No. of Printed Pages—2

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[21 HRKP1S(N)–22A]

PGDCA/MScIT 1st Semester (New) Exam., 2021 (W)

COMPUTER PROGRAMMING USING C

[PGDCA/MScIT S1 03]

Full Marks : 50

Time : 2 hours

The figures in the margin indicate full marks for the questions

1. Answer any *three* of the following questions : 3×3=9

   (a) What is an identifier? Why is keyword not used as an identifier name? What is the purpose of switch statement?

   (b) Write the algorithm and draw the flowchart to find the average of three given values.

   (c) How does x++ differ from ++x? Explain with an example.

   (d) Distinguish between append mode and write mode in handling file in C.

2. Answer any *one* of the following questions : 5

   (a) What is the use of conditional operator and sizeof operator in C programming language?

   (b) Mention the features of union data type. What is the use of default statement in a switch statement?

3. Answer any *two* of the following questions : 6×2=12

   (a) What is associativity and why is it important? Mention the use of and difference between getch() and getche() functions.

   (b) What is local and global variable in C? Distinguish between formal parameters and actual parameters with a simple C program for multiplying one integer number and one floating-point number.

   (c) Write a C program using loop to generate and display the numbers between 100 to 200 which are divisible by 3, but not divisible by 4. What happens if the condition in a 'while' loop is initially false?

4. Answer any *three* of the following questions : 8×3=24

(a) Explain any four string handling functions of C programming language.

(b) How is a pointer initialized? What is dynamic memory allocation? Differentiate between calloc() and malloc() functions with their syntax.

(c) How do you initialize a two-dimensional array? Write a C program to sort the elements of an array in descending order.

(d) What is a structure? How is it different from an array? How are they defined and initialized? Explain with an example.

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