

2007

Subject Code—7247-X
P.G.D.C.A. EXAMINATION

(First Semester)

(Re-appear)

COMPUTER PROGRAMMING AND PROBLEM
SOLVING

(MS-02)

Time : 3 Hours

Maximum Marks : 100

Note : Attempt any *Five* questions. All questions carry equal marks.

1. (a) What is problem analysis ? Discuss various steps involved in problem analysis.
- (b) What do you mean by an algorithm ? What are desirable characteristics of a good algorithm ? How is it helpful in problem solving ? Explain.

2. (a) Why is 'C' language named so ? Discuss its origin and provide the general structure of 'C' language program detailing out every construct in it.
- (b) What are the rules applicable for jumping in and out of various types of loops in C language ?
3. Differentiate between the following :
- (a) Union and Structures
- (b) Automatic, External and Static variables
- (c) main () and user-defined functions.
4. (a) What do you mean by Pointers ? Illustrate the strength of pointers through suitable examples.
- (b) What are 'data-types' ? What are the data-types supported by C language ? Illustrate the importance of each.
5. (a) What do you understand by Problem analysis ? Discuss various steps involved in problem analysis.

- (b) What is an algorithm ? What are desirable characteristics of a good algorithm ? How is it helpful in problem solving ? Explain.
6. (a) What do you mean by C preprocessor ? Illustrate its significance in program development.
- (b) What is meant by hierarchy of operators ? Provide a brief outline of all operators supported by C language along with their hierarchy within expressions and suitable examples.
7. Differentiate between the following :
- (a) switch and if statement
- (b) for and while loop
- (c) break and continue.
8. Explain the following :
- (a) Pointers
- (b) Header files
- (c) File handling in C.