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Unit - IV

- (a) What is Schema refinement? How normalization plays a significant role in schema refinement? Illustrate with example.
- (b) What is serializable schedule? Why is a serializable schedule considered correct and how serializability is useful for concurrency control?
9. (a) What is decomposition? Why is it required? Discuss the properties of decomposition with example.
- (b) What is a deadlock? How can a deadlock be detected and prevented? Explain.

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MCA Bridge Course (2 Year Programme) 1st Semester

w.e.f. 2020-2021, Examination, May-2023

VISUAL BASIC AND DATABASE SYSTEM

Paper - 20BCCHC3

Time allowed : 3 hours [Maximum marks : 80]

Note: Attempt five questions in all. Question no. 1 is compulsory. In addition to the compulsory question, attempt four more questions selecting one question from each unit.

I. Compulsory Question :

- (a) Write down any four salient features provided by the VB environment, making it suitable for front-end applications.
- (b) How are variables declared and assigned values in VB language?
- (c) Write down the syntax for the While-End loop.
- (d) Discuss the concept of optional arguments with reference to procedures in VB language.

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- (e) Differentiate between database schema and database state.
- (f) How a relation can be interpreted?
- (g) What is transitive dependency? Give example also.
- (h) What are the properties of a transaction?

Unit - I

- 2. (a) Differentiate between Picture Box and Image Box in terms of their respective properties and events.
- (b) Explain the syntax and purpose of exit and continue statements used in loops.
- 3. (a) What do you mean by named constants? Also write down how to declare them with appropriate example.
- (b) Explain the working of different components of Visual Basic IDE with an apt example.

Unit - II

- 4. (a) How SDI is different from MDI? Explain how multiple forms can be added in VB.

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- (b) How a connection can be established using DAO? Illustrate with example.
- 5. (a) Differentiate between the load and Show events associated to VB forms.
- (b) Write down the steps and code snippet in VB for setting a connection to a data source.

Unit - III

- 6. (a) Discuss three-schema architecture. Why mapping is needed among schema levels? How do different schema definition language support this architecture?
- (b) How tuple relational calculus is different from domain relational calculus? Discuss the expressive power of relational calculus in terms of its different types.
- 7. (a) Differentiate between conceptual and logical design. Write down the steps of Conceptual database design.
- (b) How views are different from tables? How views can be created, deleted and updated? Explain with examples.

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