

Vidya Vikas Mandal's
SHREE DAMODAR COLLEGE OF COMMERCE & ECONOMICS
Margao, Goa

F.Y.B.C.A., SEM I , END SEMESTER EXAMINATION, OCT 2017
Problem Solving & Programming Concepts (BCA-101)

Duration: 2 hours

Total Marks: 50

Instruction : 1) All Questions are Compulsory
2) Figures to right indicate marks

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

- a) Special words whose meaning is known to the compiler.
- b) Function calling itself.
- c) A statement that takes the execution control out of the loop .
- d) A variable which hold the address of other variable .
- e) Functions which are written , compiled and placed in the libraries.

B) State true or false and justify your answers. (5mks)

- i) It is necessary that a loop counter must only be an int. It cannot be a float.
- ii) The Break statement is required in the default case of a Switch selection.
- iii) Character Array has 0 at its last location .
- iv) % operator cannot be used on floats.
- v) A function cannot call another .

Q2) Answer the following:

a) Explain the use of conditional operator. (2 mks)

b) Give two points of differences between each of the following (3 mks)

- i) break and continue
- ii) while loop and do-while loop.
- iii) variable and structure variable

c) Draw flowchart to generate check for palindrome number . (5 mks)

NB : Palindrome number is that number whose sum of the digits is the same as the number .

Q3) Answer the following:

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

b) What are the rules to be followed while declaring real constant ? Give appropriate examples (3 mks)

c) Write an algorithm to generate fibonacci series . (5 mks)

Q4) Answer the following :

a) Find Errors.

(2 mks)

```
main(){
    int a=100,b=200,c;
    if ( a>=100)
        print("100");
    ELSE
        Print("%f", b)
}
```

b) Explain any two types of operators.

(3 mks)

c) What do you understand by storage class ? Give appropriate example and features of any two storage classes.

(5mks)

Q5) Answer the following

a) What is the output of the following.

```
main()
{ int x=5 , *y;
  y= &x;
  printf("%d %d %d %d ", x, y, *y,*(&x) );
```

(2 mks)

b)What is a Structure? Create a structure in C Language to specify data on bank cust_id ,Name ,acct_no ,balance . Declare one variable read data & print the data.

(3 mks)

c)Explain the use of following in programming .

(5mks)

i)Iterative statements ii) continue iii) function iv) pointer v) prefix operator

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