

CBCS SCHEME

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18ME652

Sixth Semester B.E. Degree Examination, Jan./Feb. 2023 World Class Manufacturing

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Define World Class Manufacturing. Explain requirements of manufacturing excellence. (05 Marks)
b. Explain with a neat diagram, Schonberger model of WCM (10 Marks)
c. Explain organization cultural of WCM company. (05 Marks)

OR

- 2 a. With a neat sketch explain Gunn's model and Maskell's model of world class manufacturing. (10 Marks)
b. Explain with a neat sketch Hall's framework for value added manufacturing. (10 Marks)

Module-2

- 3 a. What is benchmarking and explain its best practices. (10 Marks)
b. Explain lean manufacturing and its tools. (05 Marks)
c. What are bottlenecks and explain its best practices? (05 Marks)

OR

- 4 a. Explain eliminating waste of Toyota Production system, with an example. (10 Marks)
b. Explain gaining competitive edge through WCM. (10 Marks)

Module-3

- 5 a. Explain Flexible Manufacturing System (FMS) with its block diagram. (10 Marks)
b. What is Rapid prototyping? Explain. (05 Marks)
c. What do you mean by Poka-Yoke quality control technique. (05 Marks)

OR

- 6 a. What is Total Productive Maintenance (TPM)? Explain pillars of TPM. (08 Marks)
b. Explain 5S is Toyota production system with suitable example. (08 Marks)
c. What are visual controls and explain its types. (04 Marks)

Module-4

- 7 a. What is Human Resource Management? Explain. (05 Marks)
b. Explain any to methods/techniques of Removing root cause of problems. (10 Marks)
c. List the steps involved in solving the problem. (05 Marks)

OR

- 8 a. Explain Fishbone (cause and effect) diagram to solve and find the root cause of problem. (08 Marks)
b. Explain motivation and reward in the age of continuous improvement. (07 Marks)
c. Explain Five why's analysis. (05 Marks)

Module-5

- 9 a. Explain the typical characteristics of WCM. (10 Marks)
b. Explain the following performance indicators:
(i) POP (ii) TOPP (iii) AMBITE Systems (10 Marks)

OR

- 10 a. What is World Class Performance? (04 Marks)
b. What is green and clean manufacturing? Explain. (08 Marks)
c. Explain the concept of six-sigma philosophy. (08 Marks)

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