TECHNICAL UNVERSITY OF MOMBASA

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

DEPARTMENT OF ELECTRICAL & ELECTRONIC ENGINEERING

HIGHER DIPLOMA IN ELECTRICAL & ELECTRONIC ENGINEERING

EEE 3208: ENGINEERING MANAGEMENT & PROFESSIONAL PRACTICE II

SPECIAL/SUPPLEMENTARY EXAMINATION
SERIES: AUGUST 2014
TIME: 2 HOURS

Instructions to Candidates:
You should have the following for this examination
- *Answer Booklet*
- *A non-programmable Scientific Calculator*
This paper consists of **FOUR** questions. Answer any **THREE** questions
All questions carry equal marks
Maximum marks for each part of a question are as shown
This paper consists of **THREE** printed pages

Question One

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

b) Outline the steps required by planned privative maintenance system to ensure efficient use of machines in a factory.   **(4 marks)**

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

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

Question Two

a) State any THREE methods of disposal for obsolete and surplus stock.   **(3 marks)**

b) Define:
    (i) Stock control
    (ii) Stock taking
    (iii) Stock arisings   **(3 marks)**

c) Describe the following processes in supplies:
    (i) Expecting and progressing order
    (ii) Clearly of invoices for prices discount and production conditions
    (iii) Inspection of good delivered form suppliers.   **(6 marks)**

d) Draw the inventory cost and ordering cost curves and from it explain the importance of the point of Economic Ordering Quantity (EOQ) as used in inventory management.   **(8 marks)**

Question Three

a) Distinguish between the following types of contracts:
    (i) Package Deal
    (ii) Lump sum
    (iii) Cost-reimbursement   **(6 marks)**

b) Site meetings are very important in the implementation of construction contracts, explain:
    (i) The purpose
    (ii) The convener
    (iii) The parties to attend   **(6 marks)**

c) Distinguish between Adhoc and Formal site meetings in contracts.   **(2 marks)**

d) In work measurement for costing of physical work in construction projects. Explain:

(i) Piece work
(ii) Hourly rate
(iii) Fixed time **(6 marks)**

Question Four

a) Using suitable sketches, explain the following planning tools:
    (i) Critical Path Method (CPM)
    (ii) Gantt Chart **(6 marks)**

b) State:
    (i) THREE objectives of Network Analysis in project implementation planning. **(3 marks)**
    (ii) THREE advantages of Statistical Quality Control (SQC) in production systems.
    (3 marks)

c) Explain with the help of a block diagram the term "Work Study" as a generic term of methody study and work measurement to effect improvement in organization productivity. (4 marks)

Question Five

a) Explain how the following could be TIME WASTERS to managers:
    (i) Unclear objectives
    (ii) Meetings
    (iii) Self **(6 marks)**

b) The "MUST, SHOULD AND LIKE" to do principle in the daily planners of managers help to add some element of reality to their work. Explain the choice, priorities and dangers of each of them in the job situation. **(6 marks)**

c) Distinguish between MANAGEMENT and ADMINISTRATION in project management.
    (4 marks)

d) State the objective of the following processes in a production situation:
    (i) Method study
    (ii) Work measurement **(4 marks)**
    (3 marks)