Semester (December 2022 to April 2023) Examination: End Semester Examination March/April 2023 (UG Programmes)		
Programme code:06 **Programme: BBM**	**Class: FY**	**Semester: II**
Name of the Constituent College: **S K SOMAIYA COLLEGE**	**Name of the Department** BUSINESS STUDIES	
Course Code: **131U06C203**	**Name of the Course: PRINCIPLES OF MARKETING**	
Duration : 2 Hrs	**Maximum Marks : 60**	
Instructions: 1)Draw neat diagrams 2)Assume suitable data if necessary		

Question No.		Max. Marks	CO attainment
Q.1. A	Define marketing along with the elements of marketing plan system.	8 marks	CO1
B	Diagrammatically explain the buying process along with the concept of performance marketing giving suitable examples.	7 marks	CO1
	OR		
Q.1. C	Enumerate the importance of packaging in marketing of products and services.	8 marks	CO5
D	Discuss the factors influencing the pricing decisions along with different pricing methods.	7 marks	CO8
Q.2. A	Define marketing research along with any 4 types of marketing research in detail.	8 marks	CO3
B	Elucidate the concept of distribution along with its types.	7 marks	CO6
	OR		
Q.2. C	Describe different product levels along with Pull and Push marketing tactics.	8 marks	CO5
D	"PR and publicity plays an important role in organizations success."- Justify	7 marks	CO7
Q.3. A.	Discuss the significance of STP analysis in marketing.	8 marks	CO3
B	Enumerate the principles of ethics in marketing.	7 marks	CO1
	OR		
Q.3. C	Enunciate the concept of MIS along with its advantages and challenges.	8 marks	CO2
D	Give examples explaining the use of AR, VR and voice in marketing.	7 marks	CO2
Q.4	Solve the following Case Study	15 marks	

	'Haryaram' is a famous chain selling a large variety of products in the Indian market. Their products include chips, biscuits, sweets and squashes. It charges a comparatively higher price than its competitors as it sells quality products. Besides, it offers regular discounts to its customers and easy credit terms to its retailers. It has five of its own retail shops. It also sells its products through various grocery stores to that the products are made available to customers at the right place, in the right quantity and at the right time. It regularly uses different communication tools to increase its sales.		
	Questions:		
a.	Discuss the marketing mix of Haryaram.	6 marks	CO4
b.	Suggest new age marketing tools to increase their sales.	5 marks	CO7
c.	As a counsellor also help the manager of Haryaram to understand the importance of marketing research.	4 marks	CO3

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Semester (November 2022 to March 2023) Examination: End Semester Examination March/April 2023 (UG Programmes)		
Programme code: 06 **Programme:** Bachelor of Business Management	**Class:** FY	**Semester:** II
Name of the Constituent College: S K Somaiya College	**Name of the Department:** Commerce and Business Studies	
Course Code: 131U06C204	**Name of the Course:** Business Mathematics	
Duration : 2 Hrs.	**Maximum Marks : 60**	
Instructions: 1) Figures to the right indicate maximum marks. 2) Assume suitable data if necessary 3) Use of scientific calculator is allowed.		

Question No.			Max. Marks	CO Attainment
Q.1.	A	If the nominal rate of interest is 12% p.a. then find the effective rate of interest p.a. if the interest is compounded (a) half yearly (c) quarterly	7	CO3
	B	A watch company is to produce a cheaper variety of wrist watches. It involves initially a fixed cost of Rs. 2 lakhs and a variable cost of Rs. 105 for each watch. If each wrist watch can be sold at Rs. 500, find the total cost function and revenue function. How many wrist watches must be produced and sold so that the company does not face any loss?	8	CO3
		OR		
Q.1.	C	Suppose you would like to have Rs. 25,000 saved in 6 years from now to pay towards your down payment on a new house. If you are going to make equal annual payments at the end of each year to an investment account that pays 7% p.a compound interest. How big do these annual payments need to be?	5	CO1
	D	Find the following multiplication if possible. If $A = \begin{bmatrix} 2 & 3 & 1 \\ 4 & 0 & 2 \end{bmatrix}$, $B = \begin{bmatrix} 1 & -3 \\ 4 & 0 \\ 2 & -1 \\ 4 & 3 \end{bmatrix}$ and $C = \begin{bmatrix} 2 & 6 \\ 0 & 8 \\ -1 & 5 \end{bmatrix}$. i) $A \times B$ iii) $A \times C$ ii) $B \times C$ iv) $C \times A$	10	CO2
Q.2.	A	Solve the following simultaneous equations using Cramer's rule. $x + 2y + 2z = 1, \quad 2x + 3y + 4z = 4, \quad -x + y + 3z = -2.$	8	CO2
	B	Find matrix X such that 2X – 3A = B, where A = $\begin{bmatrix} 1 & 3 & 0 \\ 2 & -2 & 1 \\ -4 & 1 & -1 \end{bmatrix}$ and B = $\begin{bmatrix} 1 & 3 & 0 \\ 2 & -2 & 1 \\ -4 & 1 & -1 \end{bmatrix}$.	7	CO2

