UGANDA MARTYRS UNIVERSITY, NKOZI CAMPUS

FACULTY OF BUSINESS ADMINISTRATION AND MANAGEMENT

CODE: 2101

COURSE: **PRODUCTION OPERATIONS MANAGEMENT (POM)**

DATE: 12.12.2014

Time allowed: 3 hours:

Instructions to Candidates:
Read the following before answering the examination questions.
   1) Do not write anything on this question paper.
   2) Answer any four(4) questions in all.

Question One

(a) Explain with examples, two factors / components that are revealed by a Time – Series graph (7 Marks)

(b) The demand for electric power in Kayabwe town over the period 2008 – 2014 is as shown in the table below, in MegaWatts.

Year	2008	2009	2010	2011	2012	2013	2014
Electric Power demand (Megawatts)	74	79	80	90	105	142	122

Required:

(i) What is the likely demand for power for the year 2015 using Naïve approach? (3 Marks)

(ii) What is the likely demand for power for the year 2015 using two-months moving average? (3 Marks)

(iii) Derive a linear equation that satisfies Kayabwe Power demand over the years above. (8 Marks)

(iv) Using the equation in (iii) above, forecast the likely demand for power in 2015) (4 Marks)

Question Two

(a) With examples distinguish between over capacity and under capacity. (8 Marks)

(b) Mr Kulonda, the Manager Operations at Roofings Ltd, has to make a decision between two investment alternatives. Investment A has an initial cost of USD 61,000 and Investment B has an initial cost of USD 74,000. Both investments have a useful life of seven years. Given the cost of capital of 9% and the following cash flows for each alternative.

Year	Investment A's Cash flows (USD)	Investment B's Cash flows(USD)
1	19,000	19,000
2	19,000	20,000
3	19,000	21,000
4	19,000	22,000
5	19,000	21,000
6	19,000	20,000
7	19,000	11,000

Required:

(i)   Determine the most desirable investment alternative according to the Net Present value Criterion.   (17 Marks)

Question Three

(a)   Why is quality important?

(10 Marks)

(b)   "Quality control is not just a statistical problem. It goes beyond this to include understanding the concept of quality in the organisation." Respond to this assertion by highlighting the four perspectives through which quality can be explained.   (15 Marks)

Question Four

(a)   With examples ifferentiate between Repair Maintenance and Preventive Maintenance.   (6 Marks)

(b)   Explain any two approaches to Preventive maintenance programs that can be used by an organisation.   (6 Marks)

(c)   Why do organisations prefer preventive maintenance to repair maintenance for their assets?   (13 Marks)

Question Five

(a)   Identify and explain the main objectives of job design.

(10 Marks)

(b)   Explain the different approaches to worker remuneration in operations management.   (15 Marks)

Question Six

(a)   The product development processes begin with the search for ideas about products depending on the corporate culture of the organisation. Explain the main sources of product ideas.   (12 Marks)

(b)   Under product design and development the role of the operations manager in idea screening is to coordinate the evaluation and reduction of the ideas generated into the most attractive and practicable. Explain the various ways through which ideas generated about products are screened.

(13 Marks)