Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–V • EXAMINATION – WINTER • 2014

Subject Code: 152505 **Date: 08-12-2014**

Subject Name: Project Management

Time: 10.30 am - 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)** Explain various phase of project life cycle in each stage in detail. **07**

(b) Suppose the scope triangle were modified as follows: Resource Availability occupies the center, and the three sides are Scope, Cost, and Schedule. Interpret this triangle as if it were a system in balance. What is likely to happen when a specific resource on your project is concurrently allocated to more and more projects? As project manager, how would you deal with these situations? Be specific. **07**

Q.2 **(a)** Write short note of Risk management and explain their Classification. **07**

(b) Give detail description for Rules of Project network diagram. **07**

OR

(b) Discuss importance of COS and also Describe how to develop COS? **07**

Q.3 **(a)** Explain the basic parts and function of the Project Overview Statement (POS). **07**

(b) Describe Six Criteria to Test for Completeness in the work breakdown structure (WBS) **07**

OR

Q.3 **(a)** Describe Joint Project planning Session and also explain in brief the role of Facilitator, Project manager, JPPS consultant, Technographer, Client representative in joint project planning Session. **07**

(b) Explain top down and bottom up approaches for Work Breakdown Structure with suitable example. **07**

Q.4 **(a)** Describe general rules for network logic. Enlist various network errors with suitable example. **07**

(b) Why Critical path is required to be found out in PERT? Enlist various time estimate in PERT. Also Enlist various methods to estimate activity duration. **07**

OR

Q.4 **(a)** Describe crashing in network with example. Also state the advantage of crashing in project management **07**

(b) Construct a network for the predecessor relation show in table **07**

Activity	A	B	C	D	E	F	G	H	K	L
Predecessor	-	A	A	B	C	C	D,E	G,F	G	H,K

Q.5 **(a)** Differentiate CPM and PERT in detail and also state their application **07**

(b) The following data represents the activities of a project. draw the project network and find project duration and critical path **07**

Activity	Predecessor	Duration in Weeks		
		Optimistic time t_o	Pessimistic time t_p	Most likely time t_m
A	-	1	7	1
B	-	1	7	4
C	-	2	8	2
D	A	1	1	1
E	B	2	14	5
F	C	2	8	5
G	D,E	3	15	6

OR

Q.5 **(a)** Define following terms **07**

(1) Event (2) Total Float (3) Activity (4) LFT (5) Dummy Activity (6) EST (7) Critical Path

(b) For the network relationships given in Table with the three estimates of time in days, what is the probability that the project will be complete in 20 days? Also identify the critical path. **07**

Activity	Optimistic time t_o	Most likely time t_m	Pessimistic time t_p
1-2	2	2	8
2-4	0.5	2.5	7.5
2-3	1	1.5	11
3-4	0	0	0
4-5	6	7	8
3-5	1	2.5	7
4-6	3	4	11
5-6	4	6	8
3-6	1	2	3

****