

B.Tech II Year I Semester (R13) Supplementary Examinations June 2017

**FILE STRUCTURES: AN OBJECT ORIENTED APPROACH**

(Information Technology)

Time: 3 hours

Max. Marks: 70

**PART – A**

(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) What is the need of destructor?
  - (b) List the disadvantages of pointers.
  - (c) Give an example of copy constructor.
  - (d) What are the various base class access specifiers?
  - (e) What is a pure virtual functions?
  - (f) Illustrate the use of 'typename' keyword of C++.
  - (g) Compare B tree with B+ tree.
  - (h) What factors contribute to the disk access time?
  - (i) List the Unix tools for sequential processing of files.
  - (j) What are the limitations of the key sort method?

**PART – B**

(Answer all five units, 5 X 10 = 50 Marks)

**UNIT – I**

- 2 (a) Describe the general form of C++ program.  
(b) What is an inline function? Give examples.

**OR**

- 3 (a) Write a C++ program to demonstrate passing objects as parameters to function and a function returning an object.  
(b) Discuss type compatibility of pointers.

**UNIT – II**

- 4 (a) How to find the address of an overloaded function?  
(b) Write a program to overload + = operator.

**OR**

- 5 What are the benefits of inheritance? Explain them with suitable program segments.

**UNIT – III**

- 6 Does C++ accomplish run-time polymorphism? Give necessary program to support your answer.

**OR**

- 7 (a) How to overload a generic function?  
(b) What is a binary search tree? Give its properties.

**UNIT – IV**

- 8 Discuss buffer bottlenecks and various strategies for buffering.

**OR**

- 9 Write a program to create a file and store a string in it. Write program to read the string and display it to standard output.

**UNIT – V**

- 10 Explain any three approaches for data compression.

**OR**

- 11 (a) Why is it important to distinguish file access and file organization?  
(b) When sequential search is good for files?

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