

AFM

L-D-02

F.Y.B. Com. Semester - I

Duration: 1 hour

Marks: 30

Date:

Seat NO: 4/10/25

Regular & ATKT

Instructions for the candidate:

1. Attempt any 2 questions.
2. Each question carry 15 marks.
3. Figures on the right-hand side indicate full marks.
4. Use of simple calculator is allowed.

Q1 Following is the information in the Books of Mr. Rawat for the year ended 31st March 2025. 15 M

Particulars	01-04-2024	31-03-2025
Cash	23,000	1,03,500
Debtors	92,000	?
Bills Receivable	89,700	?
Stock	1,84,000	1,38,000
Fixed Assets	2,53,000	2,53,000
Creditors	92,000	?
Bills Payable	46,000	?

Cash Transaction during the year 2024-25

Received from Debtors	6,44,000
Bills receivable encashed	2,30,000
Cash Sales	92,000
Payment to Creditors	3,45,000
Bills Payable Paid	2,76,000
Drawing	23,000
Salaries	2,30,000
Printing and Stationery	11,500

Non-Cash Transaction during the year 2024-25

Credit Sales	9,43,000
Credit Purchase	6,90,000
Discount Allowed	23,000
Discount Received	34,500
Bills Receivable Drawn	2,53,000
Bills Payable Accepted	3,22,000

Additional Adjustments:

- a) Prepaid Salaries Rs. 2,300.
- b) Outstanding Printing and Stationery Rs. 23,000.
- c) Opening Capital Rs. 5,03,700.

Prepare Trading Account, Profit and Loss Account, Debtors Account, Bills Receivable Account, Creditors Account and Bills Payable Account for the year ended 31st March 2025.

Q 2 Answer (a) and (b) both of the following

(a) State whether following transactions are Capital or Revenue with reasons.

1. Income tax paid ₹15,000
2. Purchase of Patent ₹ 8,00,00,000
3. Sale of Machinery ₹ 10,00,000
4. Discount received ₹ 800

(b) The Trial Balance of Mr. Ranak is as below. Prepare Manufacturing and Trading Accounts for the year-ended 31st March, 2025. 7M

Debit Balance	₹	Credit Balance	₹
Opening Stock:		Sundry Creditors	25,500
Raw Materials	34,500	Bills Payable	12,750
Work-in-Progress	15,000	Sale of Scrap	2,250
Finished Goods	23,250	Commission	3,000
Sundry Debtors	40,500	Ranak's Capital Accounts	1,50,000
Carriage Expenses (50% On Sale)	3,000	Sales	3,00,000
Bills Receivable	24,000		
Wages	18,000		
Salaries	15,000		
Repairs to Plant	1,800		
Repairs to Office Furniture	900		
Purchases	1,50,000		
Cash at Bank	3,450		
Plant and Machinery	1,35,000		
Furniture	13,500		
Lighting Expenses	7,500		
Factory Insurance	2,700		
General Expenses	3,000		
Import Duty	2,400		
	4,93,500		4,93,500

Following additional information is provided to you:

1. Closing stock as on 31st March, 2025. was: Raw materials Rs. 27,750, Finished goods Rs. 27,300, Semi-finished goods Rs. 10,500.
2. Salaries Rs. 8,000 and wages Rs. 3,000 for 31st March, 2025 were paid in April 2025.
3. Lighting expenses were outstanding Rs. 900 whereas insurance was prepaid Rs. 750.
4. 25% of the lighting expenses is to be charged to office premises and the remaining amount is to be charged to factory.
5. Depreciation is to be written off on machinery at 10% p.a. and on furniture at 5% p.a. 30% of Furniture is used in the Factory.
6. Uninsured Raw Material of ₹7,500: Finished Goods of ₹12,000 destroyed by Fire

Q 3 Write short notes (Any three)

- A Bills Payable Account
- B Trading Account
- C Capital Expenditure
- D Revenue Expenditure
- E Cost of Raw material Consumed

15 M

AFM

Date: 4/10/2025
Seat No: _____F.Y.B. Com. Semester - I
Duration: 2 hours

Marks: 60

Regular & ATKT

Instructions for the candidate:

1. Q.1 is Compulsory.
2. Attempt any 3 from Q. 2 to Q.5.
3. Figures on the right-hand side indicate full marks.
4. Use of simple calculator is allowed.

