

GUJARAT TECHNOLOGICAL UNIVERSITY**BE – SEMESTER V • EXAMINATION – WINTER - 2012****Subject code: 152505****Date: 23-01-2013****Subject Name: Project Management (Institute Elective-II)****Time: 02:30 pm to 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) Which are the phases of Project Management? Explain them in brief. 07
 (b) What is work break-down structure (WBS)? State its uses. 07

- Q.2 (a) From the following data of activities, draw a network, plot critical path and calculate project duration. 07

Activity	1-2	1-4	1-5	2-3	3-8	4-6	4-7	5-6	6-9	7-8	8-9
Duration (weeks)	6	5	5	7	3	8	5	5	8	8	4

- (b) Consider the following definition of 'Project': "A project is a sequence of unique, complex and connected activities having one goal or purpose and that must be completed by a specific time, within budget and according to specifications". 07

With reference to this definition, explain following:

- (i) Sequence of activities (ii) one goal and (iii) according to specifications.

OR

- (b) Based on scope triangle concept, explain how time, cost and resources availability affects scope and quality of projects. 07

- Q.3 (a) With reference to project overview statement (POS) explain 'assumptions', 'risks', and 'obstacles'. 07

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

Activity	Optimistic time (days)	Most likely time (days)	Pessimistic time (days)
1-2	2	2	2
2-3	2	5	8
2-4	9	13	11
3-5	4	6	8
4-5	2	2	2
5-6	4	7	10
5-7	5	7	9
6-8	5	9	13
7-8	3	6	9

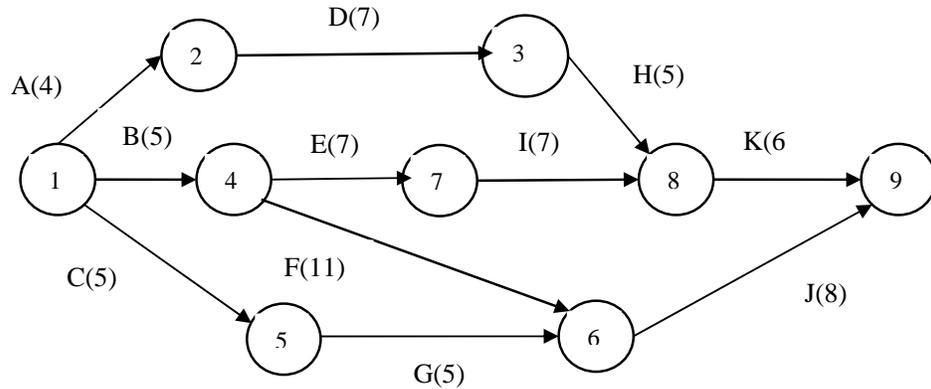
OR

- Q.3 (a) Which are the types of resources for execution of project? Explain them briefly. 07

- (b) Using 'Activity on Node' network, create network for following precedence table and establish critical path. 07

Activity	A	B	C	D	E	F	G	H	I	J
Predecessor	-	-	A	A	A	B, C	D	D, E	F	G, H
Duration(Days)	7	6	5	6	8	6	7	8	8	6

- Q.4 (a) With reference to Project Network Analysis, answer following: 07
 (i) Define 'dummy activity'. When is it introduced in the network?
 (ii) Define 'slack'. Explain practical significance of slack.
- (b) Consider the following network. Compute Earliest Start Time (EST) for each activities of the network. 07



OR

- Q.4 (a) With reference to Project Network Analysis, define and describe Float, Total Float and Free Float. 07
- Q.4 (b) How does PERT differ from CPM? State their applications based on type of project. 07
- Q.5 (a) Write a short note on Project Management Life Cycle. 07
 (b) How is continuous quality management model relevant to project management? Explain. 07

OR

- Q.5 (a) With reference to Project Network, define following terms: 07
 (i) Activity (ii) Event (iii) Path (iv) Network Diagram.
- (b) Explain the meaning of 'crashing' in network techniques. Describe the procedure for network crashing. 07
