



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2015/2016

**THIRD YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE
OF BACHELOR OF BACHELOR OF ARTS IN APPAREL DESIGN WITH
INFORMATION TECHNOLOGY**

MAIN CAMPUS

ADI 303: STRUCTURES

Date: 19th April, 2016

Time: 2.30 - 4.30pm

INSTRUCTIONS:

- **Answer ALL Questions in Section A and any other TWO in Section B.**

SECTION A [40 MARKS]

Answer ALL questions in this section in the answer booklets provided.

Q1. Differentiate between the following terms:

- a) *Precast and Cast-in-situ* (2mks)
- b) Elastic and plastic (2mks)
- c) Torsion and shear (2mks)
- d) Gravity and Moment forces (2mks)

Q2. Illustrate **two** categories of structure classifications. (6mks)

Q3. Describe **three** important considerations made during site analysis. (6mks)

Q4. a) Briefly explain **two** categories of wall partitions with examples. (4mks)

b) Indicate a method use to sound proof windows. (2mks)

Q5. Sketch and label the parts of a wall connected to a door-opening. (7mks)

Q6. a) Describe **two** causes of damage in buildings that warrant repairs. (2mks)

b) Illustrate the **two** categories of ceiling structures used in buildings.

(5mks)

SECTION B [30 Marks]

INSTRUCTIONS: Answer ANY 2 (TWO) questions from this section.

Q7. Discuss any **THREE** types of foundations used in building structures. With the aid of diagrams, explain the different types and their construction. (15mks)

Q8. Illustrate the difference in structure between pitched roofs and flat roofs. Use the truss structure and its components (labelled) to illustrate the difference. (15mks)

Q9. Using illustrations explain the process involved in the construction of an upper-floor, mention the materials and elements used in the process. (15mks)