## **GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE - SEMESTER-VIII EXAMINATION - SUMMER 2016** 

Subject Code:181501 Date:10/05/2016

**Subject Name:**Project Management

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) Explain different phases of Project Management. Also mention steps for it. 07
  - (b) How networks help management? What care one should take for better drawing of network diagrams?
- Q.2 (a) How will you decide whether a new project is feasible or not?
  - (b) What is the role of opportunity scanning and identification in setting up a small enterprise? How would you carry out opportunity analysis for a corrugated paper box packaging unit in Morbi area.

OR

- (b) Which are the common problems and pit-falls connected with : (i) Production (ii) 07 Marketing and (iii) finance, observed in running an industrial unit.
- Q.3 (a) Explain the role of break even analysis for project appraisal.
  - (b) The activities involved in Sanket Garment Manufacturing Company are listed below with their time estimates. Draw the network for the given activities and carryout critical path calculations.

Activity	Description	Immediate	Duration	
		Predecessor	(Days)	
A	Forecast sales volume	-	10	
В	Study competitive market	-	7	
С	Design item and facilities	A	5	
D	Prepare production plan	С	3	
Е	Estimate cost of production	D	2	
F	Set sales price	В,Е	1	
G	Prepare budget	E,F	14	

OR

- Q.3 (a) Explain the following activities and state the base on which they are classified:
  - (i) Super critical activity
  - (ii) Sub critical activity
  - (iii) Critical activity
  - (b) The following list of activities must be accomplished in order to complete a **07** construction project:

Activity	Α	В	С	D	E	F	G	Н	I	J
Time	3	8	4	2	1	7	5	6	8	9
(Weeks)										
Predecessor	-	-	A,B	A,B	A	С	E,F	D,F	G,H	I

Construct a network diagram for this project. Find critical path and duration of the project. Also find all three kinds of floats for activity E.

Q.4 (a) Differentiate between 'Activity oriented diagram' and 'Event oriented diagram'.

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(b) From the information given below, draw the PERT network:

the information given below, draw the i Livi network.						
Activity	Optimistic	Most Likely	Pessimistic			
10-20	6	9	18			
10-30	5	8	17			
20-40	4	7	22			
30-40	4	7	16			
40-50	4	10	22			
20-50	4	7	10			
30-50	2	5	8			

Determine the critical path, its duration, earliest and latest allowable occurance time and slacks of all events. Also determine the probability of completing the project in (i) 30 days and (ii) 35 days.

Given for Z = -1.066, Pr = 14.35

OR

Q.4 (a) What are the components of cost of projects? Discuss them in detail.

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**(b)** Based on the data given below, determine the optimum duration of the project and the corresponding minimum cost.

Activity	Normal		Crash		
	Duration	Cost	Duration	Cost	
	(week)	(Rs.)	(week)	(Rs.)	
1 - 2	8	800	6	1550	
1 - 3	4	500	2	950	
2 - 4	2	700	1	1000	
2 - 5	10	900	5	1600	
3 - 4	5	600	1	1200	
4 - 5	3	600	1	800	

The indirect cost of the project is Rs.700 per week. Draw the time-scaled version of network at each step of crashing.

Q.5 (a) Discuss the risks involved in project selection.

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(b) DIC is considered to be a single window service organization for small 07 entrepreneurs. - Describe in detail.

OR

Q.5 (a) Write brief note on: Social cost benefit analysis of a project.

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**(b)** Demonstrate concept of resource allocation with a suitable example.

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