

UGANDA MARTYRS UNIVERSITY

FACULTY OF BUSINESS ADMINISTRATION AND MANAGEMENT

DEPARTMENT OF ACCOUNTING AND FINANCE

2107 PRODUCTION OPERATIONS MANAGEMENT(POM)

BAM II NKOZI & BAM II LUBAGA (JANUARY INTAKE) DAY

YEAR 2022

Date: 12th July, 2022

Time: 09.30 am to 12.30 Noon

Instructions

1. Attempt any FOUR (4) questions of your choice.
2. Do not write anything on the question paper

Question One

- (a) Some Japanese firms have a policy of rotating their managers among the different managerial jobs. In contrast, American managers are more likely to specialize in a certain area(eg..., Finance or Operations).

Required:

Discuss the advantages and disadvantages of each of these approaches. Advise Mukwano Industries Ltd which of the two approaches to adopt to remain competitive. **(5 Marks)**

- (b) The Scientific Management Approach was promulgated by Frederick. W. Taylor 1881, which stated that a job should be designed to maximize productivity of the workforce. Taylor is known as the father of Scientific Management because of his contribution to the field of 'ergonomics'.

Required:

Discuss the extent of application of Scientific Management principles to the current work World in Uganda. **(10 Marks)**

- (c) Motivation is a human Psychological characteristic that contributes to one's degree of commitment. In POM Abraham Maslow's Theory of Motivation is singled out as vital for an operations manager in making motivation decisions.

Required:

With aid of a diagram Explain Abraham Maslow's theory of motivation and discuss the weaknesses associated with this theory of Motivation if employed in managing operations of a big organization like UMU.

(10 Marks)

Question Two

- a) With examples, differentiate between a process-focused and a product-focused productive systems. **(5 Marks)**

- b) With an illustration, discuss the relationship between the production system choice and the product life cycle for any product of your choice. **(10 marks)**

- c) Explain the important considerations when designing a productive system for services and justify whether the system designed should be more of process-focused or product-focused. **(10 marks)**

Question Three

Umu bus got a mechanical failure in Mpigi on its way to Kampala from Nkozi and the cause of the mechanical problem relates to how the bus is maintained.

Required:

- (a) Why should management be concerned with maintenance of physical resources? **(8 Marks)**
- (b) With reasons, identify the various maintenance types that Umu can consider for the maintenance of its bus and state the advantages associated with each of the identified maintenance methods. **(8 Marks)**
- (c) With examples, differentiate between the following as used in maintenance management in operations in a firm;
- Repair Crews and Repair Shops **(3 Marks)**
 - Stand-by Assets and Spare Parts **(3 Marks)**
 - Design Simplification and Redundant Components. **(3 Marks)**

Question Four

- (a) Operations management is one of the functional areas or departments of an organization (just like marketing, finance, Human resource), but is directly concerned with the transformation process; that is, making or providing the product.

Required:

Explain the history of operations management. **(8 Marks)**

- (b) Explain any five(5) actions of operations manager that show that he/she is ethical while managing operations of an organization. **(8 Marks)**

- (c) Discuss the innovations and contributions of the following individuals to the Production Operations Management (POM) discipline:

- Henry Ford and Charles Sorensen (1913) **(3 Marks)**
- Walter Shewhart (1924) **(3 marks)**
- W. Edwards Deming (1950) **(3 marks)**

Question Five

- (a) Explain the meaning of International Standards Organization(ISO) Certification Schemes. **(5marks)**
- (b) Explain products attributes that would define a quality product. **(10 Marks)**
- (c) Explain the concept of Total Quality Management(TQM). What Key considerations must an Operations Manager ensure to realize Total Quality Management (TQM) in manufacturing firms? **(10marks)**

Question Six

- (a) Capacity planning is matching the production capacity of the operating system to the total demand placed on the system(present and future demand). Due to the importance of capacity in firms, there must be a deliberate plan to manage capacity so as to reduce costs and achieve competitive priorities.

Required:

Discuss the four(4) steps followed in capacity planning and management in an organization. **(10 Marks)**

- (b) Wamboga invested \$ 890,000 in a barber Salon. The net returns from the salons are estimated to be \$ 190,000 per year for 6 years. What is the Pay Back period(PBP). **(5 marks)**

- (c) Mbazuulu is an aggressive business student who ventured into Wine vending in Mengo market immediately after studying the entrepreneurship course in UMU. Mbazuulu has noted that the monthly demand pattern for V&A wine in bottles in 2022 relates to the month of the year as shown in the table below:

Month of year (t)	January	February	March	April	May
Number of V&A wine bottles (y)	6	8	7	12	17

Required:

Forecast the likely demand for V&A wine bottles for June 2022 using:

- (i) The 'naive' approach **(2 Marks)**
- (ii) The 'three months moving average' approach. **(2 Marks)**
- (iii) The 'decomposition' approach **(6 Marks)**

{ Formulae: $y = a + bt$, $\sum y = na + b\sum t$ $\sum xy = a\sum t + b\sum t^2$ }		
$b = \frac{n \sum ty - \sum t \sum y}{n \sum t^2 - (\sum t)^2}$	$a = \frac{\sum y}{n} - \frac{b \sum t}{n}$	

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