Faculty of Engineering and Technology

Third Semester B.E. (Computer Technology)
(C.B.S.) Examination

PROGRAM LOGIC DESIGN IN "C"

Time : Three Hours]　　　　　　[Maximum Marks : 80

INSTRUCTIONS TO CANDIDATES

(1) All questions carry marks as indicated.

(2) Solve **SIX** questions as follows :

Que. No. **1 OR** Que. No. **2**

Que. No. **3 OR** Que. No. **4**

Que. No. **5 OR** Que. No. **6**

Que. No. **7 OR** Que. No. **8**

Que. No. **9 OR** Que. No. **10**

Que. No. **11 OR** Que. No. **12**

1. (a) Write a program to find if a square matrix is symmetric or not.　　9

   (b) Define string and structure with suitable example.　　4

OR

2. Following information is to be stored in computer about 500 students Rollno, Name. City, Sub1, Sub2 ...... Sub9. Write a program to find :

   (1) Number of students from Nagpur

   (2) Average of 9 subjects marks

   (3) Number of students failed i.e. less than 40 out of 100.   13

3. (a) Write a program to copy contents of one file into another.   6

   (b) Write short notes on following functions :

      (1) fopen ( )

      (2) fclose ( )

      (3) fseek ( )

      (4) ftell ( )

      (5) fread ( )

      (6) fwrite ( ).   8

OR

4. What do you mean by Command Line Argument ? Explain with suitable example. Also write a program to read the content of file xyz.txt using Command Line Argument.

   14

5. (a) Write a function to find greatest number in an array using pointer.   7

(b) Write short notes on :

(1) Malloc ( )

(2) Free ( )

(3) Realloc ( )

(4) Size of ( ).   6

OR

6. (a) Define the concept of DMA with suitable example.
                                                      5

(b) What is Pointer ? How Pointers are initialized ?
Write short notes on :

(i) Array of Pointers

(ii) Pointer to Structure.   8

7. (a) Write a program to draw the graphical image of
moving Indian flag in horizontal direction.   8

(b) Explain with proper syntax and example the concept
of initgraph ( ).   5

OR

8. (a) Explain the functions used to format text in graphics
with suitable example.   5

(b) Write a program to draw five concentric circles
and color the innermost circle red.   8

9. (a) Explain Notation of algorithms in detail. 6

 (b) Difference between Iterative and Recursive style. 4

 (c) What do you mean by complexity of an algorithm ? Explain its different types. 4

OR

10. Write in detail about Model of Computation with suitable examples. 14

11. Explain in detail about Top Down design and example of stepwise refinement. 13

OR

12. Write about Object Oriented Programming and its features in detail. 13