



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

UNIVERSITY EXAMINATION FOR:

DEGREE

EAR 4102 : HISTORY AND THEORY OF ARCHITECTURE I

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2016

TIME: 2 HOURS

DATE: Pick Date Dec 2016

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

- Pocket calculator

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions. Question one carries 30 marks and the rest carries equal marks (20marks)

Do not write on the question paper.

Mobile phones are not allowed in the examination room.

Question ONE

- Name at least FIVE factors that have influenced settlement patterns and housing in particular in Kenya. **(10 marks)**
- Explain how these factors have determined the setting up of homesteads and housing construction among the Maasai community **(20marks)**

Question TWO

- In ancient Egypt architecture was practiced mainly to serve the leadership and religious institutions, explain how the pyramids at Giza and the burial tombs at Luxor best explain this. **(8marks)**

- b. Explain how the availability of building materials mainly stone restricted the architectural designs of ancient Egypt particularly in institutional buildings. **(6marks)**
- c. Explain how artworks were necessary part of architectural elements both in religious buildings and palaces as seen in the palace at Karnak and the temple of Amon. **(6marks)**

Question THREE

- a. Explain how the development of the “arch” and domes as structural elements created an improvement and variety in designs. **(8 marks)**
- b. Compare some of the famous architectural pieces of the ancient Greek and Roman times with specific reference to the Parthenon in Athens and the colosseum in Rome. **(12marks)**

Question FOUR

- a. What principle of town planning originating from the ancient Greek times has influenced planners in recent past particularly in American cities. **(8marks)**
- b. St. Peter’s Basilica in Rome borrows from the ancient Greek and Roman architecture in the dome and colonnade in the square, explain what role was played by the advances made in arches domes and concrete as a new material. **(12 marks)**

Question FIVE

- a. State the materials that were used in the construction of the Lamu house and explain how they determined the width and depth of rooms. **(10 marks)**
- b. Explain how high temperatures were controlled and thermal comfort achieved with reference to use of materials and floor layout in Lamu. **(10marks)**