		OR		
Q.2.	C	Find the maximum profit of the firm whose total revenue function is $R(Q) = 80Q$ and total cost function is $C = Q^2 + 10Q + 900$.	8	CO3
	D	If $f(x) = x^4e^{-2x}$, find the values of x for which the function $f(x)$ is increasing.	7	CO2
Q.3.	A	If the cost function is $C(Q) = 10Q - 4Q^2 + Q^3 + 200$. Find marginal cost, variable cost, fixed cost, average cost, average variable cost, and average fixed cost.	8	CO1
	B	Evaluate the integral $\int_0^2 (e^{2p} + 2p^3 - \frac{7}{2}p^6 + 50)\ dp$.	7	CO2
		OR		
Q.3.	C	Suppose that the demand curve is $D(Q) = 60 - \frac{Q^2}{10}$ and the supply curve is $S(Q) = 30 + \frac{Q^2}{5}$. Find equilibrium price and quantity, and compute consumer, producer, and society surplus.	10	CO1
	D	Assume the marginal cost function of a firm is $C'(Q) = 2Q^2 + 2\sqrt{Q} + 100$ and the fixed cost is 5000. Find the cost function $C(Q)$.	5	CO3
Q.4		Solve the following Case Study	15	CO1, CO3
		From the following inter-industry transaction demand model,		

Producer Sectors	**User sectors**			**Final demand**
	A	**B**	**C**	
A	8	10	10	4
B	8	20	6	6
C	6	10	8	4

Answer the following questions:

i) What is the total output of these three industries?

ii) Find the Technology matrix.

iii) What is the output when the final demand changes to 14, 28 and 14 from 4, 6 and 8 respectively.

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Semester (November 2022 to March 2023) Examination: End Semester Examination March/April 2023 (UG Programmes)		
Programme code: 06 **Programme:** Bachelor of Business Management	**Class:** FY	**Semester:** II
Name of the Constituent College: S K Somaiya College	**Name of the Department:** Commerce and Business Studies	
Course Code: 131U06C204	**Name of the Course:** Business Mathematics	
Duration : 2 Hrs.	**Maximum Marks : 60**	
Instructions: 1) Figures to the right indicate maximum marks. 2) Assume suitable data if necessary 3) Use of scientific calculator is allowed.		

Question No.			Max. Marks	CO Attainment
Q.1.	A	If the nominal rate of interest is 24% p.a. then find the effective rate of interest p.a. if the interest is compounded (a) annually (b) half yearly (c) quarterly	10	CO3
	B	Find the equilibrium quantity and the equilibrium price for the supply and demand equations given by $S = 4p + 4$ and $D = 100 - 8p$, respectively.	5	CO3
		OR		
Q.1.	C	A loan of Rs. 1,00,000 is to be repaid in 4 years in 4 equal instalments at the end of each year. The rate of interest is 10% p.a. a) Find the yearly instalments using interest on reducing balance. b) Prepare the amortization table for the first two years.	10	CO1, CO3
	D	Find A^{-1} and A^T, if $A = \begin{bmatrix} 2 & 6 \\ 4 & 3 \end{bmatrix}$. Also find the multiplication $A^{-1} \times A^T$.	5	CO2
Q.2.	A	If $A = \begin{bmatrix} 9 & 1 \\ 4 & 3 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 5 \\ 7 & 13 \end{bmatrix}$, evaluate $A^2 - 3B + 5I$, where I is the identity matrix.	7	CO2
	B	Solve the following simultaneous linear equations: $\begin{cases} x + 3y - z = 3 \\ 2x - y + 6z = 7 \\ -x + 2y + z = 2 \end{cases}$	8	CO2
		OR		
Q.2.	C	Find the values of x, for which the function $f(x) = x^4\, e^{-2x}$, is (a) increasing (b) decreasing.	10	CO3
	D	The cost function is $C(x) = 3x^2 + 5x + 4$. Find the average cost and the marginal cost when $x = 4$.	5	CO2
Q.3.	A	Classify the critical points of $f(x) = -x^2 + 70x - 900$.	10	CO1
	B	Find area under the curve $f(x) = x^6$ over the interval [0,1].	5	CO2

