



TECHNICAL UNIVERSITY OF MOMBASA
Faculty of Business and Social Studies

DEPARTMENT OF BUSINESS STUDIES

UNIVERSITY EXAMINATIONS FOR DEGREE IN
BACHELOR OF COMMERCE

BPC 4402: MATERIALS PRODUCTION, PLANNING AND CONTROL

END OF SEMESTER EXAMINATIONS

SERIES: AUGUST 2014

TIME: 2 HOURS

INSTRUCTIONS:

- Answer Question **ONE (Compulsory)** and any other **TWO** questions.
- Do not write on the question paper

This paper consists of Three printed pages

QUESTION 1 (Compulsory)

Assumed you have been asked by Sollozzo Ltd to provide them with consultative work on their new gypsum production factory in Mombasa County.

- a) Highlight to Sollozzo Ltd the production planning steps that they should follow. **(4 marks)**
- b) State the 5P's of production that you will advise them. **(5 marks)**
- c) Explain to the company Production Manager the **FOUR** types/classifications of inventory that the company will handle. **(4 marks)**
- d) State and explain to Sollozzo Ltd the 5's approach used in lean manufacturing. **(5 marks)**

- e) Briefly explain to the company the phases through which a project will undergo in any organization. **(6 marks)**
- f) At Sollozzo Ltd, it is paramount that several dimension of managing quality be observed in order to meet customers expectations. Briefly explain the observed quality dimension. **(6 marks)**

QUESTION 2

- a) In production, materials planning and control, strategic capacity planning involves the long range planning which helps to specify overall capacity level resources. Discuss the **FIVE** planning concepts commonly used in production. **(10 marks)**
- b) i) What do you understand by DMAIC methodology developed by General Electric as an approach to Six sign quality. **(5 marks)**
- ii) Highlight at least **FIVE** benefits of implementing ISO Certification standards in a production plant. **(5 marks)**

QUESTION 3

- a) i) Distinguish between independent demand and dependent demand. **(4 marks)**
- ii) Distinguish between continuous demand and occasional demand. **(4 marks)**
- b) Define the term forecast with respect to demand and discuss its characteristics. **(12 marks)**

QUESTION 4

- a) Define the following terms as used in production, planning and control:
- i) Experts survey method
 - ii) Sample survey method
 - iii) Aggregate planning
 - iv) Inventory
 - v) Holding/carrying costs
 - vi) Reactor level in stock
 - vii) The hastening stock level. **(14 marks)**
- b) i) State the **FOUR** primary tools used in lean manufacturing. **(4 marks)**
- ii) Why is planning necessary before we embark on production? **(2 marks)**

QUESTION 5

- a) Discuss at least **FIVE** reasons that necessitate keeping of inventory in a manufacturing firms. **(10 marks)**
- b) Discuss the following inventory management tools:
- i) JIT **(3 marks)**
 - ii) JIT II **(2 marks)**
- c) State the main barriers to the successful operation of the JIT system. **(5 marks)**