(01/13-II)

2202

P.G.D.C.A./M.C.A./M. Sc. (Comp. Sc.) (First Year) EXAMINATION

(New Scheme)

PROBLEM SOLVING THROUGH C

PGDCA-III/MSc-DE-12/MCA-DE-12

Time : Three Hours *Maximum Marks : 70*

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

1. (a) What is structured programming ? How is it useful and used in C ? Discuss with examples. 7

   (b) Discuss uses and advantages of top down programming with examples. 7

2. Explain the following briefly with suitable examples : 7 each

   (i) Bit-wise operators in C and their uses

   (ii) Flow charting and its advantages.

3. (a) What are decision making structures ? How are these useful and used in C ? Explain with examples. 7

   (b) Develop an algorithm for bubble sort technique. 7

4. Describe the following with examples in C : 7 each

   (i) String and character handling functions in C

   (ii) Data types in C.

5. List various kinds of operators in C and explain unary, logical, short hand assignment and conditional operators in detail with suitable examples in C and their hierarchy. 14

6. What are structure and union ? How are these useful and used in C ? Discuss in detail how arrays and pointers are used in structures with C code segments. 14

7. Define data files. How are these useful and used in C ? Also discuss their advantages and ten file handling functions in C with C code segments. 14

8. Define user defined functions in C. How are these functions useful and used in C ? Can we use pointers in functions ? Discuss in detail how parameters are passed in functions with C code segments. 14

9. Explain the following with suitable examples in C : 7 each

   (i) Strengths and weaknesses of C language

   (ii) Expression, its types and advantages in C.

10. Describe the following with examples in C : 7 each

    (i) Looping, its types and advantages in C

    (ii) Arrays to pointers.