

Computer Science (Theory)

Attempt FIVE Questions in all. Section-A is Compulsory. Attempt any TWO Questions from Section-B and TWO from Section C. Give answers of Objective Part in your answer book.

Section-A (Objective Part)

1- Encircle the right option among the given options for each question:

10

- i) A portion of VB IDE used to browse files of a program is called:
 - a) Form Layout Window b) Form Window c) Project Explorer Window d) File Manager
- ii) To exit visual basic:
 - a) Alt+Q b) Alt+F4 c) Both a and b d) None
- iii) The property that changes text color is:
 - a) Back color b) Font color c) Fore color d) Text color
- iv) To display a message a function is used:
 - a) Input box b) Message c) Msg box d) None
- v) Which of the following is a valid VB data type?
 - a) Boolean b) Array c) Char d) int
- vi) SQL stands for:
 - a) Create database structures only b) Query database data only
 - c) Seek qualify label d) None
- vii) Data that causes inconsistency lacks:
 - a) Good data b) Data integrity c) Data redundancy d) Data anomaly
- viii) Which of the following is related to modality?
 - a) Optional b) Mandatory c) Unidirectional d) Both a and b
- ix) The goal of Normalization is to:
 - a) Get stable data structure b) Increase number of relation
 - c) Increase Redundancy d) None
- x) To remove duplicate rows this qualifier must be specified:
 - a) Only b) Unique c) Distinct d) Single

SECTION-B

- 2- a) Define Visual Programming. Explain the advantages and disadvantages of visual programming in detail. 8
- b) Write a program that inputs two numbers and swaps these numbers without using third variable. 7
- 3- a) Discuss the components or elements of IDE in visual basic. 8
- b) Write a program that gets a 3-digit number from the user and display it in reverse order.
- Exp:** If the user enters 123, it should display it as 321. 7
- 4- a) Write a program that inputs a character and displays whether it is a vowel or not. 8
- b) Write a note on rules for variable names. 7

SECTION-C

- 5- Define DBMS. Explain the advantages and disadvantages of database approach in detail. 15
- 6- a) Draw E-R model for the following scenarios:

A university course may have one or more scheduled sections or may not have a scheduled section.

Attributes of Course include: Course_ID, Course_Name and units.

Attributes of Sections include: Section_Number and Semester_ID.

Semester_ID is composed of two parts. Semester and year. Section_Number is an integer such as 1 or 2 that distinguishes one section from another for the same course but does not uniquely identifies a section. 7

- b) Define ER Model. Explain advantages of ER model in detail. 8
- 7- Explain the E.F Codd Rules for relational data base in detail. 15