



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS**  
**DEPARTMENT OF INFORMATION SYSTEMS & TECHNOLOGY**  
**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN**  
**INFORMATION AND COMMUNICATION TECHNOLOGY**  
**3<sup>RD</sup> YEAR 1<sup>ST</sup> SEMESTER 2018/2019 ACADEMIC YEAR**  
**MAIN CAMPUS**

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**COURSE CODE: ICT 3318**

**COURSE TITLE: INDEPENDENT ICT CAPSTONE RESEARCH**

**EXAM VENUE:**

**STREAM: ICT**

**DATE:**

**EXAM SESSION:**

**TIME:**

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**INSTRUCTIONS**

- 1. Answer Question 1 (Compulsory) 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 [30 MARKS]**

You are approaching the end of your undergraduate studies and your excited enroll in the Independent Capstone Research Project – a major milestone in your coursework. You have approached Dr. Liyala to allow you do a presentation for your project proposal. You have chosen to use “Design 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 follow the structured approach below.

- a) Topic – select your topic which is captivating. **(2 marks)**
- b) Research problem/Statement of the problem – clearly identify the problem and NOT the symptoms. **(3 marks)**
- c) Purpose of the study. **(3 marks)**
- d) Research Objectives) – any two. **(4 marks)**
- e) Research question - any two. **(4 marks)**
- f) Methodology. **(4 marks)**
- g) System Analysis. **(4 marks)**
- h) System Design – include drawings **(6 marks)**

### **QUESTION 2 [20 MARKS]**

- a) You have been asked by the principle of neighboring high school to give a lecture to form four students on the “research process.” Briefly discuss at least six key points you would include in your presentation. **(10 marks)**
- b) During your internship secured immediately after graduation you come across a group of colleagues who are arguing about the differences between quantitative, qualitative and design research. One of them requests you to intervene and help them understand and clearly articulate the differences considering your level of education. Use a table to summarize the main differences between the three. **(10 marks)**

### **QUESTION 3 [20 MARKS]**

The goal of a research proposal is to present and justify the need to study a research problem and to present the practical ways in which the proposed study should be conducted. The design elements and procedures for conducting the research are governed by standards within the predominant discipline in which the problem resides, so guidelines for research proposals are more exacting and less formal than a general project proposal.

- a. Research proposal must address three basic questions. Discuss. **(6 marks)**

- b. A well articulated background information is important in understanding your research proposal. Identify any four key points that must be addressed here. **(4 marks)**
- c. Briefly discuss any five mistakes you should avoid and that is likely to lead to failure to successfully complete your proposal on time. **(5 marks)**
- d. Briefly discuss any five questions to ask in order to address the potential implications of your study. **(5 marks)**

**QUESTION 4 [20 MARKS]**

A research problem statement is a definite or clear expression about an area of concern, a condition to be improved upon, a difficulty to be eliminated, or a troubling question that exists in scholarly literature, in theory, or within existing practice that points to a need for meaningful understanding and deliberate.

- a. Briefly discuss any five things that should be included in statement of a problem. **(10 marks)**
- b. Briefly discuss any five questions that are important in determining whether a problem is researchable or not. **(10 marks)**

**QUESTION 5 [20 MARKS]**

You have been offered a job as a Technical Information Officer in charge of marketing department with a start up online marketing organization based in Nairobi Kenya. You have been asked to induct new trainees on the process of writing a research proposal for social science research. Identify the key areas to be captured in your presentation. Your presentation **MUST** include research techniques and procedures. **(20 marks)**