



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE

SMA 490: SYSTEM ANALYSIS AND DESIGN

DATE: TUESDAY, 27 MARCH 2012

TIME: 11.00A.M -1.00P.M

INSTRUCTIONS Attempt question one and any other two questions

Question One (30 marks)

- a) Define a system [3marks]
- b) What do you understand by systems thinking? [6 marks]
- c) Explain the terms decomposition, coupling, modularity and cohesion as used in systems analysis and design [8 marks]
- d) What are the objectives of the preliminary analysis phase in the systems development life cycle? [6 marks]
- e) Differentiate between a closed and open system [4 marks]
- f) Define the following; Case tools, Prototyping [3 marks]

Question Two (20 marks)

- a) What is a feasibility study and what does it entail? [4 marks]
- b) What are the four strategies used in converting from an old system into a new one? [8 marks]
- c) Give at least four important functions provided by a system interface. [8 marks]

Question Three (20 marks)

- a) The technical risks associated with a project are contingent on what factors? [4 marks]
- b) Why is it important that systems analysts should be ethical and people of high integrity? [4 marks]
- c) What categories of participants are involved in a system project? [4 marks]
- d) Describe the primary deliverable from process modeling. [8 marks]

Question Four (20 marks)

- a) List the four types of agreements on working level definitions of a system. [4 marks]
- b) List some advantages and disadvantages of group interviews [6 marks]
- c) In drawing data flow diagrams during process modeling, what rules govern data flow?
[5 marks]
- d) Describe any three differences between questionnaires and interviews as methods of
determining requirements. [5 marks]

Question FIVE (20 marks)

- a) What are the basic procedures followed in constructing decision tables? [7 marks]
- b) Explain the maintenance process [7 marks]
- c) What are the objectives of the preliminary analysis phase in the systems development life
cycle? [6 marks]