

**W1-2-60-1-6**

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

# **UNIVERSITY EXAMINATIONS 2016/2017**

SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE DIPLOMA IN INFORMATION TECHNOLOGY

**DIT 0401 : SOFTWARE ENGINEERING**

**DATE: APRIL 2017 TIME: 1.30 HOURS**

**INSTRUCTIONS:**

**ANSWER QUESTION ONE [COMPULSORY] AND ANY OTHER TWO QUESTIONS**

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**QUESTION ONE[20 MARKS]**

1. A soft ware development life cycle is vital in the development of a software product. using a diagram discus in detail six activities carried out in software development life cycle [12 marks]
2. Explain the concept of software engineering [12 marks]
3. What is the difference between program and software? [2 marks]
4. Elaborate why user acceptance testing is important [2 marks]

**QUESTION TWO [20 MARKS]**

1. Soft ware maintenance is an important activity. Explain four different types of maintenance [8 marks]
2. Outline an 6 qualities of a good system analysis [12 marks]

**QUESTION THREE [20 MARKS]**

1. Give FOUR advantages of using prototype software development model instead of waterfall [4 marks]
2. Give 5 reasons why maintenance of a software is important [10 marks]
3. Describe any three objectives of quality assurance [6 marks]

**QUESTION FOUR [20 MARKS]**

1. Differentiate the following terms
2. Backtracking and program slicing [4 marks]
3. Alpha and Beta [4 marks]
4. System testing and integration testing [8 marks]
5. Explain four drawbacks of RAD model [8 marks]

**QUESTION FIVE [20 MARKS]**

1. What are the five fundamental activities of a software process [10 marks]
2. Outline any five characteristics of good software [10 marks]