(FOR THE CANDIDATES ADMITTED DURING THE ACADEMIC YEAR 20 20-2023 ONLY)

20UMS5E1 / 20UMA5E1

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI
END-OF-SEMESTER EXAMINATIONS: DECEMBER- 2022
COURSE NAME: B.Sc.- MATHEMATICS (Aided & S.f)   **MAXIMUM MARKS: 70**
SEMESTER: V   **TIME : 3 HOURS**

PART - III
PROGRAMMING IN 'C'

SECTION - A   **(10 X 1 = 10 MARKS)**

ANSWER THE FOLLOWING QUESTIONS.
MULTIPLE CHOICE QUESTIONS.   **(K1)**

1. All statements in the declaration and executable parts end with a_____.
   (a) comma   (b) bracket   (c) parenthesis   (d) semicolon

2. _____ functions to read a character from keyboard.
   (a)getchar   (b) putchar   (c) printf   (d) all

3. An array can be initialized at_____.
   (a) At compile time   (b) at run time   (c) a & b   (d) At result time

4. A function declaration consists of_____.
   (a) Function type   (b) function name   (c) parameter list   (d) all

5. Pointer variables contain _____.
   (a) Values   (b) addresses   (c) keyword   (d) white space

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.   **(K2)**

6. Write any four operators in C.

7. Write any four control statements in C.

8. What is called string?

9. Write the elements of function.

10. Write the uses of pointers.

SECTION – B   **(5 X 4 = 20 MARKS)**
ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. **(K3)**

11. a) Explain the declaration of variables in C illustrate with an example.
                                    (OR)
    b) Explain the basic structure of C.

12. a) Write a C program to read and write a single character.
                                    (OR)
    b) Explain 'for' loop with examples.

13. a)   Make use of the examples, explain one dimensional arrays .

(OR)

   b)   Explain declaration of one dimensional array by using examples.

14. a)   Explain function calls with example,.

(OR)

   b)   Make use of the logical arguments; explain nesting of functions with example.

15.a)   Write a program using pointers to exchange the values started in two locations in the memory.

(OR)

   b)   Write a program that uses a function pointer as a function argument.

SECTION - C   **(4 X 10 = 40 MARKS)**

ANSWER ANY FOUR OUT OF SIX QUESTIONS
(16th QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS
(FROM Qn. No : 17 to 21)   **(K4 (Or) K5)**

16.   What are the fundamental data types supported by C? How are they declared? Give examples.

17.   Describe the operators in C with illustrations.

18.   Explain various control loop structures in C++ with an examples.

19.   Analyze the concepts of reading strings from terminals and Writing strings to screen with examples.

20.   Criticize the types of functions.

21.   Summarize the concepts of pointers as function arguments with examples.

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ETHICAL PAPER