

A

Printed Pages : 4

(20623)

Roll No.....

BCA-II Sem.

18006

B.C.A. Examination, June-2023

C-PROGRAMMING

(BCA-202)

Time : 3 Hours]

[Maximum Marks : 75

Note : Attempt *all* the sections as per instructions.

Section-A

(Very Short Answer Type Questions)

Note : Attempt *all five* questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words.

1. Write various data type supported in C with example. 3
2. What are headers files ? Why they are important ? 3
3. Write limitations of switch case. 3
4. Differentiate between scope and lifetime of a variable. 3
5. Define preprocessor and its usage in programming. 3

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Section-B

(Short Answer Type Questions)

Note : Attempt any *two* questions out of the following three questions. Each question carries $7\frac{1}{2}$ marks. Short answer is required not exceeding 200 words. $2 \times 7\frac{1}{2} = 15$

6. Write short notes on following :

- (i) Enumerated Data Type
- (ii) String
- (iii) Macro Expansion
- (iv) File Inclusion

7. Write a program in C to print following pattern :

```
2   3   4   5   6   7
3   4   5   6   7
4   5   6   7
5   6   7
6   7
7
```

8. What are different file opening modes ? Write a program in C that reads a series of integer numbers from a file named INPUT and write all odd numbers to a file to be called ODD and all even numbers to a file to be called EVEN.

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Section-C

(Long Answer Type Questions)

Note : Attempt any *three* questions out of the following five questions. Each question carries 15 marks.
Answer is required in detail. $3 \times 15 = 45$

9. (a) Write a program to calculate sum of the following series upto first 100 terms :
$$S = 1^4 + 3^4 + 5^4 + 7^4 + \dots + 100 \text{ Terms.}$$
- (b) Given an array of 20 integers. Write a program in C to search for a given integer in that array.
10. (a) Write a program in C to multiply two matrices of $N \times N$ dimension.
- (b) Declare a structure which contains the following members and write a program in C to list all students who scored more than 75 marks. Roll No., Name, Father's Name, Age, City, Marks
11. (a) Explain dynamic memory concept with proper example.
- (b) Explain different type of modes and I/O function in file handling.

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- 12.** (a) Define recursive function. Write a program to find factorial of a number with recursive function.
- (b) Write a program to check whether a given number is Armstrong number or not.
- 13.** (a) Write a program to copy a string to another string using standard library function. Use dynamic memory allocation to accept string.
- (b) Differentiate between call by value and call by reference.