## Sheet 1

- 1. What is a production system?
- 2. Production systems can be divided into two categories or levels. Name and briefly define the two levels.
- 3. What are manufacturing systems, and how are they distinguished from production systems?
- 4. Manufacturing systems are divided into three categories, according to worker participation. Name the three categories.
- 5. What are the four functions included within the scope of manufacturing support systems?
- 6. Three basic types of automation are defined in this chapter. What is fixed automation and what are some of its features?
- 7. What is programmable automation and what are some of its features?
- 8. What is flexible automation and what are some of its features?
- 9. What are some of the reasons why companies automate their operations? Nine reasons are given in the text. Name five.
- 10. Identify three situations in which manual labor is preferred over automation.
- 11. Human workers will be needed in factory operations, even in the most highly automated operations. This chapter identifies at least four types of work for which humans will be needed. Name three.
- 12. What is the USA Principle? What does each of the letters stand for?
- 13. List ten strategies for automation and process improvement.
- 14. What is an automation migration strategy?
- 15. What are the three phases of a typical automation migration strategy?