



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

FIRST YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF ECONOMICS AND STATISTICS

BACHELOR OF ECONOMICS

EAE 100: ECONOMICS OF INFORMATION TECHNOLOGY

DATE: 22/1/2021

TIME: 2.00-4.00 PM

INSTRUCTIONS:

- (i) Answer question one (Compulsory) and any other two questions**
- (ii) Do not write on the question paper**
- (iii) Show your working clearly**

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Review and maintenance is one of the stages in a typical system life cycle. Explain the term *system life cycle* and highlight reasons why a system should be periodically reviewed and maintained. (9 marks)
- b) Explain the term Digital Economy as used in Economics of IT, giving its characteristics and circumstances when it can be used. (8 marks)
- c) Based on arguments in economics of Information Technology, do you think there is a difference between product differentiation and price discrimination? (4 marks)
- d) How can Timing aspects, Link between applications, and size/type of a company influence the data processing method? (9 marks)

QUESTION TWO (20 MARKS)

- a) What is software maintenance? How is it measured? (6 marks)
- b) Explain the main types of Price discrimination evident in the Kenyan Economy Today (9 marks)
- c) What are the economic effects of selling two or more information goods at a single price? (5 marks)

QUESTION THREE (20 MARKS)

- a) Explain the various ways in which use of Information Technology contributes to growth of a country. (10 marks)
- b) A small Project poses a number of constraints especially when it comes to measurement of maintenance costs, which cannot be estimated with accuracy. Briefly describe these constraints. (9 marks)
- c) Why is Intellectual Property Law important? (1 mark)

QUESTION FOUR (20 MARKS)

- a) Differentiate between a software and hardware and discuss various soft wares used in ICT sector today. (10 marks)
- b) Explain two ways in which IT remedies deficiencies caused by poor prices, exchange markets and information in well-functioning markets (4 marks)
- c) Which are the 3 main categories of ICT? (6 marks)

QUESTION FIVE (20 MARKS)

- a) Discuss the seven main stages involved in a typical system lifecycle framework. (7 marks)
- b) Briefly describe any six indicators that can be used to confirm the presence of Information Communication Technology in any given country (6 marks)
- c) Explain your understanding on the following terms:
 - i) Lock-in
 - ii) Function point
 - iii) Switching costs
 - iv) Total factor productivity
 - v) Business processes outsourcing
 - vi) Conventional data processing
 - vii) Assignment scope (7 marks)