



TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering and Technology

Department of Electrical & Electronics engineering

UNIVERSITY EXAMINATION FOR:

BACHELOR OF ELECTRICAL AND ELECTRONIC ENGINEERING
EEE 4411: LONG TERM AND STRATEGIC PLANNING FOR
ENGINEERS

END OF SEMESTER EXAMINATION

ORDINARY PAPER

SERIES: NOV 2024

TIME: 2 HOURS

DATE: Pick Date 2020

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.

Question ONE (COMPULSORY) - 30 Marks

For a large infrastructure project;

- a) Outline various electrical, communications and mechanical services. **[10 marks]**
- b) Identify and describe the main systems in such a project. **[10 marks]**
- c) Identify the project activities and draw an appropriate Gantt chart for the project. **[10 marks]**

Question Two



TUM is ISO 9001:2015 Certified

A free port is to be constructed at Dongo Kundu.

- a) Describe the features that would make it a green port. [5 marks]
- b) Describe the feature that need to be incorporated to make it a smart port.

[5

marks]

- c) Develop a strategic plan for the facility. [10 marks]

Question Three

- a) Describe the requirements for an audio visual system in an airport projects. [8 marks]

- b) Outline airport terminal announcement system components. [12 marks]

Question Four

- a) State the submittals required for a large electrical project at 90% design completion. [10 marks]
- b) Explain the general requirements when.
 - (i) Adding electrical load to an existing panel
 - (ii) Shutting down electrical utilities.

[10 marks]

Question FIVE

- a) (i)State the vegetation requirement for projects within an airport operation.
(ii)Describe the general requirements for a baggage handling system.

[10 marks]

- b)