Q1 From the following inventory transactions, prepare a Stores Ledger using the FIFO method and calculate the value of closing stock as on 28th February 2025: 10 M

Date	Transaction Type	Quantity	Rate (₹)
02-Feb-25	Opening Stock	300	25
06-Feb-25	Purchase	400	27
12-Feb-25	Issue	350	
18-Feb-25	Purchase	250	30
25-Feb-25	Issue	300	

Q1B From the following inventory transactions, prepare a Stores Ledger using the Weighted Average Method and calculate the value of closing stock as on 28th February 2025. 5 M

Date	Transaction Tye	Quantity	Rate (₹)
02-Feb-25	Opening Stock	2,000	25
06-Feb-25	Purchase	6,000	30
12-Feb-25	Issue	2,000	
18-Feb-25	Purchase	3,000	32
24-Feb-25	Issue	3,000	

Q2 Following is the information in the books of Mr. Rawat for the year ended 31st March 2025. 15 M

Particulars	01-04-2024	31-03-2025
Cash	23,000	1,03,500
Debtors	92,000	?
Bills Receivable	89,700	?
Stock	1,84,000	1,38,000
Fixed Assets	2,53,000	2,53,000
Creditors	92,000	?
Bills Payable	46,000	?

Cash Transaction during the year 2024-25

Received from Debtors	6,44,000
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Non-Cash Transaction during the year 2024-25

Credit Sales	9,43,000
Credit Purchase	6,90,000
Discount Allowed	23,000
Discount Received	34,500
Bills Receivable Drawn	2,53,000
Bills Payable Accepted	3,22,000

Additional Adjustments:

- Prepaid Salaries Rs. 2,300.
- Outstanding Printing and Stationery Rs. 23,000.
- Opening Capital Rs. 5,03,700.

Prepare Trading Account, Profit and Loss Account, Debtors Account, Bills Receivable Account, Creditors Account and Bills Payable Account for the year ended 31st March 2025.

- Q 3 Redson Departmental Stores has two departments: Department X for sports equipment and Department Y for musical instruments. Following information is given regarding the transactions for the year ending 31st March, 2025:

15M

Particulars	Departments	₹
Opening Stock:	Dept. X	63,000
	Dept. Y	51,000
Purchases	Dept. X	3,84,000
	Dept. Y	2,91,000
Sales	Dept. X	12,45,000
	Dept. Y	10,11,000
Return inwards	Dept. X	45,000
	Dept. Y	11,000
Furniture	Dept. X	6,00,000
	Dept. Y	3,00,000
Depreciation on Furniture		24,000
Wages		67,500
Salaries		60,000
Advertisement		39,000
Insurance charges		5,700
Electricity charges		60,000
Rent and taxes		54,000
Bad debts		5,850
Carriage inwards		13,500
Discount allowed		4,875
Discount received		3,375
Office expenses		31,500

Additional information:

- Total net Sales includes credit Sales: Dept. X ₹ 5,00,000 and Dept. ₹ 7,50,000.
- Closing stock of Dept. X was Rs. 50,000 and Dept. Y was Rs. 40,000
- Insurance was taken for stock of goods on the basis of Closing stock of each department.
- Dept. X occupies double of the space than Dept. Y whereas the electricity

- consumption of Dept. X was 50% more than that of Dept. Y.
5. Wages are incurred in proportion of Purchases of each department excluding inter departmental transfers whereas; number of employees in the office of Dept-X and Dept-Y were 15 and 20 respectively.
 6. Office expenses to be apportioned to Dept. X and Dept. Y in the ratio 3:2 respectively.
 7. During the year, the goods costing Rs. 28,000 transferred to Dept. X from Dept. Y, not considered above. No any other expenditure is incurred on inter departmental transfer.

Prepare departmental trading and profit and loss accounts for the year ended 31st March, 2025.

Q 4 Answer (a) and (b) both of the following

(a) State whether following transactions are Capital or Revenue with reasons.

