A – 6345

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Reg. No. : .....

Name : .....

Third Semester B.Tech. Degree Examination, September 2016
(2008 Scheme)
08.304 : PROGRAMMING IN C++ & DATA STRUCTURES (TA)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions. **Each** question carries **4** marks.

1. Explain the various data types in C++ with example.

2. How dynamic memory allocation is done in C++ ?

3. Give the syntax of 'switch-case' statement. Give examples.

4. Differentiate between 'pointer of arrays' and 'array of pointers'.

5. Write a program to read 100 numbers into a array and display the array.

6. Explain 'this' pointer with an example.

7. Explain the concept of exception handling.

8. Explain the operation of a doubly linked list.

9. Explain the concept of queues.

10. What is big-O notation ? Explain the best, worst and average case running time of algorithms.

P.T.O.

PART – B

Answer **any two** questions from **each** Module. **Each** question carries **10** marks.

MODULE – I

11. How an object can be created ? Explain public private and protected variables, with an example.

12. Write a program to read two matrices and perform the addition. The sum is to be stored as another matrix and display it.

13. Write a program to check whether the given string is a palindrome or not.

MODULE – II

14. What is a friend function ? Write a program to overload a '+' operator using friend function.

15. What is meant by inheritance ? Explain how a data member and member functions of a base class can be accessed by the derived class member functions.

16. Write a program to read a file and to display the contents of the file on to the screen. Also display the number of characters in the file and the number of lines in the file.

MODULE – III

17. Write a program to search for a particular number in a given linked list.

18. Write a program to traverse a binary tree using the various methods.

19. Write a program to sort a given array of numbers using merge sort.