



MACHAKOS UNIVERSITY

University Examinations for 2021/2022 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

FIRST YEARSEMESTER EXAMINATION FOR

BACHELOR OF

EAE 100: ECONOMICS OF INFORMATION TECHNOLOGY

DATE:

TIME:

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) ICT can be divided into various categories. Identify and briefly explain three of these categories. (6 marks)
- b) Fill in the table below with the corresponding data (3 marks)

Information	Data source
Payroll	
Account report	
Invoice	

- c) Mention clearly the four key issues used as a basis of distinction among the economic paradigms (4 marks)
- d) The technology underlying the digital economy goes far beyond the Internet and personal computers. Identify eight range of products that can be embedded in IT. (4 marks)
- e) By use of a diagram, illustrate and describe the business cycle (7 marks)
- f) Identify any six basic principles which a system developer must abide by when instituting a new development method. (6 marks)

QUESTION TWO (20 MARKS)

- a) Many computer operating systems will fall into more than one category. Which kinds of operating systems do you think can be found in a mobile Tablet? Explain any four kinds clearly. (8 marks)
- b) Government Regulation as a solution to natural monopolies can offer its own inefficiencies. Explain any three reasons why the social loss from high fixed cost, low marginal cost industries may be substantially less than is commonly believed. (6 marks)
- c) Maintenance and Enhancement activities are the various kinds of work performed to software to ensure they are well maintained. In light of this, explain what you understand by the following (6 marks)
- i) Warranty repairs
 - ii) Error-prone module
 - iii) Complexity analysis
 - iv) Reverse engineering
 - v) Dead code removal
 - vi) Retirement

QUESTION THREE (20 MARKS)

- a) i) Describe the three forms of competition used in standards setting as argued by Besen and Farrell (1994). (6 marks)
- ii) In system effects, explain any four ways in which a firm might induce a complementor to cut its price. (8 marks)
- b) i) Distinguish between batches and transactions (2 marks)
- ii) Using the payroll example, explain the stages that must be followed to produce payroll information. (4 marks)

QUESTION FOUR (20 MARKS)

- a) Explain reasons why IT is perceived to increase productivity and has stronger effects on productivity than other capital types (6 marks)
- b) Differentiate between product differentiation and price differentiation and use relevant examples to describe the three types of product differentiation (8 marks)
- c) Clearly highlight the role of Information Technology in any economy (6 marks)

QUESTION FIVE (20 MARKS)

- a) Business Process Outsourcing is a very important sector in any economy. However the sector faces a number of impediments that hinder its effectiveness. Explain any six of these impediments. (12 marks)
- b) Mention and explain the various ways in which price discipline asserts itself under the supply side economies of scale for industries (8 marks)