

University of Swaziland
Faculty of commerce
Department of business administration
Main examination
Academic year 2015/16

Title of the Paper : Operations Management

Degree : Bachelor of Commerce

Course : BA 438/506

Time allowed : Three (3 hours)

Instructions:

1. THIS PAPER CONSIST OF SECTION A AND SECTION B)
2. SECTION A IS CASE STUDY AND IT IS COMPULSORY QUESTION
3. ANSWER ANY THREE QUESTIONS FROM SECTION B

Note: You are reminded that in assessing your work, account will be given of accuracy of language and the general quality of expression, together with layout and presentation of your final answer.

THIS PAPER MUST NOT BE OPENED UNTIL THE INVIGILATOR HAS GRANTED THE PERMISSION

BE BLESSED AND PROSPER!!!!

Section A: Compulsory

Question 1: Read the case and answer the questions that follow.

Company X manufactures pine apples and other citrus fruits in Swaziland. The company export and sell locally some of its products. The major markets for the products are United States, East Africa and European Countries. These countries place an order to Company X after considering their capacity, efficient and production process. Company X designed capacity of the operation plant is 10,000 cane tines per day when it is a maximum capacity. The effective capacity is 8,000 canes of tines per day. The actual output per day is 7500 tin of canes per day.

- a. Calculate the efficiency and utilization rations for production of pine apples and citrus fruits at Company X? **(10 marks)**
- b. Swazi can is given an order based on the production capacity of its plant. What is the meaning of the following terms in context of production capacity of Company X **(10) marks**
 - Design capacity
 - Effective capacity
 - Efficiency ratio
 - Utilization ratio
 - Actual output

The Managing Director of Company X relies on the Operation/ production manager for manufacturing of the canes. On daily basis he submits a progress report and explains factors that can hinder productions. The plant is located in the middle veld and during rainy season the production is so slowly due to few pine apples collection in the fields. In the management meeting, the Managing Director stated that a production manager should outline factors that often hinder the productions. In his report he stated that working facilities are not conducive for the staff to have maximum production. This had resulted to poor quality control on production of the products as the staff will have fatigue since facility has no provision for air-condition and the staff get so tired due to hot conditions. The other factor is the supply of coal for production is sometimes delayed because they are imported in South Africa. These are main determinates of ineffective capacity. The production manager highlighted in the meeting that production of canned tins are also affected by the economies of scales and diseconomies of scale as they hire temporal employees during pick and off pick season. This had resulted to management to consider having development capacity strategy so that operation

manager should identify the optimal operating level in terms of unit cost per of output for canes production throughout the year.

- a) Explain any five factors that can impact production of the products at Company X. **(15 marks)**
- b) Explain how the Company X can able to know if their production has either economies or diseconomies of scales. **(5 marks)**

Section B

ANSWER ANY THREE (3) QUESTIONS FROM THIS SECTION

Question 1

Entrepreneurs and Small business should demonstrate competitiveness when running their businesses. They should meet customer needs better than others so that they can have competitive advantage. Competitiveness has a major impact on marketing and operations of the business. Explain how operation has major influences on competitiveness of entrepreneurs and small business in Swaziland. **(20 marks)**

Question 2

The University of Swaziland often carries out forecasting planning for enrollment of students in the annual basis. There are certain elements and features the university should take into consideration when forecasting students' enrolments. Discuss three forecasting features and any six forecasting element the university should apply in forecasting future demand of students enrolment. **(20 marks)**

Question 3

- a. Designing techniques of production includes Concurring in engineering and Computer –aided design (CAD). Explain the meaning of concurring engineering and computer aided design that can be used by IT department at the University of Swaziland **(10 marks)**.
- b. Discuss seven differences between product design and service design. **(10 marks)**

Question 4

Facility layout – refers to configuration/ alignment / arrangement of departments, work centres and equipment with particular emphases to movement work through the system. The basic objectives of layout design are to facilitate the smooth flow of work, work material and information through the system. The three basic types of facility design layout include Product, Process and Fixed position. Explain each designing facility layout. Moreover, discuss two advantages and two disadvantages of each design layout facility. (20 marks)