



# TECHNICAL UNIVERSITY OF MOMBASA

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FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ARCHITECTURE & BUILT ENVIRONMENT

**UNIVERSITY EXAMINATION FOR:**

DIPLOMA OF ARCHITECTURE

DIPLOMA OF QUANTITY SURVEYING

EAR 2202: BUILDING TECHNOLOGY II

SPECIAL/SUPPLEMENTARY EXAMINATION

**SERIES: SEPTEMBER 2018**

**TIME: 2HOURS**

**DATE: Pick Date Sep 2018**

## **Instructions to Candidates**

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

**Do not write on the question paper.**

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## **QUESTION ONE (COMPULSORY) (30 Marks)**

- In a three bedroomed residential maisonette, list the main sanitary fittings you are most likely to install. (10marks)
- Describe the main features of each of the above, the materials they are made of and the way they work. (20marks)

## **QUESTION TWO (15 Marks)**

- Describe a gutter and outline how it is fixed in a residential house. (5marks)
- With an appropriate sketch illustrate the number of gutters in a house that help in water harvesting in a water deficient area. (10marks)

### **QUESTION THREE (15 Marks)**

Make a drawing of two storey residential building and indicate how the water reticulation system for both cold and hot water supply is installed. The house contains:- a WC and WHB on each of the floors, a bath tub, a hot water cylinder and a kitchen sink. Assume water is supplied from the local authority supply system.

### **QUESTION FOUR (15 Marks)**

By way of a sketch diagram, explain how water is heated by solar power in a two storey residential building and supplied to the various sanitary fittings. You may assume the solar panel is fixed onto the roof covering.

### **QUESTION FIVE (15 Marks)**

Describe the following parts of a drainage system in a typical small residential building:-

- i) Gully trap (3marks)
- ii) Invert level (3marks)
- iii) Public sewer (3marks)
- iv) Soil drainage (3marks)
- v) Surface water drainage (3marks)