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

Programming Logic & Design Using C

P. Pages : 2 **NRJ/KW/17/4383**

Time : Three Hours * 0 5 2 6 * 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. Assume suitable data whenever necessary.

1. A) Write a program to compute given exponential series as follows: **7**

$$e^x = 1 + x + \frac{x^2}{2!} + \frac{x^3}{3!} + \text{------} \frac{x^n}{n!}$$

B) Explain the various iteration and jump statements used in C language. **7**

OR

2. A) Write a program to display Fibonacci series upto n terms. **7**

B) Give the significance of "break" and "continue" statement with example. **3**

C) Write the various properties of algorithm. **4**

3. A) Create a single dimension integer array of size 10 to hold the marks of 10 students. Accept the marks in an array. Write a function "ranker" ( )", which takes the array as a parameter and returns the highest mark. **7**

B) Explain call by values and call by reference with suitable example. **6**

OR

4. A) Explain storage classes in C with suitable examples. **8**

B) Write a program to search an element x in the list of integer of n element using binary search. **5**

5. A) List various string functions with example of each. **6**

B) Write a C program to read a string & convert it into lowercase. **5**

C) Distinguish between syntax and semantic error. **2**

OR

6. A) Declare an array of structure consisting of name and phone number of 10 elements write a C function getname ( ) which receives a pointer to the above array, size and phone number as arguments. It should search the phone number in the array and return a pointer to the corresponding name. **10**

B) Differentiate between structure and union. **3**

7. A) Explain various file opening modes. **6**

B) Write a C program to demonstrate command line argument with suitable example. **7**

OR

8. A) Write a program to merge two files and get the contents into a new file. **7**

B) Explain the following. **6**
i) Bitwise operator
ii) Enumerated data types.
iii) Typedef.

9. A) Explain various functions used for dynamic memory allocation in 'C'. **8**

B) Write a program using C graphics to print 4 concentric circles. **6**

OR

10. A) Differentiate between graphics mode and text mode. **4**

B) Explain following graphics functions. **10**
i) Initgraph ()
ii) Outtext xy ( )
iii) Ploygon ( )
iv) Putimage ( )
v) Imagessize ( )

11. A) Explain different types of pointers in C. **7**

B) What are the steps involved in invoking ROM-BIOS function? **6**

OR

12. A) Explain the concept of terminate and stay resident. **7**

B) State any two utilities in TSR and give examples of each in brief. **3**

C) What is meant by dereferencing? What is the difference between a pointer and a dereferenced pointer. **3**

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