1. Income tax paid ₹15,000
2. Purchase of Patent ₹ 8,00,00,000
3. Sale of Machinery ₹ 10,00,000
4. Discount received ₹ 800

8M

(b) The Trial Balance of Mr. Ranak is as below. Prepare Manufacturing and Trading Accounts for the year-ended 31st March, 2025.

7M

Debit Balance	₹	Credit Balance	₹
Opening Stock:		Sundry Creditors	25,500
Raw Materials	34,500	Bills Payable	12,750
Work-In-Progress	15,000	Sale of Scrap	2,250
Finished Goods	23,250	Commission	3,000
Sundry Debtors	40,500	Ranak's Capital Accounts	1,50,000
Carriage Expenses (50% On Sale)	3,000	Sales	3,00,000
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Wages	18,000		
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Repairs to Office Furniture	900		
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Cash at Bank	3,450		
Plant and Machinery	1,35,000		
Furniture	13,500		
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Factory Insurance	2,700		
General Expenses	3,000		
Import Duty	2,400		
	4,93,500		4,93,500

Following additional information is provided to you:

- 1) Closing stock as on 31st March, 2025. was: Raw materials Rs. 27,750, Finished goods Rs. 27,300, Semi-finished goods Rs. 10,500.
- 2) Salaries Rs. 8,000 and wages Rs. 3,000 for 31st March, 2025 were paid in April 2025.
- 3) Lighting expenses were outstanding Rs. 900 whereas insurance was prepaid Rs. 750.
- 4) 25% of the lighting expenses is to be charged to office premises and the remaining amount is to be charged to factory.
- 5) Depreciation is to be written off on machinery at 10% p.a. and on furniture at 5% p.a. 30% of Furniture is used in the Factory.
- 6) Uninsured Raw Material of ₹7,500: Finished Goods of ₹12,000 destroyed by Fire

- Q 5 Write short notes (Any three)
- A Bills Payable Account
 - B Trading Account
 - C Weighted Average Rate
 - D Revenue Expenditure
 - E Cost of Raw material Consumed

15M

Date: 13/10/25
Duration: 1 hour

(NEP 2020)

Seat No:
Marks: 30

Instructions for the candidate:

1. Q.1 is Compulsory.
2. Attempt any 2 from Q. 2 to Q.4.
3. Figures on the right-hand side indicate full marks.
4. Use of simple calculator is allowed.

Q 1 Answer the following.

Draft a job application letter and a resume in response to the following employment advertisement. 10

"Shantaram Bank Ltd. want a cashier for their Mumbai branch. Candidates with a B. Com degree and knowledge of banking apply to: Shantaram Bank Ltd., Dadar, Mumbai."

Q 2 Answer the following.

- A Explain the Downward channel of communication. 05
- B Ms. Neetu Kapoor wants to resign from her position of receptionist at Jeetu Ceramics Ltd., as she has been offered a better position by Gauri Interiors, Mumbai. Draft a letter of resignation on her behalf. 05

Q 3 Answer the following.

- A Discuss any three characteristics of oral communication. 05
- B You wish to seek admission to the Master of Business Administration course in Cornell University, USA. Draft a statement of purpose in this context. 05

Q 4 Answer the following.

- A Explain any three of the 'Organizational barriers' to communication. 05
- B Do as directed:
- i) A reward was given to him by the Manager. 01
(Change the voice)
- ii) Mamta wrote a most complete account of his travels. 01
(Correct the statement)
- iii) Write a synonym of 'Pupil'. 01
- iv) Write an antonym of 'Accidental'. 01
- v) Make use of the phrase 'A burning question' in your own sentence. 01

Regular & ATKT

DATE: 11/10/25
Duration: 1 hour

SEAT NO. _____
Marks: 30

Instructions: -

- (1) Question number 1 is compulsory.
- (2) Attempt any TWO questions from Question number 2, 3 and 4.
- (3) Use of simple non-programmable calculators is allowed.
- (4) Each question carries 10 marks, and each sub question carries 5 marks.

Q. 1 Answer the following

- a The following data gives the Mean and Standard Deviation of wages of two groups of workers. 5 marks

	Group I	Group II
Mean Wages(Rs.)	500	600
Standard Deviation	3	2

Calculate Coefficient of variation of these two groups separately and decide which group has greater variation in the distribution of wages?

