**xzArab Academy For Science and Technology & Maritime Transport**

**College of Engineering & Technology**

**Computer Engineering Department**

**EXAMINATION PAPER – Week 7**

Course Title: Introduction to Programming

Course Code: CC114

Date: Thurs. March, 26-2015 Lecturer: Dr. Manal Helal

Time allowed: 60 mins Start Time: 2:30 p.m.

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| Student's name: | Reg.#: |

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| **Question #** | **Marks** | |
| **Available** | **Actual** |
| Visual Controls | 5 |  |
| Variables & Data Types | 5 |  |
| Algorithms | 5 |  |
| Conditional Statements | 5 |  |
| **Total** | **20** |  |
| **Lecturer** | Name: Dr. Manal Helal | |
| Signature: | |
| Date: | |

ALL MCQ are worth 1 mark each.

**MPC6/1-1**

**Visual Controls [5 points]**

**1. Visual Basic \_\_\_\_\_\_\_.**

a) was intended for expert programmers.

b) makes the development of Windows applications easier

c) was derived from BASIC.

d) a and b. e) b and c.

**2. What would be a good name for a text box to hold a person’s first name?**

a) txtFirstName   b)  FirstName

c)  txt First Name   d)  First Name

**3. GUI stands for**

a)  Geological Uniform Industry.   b)  Graphical User Interface..

c)  Geometric Unit Isometrics.   d)  Graphical Umbrella Institute.

**4. What feature in Visual Basic allows you to make more room on your screen by temporarily minimizing certain windows?**

a)  Help   b)  Auto Hide

c)  Auto Minimize   d)  Expert-View

**5) When you double clicks a button you placed in a form, \_\_\_\_\_\_\_\_\_.**

a)  all button properties are reset to defaults.

b) the text property of the button enlarges its font size and becomes bold

c) a sub routine to handle the button click event is created in the code

d) the button is erased from the form.

**Variables & Data Types [5 points]**

**6) Every variable has a  .**

a) type b) size

c) value d) All of the above.

**7) Which of the following represents modulus arithmetic?**

a) Mod b) /

c) % d) ^

**8) Which of the following is in highest-to-lowest order of operator precedence?**

a) multiplication, division, exponentiation

b) addition, subtraction, division

c) exponentiation, multiplication, addition

d) None of the above.

**9) Trace the following code to write the value stored in the f variable:**

**[2 points]**

**Dim** a, b, c, d, e, f, g **As** **Double**

a = 8.0

b = 3.0

c = 4.0

d = 2.0

e = 1.0

f = (a - b) + ((c / d) \* e)

**Algorithms [5 points]**

**10) Write code to compute area of a triangle given its height and base.**

**Hint:** triangle area =

**[2.5 points]**

**11) This code modifies increments (add 1) to the counter Label every time the user clicks a button. Fix the errors to produce correct results.**

**[2.5 points]**

countTotalLabel.Text = countTotalLabel.Text & “1”

**Conditional Statements [5 points]**

**12) The expression between the words If and Then is called a:**

a) condition b) clause

c) operator d) controller

**13) Letter grades for a numeric value are calculated as shown in the code. There are 2 syntax errors, and a logical error. Identify and fix the errors. [2 points]**

**Dim** gradeTextBox **As Double**

grade = Val(gradeTextBox.Text)

**If** (grade >= 50) **Then**

letterGrade = “D”

**Elseif** (grade >= 60) **Then**

letterGrade = “C”

**Elseif** (grade >= 70) **Then**

letterGrade = “B”

**Elseif** (grade >= 80) **Then**

letterGrade = “A”

**Else**

letterGrade = “A+”

**End If**

**14) Write code to check the job code of an employee. If the code is 1, then the occupation label displays text “Administrative Staff”; if the code is 2, then the occupation label displays text “Technician”; if the code is 3, then the occupation label displays text “TA”; if the code is 4, then the occupation label displays text “Lecturer”; otherwise, the occupation text label displays “Unknown Job Code” [2 points]**

**Answers:**

1) e, 2) a, 3) b, 4) b,5) c, 6) d, 7) a, 8) c, 9) f = 7.0

**10) any correct code including:**

**Dim** height, base, Area **As Double**

height = val(txtHeight.Text)

base = val(txtBase.Text)

Area = height \* base / 2

lblArea.Text = Area

**11)** countTotalLabel.Text = Val(countTotalLabel.Text) + 1

12) a

**13) Both Syntax Errors are in this line:**

**grade = Val(gradeTextBox.Text)**

1)(Undefined variable grade) & 2) Since the **gradeTextBox** is declared inside the code as double, it is no longer the text control that is probably placed in the form, and there is no Text property defined for it. You should change the declaration line to:

**Dim** grade **As Double**

**Logical Error:**

All grades will evaluate to either “D” or “A+”, because all passing numbers numbers will set the first condition to true, otherwise all failing numbers will be in the “Else” section. Intermediate Elseif conditions will never be checked.

**14) If** jobCode = 1 **Then**

lblOccupation = “Administrative Staff”

**Elseif** jobCode = 2 **Then**

lblOccupation = “Technician**”**

**Elseif** jobCode = 3 **Then**

lblOccupation = “TA**”**

**Elseif** jobCode = 4 **Then**

lblOccupation = “Lecturer**”**

**Else**

lblOccupation = “Unknown Job Code**”**

**End If**