

Roll No. _____

25/1657**B.C.A. (Second Semester)****Examination, 2025****Paper : First****C Programming****Time : Two Hours] [Maximum Marks : 75****Note :** Attempt **all** sections as per instructions.**Section-A****(Very Short Answer Type Questions)**

Note : Attempt all **5 (five)** questions. Each question carries **2(two)** marks and the answer of each question should not exceed 50 words. $5 \times 2 = 10$

1. (i) Define size of operator.
- (ii) Mention the difference between a Union and a structure.

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- (iii) What is string? How can we declare and initialize a string variable.
- (iv) Mention any 5 keywords
- (v) Explain Switch Statement.

Section-B**(Short Answer Type Questions)**

Note : Attempt any **5 (five)** questions out of total **8 (eight)** questions. Each questions carries **5 (five)** marks and answer of each questions should not exceed 100 words. $5 \times 5 = 25$

2. (i) What are the characteristics of two dimensional array.
- (ii) Explain Jumping Statements discuss each in detail.
- (iii) Explain the different types of loops in C with syntax.
- (iv) Write a c-program using function to check whether the given number is prime or not.

- (v) What is structure? Explain C syntax of structure declaration with example.
- (vi) Explain different categories of pre-processor directives used in c.
- (vii) Mention the difference between "Call by value" and "Call by reference" by writing a C program.
- (viii) Write a program in C language to compute multiplication of two matrix.

Section-C

(Long Answer Type Questions)

Note : Attempt any **2 (two)** out of **4 (four)** questions. Each questions carries **20 (twenty)** marks and the answer of each question should not exceed 400 words.

$$2 \times 20 = 40$$

3. (i) What is the difference between a structure variable and a union variable?
What are the difference between structure and array.

- (ii) Write C program to implement the following library function in C.
(a) Strcpy (b) Strcat
- (iii) What is dynamic memory allocation? Mention the limitation of static memory allocation also. Explain mallo() and calloc() function.
- (iv) Explain different types of files in file handling. and what are the different modes to open a file? Give your answer with suitable example