

COM400



**OFFICE OF THE DEPUTY PRINCIPAL  
ACADEMICS, STUDENT AFFAIRS AND RESEARCH**

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**UNIVERSITY EXAMINATIONS**

**2020 /2021 ACADEMIC YEAR**

**FOURTH YEAR SECOND SEMESTER REGULAR EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF SCIENCE (COMPUTER SCIENCE)**

**COURSE CODE: COM 400**

**COURSE TITLE: COMPUTER PROGRAMMING II**

**DATE: 13/07/2021**

**TIME: 0800 – 1100 HRS**

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**INSTRUCTION TO CANDIDATES**

- **SEE INSIDE**

**THIS PAPER CONSISTS OF 3 PRINTED PAGES**

**PLEASE TURN OVER**

**REGULAR-SPECIAL EXAM**

**COM 400 COMPUTER PROGRAMMING II**

**STREAM: COM**

**DURATION: 3 Hours**

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**INSTRUCTION TO CANDIDATES**

Answer **ALL** questions from section A and any **THREE** from section B.

**SECTION A [24 MARKS]. ANSWER ALL QUESTIONS.**

**QUESTION ONE [12 Marks]**

- a) Define the following terms. [2 Marks]
- i. Program
  - ii. Database
- b) Describe the components of DBMS. [6 Marks]
- c) Give four examples of RDBMS. [4 Marks]

**QUESTION TWO [12 Marks]**

- a) Define the following terms. [4 Marks]
- i) Programming
  - ii) High Level Languages
- b) Discuss how C# can be used to provide database-driven solutions. [8 Marks]

**SECTION B [36 MARKS] ANSWER ANY THREE QUESTIONS.**

**QUESTION THREE [12 Marks]**

- a) Define the following terms. [4 Marks]
- i) SQL
  - ii) Query
- b) Using Examples, explain how the following SQL statements can be written in Microsoft SQL Server. [6 Marks]
- i) SELECT
  - ii) INSERT
  - iii) UPDATE
- c) Explain the use of ER Diagram in Relational Database design. [2 Marks]

**QUESTION FOUR [12 Marks]**

- a) Define the following terms. [4 Marks]

- i) SDLC
- ii) Human Computer Interface
- b) Describe Shneidermann rules of design. [8 Marks]

**QUESTION FIVE [12 Marks]**

- a) Define the following? [2 Marks]
  - i. ODBC
  - ii. Record Set
- b) Write a C# code that connects to database using any Database Connector [6 Marks]
- c) Write code that inserts record to database table using an example of your choice. [4 Marks]

**QUESTION SIX [12 Marks]**

- a) Discuss how computer programming can be applied in your field. [6 Marks]
- b) The department of statistics at Alupe University College wants to create best input form for questionnaires they need to collect for a study. Using your knowledge in computer programming, propose a working strategy for this operation. [6 Marks]