

F.Y.B.C.A., SEM I, END SEMESTER EXAMINATION, May 2016 (Supplementary)
Problem Solving & Programming Concepts (BCA-101)

Duration: 2 hours

Total Marks: 50

*Instruction : 1) All Questions are Compulsory
2) Figures to right indicate marks
3) Every question should be answered on new page.*

Q1 A) Give One term for the following (5mks)

- a) Function calling itself.
- b) Error in the program due to violation of rules of programming language.
- c) Software used for writing high level language programs.
- d) Language of Mnemonics.
- e) Functions which are written ,compiled and placed in the libraries.

B) State true or false. (5mks)

- i) C program has at least one Function.
- ii) The Break statement is required in the default case of a Switch selection.
- iii) Array elements are stored in non continuous memory locations.
- iv) A multi word can be input at run time by using scanf() function .
- v) stdio.h is header file which helps in manipulating strings.

Q2) Answer the following

a) Explain the use of constant variable. (2 mks)

b) Give comparison between the following (3 mks)

- i) operator & and && operator?
- ii) while loop and do -while loop.
- v) compiler and interpreter

c) Draw flowchart to generate Fibonacci series up to n terms. (5 mks)

Q3) Answer the following

a) Write the characteristics of algorithm. (2 mks)

b) What do you mean by declaration of variables ? Why variables need to be declared in the programs? (3 mks)

c) Write an algorithm to add first n even numbers . (5 mks)

Q4) Answer the following

a) Find Errors. (2 mks)

```
main(){  
    char ch[2];  
    if (ch="y" // ch="Y")  
    print("CORRECT");  
    ELSE  
    Print("Wrong")  
}
```


b) Explain any two types of operators.

(3 mks)

c) Write algorithm to Read a string and check if is a palindrome.

(5mks)

Q5) Answer the following

a) What is the output of the following.

```
main()  
{ int i=3 , *j;  
  j= &i;  
  printf("%d %u" ,i , *j );
```

(2 mks)

b) Explain the different types of error that occurs.

(3 mks)

c) What is a Structure? Create a structure in C Language to specify data on employee Empid, Name, dept. Declare one variable read data & print the data.

(5mks)

-----Best of luck-----