



(Knowledge for Development)

KIBABII UNIVERSITY COLLEGE

A CONSTITUENT COLLEGE OF

MASINDE MULIRO UNIVERSITY OF

SCIENCE AND TECHNOLOGY

UNIVERSITY EXAMINATIONS

2014/2015 ACADEMIC YEAR

THIRD YEAR SECOND SEMESTER

MAIN EXAMINATION

FOR THE DEGREE OF

BACHELOR OF SCIENCE COMPUTER SCIENCE

COURSE CODE: CSC 365 E

COURSE TITLE: SOFTWARE DEVELOPMENT

DATE: 4TH MAY, 2015 TIME: 3.00-5.00PM

INSTRUCTIONS TO CANDIDATES

Answer Question One in Section A and Any other TWO (2) Questions in Section B

SECTION A
ANSWER ALL QUESTIONS FROM THIS SECTION (30 MARKS)

Question One

- a) What are the three key reasons for software measurement?
(3 Marks)
- b) Outline, in general, steps followed when using systems development life cycle (SDLC) methodology
(6 Marks)
- c) List FOUR major activities defined by spiral model within its life cycle:
(4 Marks)
- d) Outline how RAD (rapid application development) proposes that products can be developed faster and of higher quality.
(5 Marks)
- e) List three scenarios when to use iterative model.
(3 Marks)
- f) Describe the key tools SSADM uses to carry out proper analysis.
(3 Marks)
- g) Outline the basic issues that SRS writer shall address.
(6 Marks)

SECTION B
ANSWER ANY TWO QUESTIONS FROM THIS SECTION (40 MARKS)

Question Two

- a) In the context of software requirements specification SRS,
 - i) contrast verification and validation
(4 Marks)
 - ii) Why is verification and validation necessary?

(3 Marks)

iii) List down the activities done by people involved in verification and validation

(3 Marks)

b) Explain, why many software and web design firms make the more appropriate choice of employing Agile methodology over the Waterfall method.

(10 Marks)

Question Three:

a) For each category, briefly explain what type of information will you need to gather when you are investigating the working of the existing system or the requirements for the new system?

- i) Functional requirements
- ii) Non-functional requirements and
- iii) Usability requirements

(12 Marks)

b) Describe FOUR major types of evolutionary prototyping

(8 Marks)

Question Four:

a) Briefly explain high level list of requirements that should be addressed in a System Specification.

(10 Marks)

b) What are the major characteristics of a great SRS?

(10 Marks)

Question Five:

a) Still, and although developing software is not really a new discipline, there is no universally recognized methodology to measure software development team productivity. Why is it so?

(10 Marks)

b) Describe the main advantages of formal methods?

(10 marks)

