Frequently Asked Questions

1. What is an optimistic time?

Answer Optimistic time (t_0 or a): the shortest possible time (duration) in which an activity, can be performed assuming that everything goes well.

2. What is a pessimistic time?

Answer: Pessimistic time (tp or b): the longest possible time required to perform an activity under extremely bad conditions. However, such conditions do not include natural calamities like earthquakes, flood, etc.

3. What do you mean by most likely time?
   Answer: Most likely time (tm or m): the time that would occur most often to complete an activity, if the activity was repeated under exactly the same conditions many times. Obviously, it is the completion time that would occur most frequently (that is model value).

4. What is the degree of skewness in project time estimation ?
   Answer: The beta distribution is not necessary symmetric, the degree of skewness depends on the location of tm to t0 and tp. thus, the range specified by the optimistic time (t0) and pessimistic time (tp) estimates is assumed to enclose every possible estimate of the duration of the activity.

5. What do you mean by project estimation time?
   Answer: Since we expect variation in the activity duration, therefore the chance of completing the project in a desired time and the duration necessary for obtaining any desired probability of actually meeting the scheduled time is called as the project estimation of time.

6. What is the variance of critical path?
   Answer: The expected completion time of the project is obtained by adding the expected time of each activity lying on the critical path. Since it is assumed that the two activities are independent, therefore the variance of the critical path can be known by adding the variance of critical activities.

7. How can we reduce the project completion time ?

Answer: The project completion time can be reduced by reducing (crashing) the normal completion time of critical activities. The reduction in normal time of completion will increase the total budget of the project.

8. What do you understand by forward pass method?
   Answer: Forward pass method (for earliest event time):In this method, calculations begin from the initial event 1, proceed through the events in an increasing order of event numbers and end at the final event, say N.

9. What do you understand by backward pass method?
   Answer: Backward Pass Method (for latest allowable Event Time)
   In this method calculations begin from the final event N. Proceed through the events in the decreasing order of event numbers and end at the initial event 1.

10.   What do you mean by project crashing?

Answer: Crashing the project means crashing a number of activities to reduce the duration of the project, below its normal time.

11.   Why do we use crashing techniques?

Answer: Crashing is employed to reduce the project completion time by spending extra resources (cost).

12.   What is the relationship between time and cost?
Answer: The relationship between normal-time and cost as well as crash-time and cost, for an activity is assumed to be linear instead of being concave and/or discrete.

13.   How do we calculate the crash cost per unit?

Answer: The crash cost per unit of time can be estimated by computing the relative change in cost (cost slope), per unit change in time.

14.   What do you mean by updating the project progress?

Answer: When a project is actually executed it may not exactly follow the time schedule developed for it. There are bound to be unexpected delays and difficulties in terms of delay in supply of materials, non-availability of some machine and/or breakdown of machines, non-availability of skilled man power, natural calamity, etc. in such cases it may be necessary to review the progress of network planning and scheduling.

15.   How is the project progress updated?

Answer: The project progress updated using the project resource leveling and resource smoothing techniques.