

IV Semester B.A./B.Sc. Examination, May/June 2018
 (Repeaters) (2014-15 Only)
COMPUTER SCIENCE – IV
Software Engineering and Database Systems

Time : 3 Hours

Max. Marks : 70

Instruction : Answer all the Sections.**SECTION – A**I. Answer **any ten** question. **Each** question carries **two** marks. **(10×2=20)**

- 1) Mention any two functions of DBMS.
- 2) What is a catalog ?
- 3) What is data redundancy ?
- 4) Define DML.
- 5) What are ER diagrams ?
- 6) What is normalization ?
- 7) When can null values be used in tuples ?
- 8) What is software engineering ?
- 9) What is a data flow diagram ?
- 10) What is agility ?
- 11) Define a data model.
- 12) What is validation ?

SECTION – BII. Answer **all** the questions. **Each** question carries **ten** marks. **(5×10=50)**

- 13) a) Who is a database administrator ? What are his responsibilities ?
- b) Explain different categories of users of DBMS. **(5+5)**

OR

- a) Write a short note on three schema architecture.
- b) Explain :
 - i) Primary key
 - ii) Foreign key
 - iii) Entity
 - iv) Attributes
 - v) Relationship.

(5+5)

P.T.O.



- 14) a) Explain :
- i) Hierarchical data model
 - ii) Network data model.
- 10

OR

- a) Explain the different relational algebra set operations.
 - b) Explain second normal form. (5+5)
- 15) a) What is an SQL ? Write any five features of SQL.
- b) What is the difference between DROP and DELETE command ? (5+5)

OR

- a) Explain the use of following commands using suitable examples :
 - i) GRANT and REVOKE
 - ii) COMMIT and ROLLBACK. (10)
- 16) a) Write a short note on software myths.
- b) What is a process flow ? Explain different types of process flow using diagram. (5+5)

OR

- a) Explain waterfall model.
 - b) Write short note on extreme programming. (5+5)
- 17) a) How do we assess the quality of a software design ?
- b) Explain coupling. (5+5)

OR

- a) What is use case ? How are they developed ?
- b) What is software quality ? Explain McCall's quality factors. (5+5)