



Pradnya Niketan Education Society, Pune.

# NAGESH KARAJAGI *ORCHID* COLLEGE OF ENGINEERING & TECHNOLOGY, SOLAPUR

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## Electrical Engineering Department

**Subject:** Elective VIII (Project Management)

**Class:** TE

**Subject Incharge:** Prof. Patil J.B.

**Semester:** II

## CHAPTERWISE QUESTION BANK

### UNIT 1: INTRODUCTION TO PROJECT MANAGEMENT

Sr. No.	Questions	Blooms Level	Course Outcome
1	Define Project. State and explain characteristics of Project.	Remember	CO1
2	Define Project management. Explain in detail objectives of Project management.	Understand	CO1
3	Explain Stages of Project Management.	Understand	CO1
4	Discuss in detail Project Planning Process.	Create	CO1
5	Explain Project organization structure in detail.	Understand	CO1

### UNIT 2: WORK DEFINITION

Sr. No.	Questions	Blooms Level	Course Outcome
1	Define Work study. What are the Steps Involved in Work Study? State Principles and objectives of Work study. Also state the benefits of Work study.	Remember	CO1
2	Discuss in detail Project Cost Estimation on the basis of following points a) Inputs b) Tools and Techniques c) Outputs	Create	CO1
3	Discuss in detail Cost Budgeting on the basis of following points a) Inputs b) Tools and Techniques	Create	CO1

c) Outputs

- |   |  |            |     |
|---|--|------------|-----|
| 4 | Explain Project Risk Management on the basis of Purpose, Objectives, Characteristics, Approach, Identification and analysis                                | Understand | CO2 |
| 5 | Explain Time Estimation Method by considering Optimistic, Pessimistic and Most Likely Time Estimate. State in short Single versus Multiple Time Estimates. | Understand | CO2 |

### UNIT 3: PROJECT SCHEDULING AND PLANNING TOOLS

Sr. No.	Questions	Blooms Level
1	Explain in detail Work Breakdown Structure (WBC).	Understand
2	Explain in detail Linear Responsibility Chart (LRC).	Understand
3	Explain Gantt charts.	Understand
4	Explain CPM/PERT Networks in detail.	Understand
5	A small project consisting of ten activities has the following characteristics:	Apply

- a) Construct the project network.
- b) Find the duration and variance of each activity.
- c) Find the critical path and project completion time.

(ANS: 1-2-3-6-7-8; 17 weeks)

- d) What is the probability of completing project on or before 22 week

Activity	Preceding Activity	Time Estimate weeks		
		Optimistic	Most likely	Pessimistic
A	–	4	5	12
B	–	1	1.5	5
C	A	2	3	4
D	A	3	4	11
E	A	2	3	4
F	C	1.5	2	2.5
G	D	1.5	3	4.5
H	B,E	2.5	3.5	7.5
I	H	1.5	2	2.5
J	F,G,I	1	2	3

Sr.  
No.

