THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

((A Constituent College of JKUAT)
(A Centre of Excellence)

Faculty of Engineering &Technology in Conjunction with Kenya Institute of Highways and Building & Technology (KIHBT)

DEPARTMENT OF ELECTRICAL & ELECTRONIC ENGINEERING

HIGHER DIPLOMA IN TECHNOLOGY

EEE 3202: ENGINEERING MANAGEMENT & PROFESSIONAL PRACTICE II

END OF SEMESTER EXAMINATION
SERIES: AUGUST 2012
TIME: 2 HOURS

Instructions to Candidates:
You should have the following for this examination
- *Answer Booklet*
- *Non-Programmable Scientific Calculator*

This paper consists of **FIVE** questions
Answer any **THREE** questions

All questions carry equal marks
This paper consists of **THREE** printed pages
Question One (20 Marks)

a) Give any **FOUR** internal factors influencing productivity in any production system.   **(4 marks)**

b) Explain the following terms as given during discharge of a contract.
   i) Performance
   ii) Merger
   iii) Breach of condition
   iv) Variations   **(8 marks)**

c) Explain:
   i) The advantages of statistical quality control over other techniques of quality control in production factories.   **(4 marks)**
   ii) Portfolio management in production industry.   **(4 marks)**

d) Explain the advantages of unplanned maintenance.

Question Two (20 marks)

a) Define:
   i) Stock taking
   ii) Cataloguing
   iii) Material specifications   **(3 marks)**

b) State:
   i) Any **THREE** daily functions of warehouse management
   ii) Any **THREE** reasons for commercial negotiations in suppliers.   **(6 marks)**

c) Describe in detail the following process in supplies.

   i) Sourcing
   ii) Supply contract administration
   iii) Stores accounting   **(6 marks)**

d) Explain how and when obsolete items become and surplus stock occur in supplies department.
                                                                                            (5 marks)

Question Three (20 marks)

a) State the objectives of Healthy and Safety at Work Act 1974.   **(3 marks)**
b) State **FIVE** duties of an employer as defined responsibilities in the Healthy and Safety Act.
                                                                                            (7 marks)
c) Give:
   i) **THREE** reasons why need for insurance cover could arise for a manufacturing company.
   ii) **THREE** broad classes of insurance policies available in industry.   **(6 marks)**

d) Explain why licensing is necessary for public and private business in Kenya.   **(4 marks)**

Question Four (20 marks)

a) State any **FOUR** functions traditionally used in project management. **(4 marks)**

b) Define the following phrases used in projects.
   i) Project proposal
   ii) Project cycle **(4 marks)**

c) Using suitable sketches, explain the organization of the following planning tools.
   i) CPM
   ii) GRANTT CHART **(4 marks)**

d) Distinguish between the following concerning engineering projects.
   i) GOALS
   ii) OBJECTIVES
   iii) ACTIVITIES
   iv) TASKS **(4 marks)**

e) Explain the following terms as implied in construction contracts.

   i) Extension of time
   ii) Variation order
   iii) Variation
   iv) Completion (final) certificate. **(4 marks)**

Question Five (20 marks)

a) State the merits of:
   i) Planned maintenance
   ii) Breakdown maintenance **(6 marks)**

b) Outline the steps required by planned preventive maintenance system to ensure the efficient use of plant (machines) in an organization. **(4 marks)**

c) Explain why replacement may be preferred to either repair or service of a plant. **(4 marks)**

d) Draw the optimum provision graph and explain the importance of optimum level of maintenance.
(6 marks)