

**UNIVERSITY EXAMINATIONS****SECOND YEAR EXAMINATION FOR THE AWARD OF  
DIPLOMA IN COMPUTER SCIENCE****COSC 0242: DESKTOP APPLICATION DEVELOPMENT****STREAMS: DIP COMP SCI Y2S1****TIME: 2 HOURS****DAY/DATE:****INSTRUCTIONS:**

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- Answer question **ONE** and any other **TWO** questions in section B
- Do not write anything on the question paper
- This is a **closed book exam**, no reference materials are allowed in the examination room
- There will be **NO** use of mobile phones or any other unauthorized materials
- Write your answers legibly and use your time wisely.

**SECTION A (Answer ALL Questions)****Question One (30 Marks)**

- Define the following terms as used in Desktop Application Development
  - Variable (2 Marks)
  - Constant (2 Marks)
  - Source files (2 Marks)
- Describe what software prototyping is (2 Marks)
- Give Three advantages of Visual basic .Net (6 Marks)
- Differentiate between a **Keyword** and an **Identifier** (4 Marks)
- How do you declare a variable in Visual Basic .Net? (2 Marks)
- Using an example show how you accept values from a user in Visual basic .Net (6 Marks)
- List any Four windows forms controls (4 Marks)

**SECTION B (Answer ANY TWO Questions)**

**Question Two (20 Marks)**

- a) While Giving examples Explain the three types of errors that can occur in Desktop Applications Development and Visual Basic .Net (9 Marks)
- b) How do you add a break point in a program? (5 Marks)
- c) List six common data validation requirements in Desktop Application Development (6 Marks)

**Question Three (20 Marks)**

- a) Give the steps one would follow to connect their .Net application to the database (8 Marks)
- b) State and explain each of the Software Development Life Cycle stages (12 Marks)

**Question Four (20 Marks)**

- a) You are the lead developer at Swift Designs and Development. You have been awarded a tender to design a banking solution and the area of focus is minimizing user data entry errors. How would you go about leading your team to design and develop this system in an effective manner? (10 Marks)
- b) Explain the steps involved in designing a user interface in Visual Basic .Net (10 Marks)

**Question Five (20 Marks)**

The .Net framework has a number of languages that are popular in the development world today. Some are best suited for native mobile applications, some for cross platform applications, some for web and cloud and some for normal desktop applications.

- a) Explain what you understand by the terms as used .Net framework
    - i. . Net Framework (2 Marks)
    - ii. .Net Core (2 Marks)
    - iii. Xamarin/Mono (2 Marks)
  - b) Describe the MVC model of designing internet applications using the .Net Framework (9 Marks)
  - c) How would you optimize your desktop application designed using Active server pages? (5 Marks)
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