



JAP-003-1041002 Seat No. _____

B. Sc. (I.T.) (Sem. I) (CBCS) (W.E.F. 2016) Examination

November - 2019

**CS - 02 : Problem Solving Methodologies &
Programming In C
(New Course)**

**Faculty Code : 003
Subject Code : 1041002**

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

1 (A) Objective Type Questions : 4

- (1) What is Identifier ?
- (2) Give difference between = and ==.
- (3) The Range of Interger Datatype is _____ to _____.
- (4) What will be the output of following code ?

```
void main()
{
    int a=10, b=2, c=4, d;
    clrscr();
    d=a&b*c;
    printf("%d",d);
}
```

(B) Answer in Brief : (Any **One** out of two) 2

- (1) Explain Type Casting and Typedef.
- (2) Write down structure of C program.

(C) Answer in Detail : (Any **One** out of two) 3

- (1) Draw a Flow Chart for Swapping of Two Numbers.
- (2) List out different operators in C and explain Hierarchy of Operators.

- (D) Write a note on : (Any **One** out of two) **5**
- (1) Pre-Processors in C.
 - (2) Explain Data Types in C.
- 2** (A) Objective Type Questions : **4**
- (1) Which type of values can be specified in switch statement?
 - (2) List out Conditional Operators available in C.
 - (3) What will be the output of following code ??

```
void main()
{
    int a;
    a='5'+ 'a'-'2';
    printf("%d",a); }
```
 - (4) Which Jumping statement is used to terminate execution of any condition or loop ?
- (B) Answer in Brief : (Any **One** out of two) **2**
- (1) Differentiate : While v/s Do-while.
 - (2) Differentiate : Break v/s Continue
- (C) Answer in Detail : (Any **One** out of two) **3**
- (1) Explain If and Nested If with Suitable Example.
 - (2) List out different jumping Statements and explain any one with Example.
- (D) Write a note on : (Any **One** out of two) **5**
- (1) Explain Switch Case with proper syntax and example.
 - (2) Write down Program Code to check if given number is Palindrome or Not.

- 3 (A) Objective Type Questions : 4
- (1) List Out any two Maths Functions.
 - (2) List Out different Memory Allocation Functions.
 - (3) Which Header file is used to support different String Functions?
 - (4) Explain use of Scanf().
- (B) Answer in Brief : (Any **One** out of two) 2
- (1) List out and explain any two Strings Function.
 - (2) Explain atol() and atof().
- (C) Answer in detail : (Any **One** out of two) 3
- (1) Explain Recursion with suitable Example.
 - (2) Explain Storage class in brief.
- (D) Write note on : (Any **One** out of two) 5
- (1) Explain Call by Value and Call by Reference with Example.
 - (2) Explain UDF with different Types.
- 4 (A) Objective Type Questions : 4
- (1) Which operator is used to access a members of structure?
 - (2) What is union?
 - (3) How to declare String array?
 - (4) What will be output of following code?
- ```
void main()
{
 int arr[2]={3,4};
 printf("%d",*(arr+2));
}
```

- (B) Answer in Brief : (Any **One** out of two) **2**
- (1) Explain memory allocation of the structure.
  - (2) Differentiate : Structure v/s Union.
- (C) Answer in Detail : (Any **One** out of two) **3**
- (1) Explain Nested Structure by Example.
  - (2) What is Array ? Explain Two Dimension Array with suitable Example.
- (D) Write a note on : (Any **One** out of two) **5**
- (1) Explain Array within Structure by Example.
  - (2) Write a program to Prepare Marksheet of any 5 Students using array of Structure.
- 5** (A) Objective Type Questions : **4**
- (1) Write down Statement to declare pointer to pointer.
  - (2) How many arguments pass in fopen().
  - (3) Explain Use of Rewind()
  - (4) How to Declare File Pointer?
- (B) Answer in Brief : (Any **One** out of two) **2**
- (1) Explain any two file modes.
  - (2) Explain Pointer to Structure with short Example.
- (C) Answer in Detail : (Any **One** out of two) **3**
- (1) What is Data File ? Explain any 3 File Handling functions.
  - (2) Explain Command Line Arguments with short example.
- (D) Write a note on : (Any **One** out of two) **5**
- (1) Write a program to copy contents of One file into another file.
  - (2) Explain Pointer to Array with suitable Example.