



# MANIPAL INSTITUTE OF TECHNOLOGY

A Constituent Institute of Manipal University, Manipal

Reg. No.

VII SEMESTER B.TECH (MECHANICAL/IP ENGG.) END SEMESTER

EXAMINATIONS, NOV/DEC 2017

SUBJECT: PROJECT MANAGEMENT [MME 4032] (PE-VI)

REVISED CREDIT SYSTEM

Time: 3 Hours

MAX. MARKS: 50

### Instructions to Candidates:

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitably assumed.
- ❖ All answers must be brief.

- 1A. What is a Project Life cycle? Explain the stages through which the Project Life cycle passes. 5
- 1B. Explain the different types of Matrix Forms of Organizing Projects within a Matrix Arrangement. 3
- 1C. Explain how Knowledge Explosion has increased the complexity of projects. 2
- 2A. Explain the following steps of Feasibility Study:
- a) Determining the actual need to conduct feasibility study
  - b) Creating an outline for the feasibility study
  - c) Description of products/services
  - d) Description of technology
  - e) Description of market environment 5
- 2B. Explain the procedure for
- Describing the management and personnel of the business.
- Describing intellectual property that the company will develop and use.
- Describing regulations and environmental issues. 3

- 2C. Explain how Drafting Executive Summary is carried out 2
- 3A. Explain the various factors influencing the Quality of Estimates. 5
- 3B. Explain the following types of Costs while Estimating costs  
a) Direct costs, b) Labor, c) Materials 3
- 3C. In the Bottom-Up Approaches for Estimating Project Times and Costs, explain the Range Estimating method. 2
- 4A. Explain Risk Response Development. 5
- 4B. Explain Opportunity Management 3
- 4C. Briefly discuss Time Buffers 2
- 5A. The following table gives the activities in a construction project and other relevant information:

Activity	Immediate predecessors	Time (days)		Direct cost (Rs)	
		Normal	Crash	Crash	Normal
A	---	4	3	90	60
B	---	6	4	250	150
C	---	2	1	60	38
D	A	5	3	250	150
E	C	2	2	100	100
F	A	7	5	175	115
G	D,B,E	4	2	240	100

Indirect costs vary as follows:

Days	15	14	13	12	11	10	9	8	7	6
Cost (Rs)	600	500	400	250	175	100	75	50	35	25

- a) Draw the network and determine the critical path.
- b) Determine the project duration which will return in minimum project cost.

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5B A Mini Case Study: Leading a Project as a New Project Manager

Best Practices for a New Project Manager to Establish Themselves and Build Relationships Quickly

Background: Sydney was a newly hired project manager at a consulting firm. She has previous experience working on project teams, but had never led a project on her own. She has only been with the firm for two weeks and has spent a week of that time in onboarding. Her manager, the head of operations, has just assigned her to a rather large project. The project is to evaluate the current processes in use within the organization specifically focused in two areas: new service development and client engagement. Sydney was told to select who she needed to work on the project and reach out to the managers of both groups to get the project started.

The Problem: While excited about the opportunity, Sydney realized she had a few challenges ahead:

- She has had no time to establish relationships within the organization
- She realized that it may be difficult to engage the departments in the initiative given the project she was asked to lead
- She was concerned about selecting team members when she did not yet know much about the others in the organization (their skills and knowledge and expertise)
- She knew very little about the organization outside of what she learned in the onboarding program and her research when she was applying for the project manager role

Sydney needed to start the project fairly soon. She didn't have the luxury of taking time to build relationships and get to know people before the project had to begin.

**What do you recommend Sydney does to ensure her first large project is a successful one?**

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