- b If A and B are any two events of sample space S and $P(A) = 0.1$, $P(B) = 0.6$ and $P(A \cap B) = 0.054$, then find: (i) $P(\bar{A})$ (ii) $P(B/A)$ (iii) $P(A \cup B)$. 5 marks

Q. 2 Answer the following

- a Calculate Arithmetic Mean and Range for the following distribution: 5 marks

Class Interval	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Frequency	10	12	15	20	14	11	8

- b For the following probability distribution, find the value of:
i) k ii) $E(x)$ iii) $V(x)$. 5 marks

x	28	29	30	31	32
P(x)	0.3	0.2	k	0.1	0.2

Q. 3 Answer the following

- a Calculate Median and P75 (75th percentile) for the following data. 5 marks

Class	1-2	2-3	3-4	4-5	5-6	6-7	7-8
Frequency	1	4	9	12	10	8	2

- b From the following pay-off table, determine the best possible act by using (i) Maximin Criterion, (ii) Maximax Criterion. 5 marks

Event → Act ↓	E ₁	E ₂	E ₃	E ₄
A ₁	185	120	240	140
A ₂	250	100	180	290
A ₃	210	130	170	180

Q. 4 Answer the following

- a Calculate Quartile Deviation for the following data. (Correct up to two decimal places) **5 marks**

Marks	10-20	20-30	30-40	40-50	50-60	60-70
No. of students	2	4	6	8	7	5

- b From the following pay-off table, determine the best possible act by using Expected Monetary Value (EMV) criterion. **5 marks**

Course of Action	States of Nature		
	S1	S2	S3
A1	3250	3150	1320
A2	3190	1235	1330
A3	1830	3160	1320
Probability	0.6	0.2	0.2

Regular Sem I Fy BCom
& ATKT
Commerce I Oct 2028

09/10/2028

DATE: _____

SEAT NO. _____

Duration: 1 hours

Marks: 30

Instructions: - (1) Attempt any two questions from the following
(2) Figures to the right indicate full marks.

Q:1	Answer the following questions:	15
A)	What are the National objectives of the Business?	
B)	Discuss significance of business to the Firm.	
Q:2	Answer the following questions:	15
A)	What is Business Unit Promotion? Discuss its Stages.	
B)	Explain importance of Project Planning.	
Q:3	Answer the following questions:	15
A)	Explain essentials of the Turnaround strategy.	
B)	Explain legal provisions relating to licensing and registration of companies.	

-----X-----X-----X-----

DATE: _____

SEAT NO. _____

Duration: 2 hours

Marks: 60

Instructions: - (1) Attempt any four questions from the following.
(2) Figures to the right indicate full marks.

- Q:1 Answer the following questions:** 15
A) Discuss different functions of the Business.
B) Discuss the impacts of Privatisation.
- Q:2 Answer the following questions:** 15
A) What is the importance of Business Environment?
B) Discuss measures to improve Educational standards.
- Q:3 Answer the following questions:** 15
A) Explain importance of Project Planning.
B) What is Licensing in Business? Explain its types.
- Q:4 Answer the following questions:** 15
A) Explain importance of Entrepreneurship.
B) Who is social Entrepreneur? Explain its features.
- Q:5 Answer the following questions:** 15
A) Discuss the need for Restructuring the Business Enterprise.
B) Explain functions of WTO.
- Q:6 Answer the following questions:** 15
A) What is Business Unit Promotion? Discuss its Stages.
B) Discuss Problems faced by Women Entrepreneurs.

