Sample Answers to In-Text Questions

# Chapter 18 Supplement: Chapter 18 Supplement: Capacity Requirements Planning, MRP II, ERP, and DRP

## Discussion Questions

1. What are the key inputs and outputs of the capacity requirements planning system?

Answer: Planned order releases from MRP, load information from the work centers. Routing information, job times, and any changes to the standard routings, etc.

2. Describe briefly how the capacity planning process works.

Answer: the CRP system converts these tentative planned shop orders into standard hours of load on the appropriate workers and equipment. Computing standard hours of load is accomplished by multiplying each period’s production quantity requirements by standard labor or equipment requirements per unit, or both.

3. Describe the differences among MRP, MRP II, and ERP systems.

Answer: MRP plans the need for parts and subassemblies needed to produce the MPS. MRP II is an expansion of MRP to include financial and HR modules for better planning, an ERP system is an enterprise-wide system that lets different departments see data from the others, rather than sending reports within a company. MRP can be a module in the ERP system.

4. What are some key features of an ERP system?

Answer: Integration of flow of data across departments, standardizing business processes across the company, and using a centralized database for a consistent uniform environment.

5. Discuss briefly the common modules included in an ERP system.

Answer: Common modules are manufacturing, HRM, SCM, Finance, and CRM.

6. What are the key benefits and limitations of an ERP system?

Answer: Reduction in overall costs, however initial costs are high, better synchronizes data, gives a real time view for faster decision making, and reduces lead time in production and logistics. The biggest drawback is its initial costs, and ongoing consultants fees to make changes, and it might confuse areas of responsibility, since it obscures functional boundaries.

7. What are the key features of a DRP system?

Answer: Key features of a DRP system are giving a better approach for distribution and replenishment; it works with retail requirements; and it is used for a smooth pull system through the supply chain, and all of its inventory efficiencies., and the procurement process is more efficient.

8. How can ERP contribute to sustainable business practices?

Answer: Since you have a better view of overall systems, you can turn more focus to sustainability, less overproduction, less emissions, more efficient plants and machinery, and at the same time, experience cost reductions.

# Critical Thinking Exercise

Visit the websites of the two major ERP vendors: SAP and Oracle and answer the following questions:

* 1. What are the features of the SAP’s ERP system?
  2. What are the Features of Oracle’s ORDBMS system?
  3. In terms of ERP functionality, how do these two vendors differ?

Answer: Student examples will vary