

9. (a) What do you mean by transactions and schedules ? What are the properties of a transaction ? How is transaction recovered when a system failure occurs ? Explain in detail. 8
- (b) What is concurrency control ? Why Concurrency control is needed ? Explain in detail the various methods of concurrency control in database. 8

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Roll No.

67003-N

**MCA (Bridge Course) (MCA 2 Year
Programme) w.e.f. 2020-21
Examination – July, 2022
VISUAL BASIC & DATABASE SYSTEMS**

Paper : 20BCC11C3

Time : Three hours] [Maximum Marks : 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt five questions in all, selecting one question from each Units. Question No. 1 is compulsory. All questions carry equal marks.

1. (a) Give difference between Picture Box and Image Box. 2 × 8 = 16
- (b) How we declare variables in VB ? Explain through example.
- (c) What do you mean by Array ? Give difference between arrays and dynamic arrays.
- (d) What is List view in VB ?
- (e) What do you mean by Data Abstraction ?

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- (f) Explain the concept of Data-Bound Control.
- (g) Explain the concept of Multivalued Dependencies.
- (h) What do you mean by Lock Management ? Explain.

UNIT - I

- 2. What VB IDE ? Explain Toolbox, Properties window, Form designer, Form layout and properties window in detail. 16
- 3. (a) What do understand by event driven programming ? List and explain about some of the event supported by VB object. Also describe the role of event processor in VB. 8
- (b) Explain the concept of Branching and looping statements in detail. 8

UNIT - II

- 4. (a) Explain the following in detail : 4 × 2 = 8
 - (i) Dialog Boxes
 - (ii) Data Controls
- (b) What do you mean by Menus ? Describe the methodology to create a menu using Visual Basic in detail. 8

- 5. (a) What do you mean by SDI and MDI form ? How you create an MDI form ? Explain through example. 8
- (b) What is database programming ? How we connect a VB form to Database by using DAO ? Explain in detail. 8

UNIT - III

- 6. (a) What is DBMS ? Explain the Applications and history of database system in detail. 8
- (b) What do you mean by relational model ? What is integrity rule in relational model ? Explain. 8
- 7. (a) What is relational algebra ? Explain projection and join operation of relational algebra with suitable examples. 8
- (b) What is relational calculus ? Explain the different variants of relational calculus with example. 8

UNIT - IV

- 8. What is Normalization ? Why we need normalization ? Explain with examples the various types of normal forms in details. Also discuss with the advantages and disadvantages of normalization. 16