



HDF-003-003102

Seat No. _____

B. C. A. (Sem. I) (CBCS) Examination

November / December – 2017

**CS - 02 : Problem Solving Methodologies &
Programming in C**

(Old Course)

Faculty Code : 003

Subject Code : 003102

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

[Total Marks : 70

1 Answer the following : 20

- (1) Which header file should be included to use gets()?
- (2) What will be the output of the program?

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
    int a = 300, b, c;
```

```
    if(a > = 400)
```

```
        b = 300;
```

```
        c = 200;
```

```
        printf("%d, %d, %d\n", a, b, c);
```

```
        return 0;
```

```
}
```

- (3) "&" is not logical operator (TRUE/FALSE) ?
- (4) Give name of the different types of real data type in C ?
- (5) "int length;"this declaration is correct (TRUE/FALSE) ?
- (6) In mathematics and computer programming, "Multiplication, Addition, Division, Subtraction" is the correct order of mathematical operators (TRUE/FALSE) ?

(7) What will be the output of the program?

```
#include<stdio.h>
int main()
{
    float a = 0.7;
    if(0.7 > a)
        printf("Hi\n");
    else
        printf("Hello\n");
    return 0;
}
```

(8) The use of break statement is to skip a part of a loop. (TRUE/FALSE) ?

(9) if else is known as branching statement. (TRUE/FALSE)?

(10) Logical operator cannot be used with "DO" loop. (TRUE/FALSE)?

(11) By default a real number is treated as _____

(12) _____ special symbol allowed in a variable name.

(13) In C, if you pass an array as an argument to a function, what actually gets passed?

(14) How many times "INDIA" is get printed?

```
#include<stdio.h>
int main()
{
    int x;
    for (x = -1; x <= 10; x++)
    {
        if(x < 5)
            continue;
        else
            break;
        printf("INDIA");
    }
    return 0;
}
```

(15) What will be output if you will compile and execute the following c code?

```
#include <stdio.h>
#include <string.h>
int main(){
int i=0;
for(;i<=2;)
printf(" %d",++i);
return 0;
}
```

- (16) A function cannot be defined inside another function.
(TRUE/FALSE) ?
- (17) Functions cannot return more than one value at a time.
(TRUE/FALSE) ?
- (18) If the two strings are identical, then strcmp() function returns.
- (19) What will be the output of the program?
- ```
int main()
{
 char str[] = "Saurashtra\0Idnia\0";
 printf ("%s\n", str);
 return 0;
}
```
- (20) There are mainly \_\_\_\_\_ part of any function.

- 2** (A) Attempt the following : (Any **Three**) **6**
- (1) Write a program to accept a string from user and display it in upper case.
  - (2) What is flowchart? List out all the symbol of flowchart.
  - (3) Explain : typedef
  - (4) Explain scanf (function with available all the format specifier.
  - (5) List out relation operators with their meaning.
  - (6) List out any four backslash character constant with their meaning.
- (B) Attempt the following : (Any **Three**) **9**
- (1) Write an algorithm to find out factorial of a given number.
  - (2) Explain goto statement with an example.
  - (3) Explain nested loop with an example.
  - (4) Explain any two string handling function.
  - (5) Explain if ..... else statement with an example.
  - (6) Distinguish : Structure and Union
- (C) Attempt the following : (Any **Two**) **10**
- (1) List various categories of UDF. Explain any one with example.
  - (2) What is recursion? Explain with suitable example.
  - (3) Explain array of structure with example.

- (4) Write a C program to check entered string is palindrome or not.
- (5) Write a program to print reverse of given number.

- 3** (A) Attempt the following : (Any **Three**) **6**
- (1) Explain ternary operator with an example.
  - (2) Define Variable and Array.
  - (3) What is algorithm?
  - (4) What is an identifier? Give rules for declaring identifier.
  - (5) What is token? List out all the tokens available in C.
  - (6) Explain : gets() and puts() function.
- (B) Attempt the following : (Any **Three**) **9**
- (1) Explain break and continue statement with an example.
  - (2) Draw a flowchart to check whether the number is odd or even.
  - (3) Distinguish : Entry controlled loop and Exit controlled loop
  - (4) Explain: strcmp() Function.
  - (5) Explain symbolic constant with example.
  - (6) What is an operator? Explain any one with example.
- (C) Attempt the following : (Any **Two**) **10**
- (1) Write a program to check entered number is prime or not.
  - (2) Explain various data types in C language.
  - (3) Explain basic structure of C program.
  - (4) List the looping structure available in C language. Explain any one with syntax and example.
  - (5) Write a program to print following triangle :
 

```

A B C D E
A B C D
A B C
A B
A
```