

25/4/19

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END SEMESTER EXAMINATIONS April/May 2019

INDUSTRIAL ENGINEERING

Semester V

IE 8014 – PROJECT MANAGEMENT
(Regulation 2012)

Time: 3 Hours

Answer ALL Questions

Max. Marks 100

PART-A (10 x 2 = 20 Marks)

1. Define Project.
2. Draw the project organization hierarchy.
3. Name the phases of project life cycles.
4. Name the factors used in screening the projects?
5. Write the differences between PERT and CPM
6. Distinguish between AOA and AON diagram.
7. What is resource aggregation?
8. What is project risk?
9. What is post project audit?
10. Define project closure?



Part – B (5 x 16 = 80 marks)

11. Explain how various project ideas are generated?
12. a) Identify the list of 10 projects each to achieve to reduce travel time in the metro Politan city. For each of projects identified, go thought a screening exercises based on factors like Investment, Risk, Return, competition, difficulty of successful implementation, Time to implement, Impact on society and Impact on environment.

(OR)

- 12 b) Explain with an example the development of work breakdown structure in project management

13. a) A Project consists of 12 activities. The Immediate Predecessors and time estimates of the activities are summarized in the table given below.
- (i) Draw the Network of the Project (6)
 - (ii) Find the critical path and expected project completion time (6)
 - (iii) What is the probability of completing the project on or before 30 weeks? (4)

Table: Data of the activities

Activity	Immediate Predecessor (s)	Time Estimate (weeks)		
		Optimistic	Most Likely	Pessimistic
A	-	4	6	8
B	-	2	3	4
C	-	5	5	5
D	A	8	10	12
E	A	4	5	6
F	B,E	5	6	7
G	C	5	8	11
H	C	6	8	10
I	D	7	7	13
J	F,G	8	10	12
K	H	2	3	4
L	K	4	5	6

(OR)

- b) A project of 10 jobs has the following precedence relations

Job	A	B	C	D	E	F	G	H	I	J
Predecessor	C,E ,F	D,G	D,G	H,I	H,I	J	J	J	-	-

Draw a network diagram and check the consistency using a) topological ordering, b) Fulkerson numbering rule c) Marimont's procedure and also check the redundancy of the network.

14. a) Explain the various indices used for monitoring project implementation process.

(OR)

- b) Explain the point's will you bear in mind while carrying out a project audit?

15. a) Explain the process of project auditing?

(OR)

- b) Describe the activities associated with the project closure.

