TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:
BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY
(BSIT M12)
BIT 2301: RESEARCH METHODOLOGY

END OF SEMESTER EXAMINATION
SERIES: AUGUST 2013
TIME: 2 HOURS

Instructions to Candidates:
You should have the following for this examination
- *Answer Booklet*

This paper consists of **FIVE** questions. Attempt question **ONE** and any other **TWO** questions
Maximum marks for each part of a question are as shown
This paper consists of **TWO** printed pages

Question One (Compulsory)

a) Describe the term research   **(2 marks)**

b) Describe the following research studies:
    (i)   Exploratory
    (ii)   Descriptive
    (iii) Explanatory or analytical study   **(6 marks)**

c) (i) Outline **FOUR** major sources of research problems.
    (i) Outline **SIX** steps of formulating a research problem   **(6 marks)**

d) Distinguish between experimental research and experimental design   **(4 marks)**

e) State the main characteristics of a good research question. **(4 marks)**

f) Describe the following types of research:
    (i) Qualitative
    (ii) Historical
    (iii) Quantitative
    (iv) Ethnography **(8 marks)**

Question Two

A good researcher must do a good literature review:

    (i) Describe **FOUR** things that a good literature reviewer must do.
    (ii) Describe the questions that one should answer to come up with a good literature review.
        (20 marks)

Question Three

a) Case studies are widely used in computer science research:
    (i) Describe case study
    (ii) Describe **FIVE** key steps that one takes in coming up with a good case study **(14 marks)**

b) Describe survey as applied in research methods **(6 marks)**

Question Four

Different researchers use differing approaches to research, discuss the research process "onion"
        (20 marks)

Question Five

One of the major step in a good research is selecting the research problem and question. Discuss how one would go about this step. **(20 marks)**