-----X-----X-----X-----

DATE: 15/10/25

SEAT NO. _____

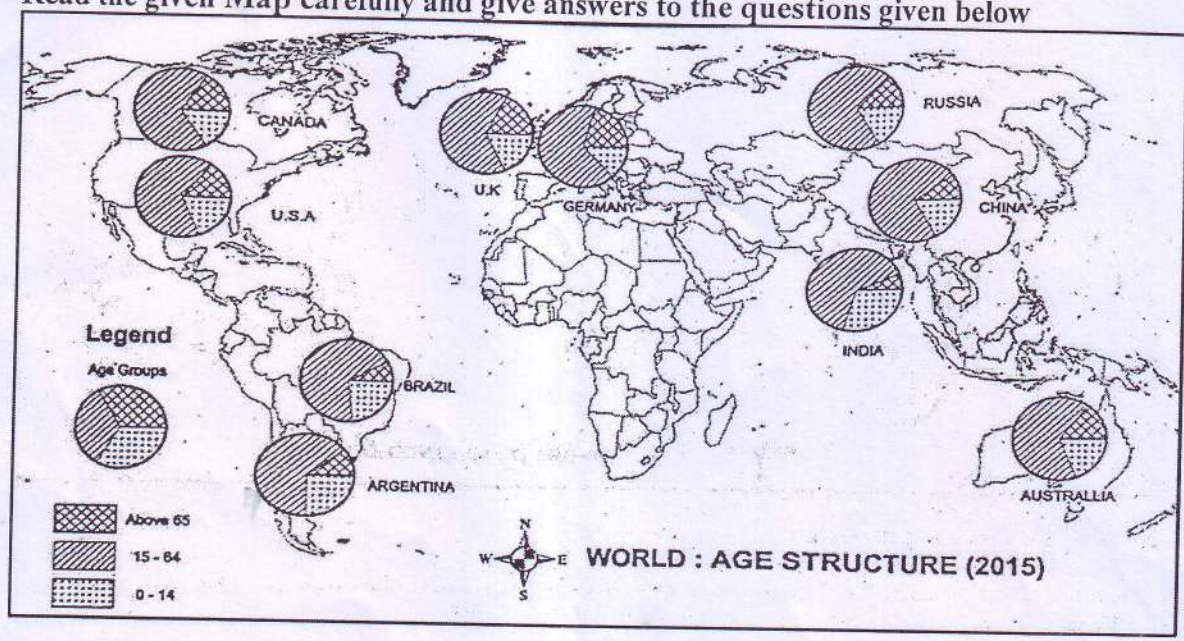
Duration: _____ hours

Marks: _____

- Instructions: - (1) Question No. 1 is compulsory
 (2) Attempt any Two questions from Question nos 2, 3 & 4
 (3). Figures to the right indicate full marks
 (4) Use of simple calculator is allowed

Q:1 Read the given Map carefully and give answers to the questions given below

10



1. What is the theme of the map? 1
2. Which cartographic technique is used to represent the theme? 1
3. According to the map, which country shows the maximum percentage of elderly population and give reasons for your answer. 2
4. According to the map, which country shows the maximum percentage of dependent minor population and give reasons for your answer. 2
5. With the help of the scale, find out the approximate percentage of population between the age group of 15-64 years in China. 1
6. State the composition of age structure of Indian population. 3

Q:2 Answer the following questions:

- A) Explain the term Ecosystem and classify its types. 10
- B) Describe the factors influencing the utilization of the natural resources? 5

Q:3 Answer the following questions:

- A) Elucidate the concept & discuss on significance of Ecological footprint 10
- B) Deliberate on the need and methods for Management & conservation of soil 5

Q:4 Write Short Notes on:

- A) Trophic Cascades 5
- B) Energy Crisis 5

-----X-----X-----X-----

DATE: _____

30 Marks - 1 Hour

SEAT NO. _____

Duration: _____ hours

Marks: 30

- Instructions: - (1) Q.1 is Compulsory.
(2) Attempt any 2 from Q. 2 to Q.4.
(3) Figures to the right indicate full marks.

- Q:1 Write Briefly in two or three sentences on: -** 10
1. Water (Prevention and Control of Pollution) Act, 1972
 2. S. Jagannath v. Union of India case
 3. M.V. Nayadu case
 4. Environment Protection Act, 1986
 5. Narula Dyeing Printing works case
- Q:2 Answer the following questions: -** 10
- A What is the meaning and purpose of Environmental Law? 5
- B What environmental concerns were raised in Goa Foundation v. Railway Corporation? 5
- Q:3 Answer the following questions: -** 10
- A What are the main features of the Air (Prevention and Control of Pollution) Act, 1981? 5
- B What issues were raised in the Ganga River Pollution case? 5
- Q:4 Write Short Notes: -** 10
- A Wildlife Protection Act, 1972 5
- B Vellore Citizens Welfare Forum 5

-----X-----X-----X-----

DATE: 17/11/2025 IKS

SEAT NO. _____

Duration: _____ hours

Marks: 30

- Instructions: - (1) Q.1 is Compulsory.
(2) Attempt any 2 from Q. 2 to Q.4.
(3) Figures to the right indicate full marks.

