



KENYA METHODIST UNIVERSITY

END OF 1ST TRIMESTER 2010 EXAMINATIONS

FACULTY : **COMPUTING AND INFORMATICS**
DEPARTMENT : **COMPUTER INFORMATION SYSTEMS**
UNIT CODE : **DBIT 204**
UNIT TITLE : **SOFTWARE DEVELOPMENT**
TIME : **2 HOURS**

Instructions:

- Answer question 1 and any other 2 questions.

SECTION A (30 MARKS)

Question 1

- i) Define the following terms;
 - a) Software requirements (2 mks)
 - b) Requirements elicitation (2mks)
- ii) Differentiate between verification and validation. (2 mks)
- iii) Briefly describe three types of critical systems. (6 mks)
- iv) Describe any two software process models and give two weaknesses of each model. (6 mks)
- v) Describe four factors affecting software pricing. (4 mks)
- vi) Describe any four user interface design principles. (8 mks)

SECTION B (40 MARKS)

Question 2 (20 marks)

- i) Risk management is an essential part of project management. Describe three typical risks that can occur in a software project and for each suggest two possible countermeasures. (6 mks)
- ii) Describe any two software cost estimation methods citing at least one advantage and one disadvantage in each. (6 mks)
- iii) Describe any two types of software maintenance activities. (4 mks)
- iv) Distinguish between functional and non-functional requirements. (4 mks)

Question 3 (20 marks)

- i) Describe the requirements engineering process. (8 mks)
- ii) Give any two advantages of object oriented design. (2 mks)
- iii) With the help of a flowchart, describe the software inspection process. (6 mks)
- iv) Distinguish between white box testing and black box testing. (4 mks)

Question 4 (20 marks)

- i) Describe any four issues of professional responsibility that the ACM/IEEE addressed. (8 mks)
- ii) Describe any three methods of capturing user requirements. (6 mks)
- iii) Describe four attributes of good software. (4 mks)
- iv) Distinguish between unit testing and integration testing. (2 mks)