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KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2016/2017 ACADEMIC YEAR
THIRD YEAR, SECOND SEMESTER EXAMINATION
FOR THE DEGREE OF BACHELOR OF SCIENCE
(COMPUTER SCIENCE)

Date: 15th August, 2016.
Time: 8.30am – 10.30am

KCS 312 - SEMINAR TOPICS IN COMPUTER SCIENCE

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)

a) Differentiate between Research Methodology and Research Methods.
(4 Marks)

b) Briefly describe six types of research.
(6 Marks)

c) Describe three objectives of research.
(6 Marks)

d) Briefly describe the qualities of a good research.
(4 Marks)

e) Briefly explain the research process steps with the help of a well labeled diagram.
(10 Marks)

QUESTION TWO (20 MARKS)

a) Use a well labeled diagram to describe the architecture of a cloud computing environment.
(8 Marks)

b) List four cloud computing technologies.
(4 Marks)

c) Define the two types of cloud computing models and describe the categories that fall in each of the models.
(8 Marks)

QUESTION THREE (20 MARKS)

a) The process of ethical hacking can be broken down into five distinct phases. Briefly explain this process and the steps involved.

(10 Marks)

b) When performing security tests an ethical hacker utilizes one or more types of testing on the system. Describe these types of tests.

(6 Marks)

c) All attacks are an attempt to breach computer system security. Name the basic elements that make up security.

(4 Marks)

QUESTION FOUR (20 MARKS)

a) Differentiate between Robotics and a robot.

(4 Marks)

b) State and describe the proposed laws of robotics.

(8 Marks)

c) Describe the key components of a robot.

(4 Marks)

d) Briefly explain two industrial applications of robots.

(4 Marks)

QUESTION FIVE (20 MARKS)

a) Define ubiquitous computing.

(2 Marks)

b) Briefly outline the set of principles which describe the concept of ubiquitous computing as stated by Mark Weiser.

(4 Marks)

c) State and describe four requirements of ubiquitous computing.

(4 Marks)

d) Challenges faced in any field form a basis for research to find solutions. Describe the challenges faced by Ubiquitous Computing on a higher level.

(10 Marks)