MACHAKOS UNIVERSITY

University Examinations for 2022/2023 Academic Year

SCHOOL OF BUSINESS, ECONOMICS AND HOSPITALITY AND TOURISM MANAGEMENT

DEPARTMENT OF ECONOMICS

FIRST YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF ECONOMIC AND STATISTICS

D BACHELOR OF ECONOMICS AND FINANCE

BACHELOR OF ECONOMICS

EAE 100: ECONOMICS OF INFORMATION TECHNOLOGY

DATE: **TIME:**

INSTRUCTIONS

Answer Question ONE and any other TWO questions

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 channels through which IT contributes to economic growth.   (10 marks)

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

QUESTION TWO (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)

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?   (5 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.   (15 marks)

QUESTION FIVE (20 MARKS)

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

b)   Aging legacy software is very labor intensive it is quite important to explore the best and most cost effective methods available for dealing with the millions of applications that currently exist. Explain the practices that have the most positive impact on maintenance.

(14 marks)