

Name :

Roll No. :

Invigilator's Signature :

CS/BCA/SEM-2/BCA-203/2011

2011

COMPUTER PROGRAMMING

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following : $10 \times 1 = 10$
 - i) What is the sequence in which the following events are triggered when a form is loaded ?
 - a) Initialize, Resize, Paint, Load
 - b) Load, Initialize, Resize, Paint
 - c) Initialize, Load, Paint, Resize
 - d) Initialize, Load, Resize, Paint.
 - ii) What is the sequence of events when a form is unloaded ?
 - a) Unload, QueryUnload, Terminate
 - b) QueryUnload, Unload, Terminate
 - c) Unload only
 - d) QueryUnload, Unload.



- iii) When is the terminate event of a form triggered ?
- a) When the user moves to another form or program
 - b) When the form is unloaded
 - c) Never
 - d) When all references to the form are deleted.
- iv) Which event is triggered when the user moves to another form ?
- a) Unload
 - b) Deactivate
 - c) Terminate
 - d) Load.
- v) Which properties must be set to bind a control to a Data Environment ?
- a) Data source and Data field
 - b) Data field and Data format
 - c) Data member and Data field
 - d) Data source, Data member and Data field.



- vi) To modify the value of a field, what is the proper sequence of commands ?
- a) Assign the value of the field and then invoke the edit and update method
 - b) Invoke the edit method and then assign the value of the field
 - c) Invoke the edit method and then assign the value of the field, then call update method
 - d) Invoke the edit method, assign the value of the field, and then call commit method.
- vii) The control that cannot be displayed on the screen is
- a) Data controller
 - b) Option button
 - c) Check box
 - d) Timer.
- viii) Worst case complexity of binary search is
- a) $O(\log n)$
 - b) $O(n \log n)$
 - c) $O(n^2)$
 - d) none of these.

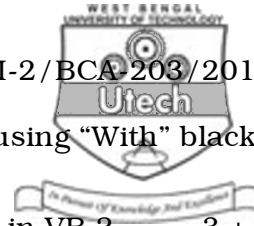


- ix) The “For-Each-Next” looping is convenient when
- a) loop variable need to be auto incremented
 - b) “For-Next” loop is already heavily used
 - c) it is unclear how many elements are in array
 - d) all of these.
- x) “Preserve” statement is usually associated with the statement
- a) With
 - b) Dim
 - c) ReDim
 - d) None of these.

GROUP – B
(Short Answer Type Questions)

Answer any *three* of the following. 3 × 5 = 15

2. Write a VB code to deduce square root of a number. The code must specifically mention the real imaginary roots. 5
3. Discuss the following VB control tools :
- a) Combo Box
 - b) List Box
 - c) Timer. 2 + 1 + 2



4. a) Show how can you assign properties using "With" block.
b) How user defined data types are used in VB ? 3 + 2
5. Consider the following sorted data set :
- 11, 22, 30 44, 55, 56, 70, 71, 80
- Show how binary search will proceed when the key element to be searched is (a) 11 (b) 90. 5
6. Write a program to display a Digital clock. 5

GROUP - C

(Long Answer Type Questions)

Answer any *three* of the following. 3 × 15 = 45

7. a) What do you mean by class and objects ? How does object oriented programming support the concept of polymorphism ?
b) How will you create a standard .exe file in VB ?
c) What is variant ? Will you prefer to use a variant as a programmer ? Explain.
d) What do you mean by an event ?

(3 + 4) + 2 + (2 + 2) + 2

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8. a) Discuss the following components of VB environment with the help of a schematic diagram :

- i) Title Bar
- ii) Menu Bar
- iii) Tool Bar
- iv) Tool Box
- v) Properties Window
- vi) Project Window
- vii) Immediate Window.

b) How docking of windows can be overridden ?

(7 × 2) + 1

9. a) Write a VB code to perform Insertion sort.

b) Find the following sum $S = 1 + 3 + 5 + \dots + n$, where n will be submitted by user in text box. Using

- i) For-Next
- ii) Do Until-Loop
- iii) Do-Loop Until
- iv) While-Wend.

5 + 10



10. a) Write a VB code to perform ordered linear search on a given set of data.
- b) Implement a VB program that will take n as input from user and finds.
- c) All Fibonacci numbers up to n and
- d) The n -th Fibonacci number. $6 + 5 + 4$
11. a) Discuss briefly about sub-procedures, event-procedures and function-procedures in VB.
- b) What is dynamic array in VB ? What is the use of "ReDim" statement in VB ?
- c) How does a sequential file differ from a random file ? $(3 \times 3) + (2 + 1) + 3$

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