KENYATTA UNIVERSITY

DIGITAL SCHOOL OF VIRTUAL AND OPEN LEARNING (DSVOL)

EXAMINATION FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION

BMS 830: SUPPLY CHAIN THEORY AND PRACTICE

1st Trimester 2021/2022 **TIME: 3 Hrs**

INSTRUCTIONS: Answer question ONE and any other THREE

Read the case study below to help you answer question one.

Deere & Company (brand name John Deere) is famed for the manufacture and supply of machinery used in agriculture, construction, and forestry, as well as diesel engines and lawn care equipment, in 2019, Deere & Company was listed 80th in the Fortune 500 America's ranking and was 307th in the 2017 Fortune Global 500 ranking. Deere and Company has a diverse product range, which includes a mix of heavy machinery for the consumer market, and industrial equipment, which is made to order, Retail activity is extremely seasonal, with the majority of sales occurring between March and July.

The company was replenishing dealers' inventory weekly, using direct shipment and cross-docking operations from source warehouses located near Deere & Company's manufacturing facilities.

This operation was proving too costly and too slow, so the company launched an initiative to achieve a 10% supply chain cost reduction within four years.

The company undertook a supply chain network-redesign program, resulting in the commissioning of intermediate "merge centers" and optimization of cross-dock terminal locations. Deere & Company also began consolidating shipments and using break-bulk terminals during the seasonal peak. The company also increased its use of third-party logistics providers and effectively created a network that could be optimized tactically at any given point in time.

Deere & Company's supply chain cost-management achievements included an inventory decrease of $ 1 billion, a significant reduction in customer delivery lead times (from ten days to five or less) and annual transportation cost savings of around 5%.

QUESTION ONE

a) What Dimensions of supply chain agility would the management at Deere & Company have utilized to achieve competitive advantage? (10 marks)

b) Explain the major constituents' agile supply chain framework. (10 marks)

c) Explain the elements of lean supply chain management. (10 marks).

d) What are the advantages of Lean Supply Chain Implementation? (10 marks)

QUESTION TWO

a) Explain the benefits of supply chain operations reference model. (10 marks)

b) What are the core supply chain performance attributes as identified by supply chain operations reference mode. (10 marks)

QUESTION THREE

a) Explain the Importance of supply chain forecasting. (10 marks)

b) Explain the Factors contributing to supply chain risk. (10 marks)

QUESTION FOUR

a) Discuss the Procurement planning process. (10 marks)

b) Explain the activities involved Risk management in supply chain. (10 marks)

QUESTION FIVE

a) Describe the rules for Supply Chain Optimization. (10 marks)