MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

FOURTH YEAR SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

MAIN CAMPUS

CIT 426: INFORMATION SYSTEMS INNOVATIONS AND NEW TECHNOLOGIES

Date: 31st July, 2017 Time: 3.30 - 6.30 pm

INSTRUCTIONS:

- Answer ALL questions in SECTION A and any other TWO from SECTION B
- Write your registration number on all sheets of the answer book used.
- Use a NEW PAGE FOR EVERY QUESTION attempted, and indicate number on the space provided on the page of the answer sheet.
- Fasten together all loose answer sheets used.

SECTION A: ANSWER ALL QUESTIONS

***NB-All Algorithms MUST be accompanied by comments**

Question one (30 marks)

1 .a) Explain the 5 Image-Process mechanisms involved in matching a suspect's live photo to the police bounty image.(Ensure the kernel matrices are well elaborated). (…….20mks)

b) Generate the corresponding 5 stage algorithm for (1.a) above. (…….10mks)

SECTION B: ANSWER ONLY TWO QUESTIONS

Question Two (20 marks)

2. a) With the aid of relevant sketches explain in 5 stages, the operation mechanism of a capacitive-touch-screen. (…….15mks)

b) Generate the corresponding 5 stage algorithm for (2.a) above. (……..10mks)

Question Three (20 marks)

3. a) With the aid of well derived 5 stage algorithm, explain the operation of a mobile-money-transfer process.(from sending to receiving money). (……10mks)

b) Discuss the ways in which the inception mobile-money-transfer technology has impacted on the society. (…….10mks)

Question Four (20 marks)

4. a) With the aid of the relevant illustrations, explain the 5 stage mechanism for running acidity test on soils. (…….10mks)

b) Generate the corresponding 5 stage algorithm for (4.a) above. (…….10mks)

Question Five (20 marks)

5. a) With the aid of relevant diagrams, explain stepwise, how a scanning device can accurately establish the Proximate values inside a packet of yoghurt milk. (…….10mks)

b) Generate the corresponding 5 stage algorithm for (5.a) above. (…….10mks)