

(c) Environmental Feasibility of a project

(d) Resource leveling

[This question paper contains 6 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 2662

Unique Paper Code : 61018418

Name of the Paper : Quantitative Technique

Name of the Course : **B.Voc. (Banking, Insurance
Software Development)
(GEC-4.3)**

Semester : IV

Duration : 3 Hours

Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any 5 questions from questions 1 to 6.
3. **All** questions carry equal marks.
4. Use of simple calculator is allowed.

1. (a) Explain the Treacy-Wiersema and Balanced Score Card model for business value. (7)

(b) A project manager wants to choose a less risky project. Help the manager in choosing one of the two projects and give reasoning for the selection. Cash flows for two projects are given below;

(8)

Year	Project A	Project B
1	4500	10500
2	5000	7500
3	6500	11500
4	3500	6500
5	4000	5500

2. (a) There are various numeric and non-numeric models that a project manager has to select a project. As a project manager what criteria will you follow while deciding upon the selection of the model? (6)

(b) Project manager who requires at least 13% return on capital wants to select one of the two project for which cash flows are given below, you need to rank the projects using internal rate of return : (9)

(i) Draw the Network diagram

(ii) Find the Critical path and the duration of the project

(iii) If the Project Manager wants to reduce the completion time to 29 days, which activities would be required to be crashed and by how much? What shall be the cost involved?

(iv) Can this project be completed in 22 days? Give reason for your answer.

(b) What are the factors that need to be considered while selecting a project? (3)

6. Write short notes : (Any 3) (3×5)

(a) Operating necessity as non-numeric model

(b) Payback Period

Year	Project A	Project B
Initial outflow	-230000	-420000
1	55000	95000
2	55000	95000
3	55000	95000
4	55000	95000
5	55000	95000
6	55000	95000
7	55000	95000

3. (a) Pricing is an important factor in determining the success of the product or service. What are different approaches for deciding pricing for a product or service? (8)
- (b) What do you understand by technical analysis for a project? How does it help a project manager? (7)
4. (a) A project involves ten activities labelled A through J. Given the precedence relation among these activities, determine the Forward Pass, Backward Pass and all types of float : (10)

Activity	Precedence	Time (in weeks)
A	-	6
B	-	3
C	A	5
D	A	5
E	A	4
F	C	2
G	D	5
H	B, E	6
I	H	3
J	F, G, I	4

- (b) "Risk is inevitable in any project". In view of this statement write a note on the generic approach to managing risk. (5)
5. (a) The following data relates to a project : (12)

Activity	Nodes	Activity Time (in days)		Activity Cost (in Rs)	
		Regular	Crash	Regular	Crash
A	1-2	8	7	700	750
B	1-3	9	7	650	750
C	2-4	10	8	800	900
D	2-5	12	9	1600	1800
E	3-5	9	6	750	1000
F	3-6	11	8	1900	2100
G	4-7	13	11	1200	1300
H	5-7	14	12	1300	1400
I	6-7	15	11	1500	1800