



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY  
(JOOUST)**

**SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS**

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR ACTUARIAL  
SCIENCE AND BBA**

**2<sup>ND</sup> YEAR 2<sup>ST</sup> SEMESTER 2021/2022 ACADEMIC YEAR, SEP. – DEC. 2022**

**MAIN CAMPUS**

**COURSE CODE: ITB 9202**

**COURSE TITLE: VISUAL BASIC PROGRAMMING**

**VENUE: AH**

**DATE: SESSION:**

**TIME: 3 HOURS**

-----  
**INSTRUCTIONS:**

- 1) Answer **ALL** Questions in SECTION A and any other **TWO** questions in SECTION B
- 2) Write your registration number on all sheets of the answer book used.
- 3) Uses a **NEW PAGE FOR EVERY QUESTION** attempted, and indicate number on the space provided on the page of the answer sheet.
- 4) No mobile phones in the examination room.

## SECTION A [40 MARKS]

1. What is Visual Basic programming?
  - A. It is an event-driven programming language that uses GUI which allows programmers to modify codes.
  - B. BASIC stands for **B**eginners' **A**ll-purpose **S**tylistic **I**nstruction **C**ode.
  - C. It is a point that enables a person to communicate with hardware through the use of drivers and other pointing devices.
  - D. It allows interaction between the user and the hardware.
2. Which one of the following is the odd one out as far as history of Visual Basic is concern?
  - A. Before Visual Basic 1.0 there was C and C++ programming.
  - B. Visual Basic 2010 is a DB programming language
  - C. VB.NET was introduced in 1998
  - D. . Visual Basic 1.0 and Visual basic 6 were introduced in 1990's
3. Bellow are programming languages related to VB, except?
  - A. Java
  - B. Python
  - C. C
  - D. JavaScript
4. What is a syntax in Fundamentals of Programming:
  - A. It is the order of the elements in any systematic user software
  - B. It is the structure of the elements in any high level language.
  - C. It is the order of the elements in a programming language output
  - D. . It is the structure or order of the elements in a language statement.
5. Semantic can best be defined as:
  - A. The meaning of elements in a language.
  - B. The structure of the elements in language
  - C. The meaning of structures in a language
  - D. The idea of elements in any programming language
6. An assembler in programming deals with?
  - A. Basic computer instructions and converts them into a pattern of bits that the computer's processor can use to perform its basic operations.
  - B. It is a platform e.g GNU that links computer hardware and software
  - C. Assembles computer drivers in bits that links software and hardware
  - D. It converts hexadecimal into computer understanding form.
7. A compiler in programming deals with:
  - A. Translating source code written into computer language
  - B. Convert a set of machine-language instructions that can be understood by a digital computer's CPU. E.g. Java, C, C++ into source code.
  - C. Compiles software through drivers for easy communication with hardware
  - D. Translates high level language into low level language
8. What does an interpreter do in Programming?
  - A. It translates source code into machine code instruction by instruction.
  - B. It executes each instruction after which an interpreter moves it on to translate the next instruction.

- C. It converts a set of machine-language instructions that can be understood by a digital computer's CPU.
  - D. It compiles software through drivers for easy communication with hardware
9. Machine language is a language that:
- A. Is understood by a computer.
  - B. Is made up of instructions and data that are all in hexadecimal numbers.
  - C. Is made up 0's and 1's that is in high level language.
  - D. Is an example of decimal numbers that is understood by Computer Hard Disk only?
10. In any programming language, *variables* are important because:
- A. They are memory locations that have a name associated with that location.
  - B. Variables are used to store information to be referenced and used by hardware.
  - C. Variables store simple data like statements in programming coding.
  - D. They are memory locations that have no name associated with that location.
11. Data types are attributes of data which tells the compiler or interpreter how the programmer intends to use the data. What are the best examples of *Data types*:
- A. Floating whole numbers, Strings decimals, Characters, Integers and Booleans
  - B. Integers, floating, Strings, Characters and Booleans.
  - C. Booleans, Integers, floating, Strings, and Characters e.g. numbers.
  - D. Strings e.g. 1, 2, ..., Integers, floating, Characters and Booleans
12. Debugging in programming means:
- A. The process of removing the existing bugs.
  - B. The process of detecting and removing of existing and potential errors.
  - C. The process of detecting potential errors in coding statements.
  - D. The process of detecting and removing of existing and potential codes for testing.
13. What is runtime or execution time in fundamentals of programming?
- A. It is the final phase of a computer program's life cycle.
  - B. It is the process of a executing computer program
  - C. It is a phase in a computer hardware life cycle.
  - D. It is the initial phase of a computer program's life cycle
14. Argument in coding can best be defined as:
- A. It is a process when the procedure is called upon by the interpreter.
  - B. The process of representing the value that is passed to a procedure parameter that can be called.
  - C. It is a process of calling code supplier by the assembler.
  - D. The process of representing codes that are passed to a produce the product.
15. The following are advantage of using visual programming.Net, except:
- A. Easy to work with especially when writing exe files.
  - B. Easy to work with especially when writing programming codes in VB files.
  - C. VB enables the rapid development of Windows based applications while also assisting in the access of databases by using ActiveX data objects.
  - D. Visual Basic IDE provides views of the management of the program structure that are easy to understand.
16. The following are steps to follow while designing Visual Basic application, except
- A. Requirement analysis and planning
  - B. Software design and specification

