UGANDA MARTYRS UNIVERSITY

FACULTY OF BUSINESS ADMINISTRATION AND MANAGEMENT

2107 PRODUCTION/OPERATIONS MANAGEMENT

END SEMESTER I POM EXAMINATION

Date: 25TH JANUARY 2022

Time: 09.30 Am to 12 :30 Noon

Instructions

1. Attempt any Four (4) questions.
2. Do not write anything on the question paper.

Question One

(a) Uganda Martyrs University Students Union(UMUSU) is an Umbrella body for all students of UMU and is managed as a Corporate entity headed by a Union Presidents and has various functional units like Finance, Health, Sports.

Required:

Draw a Gantt chart showing UMUSU's likely activities for the year 2022, and discuss the relevance of this chart to the operations of UMUSU.

(10 Marks)

(b) The field of production/operations management is relatively new. Our lives and POM discipline have been enhanced by the innovations and contributions of numerous individuals.

Required:

Discuss the various contributions of the following individuals to the field of Production/Operations management: (15 Marks)

- Eli Whitney
- Frederick . W. Taylor
- Henry Ford
- W. Edward Demings
- Abraham Maslow

Question Two

Human resource management is the strategic approach to the effective and efficient management of people in a company or organization such that they help their business gain a competitive advantage.

Required:

(a) Why should the operations manager be concerned with Human Resource Management? (8 Marks)

(b) Discuss the relevance of Abraham Maslow's theory of Motivation in the Management of Human Resources in Operations. (8 Marks)

(c) If an average worker could be identified, what advantage would there be in using that person for a time study? What are some of the reasons that an average worker might not be studied while setting job performance standards?

(9 Marks)

Question Three

Write short notes on the following as used in Quality Management in operations.

- Total Quality Management(TQM)   (10 Marks)
- Expert opinions of quality gurus.   (5 Marks)
- Frame work of quality management prize schemes. (5 Marks)
- International Standards Organization (ISO) certification schemes.

(5 Marks)

Question Four

Product development is the process through which ideas are turned into actual goods and services. The product development processes begin with the search for ideas about products depending on the corporate culture of the organisation.

Required:

(a) With examples differentiate between; Product innovation, Product Imitation and Product Improvement. (6 Marks)

(b) Discuss the factors justifying the need for product development. (6 Marks)

(b) Explain the main sources of product ideas. (6 Marks)

(c) Explain the various ways through which ideas generated about products are screened. (7 Marks)

Question Five

(a) Assuming you are to choose between Centre of Gravity method and Factor rating approach to determine the ideal location for UMU's next branch to open in either Rwanda or Kenya.

Required:

Discuss how each of the above two approaches are used to determine an ideal location and advice which of the two approaches UMU should use and why? (10 marks)

(b) A company sells 45,000 units per year. The selling price of the unit is USD 35. The variable cost per unit is USD 25 per unit. The fixed cost per year is USD 80,000.

Required:

(i) What is the total revenue for the operation? (5 Marks)

(ii) What is the total profit at 25,000 units of demand? (5 Marks)

(iii) At what level of demand will break-even occur? (5 Marks)

Question Six

Capacity management is the process of planning, organizing and controlling the conversion process. Managing capacity requires a good understanding of the environment in which the organization is operating and using forecasts of product demand to estimate the workload that the facility will require to handle.

Required:

(a) Discuss the likely challenges UMU would encounter if it operates at under-capacity level. (5 Marks)

(b) With relevant examples Differentiate between Delhi method and Historical-data approaches to forecasting. (6 Marks)

(c) The following table shows the number of female Applicants for BSC(A&F) course in UMU over the years.

Years	Number of Female Applicants for BSC(A&F)
2017	5
2018	9
2019	12
2020	17
2021	25

Required:

Forecast the likely number of female applicants for BSC(A&F) for the year 2022 using;

(i) Naive' approach (3 Marks)

(ii) Two years 'moving average (3 Marks)

(iii) The decomposition' approach (8 Marks)

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