FIFTH SEMESTER B.TECH. DEGREE EXAMINATION NOVEMBER 2015
Branch: Industrial Engineering
ELECTIVE: 13.506.1: MANAGEMENT OF PROJECTS (S5N)

Duration: 3 Hrs.   Max: 100 Marks

PART A
Answer *all* questions. Each question carries *two* marks.

1.   Distinguish between BOT and BOOT projects.
2.   Briefly discuss about terms of reference of project.
3.   Explain about project rating index.
4.   What is ecological analysis? Briefly explain.
5.   Explain about inflation adjusted project selection.
6.   What are the features of venture capital.
7.   Explain the procedure of e-tenders.
8.   Mention the method of ranking LP models.
9.   Explain the procedural steps of decision tree analysis.
10. Write down the features of MS Project.

PART B
Answer one full question from each module.
Each full question carries *twenty* marks.

Module I

11a.   Discuss in detail about BMRED projects with examples.
   b.   Explain SWOT analysis and SPACE approach.

OR

12a.   Discuss the project management life cycle with all stages.
   b.   Explain the components of DPR.

Module II

13a.   Discuss the procedure steps of market analysis with an example.
   b.   Explain about double exponential smoothing with an example problem.

OR

14a.   Discuss about major project financing sources for sports based projects in India.
   b.   Find the IRR of a project having initial outlay of Rs.80,00,000/- with fund inflow @ Rs. 19,00,000/- during first three years and @ Rs. 25,00,000/- during last three years.

Module III

15a.   Explain in detail about the procedural steps in contract management.
   b.   Given the following information related to a new project.

A<D; A<E; B<F; C<G; D<H; E,F<I I<K: K<L (*duration in days*)

Activity	A	B	C	D	E	F	G	H	I	K	L
to	9	17	26	16	15	6	8	7	3	7	7
tp	12	23	41	20	25	6	12	9	5	10	9
tm	10	20	33	18	20	6	10	8	4	9	8

   (a) Find the expected LOP and (b) probability of completion of the project in at least three days earlier than expected?

OR

16a. Man power requirement for each activity in a project is given below.

Activity	duration (days)	No. of men required per day
0-1	3	4
1-2	3	3
1-3	4	3
2-4	2	5
3-5	4	3
3-6	3	4
4-7	6	3
5-7	6	5
6-8	5	2
7-9	4	2
8-9	4	9

Systematically find out per day man power requirement and level the resource suitably if only 12 men are available.

b. Do a systematic crashing on the following project (duration in days and cost in rupees) for minimizing the total cost. The indirect cost per day is Rs.1700/-.

Activity	Dependence	Normal duration	Crash duration	Normal cost	Crash cost
A	--	6	4	750	1150
B	--	5	3	450	1000
C	A	5	5	550	1050
D	A	6	5	800	1050
E	B,C	7	5	750	1050
F	C,D	5	3	800	1400
G	E,F	6	4	900	1550

Module IV

17a. Discuss in detail about the major project risks.
   b. Explain how decision tree analysis help in project risk analysis.

OR

18a. Explain the major communication systems used in project management.
   b. Discuss the common causes of project failures and reason for the same.