PVP 14

Code: IT4T1

II B.Tech II Semester Regular/Supplementary Examinations - April 2019

ADVANCED DATA STRUCTURES
(INFORMATION TECHNOLOGY)

Duration: 3 hours Max. Marks: 70

PART – A

Answer ***all*** the questions. All questions carry equal marks

11 x 2 = 22 M

1. a) How the hashing useful in searching?
   b) Write the ADT of Dictionary.
   c) Write balance factor for AVL tree.
   d) Write property of Min heap.
   e) Write the Application of minimal spanning tree.
   f) Write the functionality of skip lists.
   g) What is the difference between Warshall's and Prim's algorithm?
   h) Define the term tries.
   i) Differentiate between dictionary and pattern matching.
   j) What are different file read and write modes?
   k) List the advantages of fixed length records.

PART – B

Answer any ***THREE*** questions. All questions carry equal marks.

3 x 16 = 48 M

2. a) Write the different operations of sets using linked list with example program. 10 M

   b) Explain the Hash table restructuring with an example. 6 M

3. a) Construct AVL tree for the following numbers 14, 8, 12, 46, 23, 5, 77, 88, 20. 8 M

   b) Analyze the insertion and deletion operations of the heap with example. 8 M

4. a) Explain about different graph traversal with examples for each. 8 M

   b) Explain the Prim's algorithm with suitable example. 8 M

5. a) Write the Robin - Karp algorithm. Explain its significance compared to Boyer – Moore algorithm. 8 M

   b) Explain the working of Multi-way trie. 8 M

6. a) Compare and contrast the different record organizations in the file systems. 8 M

b) Explain about special characters in Files. 8 M