MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

SECOND YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

SIT 282: ECONOMICS OF INFORMATION TECHNOLOGY

DATE: 16/8/2021   **TIME: 11.00-1.00 PM**

INSTRUCTIONS:

    i)   **Answer question ONE (compulsory) and any other TWO questions**

    ii)   **Show all your working clearly**

QUESTION ONE (COMPULSORY) (30 MARKS)

a)   Explain the following concepts   (5 marks)

    i.   Software entropy

    ii.   Data processing

    iii.   Data models

    iv.   Software maintenance

    v.   Digital economy

b)   Which two useful metrics 'can be used to estimate the various software maintenance tasks

    (6 marks)

c)   The government of Kenya in realizing the important role played by technology in Kenya, made ICT to be one of the sectors targeted in the Vision 2030. Explain the channel through which IT contributes to economic, growth   (10 marks)

d)   Explain the different types of software's   (9 marks)

QUESTION TWO (20 MARKS)

a)   What are the characteristics of a general purpose technology   (6 marks)

b)   Aging agency soft are is very labour intensive it is quite important explore the best and most cost-effective methods available for dealing with the millions of applications that exist. Explain the practices that have the most positive impact on maintenance   (14 marks)

QUESTION THREE (20 MARKS)

a)   ICT related companies usually sell their related or similar products at different price to their different customers. Explain why that is important in high tech industries?   (4 marks)

b)   Clearly distinguish between switching cost and lock-in.   (6 marks)

c)   Assuming that, you have been employed by the Ministry of Information and Communication Technology in Kenya as an Economic Advisor, discuss the challenges facing Business Process Outsourcing sector and how you would overcome them.   (10 marks)

QUESTION FOUR (20 MARKS)

a)   What are the components of electronic data processing?   (10 marks)

b)   Assuming you have won the tender to convert Kenyatta University's manual files to digital, explain the stages involved in such a task.   (10 marks)

QUESTION FIVE (20 MARKS)

a)   After the 2008 global financial crisis, it was so clear that business cycle is not yet dead; explain how Information-Technology dampened the severity of business cycles in Kenya

(10 marks)

b)   After the analyst has gathered all facts which are relative to the objectives set and has grouped them into a form suitable for analysis, he/she must examine all facts gathered in order to make proper assessment of the existing system. Explain the principles of procedure that the present system may be criticized against   (10 marks)