SM – 433

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 – B

II. 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)**

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)**

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