- C. Testing and feasibility
  - D. Coding and verification
17. Requirement analysis and planning can be defined as
- A. Development stage where the overall architecture of the desired software is decided
  - B. It is a phase where programming language is chosen and verified for coding to take place.
  - C. A phase that interacts with the user of the software to find out the user requirements and analyses the software to understand the functioning.
  - D. It allows the programmer to eliminate the errors (bugs) before installing the software
18. Software design and specification is meant for:
- A. Setting of sub-software interacting with the hardware.
  - B. Designing the software as a set of interacting instruction with the drivers
  - C. Developing the overall architecture of the desired software is decided.
  - D. The programmer to take care of specifications as observed in software maintenance as well as what is required out of the new software by the stake holder.
19. Coding and verification decides;
- A. Verified language for coding to take place.
  - B. Designing the software as a set of interacting instruction
  - C. The required programming language
  - D. Developing the overall coding of the desired software
20. What is testing as used in software development?
- A. It is required for feasibility
  - B. It verifies language for coding to take place.
  - C. It is the phase that verifies the software.
  - D. Phase that verifies the coding procedure
21. Debugging is crucial because:
- A. It is the phase that eliminates null statements after testing.
  - B. It eliminates errors after designing
  - C. It eliminates bugs before installing the software
  - D. It eliminates bugs before integration and maintenance the software
22. Integration and installation is required for:
- A. It is the overall operation of the desired coding in feasibility.
  - B. Phase that verifies the coding procedure in order for evaluation
  - C. It is the phase of software installation in the hardware ready for operation.
  - D. It eliminates bugs before integration and evaluation of the software
23. Maintenance and Evaluation phases are meant for:
- A. It is the overall look out of the desired coding in feasibility.
  - B. Phase that takes the security procedure in order for proper functioning of the application in designing phase.
  - C. The software to be kept on watch as it keeps operating.
  - D. It is meant check out in the cause of integration and evaluation of the software
24. The following are Visual Basic elements a user see in a GUI, except:
- A. Check boxes
  - B. Buttons
  - C. Commands
  - D. Drop list

25. What does check box do in GUI
- A. Allows binary 1's and 0's options
  - B. Supports yes/true options
  - C. Allows to set true/false
  - D. Supports on/off options
26. For easy user interaction buttons are used to perform:
- A. A click by a mouse or by pressing enter keys to retype the required task
  - B. A click event so as to submit a given command in Disk Operating System.
  - C. A click through a touch pad or by pressing enter keys to recommend the task
  - D. A click event in Windows Forms so as to submit or transfer control to the next form.
27. Labels buttons in GUI are used to:
- A. Used to display some informative text on the GUI which can be changed during runtime.
  - B. Used in dragging a label control from the Toolbox and dropping it on the right key on the keyboard.
  - C. Used to display none informative text on the GUI which can be changed before runtime.
  - D. Represents a standard Windows label used to display some informative text on the GUI.
28. Radio buttons are used to:
- A. Provide a set of none mutually exclusive options
  - B. Provide a set of mutually explosive options
  - C. Provide a set of mutually inclusive options
  - D. Provide a set of mutually exclusive options .
29. Sliders:
- A. Allows the user to justify a magnitude by scrolling a selector between its minimum and maximum values
  - B. Allows the user to type between its minimum and maximum values.
  - C. Allows the programmer to specify by selecting between its minimum and maximum values
  - D. Allows the user to specify a magnitude by scrolling a selector between its minimum and maximum values.
30. Drop lists are used to:
- A. Add a list control that would display the selected item.
  - B. Add a required item that would be displayed in the selected values.
  - C. Add a label control that would be display on the screen
  - D. Add a label control that would display the selected item.
31. Text boxes are meant to:
- A. Display numbers while a VB.Net program is running.
  - B. Display characters on a form while a program is running on its platform.
  - C. Display characters on a form or to get programmer input while a VB.Net program is running.
  - D. Display text on a form or to get user input while a program is running on its platform.
32. Which of the following code is odd one out:
- A. Private Sub
  - B. ByVal As
  - C. End Sub
  - D. MsgLbl.Text

