

Computer Programming

P. Pages : 2

Time : Three Hours



NKT/KS/17/7282/7309

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.
 10. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) What are the various data types available in 'C'? Give their ranges. **7**
- b) What are the program control statements available in 'C'? Explain in brief. **7**

OR

2. a) Explain various storage classes available in 'C'. State the importance of storage class. **7**
- b) Write a function program to calculate factorial of a number and use it to find the sum of the series - **7**
- $$1 + \frac{1}{2!} + \frac{1}{3!} + \frac{1}{4!} + \dots + \frac{1}{10!}$$

3. a) What do you understand by 'Array'? Explain the methods of initialization of array elements with example. **7**
- b) Write a program to calculate average of 20 numbers using array. **6**

OR

4. a) Explain different methods of searching an element in an array. Explain binary search technique. **7**
- b) Write a C program for finding sum of two 3 x 3 matrices. Resultant matrix must be printed as output of the program. **6**

5. a) What is meant by the following terms? **7**
- i) Nested Structure
 - ii) Array of Structures
- b) What is a pointer? Write a program in 'C' to interchange values of two variables using pointers. **6**

OR