Questions

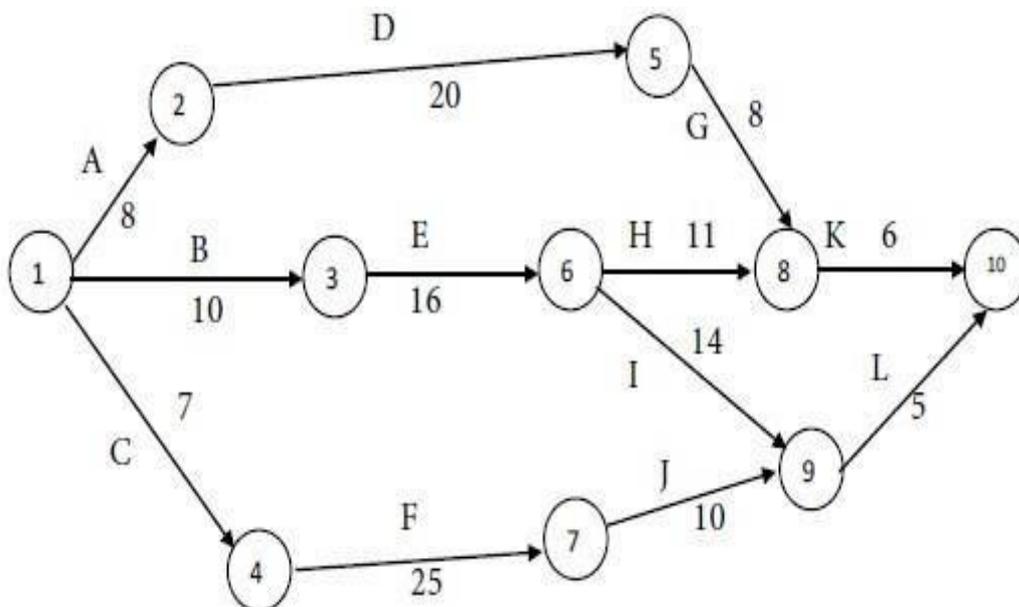
Blooms  
Level  
Evaluation

- 6 A Project is composed of seven activities whose time estimates are listed in the following table. Activities are simplified by this beginning (i) ones ending (j) Node member. Calculate expected project length.  
(ANS: Expect project length will be 17 weeks.)

Activity		Estimated duration in weeks		
i	j	Optimistic	Most likely	Pessimistic
1	2	1	1	7
1	3	1	4	7
1	4	2	2	8
2	5	1	1	1
3	5	2	5	14
4	6	2	5	8
5	6	3	6	15

- 7 Find out the completion time and the critical activities for the following project:

Analyze



ANS: The critical activities are C, F, J and L. The project completion time is 47 units of time.

**Sr.  
No.**

**Questions**

**Blooms  
Level  
Evaluation**

- 8 Draw the network diagram, determine the critical path and project completion time for the following project:

Activity	Time estimate (Weeks)
1- 2	5
1- 3	6
1- 4	3
2-5	5
3-6	7
3-7	10
4-7	4
5-8	2
6-8	5
7-9	6
8-9	4

**(ANS: The critical activities are B, E, I and K. The project completion time is 22 weeks)**

## UNIT 4: DEVELOPING PROJECT PLAN

Sr. No.	Questions	Blooms Level
1	Explain Project cash flow analysis.	Understand
2	Explain Project scheduling with resource constraints.	Understand
3	Discuss in detail Resource Levelling and Resource Allocation.	Create
4	With necessary graphs discuss in detail Time Cost Trade off : Crashing Heuristic.	Create
5	Let us say Nice Ltd wants to expand its business and so it is willing to invest Rs 10,00,000. The investment is said to bring an inflow of Rs. 1,00,000 in first year, 2,50,000 in the second year, 3,50,000 in third year, 2,65,000 in fourth year and 4,15,000 in fifth year. Assuming the discount rate to be 9%. Let us calculate NPV using the formula.	Evaluation
6	A project requires an initial investment of \$225,000 and is expected to generate the following net cash inflows: Year 1: \$95,000 Year 2: \$80,000 Year 3: \$60,000 Year 4: \$55,000 Required: Compute net present value of the project if the minimum desired rate of return is 12%.	Apply

## **UNIT 5: PROJECT IMPLEMENTATION**

<b>Sr. No.</b>	<b>Questions</b>	<b>Blooms Level</b>	<b>Course Outcome</b>
1	Discuss in detail Project Monitoring and Control with PERT/Cost:	Create	CO1
2	What are the Computers applications used in Project Management. Explain brief.	Remember	CO3
3	Explain in detail Various types of Contract Management.	Understand	CO3
4	Explain in detail Project Procurement Management.	Understand	CO2

## **UNIT 6: PROJECT IMPLEMENTATION**

<b>Sr. No.</b>	<b>Questions</b>	<b>Blooms Level</b>	<b>Course Outcome</b>
1	Define Post Project Analysis. What is the meaning of Post Project Evaluation?	Remember	CO2
2	Explain in detail Objectives of Post Project Evaluation.	Understand	CO3
3	Discuss the process of Post Project Evaluation.	Create	CO4
4	What are the Observations need to take during Post Project Evaluation? Explain in detail.	Remember	CO4
5	Discuss in brief Report on Post Project Evaluation.	Create	CO4