



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

FIRST YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF ECONOMICS AND FINANCE

BACHELOR OF ECONOMICS

ECONOMICS AND STATISTICS

EAE 100: ECONOMICS OF INFORMATION TECHNOLOGY

DATE: 5/12/2019

TIME: 8.30-10.30 AM

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) Discuss the various paradigms of software development. (8 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? (5 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 economic growth of a country. (10 marks)
- b) Explain the metrics problems with small maintenance projects. (10 marks)

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.(14 marks)
- b) Explain your understanding on the following terms:
 - i. Lock-in
 - ii. Switching costs
 - iii. Multi-factor productivity
 - iv. Business processes outsourcing
 - v. Conventional data processing
 - vi. Assignment scope (6 marks)