Q:1 Answer the following

10

Read the passage and answer the following questions given below: -

PASSAGE: -

The introduction of metals, especially iron, marked an important phase in the history of deforestation in India. In the early Vedic period, the Aryans probably did not know iron, using the word *ayas* for metals in general. Archaeological findings suggest that iron appeared in India between 1000 and 800 B.C., and its tools made the cutting of large trees much easier. This innovation allowed agricultural groups to settle in forested regions, particularly as the Aryans moved eastward into the Gangetic plains.

When the Aryans arrived in north-west India, described in the Rigveda as *Sapta Sindhavas* or the land of seven rivers, they began settling around 1400 B.C., first in Punjab and later across wider regions. Being both pastoral and agricultural, they required land for crops and grazing. To meet these needs, forests were cleared using fire, stone axes, and eventually iron implements. The burning of the *Khandava* forest in the *Mahabharata* symbolically represents such destruction through fire and deforestation.

During the early Vedic phase, forests were not destroyed for city building, as India had no major urban centers after the fall of the Harappan culture. Between this decline and the rise of the "second urbanization" around the 6th century B.C., historians note a thousand-year "Dark Age." Throughout this period, the Aryans lived amidst forests, mainly along riverbanks, clearing areas for villages and farmlands. Wood was central to their lives, used for cottages, carts, chariots, and fuel. Clearing of forest tracts also became necessary for creating roads and pathways to connect settlements.

Thus, Aryan expansion steadily accelerated deforestation, driven by agriculture, animal rearing, and communication needs. From ancient times, human survival and progress in India relied heavily on forest exploitation, laying the roots of deforestation deep in its early history.

Questions:-

1. What role did iron play in the history of deforestation in India?
2. How did the Aryans clear forests before the use of iron implements?
3. What does the burning of the *Khandava* forest in the *Mahabharata* symbolize?
4. Why were forests cleared during the early Vedic phase?
5. How was wood important in the lives of the Aryans?

DATE: _____

SEAT NO. _____

Duration: _____ hours

Marks: 30

- Q:2 Answer the following questions: -** 10
- A Explain wastewater management practices in Ancient India. 5
- B Describe the historical perspective of ancient tourism in India. 5
- Q:3 Answer the following questions: -** 10
- A Explain the significance of town planning in Ancient India with suitable examples. 5
- B Explain how Ancient Indian Stone masonry techniques influence other civilizations? 5
- Q:4 Answer the following questions: -** 10
- A Explain the features of town planning during the Indus Valley Civilization. 5
- B Discuss the role of early trade routes of the world in promoting tourism and cultural exchanges in Ancient India. 5

-----X-----X-----X-----

Interpersonal Dynamics-I

Instructions for the candidate:

1. Q.1 is Compulsory.
2. Attempt any 2 from Q. 2 to Q.4.
3. Figures on the right-hand side indicate full marks.

Q 1 Read the following Case Study carefully and answer the questions given below it.

Anjana Dubey was a senior journalist at 'Truthful Me Media Private Limited'. She had struggled a lot to reach to this position. She was a task master and wanted her juniors to focus on their work and never give any excuses for not doing work. She was known for her strict disciplinarian attitude.

Once her subordinate, Kaka Khanna, a cameraman remained absent from the work when she wanted him to go for covering a news report of a local community gathering. He was to report to a reporter, Felix D'Cunha, however, he didn't report and he also failed to communicate his unavailability to reach the news spot by 8 am. The reporter communicated this issue to his senior Ms. Anjana who had to depute someone else at the last minute.

The next day when Kaka met her, she lost her temper and rapped his knuckles in the harshest words possible. She termed him insincere, insensible and reprimanded him for his casual attitude towards work, without hearing his side.

