

[01 - 4107]

IV/IV B.E. DEGREE EXAMINATION.

First Semester

Civil Engineering

PROJECT PLANNING AND MANAGEMENT

(Common for Civil and Civil Environmental  
Engineering)

(Effective from the admitted batch of 2006-2007)

Time : Three hours

Maximum : 70 marks

First question is compulsory.

Answer any FOUR questions from the remaining.

All questions carry equal marks.

1. (a) Define critical path and a semi-critical path.
- (b) How do you normalize the random curve obtained for a particular network?
- (c) What is project life cycle?
- (d) How do you determine 'cost slope'?
- (e) What is meant by the term "implied contract"?

- (f) Differentiate between arbitrated and umpire.  
 (g) State the objectives of construction management.

2. Explain the term 'work breakdown' structure and its necessity. Breakdown a construction job of a residential house with two rooms, kitchen, toilet, poja room and a hall.

3. The normal duration required to perform various activities and the relationship among activities are given below.

Activity	A	B	C	D	E	F	G	H	I	J	K	L
Predecessor	-	-	A	B	C	B	F	C	D,G	E,I	J,H	K
Duration (weeks)	7	5	10	5	8	6	5	4	10	5	8	9

Compute

- (a) The project completion time  
 (b) The critical path  
 (c) The total float and free float for each activity.

4. The following information is available about the various activities of a network.

Activity	Normal duration	Normal cost in Rs.	Crash duration	Crash cost in Rs.
1-2	4 weeks	4,000	3 weeks	7,000
1-3	8 weeks	5,000	7 weeks	8,000
2-3	5 weeks	8,000	3 weeks	10,000

Project overhead costs are at Rs. 2,000 per week.

Determine

(a) Direct-cost-duration relationship

(b) Total cost-duration also draw the least cost network.

5. (a) Describe the importance of construction contracts for the successful completion of civil engineering projects.

(b) Explain the elements which a tender form must contain.

6. (a) Discuss the classification of resource levelling.

(b) Discuss the three kinds of arbitration as per provisions of the arbitration act.

7. (a) Explain the main provisions of the workmen's compensation act.

(b) Describe the provisions of minimum wages act, 1948.

8. Write short notes on

(a) Beta probability distribution

(b) Stores management

(c) Quotation.

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