



Assignment No.4

I] With an example explain PERT chart:-

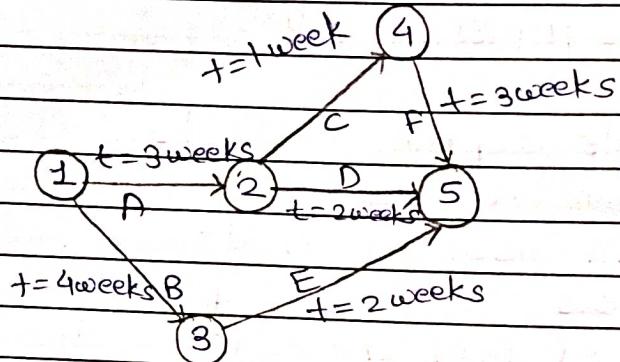
- - The program evaluation and review technique (PERT) chart is used to schedule, organize and coordinate tasks within the project.
- Objective of PERT chart is to determine the critical path, which comprised critical activities that should be completed on schedule.

Advantages using PERT chart:-

- It represents the project in graphical form.
- It provides information about the expected completion time of the project.
- It describes the probability of completion of project before the specified date.
- It specifies that activities form the critical path.
- It specifies start and end date of activities involved in project.
- It describes dependencies of one or more tasks on each other.

eg:-

- In the following fig. the milestones are numbered as 1, 2, 3, 4, 5 and are represented by either circle or rectangle.
- The activities are represented by A, B, C, D and E, F.



- When activities are completed in sequence are known as serial activities.

eg. Activity A, C, & F are perform in sequence.

- When two or more activities are being performed simultaneously they are known as concurrent activities or parallel activities.

eg. As shown in fig. activity A and B are perform concurrently.

2) Write a note on cmm.

→ CMM:- It is not a software process model. It is a framework that is used to analyze the approach and techniques followed by any organization to develop software products.

It is used to improving the capability of software organizations of the staff

- Helping organization to retain people with extensive skills and knowledge.



Optimizing		
continuously improve methods for developing personal and organizational competence	Continuous workforce innovation coaching	Personal competency development
Quantitatively manage organization growth in workforce capabilities and establish competency-based teams	Organizational performance alignment. Organizational competency management, Team-based practices, Team building, Mentoring	
Repetitively Defined		
Identify primary competencies and align workforce activities with them	Participatory culture, competency-based practice, Career development, Competency development, Workforce planning, knowledge and skills analysis	
Repeatable		
Instill basic discipline into workforce activities	Compensation, Training, Performance management, Staffing, Communication, Work Environment	
Initial		
fig. People capability maturity model.		



This model is used in areas such as staffing, managing performance, training work environment, organizational and individual competence. As shown in fig - P-CMM has five levels.

1) Initial:-

At this level, an organization takes no active role in developing skills in people working within it.

2) Repeatable:-

At this level, the organization considers growth and skill development of people as essential factors for growth of organization.

- Training is carried out to enhance the present skill of the people.

3) Defined:-

A strategic plan is created to find and developed the talent of people required for the organization.

- The people are rewarded if they develop their skills and work competently.

4) Managed:-

At this level people are encouraged to learn core skills. Analysis of earlier data is done to determine the improvements of individual and team skills.



3) Optimizing :-

At this level, the focus is on the continuous improvement of individual and team skills:-

- Analysis of earlier data is done to determine the improvements in their performance.

- Practices are introduced in an organization by changing the existing practices or by introducing new and innovative practices.

3) Write a note on risk management.

→ - Risk is an unexpected event that produces an adverse effect during software development process.

- It is the combination of constraints and uncertainties.

Identified by following attributes:-

1) Probability that an event will occur:- Event can occur when software developed on one computer system is transferred to another computer system.

2) Here both the systems can create incompatibility in the hardware or software. This incompatibility causes an event.

- Loss associated with the event:-

1) The adverse impact of an event can be loss of time, loss of money and lack of expected quality.

2) Note that there is no fixed time for the occurrence of risks.

3) Its objective is to determine the loss before



is to determine the loss before risks occur and then determine ways to prevent or avoid the adverse impact of risks of an the project.

Principles of risk management:-

- 1] Maintaining a global perspective:- The impact of risks on business should be considered.
- 2] Having a forward-looking view:- Risks that may occur in future should be assumed.
- 3] Encouraging communication:- The experience of risks started by project management team members or project manager should be considered.
- 4] Developing a shared software vision:- Both project management team and the senior management should be able to view the software and its risks with a common objective.
- 5] Encouraging teamwork:-

The skills and knowledge of every person involved in risks management should be combined when risk management activities are performed.

* Risk management plans:-

- It describes the process of assessing risks that may occur during software development.

Risk management plan comprises following sections:-



1] Statement:-

Describes the purpose and advantage of identifying and recording risks.

2] Objectives:-

Describes the activities or procedures that are followed to manage risks.

3] Roles and Responsibilities:-

- Specify the roles and responsibilities of project management team, sponsor and so on.

4] Purpose:-

Specifies the purpose of the process for risk management and the project library (database) where the risk management process is to be stored.

5] Risk process:-

Specifies the stages of risk management process and provides a process diagram.

6] Risk management worksheet:-

- Specifies the risk management worksheet such as risk management log in order to assess and control the risks.

- Risk management consist of two activities namely risk assessment and risk control.



4) Write a note on project staffing.

- - The number of team members required in a project depends on the type of project & the effort and cost required for it.
- It is important to ~~carry~~ consider skill and experience required to ~~carry~~ out tasks efficiently.
- Project staffing is the process of searching, evaluating and establishing a working relationship amongst the personal involved in project.
- It is important to assign roles and responsibilities to individual according to their skills, abilities and experience.

Factors	Description
• Application domain experience	Should have experience of application domain.
• Platform experience (Operating system)	Should have experience of the platform.
• Programming language experience	Team member have working experience of the programming language.
• Educational qualification	Team member should be well qualified.



• Communication ability	Team members should have effective communication skills.
• Adaptability	Team members should have ability to adjust to the organizational environment.
• Attitude	Team members should have ability to adjust to the organizational environment.
• Team member spirit	Team members should be compatible with other individuals.
Factors assisting staff selection.	
Some principles are followed by project staffing:	
1] The task should be assigned to staff members according to their skills and ability.	
2] Every staff member should be assigned a designation.	
3] Staff members should be employed according to their requirement in the project only after the project is approved.	
4] Every staff member should be constrained to follow the guidelines and standards of the organization.	

- Q) Explain milestones with its advantages.
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- Milestones are formal representations of the progress of the project.
 - Generally milestones signify an important change or step in the development of a project.
 - Milestones are usually set in the planning phase of a project and get updated as the project progresses.

	Requirements		Design	
milestone	Feasibility study	milestone	Architectural Design	
1	outline requirement	4	Design	
	definition			Interface design
		milestone		
milestone	Functional requirement	5	formal specification	
2	Design study	milestone 6		Detailed design
milestone	Requirement	milestone		
3	specification	7		Implementation
		milestones		

Milestones have several advantages:-

- I They avoid losing control of the project according to the allocated budget & schedule.



- 2] They help in completing project according to the allocated budget .
- 3] They report status of the project to the management .
- 4] Identify potential bottlenecks
- 5] Raise the visibility of the project
- 6] Payments to vendors are often based on milestone completion .
- 7] Stakeholder involvement varies between milestones
- 8] Accountability
- 9] Demonstrates measures of success .