

**UNIVERSITY OF KABIANGA**

**UNIVERSITY EXAMINATIONS**

**2017/2018 ACADEMIC YEAR**

**SECOND YEAR FIRST SEMESTER EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF BUSINESS MANAGEMENT**

**COURSE CODE: BBM 200R**

**COURSE TITLE: INTRODUCTION TO COMPUTER PROGRAMMING**

**DATE: 6TH FEBRUARY, 2018**

**TIME: 9.00 A.M-12.00 NOON**

**INSTRUCTIONS TO CANDIDATES:**

Attempt Question **ONE** and any other **THREE**

**Question One**

1. A newly established University in Bomet County has requested you to design an application that will help its finance department in paying part-time lecturers. The university pays the lecturers according to the number of hours spent in class and also based on the number of students in a class. In addition, lecturers are paid a commuter allowance of Kshs. 15,000 per month. The hourly rate is Kshs. 2,000 with an allowance of Kshs. 5,000 if the class has more than 100 students otherwise there is no allowance. Any lecturer who has taught less than 39 hours will pay a penalty fee of Kshs. 10,000.

The system should accept lecturer’s name, semester, school, number of hours worked, number of students in class and output name and gross pay.

Required:

1. Draw a flow chart that will help depict the above program logic. (5 marks)
2. Select appropriate controls and design a graphical user interface for the application. (5 marks)
3. Clearly write a Visual Basic program for the above case. (5 marks)
4. Discuss ways in which you can test the usability of the application developed in part (a) above. (6 marks)
5. Discuss any two user assistance models that can be used to improve the interactivity of the application designed in part (a) above. (4 marks)

**Question Two**

1. Clearly demonstrate how the following factors help computer programmers in evaluating programming languages.
2. Software cost. (3 marks)
3. Industrial acceptance. (3 marks)
4. Support of target application domain. (3 marks)
5. Visual basic is said to be object-oriented and event-driven program. Explain what the underlined words mean. (6 marks)

**Question Three**

1. Describe the term translation as used in programming and differentiate between a complier, an assembler and an interpreter. Why is translation necessary? (6 marks)
2. Discuss the following control structures giving the syntax of their implementation.
3. Sequence structure. (3 marks)
4. Selection structure. (3 marks)
5. Iteration/loop structure. (3 marks)

**Question Four**

1. Differentiate between object oriented (OOP) and procedure oriented (POP) programming and justify the reason for using object-oriented programming (OOP). (9 marks)
2. In program development, program definition and program design are two major critical steps to any programmer. Explain the importance of these steps and give two objectives of each step. (6 marks)

**Question Five**

1. The modern business environment is highly dependent on the various Information systems that are meant to enhance the efficiency and effectiveness of the business operations in any organization. Discuss this statement highlighting the importance of programming. (8 marks)
2. Software documentation is the process of enlisting the details concerning the development, design, testing and the implementation of the program application. Explain the importance of this step in program development. (7 marks)