Faculty of Science

B.Sc (Computer Science) I-Year, CBCS-II Semester Examinations, May/June 2019

PAPER: DATA STRUCTURES AND FILE PROCESSING

Time: 3 Hours   Max Marks: 80

Section-A

I. Answer any FIVE of the following questions.   (5x4=20 Marks)

   1. What is Data Structure? Explain types of Data Structures.

   2. Discuss about garbage collection.

   3. Explain Iteration vs Recursion.

   4. Explain applications of Linked Lists.

   5. What is Tree? Explain Tree types.

   6. Explain the usage of symbol table.

   7. Discuss about Dictionaries with usage.

   8. Explain Indexing.

Section-B

II. Answer the following questions.   (4x15=60 Marks)

   9. (a) Explain stack ADT.

(OR)

   (b) Explain Analysis of Algorithms with Asymptotic notations.

   10.(a) What is Queue? Explain variants of Queues.

(OR)

   (b) Explain Linked List ADT.

   11. (a) What is Binary Tree? Explain Binary Tree Traversal Techniques.

(OR)

   (b) Explain various searching techniques with comparison.

   12. (a) What is Hashing? Explain Collision Resolution Strategies.

(OR)

   (b) What is File? Explain various file organization methods.

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