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G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.



PG DEGREE END SEMESTER EXAMINATIONS - APRIL 2025.

(For those admitted in June 2023 and later)

PROGRAMME AND BRANCH: M.Sc., MATHEMATICS

| SEM | CATEGORY | COMPONENT | COURSE CODE | COURSE TITLE |
|-----|------------|-----------|-------------|--|
| II | PART - III | SEC - 1 | P23MA2SE1 | MATHEMATICAL DOCUMENTATION USING LATEX |

Date & Session :06.05.2025/AN

Time : 3 hours

Maximum: 75 Marks

| Course Outcome | Bloom's K-level | Q. No. | <p>SECTION – A (10 X 1 = 10 Marks) Answer ALL Questions.</p> |
|----------------|-----------------|--------|---|
| CO1 | K1 | 1. | LaTeX is based on which typesetting system? a) Microsoft Word b) OpenOffice c) TEX d) Mark down |
| CO1 | K2 | 2. | The command \documentclass{article} is used to a) Set the document's title b) Define the document structure c) Create a bibliography d) Define a table |
| CO2 | K1 | 3. | Which command is used to start an environment? a) \begin{ } b) \start{ } c) \ env{ } d) \define{ } |
| CO2 | K2 | 4. | What is the function of the \textbf{ } command? a) a) Italicize text b) Underline text c) Make text bold d) Increase font size |
| CO3 | K1 | 5. | How do you begin a new section in LaTeX? a) \newsection{ } b) \section{ } c) \startsection{ } d) \begin{section}{ } |
| CO3 | K2 | 6. | Which command is used to format theorem-like statements in LaTeX? a) \theoremstyle{ } b) \begin{theorem}... \end{theorem} c) \theorem{ } d) \texttheorem{ } |
| CO4 | K1 | 7. | The command \parbox{ } is used to create a) A paragraph with a fixed width b) A new page c) A boxed figure d) A header |
| CO4 | K2 | 8. | Which command is used to create a multi-column entry in a table? a) \multicolumn{ } b) \column{ } c) \multirow{ } d) \tablecell{ } |
| CO5 | K1 | 9. | Which command is used to begin a LaTeX letter? a) \begin{document} b) \begin{letter}{recipient} c) \letter{ } d) \startletter{ } |
| CO5 | K2 | 10. | The \author{ } command is used to a) Define the author of a document b) Set the title of an article c) Add a footnote d) Insert a bibliography |
| Course Outcome | Bloom's K-level | Q. No. | <p>SECTION – B (5 X 5 = 25 Marks) Answer ALL Questions choosing either (a) or (b)</p> |
| CO1 | K2 | 11a. | What is LATEX ? and explain it. |
| CO1 | K2 | 11b. | Describe briefly the TEX fonts using LATEX and give an example. |

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| CO2 | K2 | 12a. | Explain the significance of environments in LaTeX with an example. (OR) |
| CO2 | K2 | 12b. | Discuss about the concept of Line breaking. |
| CO3 | K3 | 13a. | What is a document class in LaTeX? List some common document classes. (OR) |
| CO3 | K3 | 13b. | What are the main idea behind the page format using LATEX. |
| CO4 | K3 | 14a. | What is boxes and write a notes on LR boxes. (OR) |
| CO4 | K3 | 14b. | How can tables be constructed in LaTeX? Explain with an example. |
| CO5 | K4 | 15a. | Analyze the key steps involves in setting a question paper using LATEX. (OR) |
| CO5 | K4 | 15b. | Examine the process of writing an article using LATEX. |

| Course Outcome | Bloom's K-level | Q. No | <p align="center">SECTION – C (5 X 8 = 40 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)</p> |
|----------------|-----------------|-------|--|
| CO1 | K4 | 16a. | Examine the following concepts. i) Typographical markup ii) Logical markup (OR) |
| CO1 | K4 | 16b. | Analyze the concept of extending LATEX with packages. |
| CO2 | K5 | 17a. | Discuss their significance of Page breaking. (OR) |
| CO2 | K5 | 17b. | Classify the concepts of lengths in LATEX. |
| CO3 | K5 | 18a. | Classify the different parts of a LATEX documents and their functions. (OR) |
| CO3 | K5 | 18b. | How do lists work in LATEX? Provide an example of an enumerate, itemize and nested list. |
| CO4 | K5 | 19a. | Discuss the various types of boxes in LaTeX and their applications with examples. (OR) |
| CO4 | K5 | 19b. | Explain table style parameters in LaTeX and how they can be modified. |
| CO5 | K6 | 20a. | Prepare the letter writing process using LATEX and give an example (OR) |
| CO5 | K6 | 20b. | Create a article with following arguments “Text a title heading with the title ‘MATH in Daily Life’ your name as author and your address together with a date entry in the form place date” |