JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS

UNIVERSITY EXAMINATION FOR THE BACHELORS IN EDUCATION WITH IT

4TH YEAR 1ST SEMESTER 2018/2019 ACADEMIC YEAR (FULL TIME)

KISII LEARNING CENTRE

COURSE CODE: SCS 436

COURSE TITLE: INTERNAL CONTROLS AND SECURITY ISSUES

EXAM VENUE: **STREAM: (BED)**

DATE: 12th AUGUST, 2019   **EXAM SESSION: 9.00 – 11.00 am**

TIME: 2.00   HOURS

Instructions:

a. **Answer Question ONE (COMPULSORY) and ANY other 2 questions**

b. **Candidates are advised not to write on the question paper.**

c. **Candidates must hand in their answer booklets to the invigilator while in the examination room.**

QUESTION ONE (30 MARKS)
   a) List any four common hacking tactics and security exploits within information systems (4marks)
   b) Briefly discuss three physical security precautions that are taken to safeguard information systems from damage   (6marks)
   c) Errors and accidents are types of threats experienced by information systems. List four such errors   (4marks)
   d) Outline any four programs that are not considered computer viruses   (4marks)
   e) Your organization intends to employ an information security officer. Propose four skills required for this security positions.   (4marks)
   f) Explain two ways of protecting data and information against unauthorized access   (4marks)
   g) State four features of a computer virus   (4 marks)

QUESTION TWO   (20 MARKS)
   a) Define a computer virus and list five effects of computer viruses   (5marks)
   b) Briefly discuss three crimes that can be done using information systems   (6marks)
   c) Discuss three ethical behaviors' that employees should adhere to when using information systems
                                                                                          (3marks)
   d) Explain three types of information security audits   (6marks)

QUESTION THREE   (20 MARKS)
   a) Organizations perform various activities to achieve the company objectives. Explain the following common terms used in business environment.
        i.   A process   (2 Marks)
       ii.   Control   (2 Marks)
      iii.   Automation   (2 Marks)
   b) Briefly discuss three physical security precautions that are taken to safeguard information systems from damage   (6 marks)
   c) Explain three ways of protecting data and information against unauthorized access   (6 marks)
   d) Explain application software audit   (2 marks)

QUESTION FOUR   (20 MARKS)
   a) Give five reasons why Organizations use application input controls embedded in the application.
                                                                                          (10 Marks)
   b) Authentication, authorization, and encryption are used in everyday life. Briefly describe how they are all used is booking and taking an airplane flight.   (10 marks)

QUESTION FIVE (20 MARKS)

   a) Define   computer crime and explain any five computer crimes that can be caused in an organization   (10marks)
   b) In order to ensure the confidentiality, integrity, and availability of information, organizations can choose from a variety of tools. Explain the tools that the organization can institutionalize
                                                                                          (10marks)