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

Programming Logic & Design Using C

P. Pages : 2 **NKT/KS/17/7243**

Time : Three Hours 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.
8. Due credit will be given to neatness and adequate dimensions.
9. Assume suitable data whenever necessary.

1. a) What is flowchart? Explain different symbols involved in it. **4**

b) Write a 'C' program to find the factorial of a number. **6**

c) Write difference between while & do-while statement. **3**

OR

2. a) What is algorithm? Explain with example. **6**

b) Explain the following statement with proper syntax & example. **7**

i) FOR ii) While

iii) Do-while iv) Switch.

3. a) What do you mean by sorting? Write a program to sort array elements using bubble sort. **7**

b) Explain: **6**

i) Call by value. ii) Call by reference.

OR

4. a) What do you mean by array? Why array are used? How array elements are accessed? **6**

b) What is pointer? What are advantages of pointers. **3**

c) Write a C program to generate Fibonacci series using recursion. **4**

5. a) Write a program to concatenate two strings without using string handling functions. **7**

b) State the difference between structure & union with suitable example. **6**

OR

6. a) A blood bank stores the information about the donares as follows: Name, address, Age, Weight, Gender, blood group & contact no. Write a C program using structure for accepting records of 20 donors and display the details of donors with age less than 30 & blood group equals to 'O' in the list of 20 donors. **8**

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b) Write a program to check entered string is palindrome or not without using standard library function. **5**

7. a) Write down the purpose of following functions. Fseek(), Fopen(), Ftell(), Fprintf() **8**

b) Write a program to merge two files into third file. Assume suitable name for merging. **6**

OR

8. a) Define the term Enumerated data types. Explain with example. **6**

b) Explain the following statement FILE * F1. **4**

c) What is difference between text file & binary file. **4**

9. a) Explain the following in short: **8**

i) Malloc ( ) ii) Calloc ( )
iii) Free ( ) iv) Realloc ( )

b) Discuss the following in detail. **6**

i) Dynamic memory allocation. ii) Bitwise operators.

OR

10. a) Write a program using graphics. The program should be menu driver program & have the following options. **7**

i) Draw line ii) Draw circle
iii) Draw arc iv) Draw rectangle.

b) What is difference between static & dynamic memory allocation? **3**

c) Write short note on "Command line argument". **4**

11. a) Write & explain different ROM – BIOS function. **6**

b) Explain in detail with examples of elementary TSR's. **7**

OR

12. a) Explain different types of pointers. **6**

b) What are the advantages of using pointers? **4**

c) Explain Dangling pointer. **3**

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