

UGANDA MARTYRS UNIVERSITY
NKOZI

UNIVERSITY EXAMINATIONS

FACULTY OF SCIENCE

DEPARTMENT OF COMPUTER SCIENCE AND
INFORMATION SYSTEMS

SUPPLEMENTARY/SPECIAL EXAMINATIONS

Research Methodology II

COC 2101

SECOND YEAR EXAMINATION FOR BSC IT/GENERAL

DATE: 5th AUGUST 2015

TIME: 10: 00 AM- 1:00 PM

DURATION: 3HRS

Instructions:

1. *Attempt five questions only. Any extra question attempted will not be marked.*
2. *No **names** should be written anywhere on the examination book.*
3. *Ensure that your **Reg. number** is indicated on all pages of the examination answer booklet.*
4. *Ensure your work is **clear and readable**. Untidy work shall be penalized*
5. *Any type of examination Malpractice will lead to automatic disqualification*
6. *Do not write anything on the question paper.*
7. *Do not open this booklet until told to do so.*

1. (a) Write a brief background to a project research in which a computer application is to be

built using problems associated with admission of students in a university. **(8 marks)**

(b) Use admission of students in a university to describe a problem to be solved by a computer application. **(6 marks)**

(c) Explain three significances of a research project in which a computer application is to be built concerning the admission of students in a university. **(6 marks)**

2 (a) State the main objective of a research project in which a computer application is to be built concerning the admission of students in a university. **(4 marks)**

(b) State four specific objectives for the research project related to the main objective above. **(8 marks)**

(c) State four research questions for the research project related to the specific objectives above. **(8 marks)**

3. In form of a table, use the SDLC phases to formulate activities and corresponding deliverables within specified timeframes for the above research project. **(20 marks)**

4. Develop the methodology section of the research project above by coming up with the following:

(a) Research methodology (research approaches, techniques and tools). **(8 marks)**

(b) Systems development methodology (approaches, techniques and tools). **(12 marks)**

5. (a) Explain two advantages of questionnaire survey over interviewing as a method to collect data to be used in the development of the above computer application. **(6 marks)**

(b) Explain two advantages of interviewing over questionnaire survey as a method to collect data to be used in the development of the above computer application. **(6 marks)**

(c) Explain two modern methods that can be used to collect systems requirements for the computer application above. **(6 marks)**

(d) State two advantages of background reading as a method that can be used to collect systems requirements for the computer application above. **(2 marks)**

6. Explain each of the following in relation to the research project in which a computer application is to be built concerning the admission of students in a university.

(a) Three skills that can be gained out of the project research. **(6 marks)**

(b) Two topic areas that can be included in the literature review section. **(4 marks)**

(c) Three reasons for explaining research methodology for the research project. **(6 marks)**

(d) Two reasons for explaining development methodology for the research project. **(4 marks)**

7. Answer the following questions relating to the literature review section of a research project in which a computer application is to be built concerning the admission of students in a university.

- (a) State the difference between in-text reference and bibliographic reference. **(4 marks)**
- (b) Differentiate between quoting and paraphrasing when reviewing literature. **(4 marks)**
- (c) Using one of the referencing systems widely used in your profession, show how quotation and paraphrasing can be used when reviewing literature. **(8 marks)**
- (d) Point out the significance of a literature review in the research project. **(4 marks)**

END