Chapter 6  “Project Time and Cost Management”

6.2 Exercise Type Questions

Exercises ## 3, 4, 5, 6, 9 (page 203) with given data or similar input data

Exercise 3.

Create an Activity-on-Arrow (AOA) diagram based on the following information:

- Task A, duration 6, dependent on none
- Task B, duration 5, dependent on none
- Task C, duration 3, dependent on none
- Task D, duration 12, dependent on task B and task C
- Task E, duration 2, dependent on task A
- Task F, duration 5, dependent on task B
- Task G, duration 1, dependent on task B
- Task H, duration 9, dependent on task E and task F
- Task I, duration 7, dependent on task G
- Task J, duration 7, dependent on task H
- Task K, duration 3, dependent on task I
- Task L, duration 5, dependent on task D

Exercise 4.

Using the diagram you created in Exercise 3, calculate ES, EF, LS, and LF for each task and the amount of slack. List the tasks that appear on the critical path.

Exercise 5.

Create an Activity-on-Arrow (AOA) diagram based on the following information:

- Task A, duration 2, no dependency
- Task B, duration 4, no dependency
- Task C, duration 7, no dependency
- Task D, duration 5, depends on Task A
- Task E, duration 3, depends on Task B and Task C
- Task F, duration 8, depends on Task C
- Task G, duration 10, depends on Task D and Task E
- Task H, duration 4, depends on Task E
- Task I, duration 7, depends on Task F
- Task J, duration 12, depends on Task H and Task I

Exercise 6.

Using the diagram you created in Exercise 5, calculate ES, EF, LS, LF for each task and the amount of slack. List the tasks that appear on the critical path.
Exercise 9.

Use the schedule created in Exercise 5 but adjust durations based on the following PERT three point estimates.

- Task A, Optimistic = 1, Normal = 2, Pessimistic = 5
- Task B, Optimistic = 2, Normal = 4, Pessimistic = 8
- Task C, Optimistic = 3, Normal = 7, Pessimistic = 12
- Task D, Optimistic = 3, Normal = 5, Pessimistic = 10
- Task E, Optimistic = 1, Normal = 3, Pessimistic = 6
- Task F, Optimistic = 3, Normal = 8, Pessimistic = 15
- Task G, Optimistic = 7, Normal = 10, Pessimistic = 22
- Task H, Optimistic = 3, Normal = 4, Pessimistic = 6
- Task I, Optimistic = 5, Normal = 7, Pessimistic = 12
- Task J, Optimistic = 10, Normal = 12, Pessimistic = 15