<table>
<tr><td></td><td><u>OR</u></td><td></td><td></td></tr>
<tr><td>Q.3. C</td><td>If the demand function is $f(Q) = 200 - 0.2Q$ and the supply function is $g(Q) = 20 + 0.1Q$. Find the equilibrium price and quantity, and compute consumer, producer and society surplus.</td><td>10</td><td>CO1</td></tr>
<tr><td>D</td><td>Evaluate the integral $\int_{-2}^{2}(x + 2x^3 - 2x^5)\ dx$.</td><td>5</td><td>CO3</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>Q.4</td><td>Solve the following Case Study</td><td>15</td><td>CO1, CO3</td></tr>
<tr><td></td><td>For the following two-industries input-output model,
<table>
<tr><th rowspan="2">Industry</th><th colspan="2">Consumption by industry</th><th rowspan="2">Final Demand</th></tr>
<tr><th>1</th><th>2</th></tr>
<tr><td>1</td><td>120</td><td>130</td><td>150</td></tr>
<tr><td>2</td><td>120</td><td>180</td><td>200</td></tr>
<tr><td>Labour</td><td>80</td><td>200</td><td></td></tr>
</table>
Answer the following questions.
i) Find Leontief matrix.
ii) What is the level of output if the final demand of each product increased by 60 units?
iii) What is the labour requirement for this output?</td><td></td><td></td></tr>
</table>

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Semester (December 2022 to April 2023) **Examination: End Semester Examination March/April 2023 (UG Programmes)**		
Programme code:06 **Programme: BBM**	**Class:** FY	**Semester:** II
Name of the Constituent College: **S K SOMAIYA COLLEGE**	**Name of the Department** BUSINESS STUDIES	
Course Code: **131U06C203**	**Name of the Course: PRINCIPLES OF MARKETING**	
Duration : 2 Hrs	**Maximum Marks : 60**	
Instructions: 1)Draw neat diagrams 2)Assume suitable data if necessary		

Question No.		Max. Marks	CO attainment
Q.1. A	Describe the concept of product mix along with product levels giving suitable examples.	8 marks	CO5
B	Enunciate the concept of holistic marketing along the importance of marketing.	7 marks	CO2
	OR		
Q.1. C	Give suitable examples explaining various pricing strategies adopted by organizations.	8 marks	CO8
D	Define the term 'marketing' along with scope of marketing.	7 marks	CO1
Q.2. A	Define marketing research along with its features.	8 marks	CO3
B	Elucidate consumer research in detail.	7 marks	CO3
	OR		
Q.2. C	Give suitable examples explaining digital marketing in detail.	8 marks	CO7
D	Discuss various elements of marketing mix for service organizations.	7 marks	CO4
Q.3. A.	Compare marketing research and MIS along with the components of MIS	8 marks	CO3
B	Enumerate various factors affecting distribution also discuss pull and push tactics in marketing.	7 marks	CO6
	OR		
Q.3. C	Discuss the use of AR and Voice in marketing.	8 marks	CO2
D	Write a note on Unethical marketing giving relevant examples.	7 marks	CO1
Q.4	Solve the following Case Study	15	
	Radhika was a student of Business Studies of Call XII. Her father was a farmer who grew different varieties of rice and was well-versed about various aspects of rice cultivation. He was also selected by the government for a pilot-project on rice cultivation. As a project-work in Business Studies she decided to study the feasibility of marketing good quality rice at a reasonable price. Her father suggested her to use internet to gather customers' views and opinions. She found that there was a huge demand for packaged organic rice. She knew that there were no pre-determined specification in case of rice because of which it would be difficult to achieve uniformity in the output. To differentiate the product form its competitors, she gave it the name of Malabari Organic Rice' and classified it into three different varieties namely - Popular,, Classic and Supreme, based on the quality. She felt that these names would help her in product differentiation.		
	Ouestions:		
a.	Justify the importance of branding with reference to the above case.	5 marks	CO2
b.	As a counsellor help Radhika with STP analysis.	5 marks	CO3
c.	"Radhika should focus on marketing research to increase her sales"- Justify with reasons.	5 marks	CO3

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SOMAIYA VIDYAVIHAR UNIVERSITY

Semester (November 2022 to March 2023) Examination: End Semester Examination March/April 2023 (UG Programmes)		
Programme code: 06 **Programme:** Bachelor of Business Management	**Class:** FY	**Semester:** II
Name of the Constituent College: S K Somaiya College	**Name of the Department:** Commerce and Business Studies	
Course Code: 131U06C204	**Name of the Course:** Business Mathematics	
Duration : 2 Hrs.	**Maximum Marks : 60**	
Instructions: 1) Figures to the right indicate maximum marks. 2) Assume suitable data if necessary 3) Use of scientific calculator is allowed.		

