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BCACAC 132

I Semester B.C.A. Degree Examination, October/November 2019

(Choice Based Credit System)

(2019–2020 batch onwards)

Problem Solving Using C

Time : 3 Hours]

[Max. Marks : 80

Note : Answer any TEN questions from Part-A and ONE full question from each Unit of Part-B.

PART – A

1. Answer **any ten** of the following :

(10 × 2 = 20)

- (a) What is Flowchart?
- (b) What is pseudo code?
- (c) List rules to be followed while naming an identifier.
- (d) Differentiate pre & post increment and decrement operators in C.
- (e) Differentiate break and continue statements.
- (f) Write general form of goto statement. Give an example.
- (g) Specify how to initialize two dimensional arrays? Give example.
- (h) What is nesting of functions? Give an example.
- (i) Specify how gets() function is more useful compare to scanf() function with reference to reading of string value?
- (j) What is recursion? Give an example.
- (k) Differentiate structure and union.
- (l) List any two file access modes with their purpose.



PART - B

UNIT - I

Answer **any four** questions, choosing one full question from each Unit.

2. (a) With the help of diagram explain different phases of Program Development Cycle.
- (b) List and explain any five symbols of Flowchart.
- (c) What are constants? How they are classified? Give example for each. **(5 + 5 + 5)**
3. (a) Explain Algorithm with its properties. Give an example.
- (b) List and explain any five features of C.
- (c) Explain various fundamental data types available in C. **(5 + 5 + 5)**

UNIT - II

4. (a) Explain scanf() function with syntax and example.
- (b) Explain any two looping statements with syntax and example.
- (c) Explain switch statement with syntax and example. **(5 + 6 + 4)**
5. (a) List and explain arithmetic and relational operators in C with examples.
- (b) Explain different forms of if statement with syntax and examples.
- (c) Explain printf() function with syntax and example. **(4 + 6 + 5)**

UNIT - III

6. (a) How do you declare, initialize and access a one dimensional array?
- (b) Explain with example declaring, defining and calling a function.
- (c) Write a program to read 'n' elements into an array and arrange and display them in ascending order using bubble sort method. **(5 + 5 + 5)**



7. (a) List and explain any five string handling functions with examples for each.
- (b) Explain with example any two categories of user-defined functions.
- (c) Write a program to read 'n' elements into an array and search for a element using linear search method. **(5 + 5 + 5)**

UNIT - IV

8. (a) Explain automatic and static variables with example.
- (b) Explain structure with syntax and example.
- (c) What are preprocessor directives? Explain any two types of preprocessor directives. **(6 + 4 + 5)**
9. (a) What is a pointer? How to declare and initialize pointer variable? Give examples.
- (b) Explain arrays of structures with the help of an example.
- (c) List and explain any five file handling functions used for file operations. **(5 + 4 + 6)**
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