

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VIII • EXAMINATION – SUMMER 2013

Subject Code: 182506**Date: 09/05/2013****Subject Name: Managing Projects (Department Elective-II)****Time: 10:30 am TO 01:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 (a) Define the project. Which are the three goals of it? Describe the life cycle of the project with a case of Bridge. **07**

(b) Data regarding the activities in a project are given below. **07**

Activity	Immediate Predecessor	Time in Days		Increase in cost for decreasing the duration by one day (in units of money)
		Normal Duration	Minimum Duration	
A	-	5	4	1
B	-	8	7	2
C	A	2	2	-
D	A	6	4	3
E	B,C	4	4	-
F	B,C,D	4	3	1

- (i) Draw the project network.
- (ii) Using normal duration, determine the critical path and the project duration.
- (iii) If there is saving of 2 units of money for every day saved in the project duration, find the optimal schedule.

Q.2 (a) A small project is composed of seven activities as given below. **07**

Activity		Estimated Duration (week)		
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

- (i) Draw project network.
- (ii) Find the expected duration and variance of all activities.
- (iii) What is expected project length?
- (iv) Calculate the variance of project duration.
- (v) What is the probability that project will be completed at least 3 weeks earlier than expected?

(b) State the elements of costing for a project. Prepare an estimate along with costing for constructing a two storied orthopedic hospital. **07**

OR

(b) Which are the resources of project? How they are loaded, leveled and allocated? **07**

Q.3 (a) Describe plan-monitor-control cycle? How a project can be controlled with minimum effort? **07**

- (b) Carry out audit of a project of your own choice. What precautions should be taken while auditing? 07

OR

- Q.3 (a) Which qualifications are required in a project manager and his team? How they can be successful in their mission? 07
(b) Prepare a work break down structure of your own choice. 07

- Q.4 (a) Classify the methods of budgeting the project and explain any two of them? 07
(b) Design a suitable effective control system for a project of your own choice? 07

OR

- Q.4 (a) Describe Goldratti's critical chain for a project of your choice. 07
Q.4 (b) What are the steps to be followed to evaluate a project? Which precautions should be considered? 07

- Q.5 (a) Prepare a project plan for constructing an engineering college with two branches of engineering. 07

- (b) Draw Gantt chart for the following project. The project begins on Wednesday Nov. 15 with five days a week. Draw the chart with horizontal scale denoting calendar dates. 07

Activity 1	8 days
Activity 2	4 days
Activity 3	7 days
Activity 4	9 days
Activity 5	3 days
Activity 6	8 days
Activity 7	12 days
Activity 8	15 days

Consider

- Activities 1 & 2 can occur concurrently.
- Activity 3 can take place after activity 2 is completed.
- Activities 4, 6, and 3 can occur concurrently.
- Activity 8 can start 4 days after the commencement of activity 6.
- Activity 7 should follow activity 5. Activity 5 can begin with activity 8.

Also answer the following.

- On what calendar date, we can expect the project to be completed?
- On December 3, what is the progress?

OR

- Q.5 (a) Describe the types of risks covered in a project. How they can be managed? 07
(b) Draw a critical path for the following network. Calculate the probability of meeting the schedule for the last event, if schedule time is 26 days. 07


