Ser. IT AUG/18/020

GARISSA UNIVERSITY

UNIVERSITY EXAMINATION 2017/2018 ACADEMIC YEAR TWO
THIRD TRIMESTER EXAMINATION

SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCE

FOR THE DIPLOMA IN INFORMATION TECHNOLOGY

COURSE CODE: DIT O29

COURSE TITLE: COMPUTER AIDED DESIGN

EXAMINATION DURATION: 2 HOURS

DATE: 09/08/18 **TIME: 9.00-11.00 AM**

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 ***please turn over***

QUESTION ONE (COMPULSORY)

a) Define computer Aided Design/computer Aided manufacturing **[2 Marks]**

b) Briefly describe a CAD system. **[8 Marks]**

c) Explain the Elements of CAD; (or) various phases of CAD. **[5 Marks]**

d) Describe the generalized design process in computer aided design with the aid of appropriate diagrams. **[10Marks]**

QUESTION TWO

- a. Highlight on basic Geometric modeling techniques. **[5 Marks]**
- b. Computer aided design has variedly assisted in design and manufacturing. Discuss the advantages of CAD. **[10 Marks]**

QUESTION THREE

a. Highlight on seven drawing entities as used in CAD. **[7 Marks]**

b. Explain four drawing utilities that are commonly in use in a CAD operation **[4 Marks]**

c. Explain the various 2D transformations commonly used. **[4 Marks]**

QUESTION FOUR

a. Editing is one of the major operation that a CAD expert finds very useful, briefly explain five of these Editing commands. **[10 Marks]**

b. Explain Geometric modeling. **[5 Marks]**

QUESTION FIVE

a. What are the key differences between 2D & 3D. **[3 Marks]**

b. Explain the applications of CAD software package. **[12 Marks]**

QUESTION SIX

a. State six advantages of Wireframe Modeling. **[3 Marks]**

b. Give three examples of CAD software package. **[6 Marks]**

c. Describe B-rep – Boundary representation. **[2 Marks]**

d. Explain CSG – Constructive Solid Geometry. **[2 Marks]**

e. Explain two advantages of Solid Modeling; **[2 Marks]**