QP Code: D154464	Total Pages: 3	Name 795987
		Register No.

FIFTH SEMESTER (CUFYUGP) DEGREE EXAMINATION, NOVEMBER 2026

MATHEMATICS

MAT5FS112

Mathematical Type Setting System - LaTeX (SEC)

2024 Admission Onwards

Maximum Time: 1.5 Hours	**Maximum Marks: 50**

Section A

All Question can be answered. Each Question carries 2 marks (Ceiling: 16 Marks)

1	How is a new paragraph created in LaTeX?
2	What are the functions of `\listoffigures` and `\listoftables`?
3	List the steps involved in running BibTeX.
4	What is the purpose of the `\kill` command in the `tabbing` environment?
5	What is the use of the command `\tabularnewline`?
6	What is the purpose of the commands `\endfirsthead` and `\endhead` in the `longtable` environment?
7	What is the purpose of Math Mode in LaTeX? Mention two ways to enter inline math mode.
8	Differentiate between `equation` and `equation*`.
9	How can theorem numbering be made section-wise?
10	Which command is used to insert a footnote?

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Section B

All Question can be answered. Each Question carries 6 marks (Ceiling: 24 Marks)

11 Write a LaTeX code demonstrating the use of the `\cite` command with multiple bibliography entries.

12 Write the LaTeX code to produce

Planet	Distance from sun (million km)	
	Maximum	Minimum
Mercury	69.4	46.8
Venus	109.0	107.6
Earth	152.6	147.4
Mars	249.2	207.3
Jupiter	817.4	741.6
Saturn	1512.0	1346.0
Uranus	3011.0	2740.0
Neptune	4543.0	4466.0
Pluto	7346.0	4461.0

13 Explain the matrix environments available in the `amsmath` package with examples.

14 Discuss the importance of the `amsmath` package in mathematical typesetting. Explain any five important commands or environments provided by it.

15 Compare and contrast the `\pause`, `\only`, and `\onslide` commands in beamer. Provide code examples demonstrating their usage and explain their effects on slide rendering.

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Section C

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Answer any ONE. Each Question carries 10 marks (1x10=10 Marks)

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a Write a LaTeX Code to produce, the following

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Certificate

This is to certify that Mr. N. O. Vice has undergone a course at this institute and is qualified to be a TeXnical Expert.

The Director

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b Explain different types of Font size, Paper size and Page formats in LaTeX

17 Explain how cross references are created for equations, theorems, tables, and figures. Illustrate the use of `\eqref` with suitable examples.

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