

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE- V<sup>th</sup> SEMESTER-EXAMINATION – MAY/JUNE - 2012****Subject code: 152505****Date: 07/06/2012****Subject Name: Project Management****Time: 02:30 pm – 05:00 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 rules for network construction **07**  
 (b) Explain different types of events, activity and dummy activity with neat sketch. **07**

- Q.2** (a) PERT calculations yield a project length of 50 weeks with a variance of 16. Within how many weeks would you expect the project to be completed with probability of 95%, 75%, and 40% (Take  $z=1.65$  for 95%, 0.69 for 75%, and 0.25 for 40%). **07**

- (b) The activities of a project of a tea party is listed below. Arrange activities and draw network diagram. **07**

A-Procure material. B-prepare snacks. C-Arrange for cutlery.

D-prepare table. E-set table with snacks and cutlery. F-serve the table.

**OR**

- (b) A project plan consists of ten events with relationship given below. Draw network diagram. **07**

EVENT	PREDECESSOR	EVENT	PREDECESSOR
1	-	6	3,5
2	1	7	3,4
3	2	8	3,7
4	2	9	7
5	2	10	3,6,8,9

- Q.3** (a) Explain various phases of project management. **07**  
 (b) Explain different types of floats with examples. **07**

**OR**

- Q.3** (a) Explain various approaches to building WBS. **07**  
 (b) A small engineering project consists of nine activities. Draw network, find EST AND LST. Calculate total slack for each activity, critical path and project duration. **07**

ACTIVITY	TIME IN DAYS	IMMEDIATE PREDECESSOR
1-2	6	-
2-3	13	1-2
1-6	5	-
6-7	11	1-6
7-8	15	6-7
2-4	4	1-2
3-5	11	2-3
4-5	6	2-4
5-8	3	3-5,4-5

- Q.4 (a)** Discuss the method of updating a network during its execution period. **07**
- (b)** Explain importance of project management for an engineers. **07**

**OR**

- Q.4 (a)** Discuss with suitable example the resources smoothing method. **07**
- (b)** A mother notes that when her daughter uses mobiles she takes no less than 10 min for a call and sometimes as much as 1 hr. Twenty minute call are more frequent than calls for any other duration. if daughters call were an activity in PERT. Project what would be phone calls expected duration? what would be variance? in scheduling project, how much time be allocated for phone call? **07**

- Q.5 (a)** Differentiate between PERT and CPM. **07**
- (b)** Find critical path and project duration. **07**

ACTIVITY	TIME IN DAYS	IMMEDIATE PREDECESSOR
A	16	-
B	10	-
C	8	-
D	11	C
E	11	D,G
F	7	B
G	8	A,F
H	8	A,F
I	12	B
J	18	H,I
K	6	D,G
L	8	K,J

**OR**

- Q.5 (a)** Explain project proposal with suitable example. **07**
- (b)** A project has 7 activities .find variance .project length,if due date is 19 weeks find probability to complete the project. **07**

ACTIVITY	OP.TIME	M.TIME	PESI TIME
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

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