



GARISSA UNIVERSITY

UNIVERSITY EXAMINATION **2017/2018** ACADEMIC YEAR **ONE** **SECOND** SEMESTER EXAMINATION

SCHOOL OF COMPUTER AND INFORMATION SCIENCE
FOR THE DIPLOMA INFORMATION TECHNOLOGY

COURSE CODE: DIT 011

COURSE TITLE: SOFTWARE ENGINEERING

EXAMINATION DURATION: 3 HOURS

DATE: 10/04/18

TIME: 2 .00-5.00 PM

INSTRUCTION TO CANDIDATES

- The examination has **SIX (6)** questions
- Question **ONE (1)** is **COMPULSORY**
- Choose any other **THREE (3)** questions from the remaining **FIVE (5)** 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

SEM 11, 17/18 main exam (06/04-19/04/18)

1

please turn over

Good Luck – Exams Office



QUESTION ONE (COMPULSORY)

- (a) Describe **five** qualities of a good software [8 marks]
- (b) Define **software** [2 marks]
- (c) State the **two** major types of computer software giving examples [4 marks]
- (d) What is a **software product** [2 marks]
- (e) Describe **three** types of software product [6 marks]
- (f) Define a **bespoke** product giving one example [3 marks]

QUESTION TWO

- (a) Give **four** differences between program and product [4 marks]
- (b) Define **Software Engineering** according to **IEEE** [2 marks]
- (c) State **six** factors that led to the emergence of software engineering [6 marks]
- (d) With a suitable example, define an **embedded product** [3 marks]

QUESTION THREE

- (a) Describe **four** qualities of a good software engineer [8 marks]
- (b) What is a **program**? [2 marks]
- (c) What is **software crisis**? [2 marks]
- (d) List **three** types of system users [3 marks]

QUESTION FOUR

- (a) What is a **generic** product [2 marks]
- (b) Describe **four principles** of software engineering [8 marks]
- (c) List the four key characteristics of a software product [4 marks]
- (d) Who is a **software engineer** [1 mark]

QUESTION FIVE

- (a) Define a **software process** [2 marks]
- (b) Describe **four** software process activities [8 marks]
- (c) list **five** software life cycle models [5 marks]

QUESTION SIX

- (a) describe the **waterfall model** using a well labeled diagram [10 marks]
- (b) list **two** instances in which a prototype model is preferred [2 marks]
- (c) list **three** types of feasibility study carried out during system development [3 marks]