33. The VB designer interface consists of all of the following except:
- A. Menu bar
  - B. Toolbars
  - C. Empty Form
  - D. Ms. Explorer
34. Which of the following is an example of *Object.property=property\_Value*
- A. `TextBox1.Text="Welcome to VB2010"`
  - B. `TextBox2.Text=100`
  - C. `Me.BackColor = Color.FromArgb(255, 255, 0)`
  - D. `Public Class Form1`
35. Which of the following RGB codes is for color RED
- A. 0.255.0
  - B. 0.0.255
  - C. 255.255.0
  - D. 255.0.0
36. Which of the following syntax or code structure of an Event Procedure is correct
- A. `Public Sub...`  
    Statements  
    End sub
  - B. `End Sub...`  
    Statements  
    Public Sub
  - A. `End Sub...`  
    Statements  
    Private Sub
  - D. `Private Sub...`  
    Statements  
    End Sub
37. Which of the following mathematical operations will display "x+y":
- A. `Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load`
  - B. `Dim x As Integer + Dim y As Integer`
  - C. `x=TextBox1.Text + y=TextBox1.Text`
  - D. `label3.Text= TextBox1.Text + TextBox2.Text`
38. Which of the following advanced controls is not well matched with its prefix:
- A. The Check Box = chk:
  - B. The Radio Button = rdb
  - C. The List Box = lst
  - D. The Combo Box = cbx
39. Which of the following is not a type of error in programming
- A. Runtime
  - B. Syntax
  - C. Semantic
  - D. Coding
40. Which of the following best illustrates how declaration is done in programming
- A. `dim y As Integer`
  - B. `Dim x=TextBox1.Text`

C. `dim y=TextBox1. Text`

D. `Dim x As Integer`

## SECTION B (ANY TWO – 30 MARKS)

### QUESTION 1 [15 MARKS]

a) List the objects and the events that the following procedures refer to: (4 mks)

- i. `Private Sub btnDisplay_Click(ByVal sender As Object, ByVal e As _System.EventArgs)`  
Handles `btnDisplay.Click`
- ii. `Private Sub btnBold_Leave(ByVal sender As Object, ByVal e As _System.EventArgs)`  
Handles `btnBold.Leave`
- iii. `Private Sub txtInput_Enter(ByVal sender As Object, ByVal e As _System.EventArgs)`  
Handles `txtInput.Leave`
- iv. `Private Sub txtOutput_Leave(ByVal sender As Object, ByVal e As _System.EventArgs)`  
Handles `txtOutput.Leave`

b) Explain the following values of `dialogueResult` enumeration (4 marks)

- i. `Abort`
- ii. `Cancel`
- iii. `Ok`
- iv. `Retry`

c) What is the purpose of the following window controls (7 marks)

- i. The `RichText` control-
- ii. `Progress bar` control
- iii. `ListBox` control-
- iv. `Panel` control

### QUESTION 2 (15 Marks)

a) Use examples to explain the difference between an operating system and an application software (5 Marks)

b) Explain **Select Case Else Statement** with an example of a grading system (8 Marks)

c) What is the difference between a check box and an option button (2 marks)

### QUESTION 3 (15 Marks)

a) Explain steps followed in software development (6 Marks)

b) What are the advantages and disadvantages of an interpreter? (5 Marks)

c) With a clear example show how you would declare a variable full name as a string in Visual basic (4 Marks)