JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS

UNIVERSITY EXAMINATION FOR THE DEGREE OF MASTERS OF SCIENCE IN IT SECURITY AND AUDIT

1ST YEAR 2ND SEMESTER 2019/2020 ACADEMIC YEAR

KISUMU CAMPUS

COURSE CODE: IIT 5125

COURSE TITLE: RESEARCH METHODS

EXAM VENUE: **STREAM: IT SECURIT AND AUDIT**

DATE: 10/12/19   **EXAM SESSION: 2.00 – 5.00PM**

TIME: 3.00 HOURS

INSTRUCTIONS

1. **Answer Question ONE and ANY other TWO questions**
2. **Candidates are advised not to write on the question paper**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room**

Question 1 [20 marks]

a) The purpose of an abstract is to provide prospective readers the opportunity to judge the relevance of the longer work to their projects. Many readers will read only the abstract of your paper. For others, the abstract will induce them to read the paper in more detail. Briefly discuss five important things to be included in an abstract of a full/complete paper **(10 marks)**

b) Distance education via online platforms is a rapidly growing method of education delivery due to its convenience, wide reach, relatively low cost, and ability to support the achievement of learning objectives. Whether the platform is Blackboard, WebCT, Moodle, Angel, or some other learning management system, online education utilizes a variety of common learning tools including discussion boards, drop boxes, automated testing, and wikis. Chief among these tools are live online sessions. The Live online sessions may be delivered in virtual classrooms from Adobe Connect, Elluminate, GoToMeeting, Wimba, or other software programs. Regardless of the software used, student attendance at live online sessions, especially optional ones, can be unpredictable at best. It is a common complaint among the online faculty at a university in the south that many, oftentimes most, of their students do not attend the live online sessions. This study will address the problem of low student attendance at nonmandatory virtual classroom meetings in online college courses. Offir, Lev, and Bezalel (2008) found the interaction level in a synchronous class, also known as web conferencing, to be a significant factor in the effectiveness of the class. Other researchers describe "the power of a synchronous online system to empower students in conversation and expression (McBrien, Jones, & Cheng, 2009). According to Skylar (2009), "research concerning the use of newer multimedia technologies, such as interactive synchronous web conferencing tools, is in its infancy and needs further and continued study" (p. 82). McBrien, Jones, and Cheng (2009) stated that "more studies are needed to explore students' perceptions of the synchronous learning experience." Answer the following questions based on the information above:

i.	Identify the research problem	**(2 marks)**
ii.	State the purpose of this study	**(2 marks)**
iii.	State any one research Objective	**(2 marks)**
iv.	Identify a research strategy you would apply in this study	**(2 marks)**
v.	Identify a methodology you would use to conduct this study	**(2 marks)**

Question 2 [20 marks]

a) You are about to complete your masters coursework and are looking forward with excitement to begin your thesis research work. You have been approached by the Chair of your department to teach a section of undergraduate unit IIT 3432 – Capstone Research. The

class would like to know how to write a research proposal for survey research and application based (Research and Development) types of research. Briefly take us through the components of both research proposals. Assume you are presenting your work through PowerPoint presentation. **(10 marks)**

b) Research trends in Information Systems have focused on either design research (artifacts) or analytical (empirical or behavioral). Using an illustration discuss the stages of research in both design research (R&D) and (analytical or behavioral) research in IS. You MUST clearly document the stages in each category. .
(10 marks)

Question 3 [20 marks]

a) The research onion was developed by Saunders et al. (2007). It illustrates the stages that must be covered when developing a research strategy. When viewed from the outside, each layer of the onion describes a more detailed stage of the research process (Saunders et al., 2007). The research onion provides an effective progression through which a research methodology can be designed. Its usefulness lies in its adaptability for almost any type of research methodology and can be used in a variety of contexts (Bryman, 2012). In reference to this model discuss seven different types of research strategies and four different types of research philosophies. . **(10 marks)**

b) You have been asked to carry out a research on the impact/effect of taking Web technology class on successfully completing a Web-based project. You decide to carry out a survey among Computer Forensic Students. Answer the following questions:
   i) Develop a problem statement for your research **(2 marks)**
   ii) Identify any two objectives **(4 marks)**
   iii) Discuss the methodology you would use **(4 marks)**

Question 4 [20 marks]

a) According to Saunders *et. al.* (2007) and Cooper and Schindler (2006) research process involves six steps. Briefly describes these steps and outline their importance in IS research
(**10 marks**)

b) Joseph Maxwell in discussing the model of research design identifies five components, each of which addresses a different set of issues that are essential to the coherence of a study: Using a diagram discuss these five issues and their role in addressing rigor in Information Systems research. **(10 marks)**

Question 5 [20 marks]

You have come to the end of your master's coursework and have approached Dr. Ogara to allow you do a presentation for your project proposal. You have chosen to use *"Ethnography or Grounded Theory or Interpretivist Case Study"* research strategy for your proposal. Take us through your PowerPoint presentation (use bullets only) on the important points that should be captured. In order to be more organized in your presentation, we will ask you to use the "Peel the Onion Layers Approach" which involves moving systematically from the outside layer of the onion where you articulate the philosophical assumptions to research paradigm until you get to the research techniques and procedures. Bear in mind the rigor that must be addressed such as validity and reliability, tools and others. Remember that the research philosophy you adopt contains important assumptions about the way in which you view the world. The assumptions you make will underpin your research paradigm, methodology and methods that you choose to conduct your research