Though Kaka was emotionally strong, he cried that day. Later he informed Ms. Anjana that his wife, Pushpa Khanna was hospitalized and there was no one to look after her that day, therefore, he had no option but to remain absent from work. Also, in his rush up to the hospital, he forgot to carry his phone with him. Because of not having the phone in which all the office numbers were saved, he couldn't inform in the office.

- A Comment upon the issues pertaining 'Emotional Intelligence' at workplace in the case study. 05
- B Imagine yourself in place of both 'Anjana' and 'Kaka' and state how can you better the response of each of them in this situation. 05

Q 2 Answer the following.

- A How would you exhibit your soft skills? Explain at least two techniques with examples. 05
- B Explain any two theories of formation of attitude. 05

Q 3 Answer the following.

- A Explain the benefits of any two of the components of SWOC analysis with example. 05
- B Comment on 'Personality as a signal that others read'. 05

Q 4 Answer the following.

- A Highlight the need to practice soft skills. 05
- B Define Phonetics. Explain any two types of organs of speech with example. 05

College Exam - Oct - 2025

FYB.Com (Sem-I) Regular Exam. ATKT

Sub - Mathematical Techniques - I.

DATE: 07/10/2025

SEAT NO. _____

Duration: 1 hour (8:00 To 9:00 AM).

Marks: 30

Instructions: -

- (1) Question number 1 is compulsory.
- (2) Attempt any TWO questions from Question number 2, 3 and 4
- (3) Use of simple non-programmable calculators is allowed.
- (4) Each question carries 10 marks, and each sub question carries 5 marks.

-
- Q 1 Answer the following**
- a Mr. X invested Rs. 4,25,000/- in shares with a face value of Rs. 10/- each that offer a 10% dividend. If Mr. X received a total dividend of Rs. 1,000/-, what was the market price of each share at the time of purchase? **5 marks**
- b A committee of 5 persons is to be formed from 10 doctors and 5 nurses. Find the total number of ways if the committee consists of
i) All doctors. ii) 3 Doctors and 2 Nurses. **5 marks**
- Q 2 Answer the following**
- a Mrs. A purchased 50 shares of market price Rs. 150/- per share & afterwards sold them with a market price of Rs. 220/- per share. She had to pay 0.2% brokerage for both the deals. Find the total purchase, total sale amounts, total gain & rate of return. **5 marks**
- b How many 4-digit numbers can be formed out of the digits 2,4,5,6,8 if no digits are repeated in any number? How many of these will be greater than 8,000? **5 marks**
- Q 3 Answer the following**
- a Mr. B invested Rs. 45,000/- in a mutual fund when the N.A.V. was Rs. 25/- with an entry load of 2%. After receiving a dividend @ Rs. 5/- per unit, he waited for a month and redeemed all the units and paid an exit load of 2%. The total gain was Rs. 4,000/-. What was N.A.V. at which he redeemed the unit? (The number of units to be rounded off up to 3 decimal places.) **5 marks**
- b Solve the following L.P.P. by graphical method: **5 marks**
- $$\begin{aligned} &\text{Minimize } Z = 20x + 30y, \\ &\text{Subject to } 2x + y \geq 6, \\ &\quad \quad \quad x + 4y \geq 8, \\ &\quad \quad \quad x \geq 0, y \geq 0. \end{aligned}$$
- Q 4 Answer the following**
- a Find the average acquisition cost per unit (rounded up to two decimal places) for an S.I.P. of ₹3,500/- invested on the 5th of March, April, May, June, and July at NAVs of ₹90.10/-, ₹90.40/-, ₹91.78/-, ₹92.40/-, and ₹92.80/- respectively. (The

number of units should be rounded off up to three decimal places.)

- b A company manufactures two types of gift articles R and S. Each article must go through three machines A, B and C. The maximum hours available on machine A, B and C are 5, 6 and 7 respectively. Manufacturing a unit of R requires 3 hours on machine A, 2 hours on machine B and 5 hours on machine C. Manufacturing a unit of S requires 2 hours on machine A, 4 hours on machine B and 5 hours on machine C. The profit per unit of R and S is of Rs. 300/- and Rs. 500/- respectively. Formulate the above problem as a Linear Programming Problem to maximize the profit.

5 marks
