

# BLUEPRINT FOR MODEL QUESTION PAPER-1

SUBJECT: MATHEMATICS(35)

CLASS : IPUC :2024-2025

SL. NO	CHAPTER/ DOMAIN/	NO OF T. HOURS	M A R K S	REMEMBER					UNDERSTAND					APPLY					CREATE/EVALUATE					TOTAL					
				PART-A		PART-B	PART-C	PART-D	PART-E	PART-A		PART-B	PART-C	PART-D	PART-E	PART-A		PART-B	PART-C	PART-D	PART-E								
				1 MARK MCQ	1 MARK FB	2 MARK SA	3 MARK SA	5 MARK LA	4 MARK LA	1 MARK MCQ	1 MARK FB	2 MARK SA	3 MARK SA	5 MARK LA	4 MARK LA	1 MARK MCQ	1 MARK FB	2 MARK SA	3 MARK SA	5 MARK LA	6 MARK LA	4 MARK LA	1 MARK MCQ		1 MARK FB	2 MARK SA	3 MARK SA	5 MARK LA	6 MARK LA
1	RELATIONS AND FUNCTIONS	9	9					1				1																	9
2	INVERSE TRIGONOMETRIC FUNCTIONS	6	6	1								1																	6
3	MATRICES	9	9					1		1				1															9
4	DETERMINANTS	12	12					1		1						1													12
5	CONTINUITY AND DIFFERENTIABILITY	20	17							1		1	1	1			1					1	1						17
6	APPLICATION OF DERIVATIVES	10	8							1						1	1						1			1			8
7	INTEGRALS	22	18	1					1			1	1									1							18
8	APPLICATION OF INDEFINITE INTEGRATION	5	5					1																					5
9	DIFFERENTIAL EQUATIONS	10	8		1				1								1												8
10	VECTOR ALGEBRA	11	8	1						1	1	1	1																8
11	THREE DIMENSIONAL GEOMETRY	8	6	1									1										1						6
12	LINEAR PROGRAMMING	7	6																							1			6
13	PROBABILITY	11	8		1					1			1	1									1						8
<b>TOTAL</b>		<b>140</b>	<b>120</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>8</b>	<b>1</b>	<b>6</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>120</b>

# DESIGN OF THE QUESTION PAPER

## SECOND PUC: MATHEMATICS(35): 2024-25

### Pattern of the Question Paper:

Part	Type of questions	Number of questions to be set	Number of questions to be answered	TOTAL MARKS	Remarks
A	1 mark Questions	$15+5=20$	$15+5=20$	20(20)	Compulsory part(MCQ+FB)
B	2 marks Questions	9	6	$9 \times 2=18$ $(6 \times 2=12)$	
C	3marks Questions	9	6	$9 \times 3=27$ $(6 \times 3=18)$	
D	5marks Questions	7	4	$7 \times 5=35$ $(4 \times 5=20)$	Questions must be asked from 7 specific topics
E	6 and 4 marks Questions (Both Internal choice)	$2+2$	$1+1$	$6 \times 2=12$ $(6 \times 1=6)$ $4 \times 2=8$ $(4 \times 1=4)$	Questions must be asked from 4 specific topics

**The weightage marks distribution across different dimensions shall be as follows:**

#### **A. Weightage to Objectives.**

Objective	Weightage	Marks
Remember	40%	36/120
Understand	30%	48/120
Apply	20%	24/120
Analyse/Create/Evaluate	10%	12/120

### **B.Weightage/marks across difficulty level:**

<b><u>Level</u></b>	<b><u>Weightage</u></b>	<b><u>Marks</u></b>
<b><u>Easy</u></b>	<b><u>40%</u></b>	<b><u>48/120</u></b>
<b><u>Average</u></b>	<b><u>40%</u></b>	<b><u>48/120</u></b>
<b><u>Difficult</u></b>	<b><u>20%</u></b>	<b><u>24/120</u></b>

### **C: Weightage Framework:**

<b>Chapter No.</b>	<b>Chapter</b>	<b>No. of teaching Hours</b>	<b>Marks</b>
1	RELATIONS AND FUNCTIONS	9	9
2	INVERSE TRIGONOMETRIC FUNCTIONS	6	6
3	MATRICES	9	9
4	DETERMINANTS	12	12
5	CONTINUITY AND DIFFERENTIABILITY	20	17
6	APPLICATION OF DERIVATIVES	10	8
7	INTEGRALS	22	18
8	APPLICATION OF INTEGRALS	5	5
9	DIFFERENTIAL EQUATIONS	10	8
10	VECTORS	11	8
11	THREE D GEOMETRY	8	6
12	LINEAR PROGRAMMING	7	6
13	PROBABILITY	11	8
TOTAL		140	120

## Quality & Length of the Question Paper

1. While framing a question, the time required to solve it should be decided properly and the marks should be awarded accordingly.
2. Marks allotted for each question should be properly mentioned in the question paper.

## General Instructions:

1. Question paper should be prepared by preparing separate blueprint by keeping the weightage of marks allotted to each chapter in mind.
2. Weightage allotted to each topic cannot be changed but the question setter has the liberty to choose the question type as per instructions given.
4. Miscellaneous worked examples and exercise problems can also be included in the Question paper.
5. Question order in the question paper need not to be in accordance with the chapters in the textbook.
6. The problems that are based on the concepts discussed in the book [prescribed by the Department of School Education (Pre-university)] can be asked. However, this does not mean that problems should be given as they appear in the textbook.
7. No question should be asked from the historical notes and appendices given in the textbook.
8. Questions should not be split into subdivisions.
9. Questions should be clear, unambiguous, understandable and all unwanted data in the questions should be avoided.
10. Instructions to use graph sheet in linear programming problem should be given in the question paper.
11. Repetition of the same concepts, laws, facts etc. which generate the same concept in different parts of the question paper should be avoided.

12. In MCQ section, stimulus questions, comprehensive, identifying the true or false statements should be asked but then should not exceed three questions.

13. Six numerical options should be given for the five Fill in the blanks questions.

14. Questions for Part D should be given from the following 7 specific topics only.

- i).RELATIONS AND FUNCTIONS
- ii).MATRICES
- iii).DETERMINANTS
- iv).CONTINUITY AND DIFFERENTIABILITY
- v).INTEGRALS
- vi).APPLICATION OF INTEGRALS
- vii).DIFFERENTIAL EQUATIONS

15. Questions for Part E should be given from the following 4 specific topics only.

(Both Six marks and Four marks questions should have internal choice.)

- i).INTEGRALS
- ii).LINEAR PROGRAMMING
- iii).CONTINUITY AND DIFFERENTIABILITY
- iv).DETERMINANTS

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