Goa Vidyaprasarak Mandal's
GOPAL GOVIND POY RAITURCAR COLLEGE OF COMMERCE AND ECONOMICS
PONDA-GOA
B.C.A (SEMESTER-I) EXAMINTION, OCTOBER 2017
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. The getchar() cannot be used to read a line of text from the keyboard.
   b. All arithmetic operators have same level of precedence.
   c. C language is case insensitive.
   d. Only a void type function can have void as its argument.
   e. Pointer variables are declared using the address operator.

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

```
void main()
{
 char string[]= "HELLO WORLD";
 int m;
 for(m=0;string[m]!='\0';m++)
  {
  if((m%2)==0))
  printf("%c",string[m]);
  }
}
```

   b. void main()

```
void main()
{
int m[]={1,2,3,4,5},x,y=0;
for(x=0;x<5;x++)
{
    y=y+m[x];
}
printf("%d",y);
}
```

Q.2. Answer the following.
   a. What are the advantages of functions in C. (2)
   b. Write an algorithm to find sum of 2 numbers. (3)
   c. Write a C program to read marks secured by a student in a subject (5)
   and assign grade to him as per the following table.

Marks	Grade
80-100	A
60-79	B
50-59	C
40-49	D
<40	F

Q.3.a. Define a pointer. (2)
Q.3.b. Explain different approaches for reading strings in C. (3)
Q.3.c. Write a C program to find minimum element from a set of numbers. (5)

Q.4.a.What is a C preprocessor? (2)
Q.4.b.List and state uses of any 3 library functions. (3)
Q.4.C. Write a C program to swap contents of 2 variables using functions. (5)

Q.5.a.Distinguish between putchar() and printf() functions. (2)
Q.5.b.What are the rules for naming a C variable. (3)
Q.5.c.With an example, illustrate the use of increment and decrement operators. (5)

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