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**GARISSA UNIVERSITY**

**UNIVERSITY EXAMINATION 2018/2019 ACADEMIC YEAR TWO**

**SECOND SEMESTER EXAMINATION**

**SCHOOL OF INFORMATION SCIENCE AND TECHNOLOGY**

**FOR THE DEGREE OF BACHELOR OF INFORMATION SCIENCE**

**COURSE CODE: COM 211**

**COURSE TITLE: SOFTWARE DEVELOPMENT**

**EXAMINATION DURATION: 2 HOURS**

**DATE: 05/02/2020 TIME: 2.00-4.00 PM**

**INSTRUCTION TO CANDIDATES**

* **The examination has FIVE (5) questions**
* **Question ONE (1) is COMPULSORY**
* **Choose any other TWO (2) questions from the remaining FOUR (4) questions**
* **Use sketch diagrams to illustrate your answer whenever necessary**
* **Do not carry mobile phones or any other written materials in examination room**
* **Do not write on this paper**

**This paper consists of TWO (2) printed pages *please turn over***

**QUESTION ONE (COMPULSORY)**

1. Differentiate software interface from hardware interface **[2 marks]**
2. Explain two important functions of a loader program. **[4 marks]**
3. In a typical compiler, the analysis task consist of three phases explain them **[4 marks]**
4. Explain the process of syntax analysis **[5 marks]**
5. Explain the utility of Lex and Yacc **[3 marks]**
6. Briefly explain what software development is? **[4 marks]**
7. What are the factors that contribute to the changes in software development **[4 marks]**
8. What is the expression normally used for functions which the software requires in order to satisfy the user **[4 marks]**
9. Write two possible causes for insufficient requirement analysis. **[4 marks]**

**QUESTION TWO**

1. Write the usefulness of program development tools. **[5 marks]**
2. Differentiate between functional requirements from nonfunctional requirements **[5 marks]**
3. List advantages if any of using a multiprocessor operating system opposed to serial processing one for single user computer system. Explain also the tradeoffs involved in this process. **[10 marks]**

**QUESTION THREE**

1. Describe the objectives of long term schedulers **[15 marks]**
2. Explain the functioning of multiple level queue **[5 marks]**

**QUESTION FOUR**

1. Using diagrams differentiate between layered structure approach and kernel approach in operating system structure **[10 marks]**
2. Explain four functions of the kernel part of the operating system. **[10 marks]**

**QUESTION FIVE**

1. Describe tailored software development life cycle model. What is the importance of selecting team members with a mix of personality types for software development **[15 marks]**
2. Differentiate between testing phase from deployment phase in software development **[5 marks]**