Question No.			Max. Marks	CO Attainment
Q.1.	A	A loan of Rs. 40,000 is to be returned in 4 monthly instalments at the rate of 10% p.a. compounded monthly. Find the EMI using reducing balance method. Also prepare the amortization table for first two months.	10	CO3
	B	A person lent Rs. 8,000 for 4 years and Rs. 6,000 for 3 years at the same rate of simple interest. If he received total Rs. 3,000 as interest, find the rate of simple interest.	5	CO3
		OR		
Q.1.	C	A manufacturer has invested Rs. 30,000 as fixed cost and a variable cost of Rs. 20 per unit for production of shirts. If each shirt can be sold at Rs. 40, find the cost function, revenue function and profit function. Also find the number of shirts to be produced to achieve the breakeven point.	8	CO1
	D	Find the inverse of the matrix $\begin{bmatrix} 1 & 2 & 1 \\ 2 & -3 & 1 \\ -1 & 2 & -2 \end{bmatrix}$.	7	CO2
Q.2.	A	If A = $\begin{bmatrix} 1 & 3 & 0 \\ 2 & -2 & 1 \\ -4 & 1 & -1 \end{bmatrix}$ and B = $\begin{bmatrix} 1 & 3 & 0 \\ 2 & -2 & 1 \\ -4 & 1 & -1 \end{bmatrix}$, then find the multiplication matrix A×B.	7	CO2
	B	Solve the following simultaneous equations. $x + y + z = 2, \quad -8x - y + 2z = -1, \quad 3x + 2y + 2z = 3.$	8	CO2
		OR		
Q.2.	C	Let the revenue function is $R(Q) = 1840Q$ and the cost function is $C(Q) = 2Q^2 - 40Q + 5000$. How many units must be produced for the firm to maximize the profit?	8	CO3
	D	Find the intervals in which the function $y = \frac{x^2}{e^{2x}}$ is increasing.	7	CO2

<table>
<tr><td>Q.3. A</td><td>Find the total cost if marginal cost is given by $7 + 3Q$. Also find the average cost.</td><td>5</td><td>CO1</td></tr>
<tr><td>B</td><td>i) Evaluate the integral $\int (3t^2 - 2\sqrt{t} + e^{-4x} + 5)\, dt$.
ii) Find $\frac{d}{dx}\left(\frac{x-1}{x+3}\right)^{\frac{1}{3}}$.</td><td>10</td><td>CO2</td></tr>
<tr><td></td><td><u>OR</u></td><td></td><td></td></tr>
<tr><td>Q.3. C</td><td>Suppose that the demand curve is $D(Q) = 60 - \frac{Q^2}{10}$ and the supply curve is $S(Q) = 30 + \frac{Q^2}{5}$. Find equilibrium price and quantity, and compute consumer, producer and society surplus.</td><td>10</td><td>CO1</td></tr>
<tr><td>D</td><td>Find area bounded by the graph of the function $f(x) = \frac{1}{2}(e^x + e^{-x})$ over the interval $[-1,1]$.</td><td>5</td><td>CO3</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>Q.4</td><td>Solve the following Case Study</td><td>15</td><td>CO1, CO3</td></tr>
<tr><td></td><td>From the following information,
<table>
<tr><th rowspan="2">Industry</th><th colspan="2">Consumption by industry</th><th rowspan="2">Final Demand</th></tr>
<tr><th>1</th><th>2</th></tr>
<tr><td>1</td><td>40</td><td>50</td><td>110</td></tr>
<tr><td>2</td><td>100</td><td>80</td><td>120</td></tr>
<tr><td>Labour</td><td>60</td><td>170</td><td></td></tr>
</table>
Answer the following questions:
i) Obtain the Technology matrix.
ii) If this matrix remains constant what is the total output of each industry when the final demand of both products is doubled ?
iii) What is the labour input requirement of this output?</td><td></td><td></td></tr>
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