

## MODULE 3

### IMPORTANT QUESTIONS

1. Specify the importance of Risk management in software Project management ?
2. Discuss the different categories of risk ?
3. What are risk management activities? Is it possible to prioritize risk?
4. Explain the Risk management Process?
5. List the risk mitigation strategies?
6. Discuss the benefits of Cohesive group ?
7. Discuss the importance of Team work and Group communication ?
8. Compare informal groups and Hierarchical group ?
9. Explain Plan driven development and Project scheduling ?
10. List the levels of COCOMO MODEL 1 and 2
11. Discuss the different Estimation Techniques?( Algorithmic cost modeling and Experience Based )
12. What are the factors affecting software Pricing ? .
13. Explain the project planning Process?
14. Define configuration management ? List the configuration management activities ?
15. Explain change management ?
16. Explain Version Management ?
17. Explain Release Management ?
18. What is KANBAN?
19. Explain Scrum framework ?
20. What is Agile planning ? .discuss the merits and demerits .
21. What is delta based approach in version management ? .
22. Discuss the importance of project Scheduling ?
23. Write a short note on Project duration and staffing ?

#### PROJECT DURATION & STAFFING

- Project managers must estimate
  - The duration of time required to develop the software
  - man-power required to work on the project.
- The development time for the project is called the project schedule.
- Nowadays, organizations are demanding shorter development schedules. This is because they want to bring their products into market before their competitor"s.
- The relationship between i) no. of staff working on a project, ii) total effort required and iii) development-time is not linear.
- For ex: Doubling the no. of staff does not mean that the duration of the project will be halved.

COCOMO model is used to estimate the calendar time (TDEV) required to complete

a project.

- TDEV predicts the nominal schedule for the project

24. What is a critical path ? Demonstrate its significance in a project schedule ?

A critical path is a sequence of interdependent activities or tasks that must be finished before the [project](#) can be finished. It is the longest path (i.e. path with the longest [duration](#)) from project start to finish. At the same time, the longest path is the path that shows the minimal time in which a project can be completed. If there is a delay in one activity of the path, the whole project will be delayed accordingly.

The critical path method (CPM) is a very effective tool for [scheduling](#) tasks and keeping track of activities by visualizing them in a [network](#) diagram, such as a One of the biggest advantages of the critical path method is that it allows for adjustments during the process of a project.

**Why is the critical path important? Why do project managers utilize the critical path method (CPM)? It provides valuable insight into project planning, task scheduling, and resource allocation.**

Here are some detailed reasons why the method is worth your attention:

- **Improves planning.** You can use the concept to compare expectations with actual progress. The data used from your current projects can be applied to inform future plans.
- **Helps to manage resources more efficiently.** The method facilitates task prioritization, giving teams a better idea of how and where to deploy resources.
- **Minimizes bottlenecks.** You can lose valuable time due to unpredictable bottlenecks. Adding dependencies will give you a better understanding of which activities can be run in parallel or not. It will allow you to schedule accordingly.

25. Following table shows no. of activities, durations and dependencies and milestones. Draw a bar chart showing the critical path for the project schedule.

4c. Following table shows no. of activities, durations and dependencies and milestones. Draw a bar chart showing the critical path for the project schedule. (10 Marks)

Tasks	Duration (days)	Dependencies
T <sub>1</sub>	5	-
T <sub>2</sub>	15	T <sub>1</sub> (M <sub>1</sub> )
T <sub>3</sub>	10	T <sub>1</sub> (M <sub>1</sub> )
T <sub>4</sub>	3	T <sub>2</sub> (M <sub>2</sub> )
T <sub>5</sub>	10	T <sub>2</sub> , T <sub>3</sub> (M <sub>2</sub> )
T <sub>6</sub>	8	T <sub>3</sub> (M <sub>2</sub> )
T <sub>7</sub>	10	T <sub>4</sub> , T <sub>5</sub> , T <sub>6</sub> (M <sub>3</sub> )
T <sub>8</sub>	9	T <sub>7</sub>
T <sub>9</sub>	10	T <sub>7</sub>
T <sub>10</sub>	9	T <sub>7</sub>
T <sub>11</sub>	20	T <sub>8</sub> , T <sub>9</sub> , T <sub>10</sub> (M <sub>4</sub> )
T <sub>12</sub>	10	T <sub>10</sub> (M <sub>4</sub> )
T <sub>13</sub>	5	T <sub>11</sub> (M <sub>5</sub> )
T <sub>14</sub>	10	T <sub>13</sub>

Task	Start Date	End date	# Days Required
T1	1/9/16	5/9/16	5
T2	6/9/16	20/9/16	15
T3	6/9/16	15/9/16	10
T4	21/9/16	23/9/16	3
T5	21/9/16	30/9/16	10
T6	16/9/16	23/9/16	8
T7	1/10/16	10/10/16	10
T8	11/10/16	19/10/16	9
T9	11/10/16	20/10/16	10
T10	11/10/16	19/10/16	9
T11	21/10/16	9/11/16	20
T12	20/10/16	29/10/16	10
T13	10/11/16	14/11/16	5
T14	15/11/16	24/11/16	10

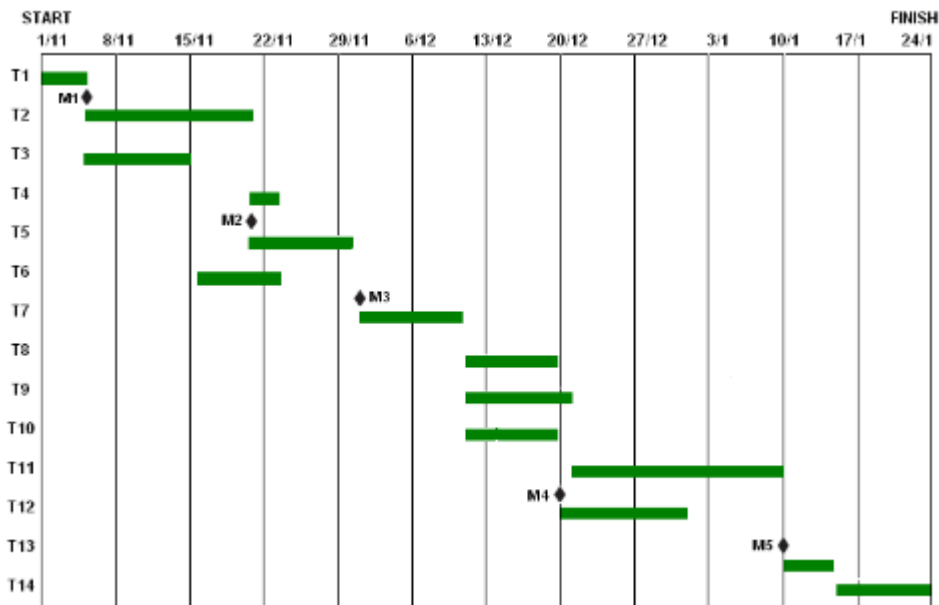


Figure 5.5 Task durations and dependencies

Write a short note on Project duration and staffing ?