I M.Tech - II Semester - Regular Examinations – AUGUST 2018

INDEXING AND SEARCHING IN LARGE DATASETS
(COMPUTER SCIENCE & ENGINEERING)

Duration: 3 hours   Max. Marks: 60

Answer the following questions:

1.a) What is indexing and define different memory based index structures.   8 M

b) Differentiate between K-D-tree and binary search tree for construction and usage in indexing.   7 M

(OR)

2. a) Explain different variants of Range trees with examples.   8 M

b) Illustrate the construction and usage of Quad-tree and its variants for indexing.   7 M

3. a) Explain different disk based index structures like B-tree and R-tree and their variants.   8 M

b) Write and explain the algorithm for the construction and updation of R*trees.   7 M

(OR)

4. Explain the structure of B-tree and R^+ tree with relevant diagrams.   15 M

5. a) Analyse different distances used for indexing.   8 M

   b) Explain about distance metric and distance measure.   7 M

(OR)

6. a) Explain different statistical and entropy based distance measures.   8 M

   b) Compare and contrast Earth movers distance and Edit Distance.   7 M

7. a) Explain the search procedure used in VA-file.   8 M

   b) Explain the search procedure used in IQ-tree.   7 M

(OR)

8. a) Explain the search procedure used in A-tree.   8 M

   b) Explain the search procedure used in IMinMax and Pyramid Technique.   7 M