1. Create an activity on arrow 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 TaskC

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 TaskF

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

1. Using the diagram you created in question 1, calculate ES, EF, LS, and LF for each task and the amount of slack. List the tasks that appear on the critical path.
2. What happens to the critical path in the network schedule created in question 1
   1. if the duration of Task E changes to 11 days?
   2. if the duration of Task G changes to 3 days?
3. Use the schedule created in question 1 but adjust the 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

Tack 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

Task K, Optimistic = 1 Normal = 3, Pessimistic = 6

Task L, Optimistic = 3, Normal = 5, Pessimistic = 4