

**CHUKA**



**UNIVERSITY**

**UNIVERSITY EXAMINATIONS**

**SECOND YEAR EXAMINATION FOR THE AWARD OF DEGREE OF  
MASTER OF BUSINESS ADMINISTRATION**

**MSOM 811 : PRODUCTION AND OPERATIONS MANAGEMENT**

**STREAMS: Y2 S1**

**TIME: 3**

**HOURS**

**DAY/DATE: THURSDAY 8/4/2021**

**8.30 AM – 11.30AM**

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**INSTRUCTIONS:**

- Answer Question ONE and Any Other THREE Questions.
- Mobile phones and any written material are prohibited in the examination room.
- No writing should be done on this question paper. Any rough work should be done at the back of the answer booklet and cancelled.

**QUESTION ONE (COMPULSORY)**

- (a) Discuss production as a value addition process. [10 Marks]
- (b) Using an illustration, discuss the production planning and control system in manufacturing operations. [15 Marks]
- (c) Explain how operations today needs to align itself with technological advancements in ICT and other technology fields. [15 Marks]

**QUESTION TWO**

- (a) Critically evaluate the scope of Enterprise Resource Planning Systems as used in Operations Management Service sector. [12 Marks]
- (b) Discuss the following categories of production environments: [6 Marks]
- (i) Make-to- stock
  - (ii) Assemble-To-Order

- (iii) Engineer –To-Order
- (c) Explain how variety and volume of production are the two determining factors which decide on the type of system of production an individual or organization can engage in. [2 Marks]

**QUESTION THREE**

- (a) What is a Master Production Schedule (MPS) ? Discuss how the MPS relate to Material Requirements Planning (MRP) and the Product Structure Tree during Production Planning. [8 Marks]
- (b) Briefly discuss the Theory of Constraints (TOC) and the Diffusion of Innovations Theory as used in Operations Management. [6 Marks]
- (c) Discuss the different Capacity Planning options as used in Operations Management. [6 Marks]

**QUESTION FOUR**

Explain why hatch production systems are more preferable in some situations compared to other conventional production systems. [10 Marks]

- (b) Additive manufacturing is an emerging production technology that is going to change the world of production management. Discuss. [10 Marks]

**QUESTION FIVE**

- (a) Critically evaluate Six Sigma’s (LSS) role in defining the future of Operations Management. [10 Marks]
- (i) Reverse Engineering (RE) [2 Marks]
- (ii) Flexibility in manufacturing systems design. [2 Marks]
- (c) Explain any THREE methods used in ensuring Technology transfer in manufacturing. [6 Marks]
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