



B.E DEGREE EXAMINATIONS: MAY 2015

(Regulation 2009)

Sixth Semester

MECHANICAL ENGINEERING

MEC131: Lean Manufacturing

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. A system which sets target levels for holding number of units of each product at all times is
 - a) Make to stock
 - b) Make to order
 - c) Assemble to order
 - d) Make to assemble
2. Goods in transit between facilities can be named as
 - a) Work in process inventories
 - b) Pipeline inventories
 - c) Raw material inventories
 - d) Finished goods inventories
3. _____ forecasting method is more associated with expert opinions.
 - a) Least square
 - b) Regression analysis
 - c) Delphi
 - d) Box jenkins
4. When coca cola manufactures the syrup, bottles and sells it through a company owned vending machine, it can be coined as a case of
 - a) Linear integration
 - b) Non linear integration
 - c) Horizontal integration
 - d) Vertical integration
5. ABC inventory analysis is based on _____ principle.
 - a) Euler's
 - b) Archimede's
 - c) Hawthorne's
 - d) Vilfredo Pareto's
6. The list of all materials and component parts needed to make each item produced in the factory is called as
 - a) Material requirement planning
 - b) Manufacturing resources planning
 - c) Bill of material
 - d) Inventory status record

b) Interpret the importance of vendor selection and contracting in modeling supply chains.

23. a) (i) Infer the challenges involved in managing change. (7)
(ii) Spell the prominence of Materials Requirement Planning in manufacturing. (7)

(OR)

b) Demonstrate the role of inventory in multi stage product structures.

24. a) (i) What is CONWIP? Explain its importance and mention its application in an organization. (7)
(ii) Deduce the working principle of kanban systems. (7)

(OR)

b) Distinguish the importance of JIT during the process of transition towards lean using a case study.

25. a) (i) Extend theory of constraints in shop floor management. (7)
(ii) Examine the goals and measures of performance in flow shop scheduling. (7)

(OR)

b) Justify the role of flexible manufacturing systems in efficient lean practices using a case study.
