

U.G. 6th Semester Examination - 2020

COMPUTER SCIENCE

Course Code : BCOSGERC20A

Course Title: Introduction to Programming (Using C)

Full Marks : 30

Time : 2 Hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Choose the correct alternative for any **ten** of the following: 1×10=10

- i) ASCII value 'A' is
- a) 65
 - b) 66
 - c) 97
 - d) none of these
- ii) A pointer is
- a) a value
 - b) a memory location

- c) a variable containing the address of a variable
 - d) none of these
- iii) During storing of number in computer memory, the positive sign is denoted by
- a) 0
 - b) +
 - c) 1
 - d) none of these
- iv) Which of the following is a bitwise operator?
- a) <
 - b) >=
 - c) <<
 - d) QQ
- v) The purpose of mode r+ is to
- a) Open for only reading
 - b) Open for only writing
 - c) Open for both reading and writing
 - d) none of these

- vi) C is a
- a) high level language
 - b) low level language
 - c) high level language with some low level features
 - d) Low level language with some high level features
- vii) The keyword used to transfer control from a function back to the calling function is
- a) switch
 - b) go to
 - c) go back
 - d) return
- viii) The operator used to get value at address stored in a pointer variable is
- a) *
 - b) Q
 - c) QQ
 - d) %
- ix) If the two strings are identical, then strcmp() function returns
- a) -1
 - b) 1
 - c) 0
 - d) yes

- x) How will you print \n on the screen?
- a) printf("\n")
 - b) echo("\n")
 - c) printf('\n')
 - d) printf("\n")
- xi) Input/Output function prototypes and macros are defined in which header file
- a) conio.h
 - b) stdlib.h
 - c) dos.h
 - d) stdio.h
- xii) Which header file should be included to use functions like malloc() and calloc()?
- a) memory.h
 - b) stdlib.h
 - c) string.h
 - d) dos.h
- xiii) What will be the output of the following code segment–

```
int main()
{
    int a=10/3;
    printf("%d", a);
    return 0;
}
```

- a) 3.33
- b) 3.0
- c) 3
- d) 0

xiv) The function used to detect the end of file is

- a) feof()
- b) ferror()
- c) fputs()
- d) fgetch()

xv) Which among these is not a type of loop in C?

- a) while loop
- b) while do loop
- c) for loop
- d) do while loop

2. Answer any **five** questions: 2×5=10

- a) What is the difference between actual parameters and formal parameters?
- b) State the difference between 'call by value' and 'call by reference'.
- c) Write down the advantages of using pointers in C.
- d) What is recursion in C?

- e) What is 'NULL pointer'?
- f) What is the difference between i++ and ++i?
- g) What is the use of a static variable in C?
- h) What is an array in C?

3. Answer any **two** questions: 5×2=10

- a) Write a C program to find the factorial of a given number using recursion.
- b) Write a C program to illustrate reading of data from a file.
- c) Write a C program to print the following pattern:

```

      *
     * *
    * * *
   * * * *
  * * * * *
 
```

What is bitwise operator? 4+1
