



Answer All the Questions:

Question (1): (10 marks)

1. What is a feasibility study?
2. Explain the project management processes.
3. Mention the basic various stages of project.
4. Why do companies use project management?
5. Mention the Factors determining supply and demand in the market?

Question (2): (15 marks)

1. What are Steps and Indicators for Market Study?
2. An R & D project has a list of tasks to be performed whose time estimates are given in the Table (1), as follows.

Table (1) :Time estimates for R&D project

Activity i	Activity Name	I_i	t_{in} (in days)	t_p
1-2	A	4	6	8
1-3	B	2	3	10
1-4	C	6	3	10
2-4	D	1	2	3
3-4	E	6	7	8
3-5	F	6	7	14
4-6	G	3	5	7
4-7	H	4	11	12
5-7	I	2	4	6
6-7	J	2	9	10

- a. Draw the project network.
- b. Find the critical path.
- c. Find the probability that the project is completed in 19 days. If the probability is less than 20%, find the probability of completing it in 24 days. (from normal tables, $z(1.3416) = 0.4099$)

Question (3) : (15 marks)

Select the correct answer and conclude it.

1-During project executing, a team member comes to the project manager because he is not sure of what work he needs to accomplish on the project. Which of the following documents contain detailed descriptions of work packages?

- A-) WBS Dictionary B-) Activity List C-) Project scope statement
D-) Scope management plan

2-Your company just won a major new project. It will begin in three months and is valued at 2000000 \$. You are the project manager for an existing project. What is the FIRST thing you should do once you hear of the new project?

- A-) Ask management how the new project will use resources
- B-) Resource level your project
- C-) Crash your project
- D-) Ask management how the new project will affect your project

3-You are a new project manager who has never managed a project before. It would be BEST in this situation to rely on _____ during planning in order to improve your chance of success.

- A-) Your intuition and training
- B-) Stakeholder analysis
- C-) Historical information
- D-) Configuration management

4-Your project management plan results in a project schedule that is too long. If the project network diagram cannot change but you have extra personnel resources, what is the BEST thing to do?

- A-) Fast track the project.
- B-) Level the resources.
- C-) Crash the project.
- D-) Monte Carlo analysis.

5-An activity has an early start (ES) of day 3, a late start (LS) of day 13, an early finish (EF) of day 9, and a late finish (LF) of day 19. The activity:

- A-) Is on the critical path.
- B-) Has a lag.
- C-) Is progressing well.
- D-) Is not on the critical path.

6-Early in the life of your project, you are having a discussion with the sponsor about what estimating techniques should be used. You want a form of expert judgment, but the sponsor argues for analogous estimating. It would be BEST to:

- A-) Agree to analogous estimating, as it is a form of expert judgment
- B-) Suggest life cycle costing
- C-) Determine why the sponsor wants such an accurate estimate
- D-) Try to convince the sponsor to allow expert judgment because it is typically more accurate.

7.A schedule performance index, SPI, of 0.75 means:

- A-) Project is over budget.
- B-) Project is ahead of schedule.
- C-) Project is progressing at 75% of the rate originally planned
- D-) Project is progressing at 25% of the rate originally planned

8.Conflict resolution techniques that may be used on a project include confronting, smoothing, forcing, and:

- A-) Withdrawing
- B-) Directing
- C-) Organizing
- D-) Controlling

9-The project team is arguing about the prospective sellers who have submitted proposals. One team member argues for a certain seller while another team member wants the project to be awarded to a different seller. The BEST thing the project manager should remind the team to focus on in order to make a selection is the:

- A-) Procurement documents
- B-) Procurement audits
- C-) Evaluation criteria
- D-) Procurement management plan

10-A manager and the head of engineering discuss a change to a major work package. After the meeting, the manager contacts you and tells you to complete the paperwork to make the change. This is an example of:

- A-) Management attention to scope management.
- B-) Management planning.
- C-) A project expeditor position.
- D-) A change control system.

Question (4) : (15 marks)

Select the correct answer and conculde it.

1-Which of the following is not true?

- (a) Every project is unique(b) A project gives some output
- (c) Projects are not repetitive(d) Car manufacturing is an example of project

2-What is a Product Scope?

- (a) Features and functions that characterize a product
- (b) The work done to deliver the product
- (c) Both A&B(d) None of above

3-A person who is directly or indirectly involved with your project, or affected by your project or its outcome, is known as:

- (a) Customer(b) Manager(c) Team Member(d) Stakeholder

4-Money spent during a specific time period is known as:

- (a) Budgeted Cost(b) Actual Cost(c) Earned Value(d) Planned Value

5-You have been given 100,000 \$ to complete the project. 60,000 \$ has been spent, though as per the schedule, 55,000 \$ should have been spent to complete the same work. What is the Budget at Completion (BAC)?

- (a) 55,000 \$(b) 100,000 \$(c) 60,000 \$(d) 105,000 \$

6-If the optimistic estimate is 10 days, and the pessimistic estimate is 22 days, what is the standard deviation for this activity?

- (a) 1(b) 2(c) 3(d) 4

7-A project has more than one critical path. What does this mean to you?

- (a) Risk increases(b) Risk decreases(c) The duration of the project reduces
- (d) The project may cost less

8-You are developing the project management plan for your project. What will be your main emphasis during this process?

- (a) Hide it from team members until it is completed(b) To take input from team members
- (c) Not to inform management until it is ready(d) Hide it from everyone

9-Which one is an example of Crashing?

- (a) Starting a few activities simultaneously(b) Adding more resources
- (c) Reducing resources(d) Increasing the duration of project

10-Which of the following represents the correct order of project management phases?

- (a) Initiating, Planning, Executing, Monitoring & Controlling, Closing
- (b) Initiating, Executing, Planning, Monitoring & Controlling, Closing
- (c) Initiating, Planning, Monitoring & Controlling, Executing, Closing
- (d) Planning, Initiating, Executing, Monitoring & Controlling, Closing

Question (5)(25 marks)

1-The following Table (2) gives the activities of a construction project and other data.

Table (2): construction project data

Activity	Normal		Crash	
	Time (days)	Cost (Rs)	Time (days)	Cost (Rs)
1-2	6	50	4	80
1-3	5	80	3	150
2-4	5	60	2	90
2-5	8	100	6	300
3-4	5	140	2	200
4-5	2	60	1	80

If the indirect cost is Rs. 20 per day, crash the activities to find the minimum duration of the project and the project cost associated.

2-A project schedule has the following characteristics as shown in Table (3)

Table (3) : Project schedule

Activity	Name	Time	Activity	Name	Time (days)
1-2	A	4	5-6	G	4
1-3	B	1	5-7	H	8
2-4	C	1	6-8	I	1
3-4	D	1	7-8	J	2
3-5	E	6	8-10	K	5
4-9	F	5	9-10	L	7

- Construct PERT network.
- Compute TE and TL for each activity.
- Find the critical path.