

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

B.C.A. CBCS (SEMESTER-I) EXAMINATION, OCTOBER 2019

PROBLEM SOLVING AND PROGRAMMING CONCEPTS

Duration: 2 Hrs

Marks: 60

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 keyword void is a data type in C.
- b. The function call strcat(s2,s1); copies string s2 into s1.
- c. Placing a semicolon at the end of function header is illegal.
- d. The header file <stdio.h> is required when using standard I/O functions.
- e. **main()** is where the program begins its execution.

Q.1.B. Answer the following.

- a. Who designed C language? (1)
- b. List any 4 header files. (2)
- c. State any 4 library functions. (2)

Q.2. Answer the following.

Q.2. a. What is a flowchart? (2)

Q.2. b. Explain the basic structure of a C program. (3)

Q.2.c. Write a C program to check entered number is a prime number. (5)

OR

Q.2.d. Write a C program to reverse a 3-digit number. (5)

Q.3.a. State the rules for naming an identifier. (2)

Q.3.b. Do- While loop is called an exit controlled loop. Explain. (3)

Q.3.c. Write a C program to find largest element in an array. (5)

OR

Q.3.d. Write a C program to implement a **goto** statement. (5)

Q.4.a. What is a C pre-processor? (2)

Q.4.b. What are symbolic constants? State an example. (3)

Q.4.c. Write a C program to find sum of elements in an array using pointers. (5)

OR

Q.4.d. Write a C program to analyse records of 5 students. Read student name, rollno, marks secured in 5 subjects. Assign grade and identify the topper. Display records in tabular form. (5)

Q.5.a. Define a C function. (2)

Q.5.b. Explain the use of break and continue statement. (3)

Q.5.c. Write a program to find area of a triangle. (5)

OR

Q.5.d. What is recursion? Explain with an example. (5)

Q.6.a. Distinguish between putchar() and printf() functions. (2)

Q.6.b. Explain switch statement. (3)

Q.6.c. With an example, illustrate the use of increment and decrement operators. (5)

OR

Q.6.d. Write a C program to implement C structures. (5)