

[5353] - 592

T.E. (IT)

DATABASE MANAGEMENT SYSTEM

(2015 Pattern)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8, Q.9 or Q.10.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data if necessary.

Q1) a) State & explain the disadvantages of File Processing System. [5]

b) Define entity & entity-set. What is E-R model? [5]

OR

Q2) a) What is query? What do you mean by correlated subquery? [4]

b) List the properties of decomposition. Explain loss less join with example. [6]

Q3) a) What are the steps followed in executing write (X) command in transaction? [5]

b) Define query processing. What are the steps involved in query processing? [5]

OR

Q4) a) When are two schedules said to be view equivalent? [6]

b) Why are cursors necessary in Embedded SQL? [4]

Q5) a) What is a checkpoint? Explain the operations performed by a system during checkpoint. Explain the recovery mechanism during system crash. [8]

b) What are the design considerations for distributed database? [8]

OR

P.T.O.

Q6) a) What are the key elements of Parallel DB processing? Explain. [8]

b) Explain Time-Stamp ordering protocol. [8]

Q7) a) Draw & explain HBase data model. [6]

b) Compare JSON & XML with example. [6]

c) Explain NoSQL concept with MongoDB example. [6]

OR

Q8) a) Write a short note on (any 3) : [12]

i) SQLite database.

ii) Mobile database.

iii) Internet database.

iv) Cloud database.

b) How data validation is done in XML? [6]

Q9) a) What is data warehousing? Write the benefits & limitations of data warehousing. [8]

b) Explain the process of knowledge discovery with diagram. [8]

OR

Q10) a) Write a short note on : [8]

i) Machine learning for Big data.

ii) Business Intelligence.

b) Explain classification in detail with example. [8]