



FACULTY OF ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING
SECOND SEMESTER EXAMINATION
(AUGUST 2018)
2017/2018 ACADEMIC SESSION

Course Title: Element of Architecture

Course Code: CVE 314

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HOD'S SIGNATURE

Instructions:

- 1) **Attempt Questions one and any other two**
- 2) **Time Allowed: 3 hours**
- 3) **SEVERE PENALTIES APPLY FOR MISCONDUCT, CHEATING, POSSESSION OF UNAUTHORIZED MATERIALS DURING EXAMINATION**



FACULTY OF ENGINEERING

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

B.Sc. (Civil Engineering) Degree Examination

Second Semester 2017/2018 Session

CVE 314: Element of Architecture

August 2018

Time Allowed: 3 Hours

Instruction: Attempt Questions one and any other two

QUESTION 1 (30 Marks)

With the aid of the ground floor plan shown in Figure Q1, produce the following using AutoCAD:

- i. Front and Left Side Elevations (10 marks)
- ii. Roof Plan (10 marks)
- iii. Section B – B (10 marks)

QUESTION 2 (15 Marks)

- a) Define Freehand sketching listing its advantages (5 marks)
- b) Explain the following four different types of 3D models
 - i. Wireframe models
 - ii. Surface models
 - iii. Solids models
 - iv. Mesh Models (8 marks)
- c) List 4 visual styles in AutoCAD 3D (2 marks)

QUESTION 3 (15 Marks)

- a) With the aid of a table, list the recommended dimensions for Windows showing their designations, size of opening, size of window frame and size of window shutter using units in millimeters. (10 marks)
- b) Explain the following terms in relation to AutoCAD
 - i. Scale
 - ii. Mirror
 - iii. Chamfer
 - iv. Explode
 - v. Extrude (5 marks)

QUESTION 4 (15 Marks)

- List the steps and activities in drawing a floor plan using AutoCAD (5 marks)
- List 5 software's used for Civil Engineering Architectural and Structural drawings explaining any two (2) of them. (10 marks)

QUESTION 5 (15 Marks)

- With the aid of a table, list the different drawing paper size and their sizes (5 marks)
- Using Freehand drawing, sketch a 2-bedroom apartment (5 marks)
- List the general door dimensions for a residential and public building stating the dimensions for the internal and external doors and show the width-height formula used for calculating door width and height. (5 marks)

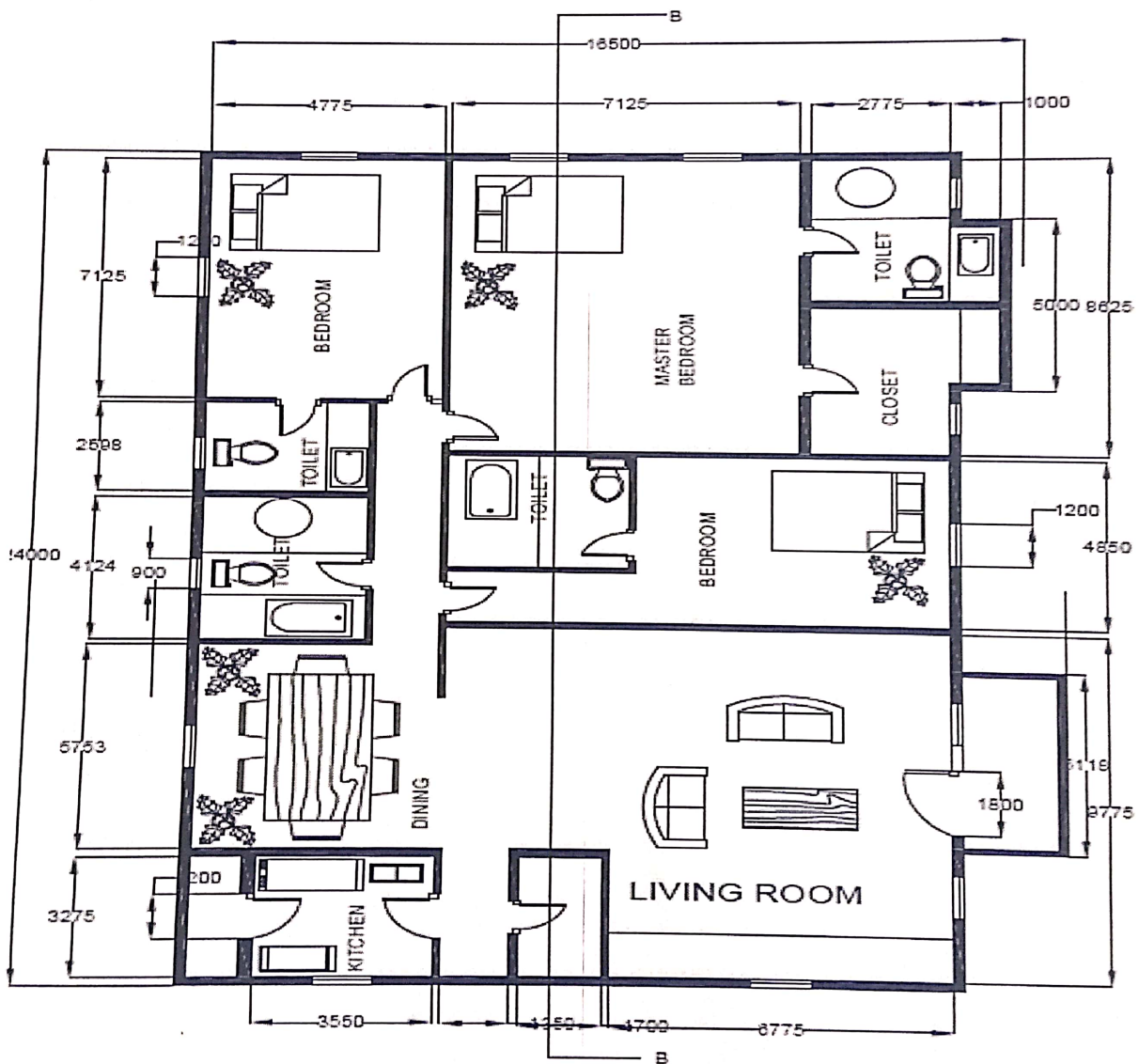


Figure 1: Ground Floor Plan