Faculty of Engineering & Technology
Third Semester B.E. (IT) (CBS) Examination
PROGRAMMING LOGIC AND DESIGN USING 'C'
Paper—2

Time—Three Hours] [Maximum Marks—80

INSTRUCTIONS TO CANDIDATES

(1) All questions carry marks as indicated.

(2) Answer SIX questions.

1. (a) List different operators used in 'C' Language. Explain each with example. 6

(b) Explain the following statement with proper syntax and example :

(i) FOR

(ii) WHILE

(iii) DO-WHILE

(iv) WITCH 8

OR

2. (a) Write a 'C' program to find the factorial of a number ? 7

(b) Explain different data types and 'C' tokens used in C language. 3

(c) What is flowchart ? Explain different symbols involved in it ? 4

3. (a) Write a program to generate the Fibonacci series, 0, 1, 1, 2, 3, 5, 8 ... 6

(b) With the help of example explain the concept of pointers in 'C'. Also write advantages of using pointers. 7

OR

4. (a) What is need of array ? How do elements get stored in one dimensional array and two dimensional array of integers ? Draw the memory map for each of them. 7

(b) What is storage class ? Explain different storage classes available in C ? 6

5. (a) What is string ? Explain string related library function with one example. 7

Contd.

(b) With the help of example explain the concept of Union in 'C'. 6

OR

6. (a) Declare a structure for an employee and write a program which arranges the list of employees in the alphabetical order of their names. 7

(b) Differentiate between Structure and Union. 4

(c) What are the advantages of Union 2

7. (a) Write a program to merge two files into third file. Assume suitable name for merging. 7

(b) Explain the following file handling function :

(i) fseek()

(ii) frute()

(iii) fread()

(iv) fprintf()

(v) fwrite() 7

OR

8. (a) Write a short note on :

(i) Dynamic memory allocation

(ii) Static memory allocation. 7

(b) What are the bitwise operators available in 'C' ? Write a 'C' program which uses each of them. 7

9. (a) Write a program using graphics. The program should be a Menu Driven program and have the following options.

(i) Draw Line

(ii) Draw Circle

(iii) Draw Arc

(iv) Draw Rectangle. 7

(b) Explain the following functions and also write syntax for each function :

(i) initgraph()

(ii) closegraph()

(iii) arc()

(iv) ellipse() 6

OR

10. (a) Explain malloc(), calloc(), realloc() 7

(b) Write a program to generate alines with different colors and styles. 6

11. (a) Write a short note on TSR 7

(b) Explain different types of pointers. 6

OR

12. (a) Write short notes on ROM BIOS 7

(b) What are advantages of using pointer ? 3

(c) Explain Dangling Pointer. 3