



# TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING & TECHNOLOGY  
DEPARTMENT OF ELECTRICAL & ELECTRONIC ENGINEERING

## UNIVERSITY EXAMINATION FOR: HIGHER DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

EEE 3202: ENGINEERING MANAGEMENT AND PROFESSIONAL

### PRACTICE I

END OF SEMESTER EXAMINATION

**SERIES: MAY 2016**

**TIME: 2 HOURS**

**DATE:**

#### **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 any **THREE Questions**

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

#### **QUESTION ONE**

(a) Define:-

(i) Work measurement

(ii) Method study

**(4marks)**

(b) State the objectives of a(i) and a(ii) above.

**(6marks)**

(c) Time study is a technique for determining accurate time standard for repetitive type work. State the steps in taking a time study. **(6marks)**

(d) Explain with the help of block diagram the term work study as a generic term in method study and work measurement to effect improvement in organization productivity in an organization's productivity. **(4marks)**

## **QUESTION TWO**

(a) State:-

(i) Any four advantages of delegation in management

(ii) Any three advantages of statistical quality control in production process  
**(7marks)**

(b) Describe the activities of the client at the pre-tender stage in contract management. **(5marks)**

(c) Explain:-

(i) Any four qualities of a good project manager

(ii) The term 'PLANNING' in project management.

(iii) In your own words the term 'PORTFOLIO MANAGEMENT' in organizational management of a manufacturing set-up.

(iv) The term statistical quality control (SQC) commonly used in batch production. **(8marks)**

## **QUESTION THREE**

(a) Explain the following terms as used in economical management of supplies.

(i) Economical ordering quantity (EOQ)

(ii) Stock control

(iii) Inventory management **(6marks)**

(b) With the aid of a diagram explain the economic ordering quantity point as used in inventory planning and control and supplies management. **(6marks)**

(c) Explain the importance of the following activities or processes as used in supplies management

(i) Inspection of goods delivered from suppliers

(ii) Clearing of invoices for prices discount and conditions

(iii) Expediting and progressing order. **(6marks)**

(d) Define the following items

(i) Scrap

**QUESTION FOUR**

- (a) Table 1 below shows the logical sequence table for a project programme planning for implementation. Using the forward –backward pass method, determine
- The critical path in the network by showing it with double arrows to the end.
  - The project duration in months.
  - The float for activities E and H.

**(20 marks)**

| ACTIVITY | EVENT NO | TIME LOADING IN WEEKS |
|----------|----------|-----------------------|
| A        | 1-2      | 1                     |
| B        | 1-7      | 3                     |
| C        | 2-3      | 3                     |
| D        | 7-3      | 0                     |
| E        | 3-4      | 8                     |
| F        | 3-5      | 14                    |
| G        | 4-5      | 0                     |
| H        | 5-6      | 4                     |
| I        | 5-8      | 12                    |
| J        | 9-8      | 0                     |
| K        | 6-10     | 3                     |
| L        | 8-10     | 2                     |

Table 1

**QUESTION FIVE**

- Outline the key activities of the pre-tender stage of an engineering contract. **(5marks)**
- Explain the meaning of the term ‘AUTOMATION’ as used in manufacturing.
  - State four benefits of a (i) above. **(6marks)**
- Describe the following types of registers used in stores department.
  - Consumable register
  - Daily receipt register **(4marks)**
- Outline four common problems encountered in project management which may lead to project failure. **(5marks)**

