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Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 95365

5 Year M.Sc. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2015.

Elective

Software Engineering

XCS 011/10677 SWE 62 – DATA MINING AND DATA WAREHOUSING

(Common to 5 Year M.Sc. Information Technology and M.Sc. Computer Technology)

(Regulations 2003/2010)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the different ways of interfacing a data mining system with database system?

2. What is a self learning computer system?

3. List the steps involved in knowledge discovery process.

4. What are OLAP tools?

5. Write about database scheme and its type.

6. What is a data mart? List its usages.

7. Differentiate SMP and MPP.

8. Describe the levels in RAID technology.

9. Mention the steps in testing a data warehouses.

10. Under what situations data marts would be preferred instead of a data warehouse?

PART B — (5 × 16 = 80 marks)

11. (a) (i) How is data mining is related with KDD? Explain. (6)

(ii) What do you mean by concept learning? Discuss about the issues related to it. (10)

Or

(b) (i) Define the term 'operational data', 'data warehouse' and 'data mart'. Explain how these are integrated together. (10)

(ii) Which is called decision support system? What are the consideration to be made while designing these systems? (6)

12. (a) (i) Discuss the various data cleaning tasks in brief. (6)

(ii) Describe the Apriori algorithm for Association Rule Mining with an example. (10)

Or

(b) (i) Why is visualization significant in a data mining system? Mention the various visualization techniques. (6)

(ii) What is a decision tree? Describe the ID3 algorithm for the induction of a decision tree. (10)

13. (a) Describe the process architecture of a data warehouse. (16)

Or

(b) Explain the steps involved in designing summary tables. (16)

14. (a) Explain the hardware and operational design of the data warehouse. (16)

Or

(b) Discuss the following :

(i) Security requirement for a data warehouse (6)

(ii) Updating the data warehouse (6)

(iii) Service level agreement. (4)

15. (a) Describe the steps of tuning and testing a data warehouse. (16)

Or

(b) Present a real world case study of a data warehouse design. (16)