CS – 197

III Semester B.A./B.Sc. Examination, March 2023
(CBCS Scheme) (Repeaters) (2015 – 16 and Onwards)
COMPUTER SCIENCE – III
Database Management System and Software Engineering

Time : 3 Hours

Max. Marks : 70

Instruction : *Answer all Sections.*

SECTION – A

I. Answer **any 10** questions. **Each** question carries **2** marks.   (10×2=20)

1) What is DBMS ? Mention the functions of DBMS.

2) What is weak entity ?

3) Explain data independence.

4) What is primary key ? Give an example.

5) List out the data types allowed in SQL.

6) What is DDL ? List out the DDL commands in SQL.

7) Write any two properties of normalization.

8) Define Software Engineering.

9) List out 4 software myths.

10) What is software testing ? Mention its types.

11) What is Agile Development ?

12) Write any two types of cohesion.

SECTION – B

II. Answer **any 5** questions. **Each** question carries **10** marks.   (5×10=50)

13) a) What are the characteristics of the database approach ?   (5+5)

    b) Explain three schema architecture.

14) a) Define DBA. Explain the roles and responsibilities of DBA.   (5+5)

    b) What is an E-R Diagram ? Mention its notations with example.

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15) a) What is an attribute ? Explain different types of attributes with example. **(5+5)**

    b) Explain SELECT and PROJECT operation in relational algebra with example.

16) a) What is SQL ? Explain DML commands with an example for each. **(5+5)**

    b) Explain the aggregate functions in SQL with example.

17) a) Explain order-by and group-by clause with syntax and example. **(5+5)**

    b) What is normalization ? Explain 1NF and 2NF with example.

18) a) Explain water-fall model with a neat diagram. **(5+5)**

    b) Explain Agile Development.

19) a) Explain verification and validation. **(5+5)**

    b) Write a note on Extreme Programming.

20) a) Explain SRS in detail. **(5+5)**

    b) What is Software Testing ? Describe different types of testing.

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