

**PE – 487**

**(514) M.A./ M.Sc. MATHEMATICS (Fourth Semester)**

**Examination June 2022 Compulsory/Optiona**

**Group - Paper -VIII**

**FUNDAMENTALS OF COMPUTER SCIENCE - II**

**Time : Three Hours]**

**[Maximum Marks : 80**

**[Minimum Pass Marks :**

नोट : दोनों खण्डों से निर्देशानुसार उत्तर दीजिए। प्रश्नों के अंक उनके दाहिनी ओर अंकित हैं।

Note : Answer from both the Sections as directed. The figures in the right-hand margin indicate marks.

**Section-A**

Q 1. Answer the following question :-

1x10=10

- Define SQL?
- What do you mean data?
- Define term Processor?
- What is DML?
- Explain attribute?
- Define Schema?
- what is Tuples?
- What is primary Key?
- What do you mean by RDBMS Null Values?
- Define term Network security?

Q 2. Answer the following:-

2x5 =10

- Explain data retrieve?
- Define relational database?
- Explain Data Integrity?
- Explain RDBMS Domain?
- Define Booting process?

**Section - B**

Answer the following question :-

12x5 = 60

Q 3. Explain the three - Scheme architecture of a DBMS?

OR

Describe DBMS architecture in detail?

Q 4. What is functional dependency? Explain its in database design?

OR

Why normalization is needed? Explain the process of Normalization?

Q 5. What is normalization? What is its use? Explain each technique with example?

OR

What is Relational Algebra? Explain with example?

Q 6. What is the use of making SQL? What are the features of SQL?

OR

Compare the use of embedded SQL with the use in SQL of functions defined in a general purpose programming language?

Q 7. What is Concurrently? Explain Security Network and Distributed System?

OR

Define process management? Explain I/O memory management?