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32206

B.A. & Hons. (Subsidiary)

EXAMINATION, 2025

(Fourth Semester)

(Re-appear Only)

MATH

Paper BM-243

Programming in C and Numerical Methods

Time : 3 Hours] [*Maximum Marks :* 20

Before answering the question-paper, candidates must ensure that they have been supplied with correct and complete question-paper. No complaint, in this regard will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory.

1. (i) Define Data type.

(ii) What do you mean by Function ?

(iii) What is String ?

(iv) What is the need of Gauss-Elimination Method ? **4×1=4**

Unit I

2. What is Computer ? Explain the block diagram of computer. **4**

3. Explain basic input-output functions and statements. **4**

Unit II

4. Differentiate between 'while' and 'do-while' loop with example. **4**

5. Define array. How is it declared and initialized ? Explain using an example. **4**

Unit III

6. What is Structure ? How structure can be used in array ? **4**

7. Find Iterative formula for cube root of number N. **4**

Unit IV

8. Using Gauss-elimination method, solve the following equations : **4**

$$3x + 4y + 5z = 40$$

$$2x - 3y + 4z = 13$$

$$x + y + z = 9$$

9. Solve the following equation by Gauss-Jordan Method : **4**

$$2x - 3y + z = -1$$

$$x + 4y + 5z = 25$$

$$3x - 4y + z = 2$$