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BCA-MCA Dual Degree (Semester – 1st)
PROGRAMMING IN C LANGUAGE
Subject Code: BCMC103
Paper ID: [18340104]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:

a. Explain the concept of keywords with examples.
b. What do you mean by an identifier?
c. What is the role of using functions in a program?
d. Explain the structure and usage of switch statement.
e. Describe Array of structure.
f. How do you declare and initialize multi-dimensional arrays?
g. Write the syntax for pointers to structure.
h. Explain the concept of pointers.
i. What is the use of macros in a C program?
j. How do you use preprocessor directives in a C program? Give examples.

Section – B **(5 marks each)**

Q2. What are the different steps followed for development and execution of a C program?

Q3. Explain the various data types. Discuss with examples.

Q4. a) Create a structure with data members of various types and declare two structure variables. Write a program to read data into these and print the same.
b) Illustrate the use of pointers in arrays with suitable example.

Q5. a) Explain the concept of call by value and call by reference while calling functions.
b) Write a C program to swap the content of two variables using pass by reference.

Q6. What is recursion? Write a C program to find the factorial of a number using recursion.

Section – C **(10 marks each)**

Q7. Explain the storage classes in C language with example programs.

Q8. Explain the decision-making and looping statements in c with example programs.

Q9. What are the different types of files accessible in C language? Describe in detail the various file operations using an example program.