

Roll No. :

Total No. of Questions : **16**]

[Total No. of Printed Pages : **3**

DCOM-324

M.Sc. (IIIrd Semester) Examination, Jan.-2023

COMPUTER SCIENCE

Paper - FS-COMP-MSC-CS-EO-304 (B)

(Introduction to LaTeX)

Time : 3 Hours]

[*Maximum Marks : 40*

The question paper contains three Sections.

Section-A **(Marks : $1 \times 10 = 10$)**

Note :- Answer all the *ten* questions carries 1 mark each. The answer should not exceed **50** words.

Section-B **(Marks : $3 \times 5 = 15$)**

Note :- Answer *five* questions by selecting at least *one* question from each Unit. Each question carries 3 marks. Answer should not exceed **200** words.

Section-C **(Marks : $5 \times 3 = 15$)**

Note :- Answer *three* questions by selecting *one* question from each Unit. Each question carries 5 marks. The answer should not exceed **500** words.

Section-A

1. (i) What is LaTeX ?
- (ii) Write the command to create horizontal dots above the line in LaTeX.
- (iii) What do you mean by hypertext links ? Write a command to insert hyper link in LaTeX.
- (iv) Define floating bodies.
- (v) Write the command to insert an image in LaTeX.
- (vi) How do you represent a line segment in LaTeX ?
- (vii) How to name graphics in LaTeX ?
- (viii) What is the difference between \hfill and \vfill commands ?
- (ix) What is the difference between resume and curriculum vitae ?
- (x) Write a command to write question paper in LaTeX.

Section-B

Unit-I

2. What is Matrices ? Write a set of commands in LaTeX that will produce the matrix :

$$\begin{bmatrix} a & b & c \\ d & e & f \\ g & h & i \end{bmatrix}$$

3. Explain the basic structure of LaTeX document with suitable example.
4. Write the input command for the following equation in LaTeX environment :

$$\int_{-\infty}^{\infty} e^{-x^2} dx = \sqrt{\pi}$$

Unit-II

5. What do you mean by Graphs ? How are directed and undirected graphs inserted in LaTeX ? Explain with example.
6. What do you mean by PDF files ? How to create a PDF file in LaTeX ? Explain with suitable example.
7. How can we produce circle and oval in LaTeX ? Explain it.

Unit-III

8. What do you mean by user-defined commands ? How can we define our own commands in LaTeX ? Explain with suitable example.
9. What do you mean by Research Paper ? How can we create a research paper in LaTeX ? Explain.
10. Define color packages and X color packages. Write the commands for the following operations in LaTeX :
 - (a) To set a background color for a block of text
 - (b) To set a background color for a LaTeX document.

Section-C

Unit-I

11. What is List ? Explain all types of lists in LaTeX with suitable examples.
12. Write short notes on the following with examples :
 - (i) Chapters
 - (ii) References

Unit-II

13. Define the following with suitable example :
 - (a) Index
 - (b) Bibliography
14. What do you mean by Arrows ? How many types of arrows are supported by LaTeX ? Write the commands for creating any five different types of arrows.

Unit-III

15. What do you mean by beamer ? What are the advantages and disadvantages of beamer ? Write a code to create a presentations using beamer.
16. What do you mean by Resume ? Create a simple resume in LaTeX by giving your basic details in it.