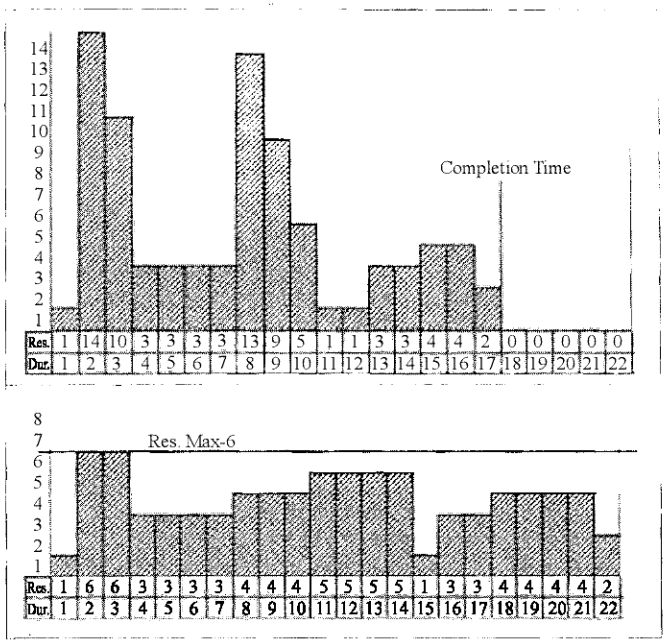
and allocation diagrams are shown below. Calculate the total resources needed. Discuss the steps involved in achieving the resource allocation in the given diagram. 7½



(b) Discuss steps involved in the Siemen's approximation method (SAM) of tiem cost tradeoff. 7½

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AA-662

Master of Construction and Real Estate Management/M. Tech. (CREM) EXAMINATION, May 2017

(First Semester)

(Re-appear Only)

MCRM-605

PROJECT DEVELOPMENT AND MANAGEMENT

Time : 3 *Hours*] [*Maximum Marks* : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. Write short notes on any *three* of the following :

(a) Classification of construction projects

(b) Characteristics of construction industry

(c) Site investigation

(d) SWOC/SWOT analysis. **5+5+5=15**

2. Construction project management consists of number of processes, discuss how these can be grouped under different management functions. **15**

Unit II

3. Each phase in the construction project life-cycle utilises the talents of various members of the project team. For each of the six phases, indicate the people with primary roles. **15**

4. (a) Discuss different levels of work break down structure with an example.

(b) Distinguish between the PERT and CPM network methods. **7½+7½=15**

Unit III

5. (a) Clarify the differences between the construction manager and the project manager delivery systems. Under what circumstances would one be preferable to the other, from the owner's point of view ?

(b) Can a Guaranteed Maximum Price contract ever be favourable to both owner and contractor ? If so, under what circumstances ? **7½+7½=15**

6. (a) Distinguish between pre-qualification and post-qualification methods of contractor selection.

(b) Discuss integrated risk management for construction projects. **7½+7½=15**

Unit IV

7. (a) A project is to be completed with constrained of a given resource with limit of six, the corresponding resource loading

8. The activities for construction of a garage are shown in the table :

	Activity	Duration (days)	Preceding activity
(a)	Foundation Layout and marking	2	–
(b)	Excavate	7	A
(c)	Build Forms	4	A
(d)	Procure, cut and bend steel reinforcement	8	A
(e)	Fine grade	3	B
(f)	Set forms	2	B,C
(g)	Place reinforcing steel	2	D,E,F
(h)	Pour concrete	1	G
(i)	Finish concrete	1	H

(A) Construct an activity on array (AOA) diagram and highlight the critical path.

(B) Compute the four schedule dates (early start, early finish, late start, late finish) and the four floats (Total Float, Free Float, Interfering float and Independent float) for each activity and identify the critical path. **7½+7½=15**

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