

Goa Vidyaprasarak Mandal's
GOPAL GOVIND POY RAITURCAR COLLEGE OF COMMERCE AND ECONOMICS
PONDA-GOA

B.C.A (SEMESTER-I) SUPPLEMENTARY EXAMINATION, MAY/JUNE 2018

PROBLEM SOLVING AND PROGRAMMING CONCEPTS

Duration: 2 Hrs

Marks: 50

Instructions: 1. All Questions are compulsory

2. Figures to the right indicate marks

Q.1.A.state whether the following statements are true or false (5*1=5)

- a. All variables must be given a data type when they are declared.
- b. One **if** can have more than one **else** clause.
- c. The **scanf()** function can be used to read only one value at a time.
- d. The **default** case is required in the **switch** statement.
- e. A function in C should have at least one argument.

Q.1.B.Predict the output of the following code. (2.5 *2=5)

```
a.void main()
{
    int a=10,b=5;
    if(a>b)
    {
        if(b>=5)
            printf("%d", b);
    }
    else
        printf("%d",a);
}
```

```
b. void main()
{
    int m=100,n=0;
    while(n==0)
    {
        if(m<10)
            break;
        m=m-10;
        printf("%d",m);
    }
    printf("%d",m);
}
```

- Q.2.a. Who designed C Language. (2)
b. Write an algorithm to find largest of 2 numbers. (3)
c. Write a C program to perform basic arithmetic operations. (5)
- Q.3.a. Define an array. (2)
Q.3.b. **Do-while** is called an exit controlled loop. Explain. (3)
Q.3.c. Explain the process of executing a C program. (5)
- Q.4.a. What is a C preprocessor? (2)
Q.4.b. List and state uses of any 3 string library functions. (3)
Q.4.C. Write a C program to calculate percentage secured by a student using structures. (5)
- Q.5.a. Distinguish between getchar() and scanf() functions. (2)
Q.5.b. With an example, illustrate the use of **switch** statement. (3)
Q.5.c. Write a C program to find sum of values in an array using pointers. (5)

-----ALL THE BEST-----