



CS – 197

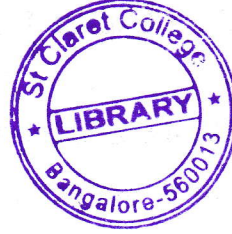
38
III Semester B.A./B.Sc. Examination, March 2023
(CBCS Scheme) (Repeaters) (2015 – 16 and Onwards)
COMPUTER SCIENCE – III

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.

P.T.O.



- 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.
-