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

Programming Logic Design in C

P. Pages : 2 **NKT/KS/17/7233**

Time : Three Hours * 0 2 8 4 * Max. Marks : 80

Notes : 1. All questions carry marks as indicated.
2. Solve Question 1 OR Questions No. 2.
3. Solve Question 3 OR Questions No. 4.
4. Solve Question 5 OR Questions No. 6.
5. Solve Question 7 OR Questions No. 8.
6. Solve Question 9 OR Questions No. 10.
7. Solve Question 11 OR Questions No. 12.

1. a) Write a C program to print sum of diagonal element of a inputted 3x3 matrix. **6**

b) Explain any four library function in "string.h" with example. **8**

OR

2. a) Write a C program using structure to accept name and salary of 30 employee. Find highest salary, lowest salary and average salary. **8**

b) What is union? Differentiate between structure and union. **6**

3. a) Write a C program to copy the content of one file into another file. Assume suitable file names. **7**

b) Explain the use of following functions with syntax. **6**

i) fscanf( )
ii) fopen( )
iii) fseek( )

OR

4. a) Write a program to count number of characters and number of words in a file. **7**

b) Explain command line Argument with example. **6**

5. a) Write a C program to find smallest element from an array using pointers. **5**

b) What is Dynamic memory allocation? Explain different memory allocation function with example. **8**

OR

6. a) Write short note on.

i) Pointer to structure. **4**

ii) Static memory allocation. **4**

iii) Pointers and function. **5**

7. a) Write a C program which will print the following text in different color, size and font. "C language is very interesting". **7**

b) Write a C program to generate concentric circles from the Centre of screen and fill them with different colors. **7**

OR

8. a) Explain the following graphics function with correct syntax and example. **14**

i) initgraph( )
ii) arc( )
iii) settextstyle( )
iv) outtextxy( )
v) putimage( )
vi) moveto( )
vii) ellipse( )

9. a) Explain basic model of computation in detail. **7**

b) On what parameters algorithms are evaluated? Explain those parameters. **6**

OR

10. a) What are the correctness and efficiency issues in programming. **6**

b) Explain principle of mathematical induction with example. **7**

11. a) What is object oriented programming? Explain various features of OOP. **7**

b) Explain imperative, procedural and declarative programming with example. **6**

OR

12. a) Explain Assertion of loop invariants. **6**

b) Write a C program to create structure of student with field roll no, name marks in 3 subjects & percentage. Input these values for 3 students and display it. **7**

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