

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

**B.C.A (SEMESTER – I) EXAMINATION, OCTOBER 2013
PROBLEM SOLVING & PROGRAMMING CONCEPTS**

Duration: 2 hours

Marks: 50

- Q.1.A. State whether the following statements are true or false. (5*1=5 mks)
- i. syntax errors will be detected by the compiler.
 - ii. The `getchar()` cannot be used to read a line of text from keyboard.
 - iii. The keyword **void** is a datatype in C.
 - iv. A **char** type variable cannot be used as a subscript in an array.
 - v. Placing a semicolon at the end of header line is illegal.
- Q.1.B. Find errors, if any, in the following C statements. (2*1=2 mks)
- i. `char name[20];`
 - ii. `printf("%d",i)`
- Q.1.C. Determine the output of the following code segment. (2*1 ½ =3 mks)
- i. `char string[20]= "the sky is the limit";
printf("%s",string);`
 - ii. `int marks[5]={20,15,19,14,22};
printf("%d",marks[3]);`
- Q.2.A. Define an array. (2 mks)
- Q.2.B. State the uses of `getchar()` and `putchar()`. (3 mks)
- Q.2.C. Write a program to find largest element in an array. (5 mks)
- Q.3.A. State the rules for naming a variable. (2 mks)
- Q.3.B. What is a C preprocessor. (3 mks)
- Q.3.C. write a program to check entered number is even or odd. Draw flowchart. (5 mks)
- Q.4.A. Define a pointer. (2 mks)
- Q.4.B. Illustrate with an example, the use of `continue` statement. (3 mks)
- Q.4.C. Write a C program to find factorial of a number using recursion. (5 mks)
- Q.5.A. Define symbolic constant. (2 mks)
- Q.5.B. Explain the use of `malloc()` and `calloc()`. (3 mks)
- Q.5.C. List and state uses of any 5 library functions. (5 mks)

-----Good Luck-----