20/12/18

(3 Hours)　　　　　　　　　　　　　　[Total Marks: 100]

N. B.: (1) All questions are compulsory.

(2) Make suitable assumptions wherever necessary and state the assumptions made.

(3) Answers to the same question must be written together.

(4) Numbers to the right indicate marks.

(5) Draw neat labeled diagrams wherever necessary.

(6) Use of Non-programmable calculators is allowed.

1.　Attempt *any two* of the following:　　　　　　　　　　　　　　10
a.　What is data warehouse? Discuss the advantages of data warehouse.
b.　Differentiate between data marts and Exploration facility.
c.　What is Changed Data Capture in ETL? Explain.
d.　List the types of statistics collected for monitoring the functioning of data warehouse.

2.　Attempt *any three* of the following:　　　　　　　　　　　　　　15
a.　Write short note on Spider Web Environment.
b.　Outline the factors which led to the evolution of DW 2.0.
c.　Explain in brief the Life Cycle of data in DW 2.0.
d.　List the reasons which make Metadata very important in DW 2.0 architecture.
e.　List and explain briefly the various data structures found in integrated Sector.
f.　What are the steps involved in processing of Unstructured data?

3.　Attempt *any three* of the following:　　　　　　　　　　　　　　15
a.　Differentiate between Active and Passive Repository.
b.　Describe internal and external taxonomy in the unstructured DW 2.0 with the help of an example.
c.　Explain key features of Spiral development methodology for DW 2.0.
d.　Describe Heuristic Analysis. What is freezing of data and Why is it required?
e.　What is Exploration facility? List its sources of data.
f.　List and briefly explain the activities involved in seven streams approach to DW/BI projects.

4.　Attempt *any three* of the following:　　　　　　　　　　　　　　15
a.　What is a data model? Explain the different levels of data model.
b.　Write a note on transformation of data model across different sectors.
c.　Explain briefly the types of monitors used to monitor DW 2.0 environment.
d.　List the various aspects of data which is examined by the ETL Data Quality Monitor.
e.　Discuss the different security measures employed for data warehouse.
f.　How can one sense attack on DW 2.0

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5. **Attempt _any three_ of the following:** 15
a   Explain Discrete and Continuous time span data with an example of each. What is significance of these?
b   What is time collapsed data? Explain.
c   What are the three exceptional flow of data in DW 2.0? Explain briefly.
d   How does ETL act in Online and Batch mode? Discuss.
e   How is the rejected data handled in ETL processing?
f   What is ELT? List the drawbacks associated with it.

6. **Attempt _any three_ of the following:** 15
a. What is Granularity Manager? List the main functions of Granularity manager.
b. Discuss few ways in which the performance of DW environment can be improved?
c. How is Analytical environment different from Transactional Environment?
d. Differentiate between Farmers and Explorers of data in DW 2.0 scenario.
e. How can Enterprise Metadata can be created.
f. Explain briefly the different ways in which Data Warehouse can be migrated to DW2.0.

7. **Attempt _any three_ of the following:** 15
a. Explain the physical design process briefly with the help of a diagram.
b. What are the different components of physical model?
c. List the conditions under which pilot deployments are useful.
d. Explain briefly the major activities involved in deployment of data warehouse.
e. What are the three main subjects in user training material? Why are they important?
f. List any five factors which are to be part of ETL management.

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