UGANDA MARTYRS UNIVERSITY

UNIVERSITY EXAMINATIONS

FACULTY OF SCIENCE

BSC (IT, GEN) FINAL EXAMINATION

DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION SYSTEMS

RESEARCH METHODOLOGY II

SECOND YEAR EXAMINATION FOR BSC IT/GENERAL

DATE: Tuesday December 10th, 2013

TIME: 2.00 – 5.00 PM

Instructions:

Read the *case study* carefully and attempt *all* questions in section A and one question in section B. All questions carry equal marks

DO NOT OPEN THIS BOOKLET UNTIL TOLD TO DO SO

The Case

Assume you are a Pupil Researcher (PR) about to undertake a major project research in the area of Computer Information Systems (CIS) or Computer Science (CS). In this project, you will be required to portry substantial amount of maturity in the selection of a study area, proposal development, research execution, report writing and research presentation. Besides, you will be required to show originality, innovativeness and resourcefullness in the whole software development effort.

As a PR, you are expected to have substantial experience, knowledge and skills in students' project management, techniques and tools, as well as soft skills in managing a software project throughout its life. Besides, you are well conversant with various principles, techniques and tools, methodologies and environments aimed at the development of computerized systems.

Give enough thought to a study area of your choice within the confines of the business activities, users, information, and technologies. Confining yourself to the Constructive Research methods which basically involve 'Conceptual and Technical Development' of a software system, which is in-line with our area of interest, you will be required to show intellectual abilities in undertaking a student's research project in any organization of your choice within a period of twelve months.

With the above background in mind now attempt the questions that follow.

SECTION A (20 marks @)

1. Come up with a project title, brief background and problem definition for the project.

2. Formulate one main objective, six specific objectives, and scope of your project.

3. In form of a table, come up with a project plan for your project.

4. Develope a brief research and develoment methodology section of this proposal.

SECTION B

5. Explain each of the following in relation to your study area.
   (a) three values or skills you can derive out of your project. (6 marks)
   (b) four key issues to consider when choosing a study area. (8 marks)
   (c) the significance and justification of your research project. (6 marks)
6. Explain each of the following in relation to your study area.
   (a) four topic areas to include in your literature review. (8 marks)
   (b) four reasons for including development methodology. (12 marks)

7. Compare and contrast interviewing and questionnaire survey as methods of data collection pointing out the best practices for each. (20 marks)

END