

(6 pages)

Reg. No. :

Code No. : 21153

Sub. Code : JMCS
JMSE

B.Sc. (CBCS) DEGREE EXAMINATION,
APRIL 2018.

First Semester

Computer Science and Software Engineering — Mac

PROBLEM SOLVEING TECHNIQUES AND
PROGRAMMING IN C

(For those who joined in July 2016 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. There are _____ generation of computers.
(a) 4 (b) 5
(c) 6 (d) 7
2. Which of the following is output device?
(a) touch screen (b) scanner
(c) monitor (d) all of these

Input data can be entered into computer from a standard input device by means of the C library function _____

- (a) scanf ()
- (b) input ()
- (c) read ()
- (d) fscan ()

The datatype character (char) has the range of values _____

- (a) -128 to 127
- (b) -170e - 308 to 1.70e + 308
- (c) 3.4e - 38 to 3.4e + 38
- (d) -32768 to 32767

The _____ statement is used to alter the normal sequence of program execution by transferring control to some other part of the program.

- (a) Transfer
- (b) Switch
- (c) Goto
- (d) Alter

The Do statement is an _____ controlled loop.

- (a) Exit
- (b) Entry
- (c) Entry and Exit
- (d) Entry / Exit

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 250 words.

(a) What are the characteristics of computer?

Or

(b) Explain about pointers.

(a) Give a note on datatypes and its classifications. Illustrate.

Or

(b) Discuss about the usage of various operators in C with examples.

(a) Develop a C program to find the sum of first 15 odd numbers using simple if statement.

Or

(b) Discuss the usage of switch statement with an example program.

(a) Give a note on string handling functions with example.

Or

(b) Write short notes on : Unions in C.

7. _____ function is used to copy a character string to a character variable.

(a) Strcpy () (b) Strcopy ()

(c) Stcopy () (d) Stcpy ()

8. _____ is a special case of function when function calls itself.

(a) chaining

(b) recursion

(c) redundancy

(d) duplication of function

9. _____ is a function name used to read integer from a file.

(a) Scanf () (b) Fscanf ()

(c) GetW () (d) Getd ()

10. The symbol _____ is an address operator which is used to access the address of a variable and assign it to a pointer to initialize it.

(a) &

(b) ~

(c) ^

(d) *

15. (a) Elucidate the procedure of declaring initialising and accessing pointer variables.

Or

- (b) Discuss in detail random access handling.

PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b)

Each answer should not exceed 600 words.

16. (a) Explain in detail about generation computer.

Or

- (b) Discuss about input devices of computer systems.

17. (a) Write a C program to search a given number is available in a set of numbers.

Or

- (b) With general formats and examples, explain the concept of formatted input statement.

18. (a) Compare While, Do-while and For structures with examples.

Or

- (b) Write a 'C' program to calculate the standard deviation using array concept and looping concept.
- (a) Explain the categories of functions.

Or

- (b) Explain about Arrays of structures with an example program.
- (a) Describe I/O operations on files in C with examples.

Or

- (b) Develop a C program that uses the functions "ftell" and "fseek".
-