

322315(22)

APR-MAY

B. E. (Third Semester) Examination, 2020

(Old Scheme)

(CSE, IT Branch)

PROBLEM SOLVING & LOGIC BUILDING using 'C'

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

Note : Attempt all questions. Part (a) of each question is compulsory. Attempt any two parts from (b), (c) and (d).

Unit-I

1. (a) What are the various ways to represent an algorithm & what are the main factors which decides the efficiency of an algorithm? 2
- (b) What is basic structure of a C program? 7

[2]

- (c) Explain various operators inc. 7
- (d) Write short notes on : (each 1 mark) 7
- (i) Compiles
 - (ii) Linker
 - (iii) Loader
 - (iv) Preprocessor
 - (v) Constant
 - (vi) Variable
 - (vii) Identifier

Unit-II

2. (a) Write output of the following code : 2

```
# include < stdio.h >
void main( )
{
    printf (5 + "Most Welcome");
}
```

- (b) Write a program to print prime numbers between 1 to n . 7

[3]

- (c) Explain various looping statement in C. 7
- (d) Write a program to print following pattern 7
- ```
5 4 3 2 1
4 3 2 1
3 2 1
2 1
1
```

### Unit-III

3. (a) Differentiate between Break and Continue. 2
- (b) Write a program to sort an integer array element in ascending order. 7
- (c) Write a C program to multiply two matrices and display it. 7
- (d) What is an Array? Explain its type with suitable program. 7

### Unit-IV

4. (a) Compare Union and Structure. 2
- (b) Write short notes with program on : (each 3.5 marks) 7

- (i) Call by Value 7
- (ii) Call by Reference 7
- (c) Explain enum with the help of program. 7
- (d) Write a program that uses a function to sort an integers array. 7

**Unit-V**

- 5. (a) What is Pointer to Pointer? 2
- (b) What is a File? Explain any five file I/O function with example. 7
- (c) Write a program to concatenate two strings without using strcat() library function. 7
- (d) What is pointer also explain array of pointer with the help of suitable program? 7

**Unit-VI**

- (a) Compare Union and Structure 4
- (b) Write short note with program on (each 3 marks) 7