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44 (SEM-1) CIT0100204

2024

(Held in 2025)

INTRODUCTION TO C-PROGRAMMING

Paper : CIT0100204

Full Marks : 45

Time : 2 hours

The figures in the margin indicate full marks for the questions.

1. Answer the following questions : $1 \times 8 = 8$
 - (a) C language was developed from _____ language? *(Fill in the blank)*
 - (b) Write the full form of ASCII.
 - (c) What is double precision floating point number?
 - (d) From where a C program begins its execution?
 - (e) If 'a' is an integer variable $a = 15\%2$ will return value _____. *(Fill in the blank)*

Contd.

- (f) Why do we use *math.h*?
- (g) What is the use of *break* statement?
- (h) "Arrays are used to store only integer variables." (State True or False)

2. Answer the following questions : **(any five)**
2×5=10

- (a) Write the basic syntax of switch case in C language.
- (b) What are the basic data types in C language?
- (c) Write the differences between while and do-while loops.
- (d) What do you mean by array in C language?
- (e) Write *two* examples of string handling function in C language. Why are they used?
- (f) What do you mean by recursion?
- (g) What are scope and life time of a variable?

3. Answer the following questions : **(any four)**
3×4=12

- (a) Explain about logical operators used in C language.
- (b) What is library function? Give some examples.
- (c) What is a variable? How are variables declared in C language?
- (d) Write a program to find the area and circumference of a circle of radius *r*.
- (e) Write the basic syntax of nested if-else statement with example.
- (f) Write a program to find the biggest among *three* numbers using function.
- (g) What is type casting? What are different types? Give examples.

4. Answer the following questions : **(any three)**
5×3=15

- (a) Write a program to find the roots of a quadratic equation for all possible combinations of *a*, *b* and *c*.
- (b) Write a program to check whether a number is a Armstrong number using function.

- (c) Write a program to sort the elements (numbers) of an array in ascending order.
- (d) Write a program to generate Fibonacci series.
- (e) Write a program to add *two* matrices of order $m \times n$.
- (f) Write a program to count the length of a string without using library function.
- (g) What are the functions used for opening and closing a file in C ? Give the syntax. What are the different file opening modes available ? Explain briefly.

$$2+1+2=5$$
