

Exam Date & Time: 05-Jan-2024 (02:30 PM - 05:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SEVENTH SEMESTER B.TECH END SEMESTER MAKE UP EXAMINATIONS, JAN 2024

Lean Manufacturing [MME 4047]

Marks: 50

Duration: 180 mins.

A

Answer all the questions.

Instructions to Candidates: Answer ALL questions Missing data may be suitably assumed

- 1) Describe the significance of kaizen in your daily routine. (2)
 - A)
 - B) If you were a production manager, elucidate the process of Kanban implementation. (4)
 - C) Explain 'Seiso' and 'Shitsuke' in lean manufacturing. (4)
- 2) As the head of an automobile company, illustrate with clear diagrams the concepts of production Kanban and withdrawal Kanban. (3)
 - A)
 - B) Explain the Andon system and accompany your explanation with well-drawn sketches. (3)
 - C) Discuss the goals and elements associated with the standardization of operations. (4)
- 3) Outline the framework of Toyota's production smoothing using a flow chart. (4)
 - A)
 - B) As a value stream manager, provide a brief overview of your job responsibilities. (3)
 - C) Elaborate on how to minimize processing time through Small-Sized Lot Production. (3)
- 4) If you are a production manager, detail how you would maintain production smoothing during fluctuating market demand. (4)
 - A)
 - B) Explain the concept of jidoka with an example. (3)
 - C) Detail the differences between product flow layout and job shop layout. (3)
- 5) Describe the four setup concepts employed to minimize setup time. (4)

A)

B) Illustrate any six value stream mapping icons and provide a detailed explanation of each. (3)

C) Provide a comprehensive explanation of pokayoke and its applications. (3)

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