

Course Code: **23MB2002**  
**BONAM VENKATA CHALAMAYYA INSTITUTE OF TECHNOLOGY &  
SCIENCE(AUTONOMOUS)**

**I – MBA II - Semester Regular/Supplementary Examinations (BR23), June/July - 2025**

**Lean Management (MBA)**

Time: 3 hours

Max. Marks: 70

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**PART - A Answer ONE Question from each UNIT (5 x 12 = 60 Marks)**

**All Questions Carry Equal Marks**

**PART - B Compulsory (1 x 10 = 10 Marks)**  
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**PART -A**

<b>UNIT-I</b>		<b>Marks</b>	<b>CO</b>	<b>BL</b>
1.a)	Outline the origin of lean production system.	6M	CO1	BL2
b)	Describe lean revolution in Toyota.	6M	CO1	BL1
<b>OR</b>				
2.a)	How can systems thinking be applied to solve complex problems?	6M	CO1	BL1
b)	What are the risks and challenges associated with different waste treatment and disposal methods?	6M	CO1	BL1
<b>UNIT-II</b>		<b>Marks</b>	<b>CO</b>	<b>BL</b>
3.a)	Discuss the basic principles of JIT.	6M	CO2	BL2
b)	Explain the three types of pull systems.	6M	CO2	BL2
<b>OR</b>				
4.a)	Describe the types of Poka -Yoke systems.	6M	CO2	BL1
b)	Illustrate some best practices for combining JIDOKA with other lean concepts to maximize benefits.	6M	CO2	BL2
<b>UNIT-III</b>		<b>Marks</b>	<b>CO</b>	<b>BL</b>
5.a)	Discuss six sigma philosophy and methodologies.	6M	CO3	BL2
b)	What are the key steps in conducting an FMEA analysis?	6M	CO3	BL1
<b>OR</b>				
6.a)	Explain the principles and objectives of QC Circles.	6M	CO3	BL2
b)	How does 5S system support lean manufacturing and continuous improvement initiatives?	6M	CO3	BL1
<b>UNIT-IV</b>		<b>Marks</b>	<b>CO</b>	<b>BL</b>
7.a)	Explain the benefits of KAIZEN.	6M	CO4	BL2
b)	Describe the different elements of standardised work	6M	CO4	BL1
<b>OR</b>				
8.a)	Describe the concept of total productive maintenance.	6M	CO4	BL1
b)	Discuss the different types of layouts.	6M	CO4	BL2
<b>UNIT-V</b>		<b>Marks</b>	<b>CO</b>	<b>BL</b>
9.a)	Explain the key components of effective KAIZEN training	6M	CO5	BL2
b)	Discuss the key factors of PKT success.	6M	CO5	BL2

**OR**

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|-------|--|----|-----|-----|
| 10.a) | Describe the four phases of Hoshin planning.                         | 6M | CO5 | BL1 |
| b)    | What is lean culture and how does it support continuous improvement? | 6M | CO6 | BL1 |

***PART – B***

***CASE STUDY***

- |    |   | <b>Marks</b> | <b>CO</b> | <b>BL</b> |
|----|---|--------------|-----------|-----------|
| 11 | <p>Kanban is enormously prominent among today's agile software teams, but the Kanban methodology of work dates back more than 50 years. In the late 1940s Toyota began optimizing its engineering processes based on the same model that supermarkets were using to stock their shelves. Supermarkets today stock just enough products to meet consumer demand, a practice that optimizes the flow between the supermarket and the consumer. Because inventory levels match consumption patterns, the supermarket gains significant efficiency in inventory management by decreasing the amount of excess stock it must hold at any given time. Meanwhile, the supermarket can still ensure that the given product a consumer needs is always in stock. When Toyota applied this same system to its factory floors, the goal was to better align their massive inventory levels with the actual consumption of materials. To communicate capacity levels in real-time on the factory floor (and to suppliers), workers would pass a card, or "Kanban", between teams. When a bin of materials being used on the production line was emptied, a Kanban was passed to the warehouse describing what material was needed, the exact amount of this material, and so on. The warehouse would have a new bin of this material waiting, which they would then send to the factory floor, and in turn send their own Kanban to the supplier. The supplier would also have a bin of this particular material waiting, which it would ship to the warehouse. While the signaling technology of this process has evolved since the 1940s, this same "just in time" (or JIT) manufacturing process is still at the heart of it. Agile software development teams today are able to leverage these same JIT principles by matching the amount of work in progress (WIP) to the team's capacity. This gives teams more flexible planning options, faster output, clearer focus, and transparency throughout the development cycle.</p> | 10M          | CO2       | BL4       |
|    | a) Explain the utilization of Kanban to supermarkets functioning.   |              |           |           |
|    | b) Can Kanban be differentiated from JIT technique? Why?  |              |           |           |
|    | c) Describe how Kanban can be applied to software teams   |              |           |           |

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