F–3123

Sub. Code
7PCS1C1

M.Phil DEGREE EXAMINATION, NOVEMBER 2019

First Semester

Computer Science

RESEARCH METHODOLOGY

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (5 × 5 = 25)

Answer **any five** questions.

1. Explain the internal sources of secondary data

2. Explain the usage of predicate vertex with an example

3. What is the complete enumeration method? Explain it with an example

4. What is linked list data structure? Illustrate its working principle

5. Write a short note on Greedy method

6. Explain the backtracking logic of 4-Queen problem

7. What is Genetic Algorithm? Explain the roles of Genetic Algorithm in detail

8. Explain page and chapter format of thesis

Part B (5 × 10 = 50)

Answer **all** questions, choosing either (a) or (b).

9. (a) With suitable example explain the different types of charts

Or

(b) The distribution of monthly travelling allowance (in thousands of rupees) claimed by salesmen of a firm is as presented in the table . Find the median of the travelling allowance of the salesmen.

Allowance(Rs in Thousands)	Number of Salesmen	Allowance(Rs in Thousands)	Number of Salesmen
Less than 8	5	16-18	40
8 - 10	10	18-20	45
10 - 12	15	20-22	20
12 - 14	20	22-24	15
14 - 16	35	More than 24	11

10. (a) Discuss the steps of development of an algorithm.

Or

(b) Give the steps of the algorithm for the construction of the binary tree data structure as well as to locate the desired key in it.

11. (a) Briefly explain the Branch and bound algorithm for Travelling Salesman problem.

Or

(b) Write down the steps of PRIM algorithm

12. (a) Describe the role of Genetic Algorithm in optimization.

Or

(b) Elaborately explain the Neural network architecture in detail

13. (a) Elaborately explain the various stages of report writing.

Or

(b) Describe the various types of computer tools for writing and publishing thesis.

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F–3124	Sub. Code
	7PCS1C2

M.Phil. DEGREE EXAMINATION, NOVEMBER 2019

First Semester

Computer Science

ADVANCED DATABASE MANAGEMENT

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (5 × 5 = 25)

Answer any **five** questions.

1. How might a distributed database designed for a local-area network differ from one designed for a wide-area network? Explain

2. Explain the relative advantages of centralized and distributed databases

3. Explain technical issues to be considered when designing and implementing a data warehouse environment.

4. How data mining system can be integrated with a data warehouse? Explain

5. What is WHEN/THEN constraint

6. Write a short note on the Circumlocution problem

7. Explain the Tight coupling architecture

8. Elements of a graph schema.

Part B (5 × 10 = 50)

Answer **all** the questions, choosing either (a) or (b).

9. (a) Define fragmentation. Explain the various type of fragmentation and also state the rules of fragmentation.

Or

(b) Generalize the methods of how the locking is achieved in concurrency control of Distributed Database.

10. (a) How are association rules mined from large databases? Explain.

Or

(b) Explain the algorithm for constructing a decision tree from training samples.

11. (a) Describe the decomposition techniques in detail.

Or

(b) What is Spatial Database? Explain the Spatial Database Queries with suitable example

12. (a) Explain:

(i) process of Extracting metadata from data

(ii) Architectures for hypermedia database systems.

Or

(b) Explain the following multimedia architectures:

(i) Functional

(ii) System.

13. (a) (i) Benefits of the fact-based model

(ii) The properties of data.

Or

(b) Explain:

(i) Requirements for a serving layer database

(ii) Elements of a graph schema.

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