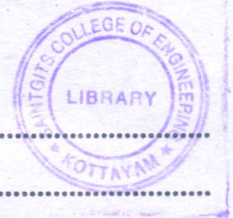G 1275

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B.TECH. DEGREE EXAMINATION, MAY 2015

Sixth Semester

Branch : Mechanical Engineering

ME 010 606 L06—PROJECT MANAGEMENT (Elective I) [ME]

(New Scheme—2010 Admission onwards)

[Regular/Improvement/Supplementary]

Time : Three Hours   Maximum : 100 Marks

Part A

Answer all questions.
Each question carries 3 marks.

1. What are the important questions raised in technical analysis ?

2. Why does money have time value ?

3. Illustrate the difference between Variance and Semivariance.

4. What steps are involved in PERT analysis ?

5. Write short notes on web enabled project management.

(5 × 3 = 15 marks)

Part B

Answer all questions.
Each question carries 5 marks.

6. What are the components of cost of project ? Discuss them in detail.

7. What is a work schedule ? What purpose does it serve ?

8. What are the Pros and Cons of Monte Carlo simulation ?

9. What is an early start schedule and late start schedule ?

10. Write short notes on PMIS (Project Management Information System).
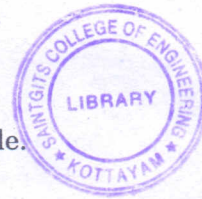
(5 × 5 = 25 marks)

Part C

Answer all questions.
Each question carries 12 marks.

11. Discuss the five broad phases of capital budgeting.

Or

12. Discuss the importance of considering alternative ways of transforming an idea into a concrete project.

Turn over

13. What is a capital recovery factor ? Illustrate it with an example.

Or

14. (a) What is the relationship between the effective rate of interest and nominal rate of interest ?

(b) What is the present value of Rs. 2,000 receivable annually for 30 years ? The first receipt occurs after 10 years and the discount rate is 10 percent.

15. Substanciate the issues in the application of Monte-Carlo simulation and the ways and means of resolving them.

Or

16. Describe the three types of Project risk.

17. Consider the optimistic, most likely and pessimistic times for each activity that are given by the following table. Carry out a complete PERT analysis and determine the probability that the project will be completed 3 days earlier to the expected time :

Activity	1–2	1–3	2–4	2–5	3–4	3–6	4–5	4–6	5–7	6–7
a (days)	1	2	5	6	3	4	9	2	9	3
m (days)	5	8	7	9	10	8	11	5	9	6
D (days)	9	20	15	24	17	18	13	14	15	9

Or

18. Determine the least cost schedule for the following project. Overhead cost is Rs. 60 per day :

Activity	1–2	2–3	3–4	3–5	4–5
Normal duration (days)	5	4	6	4	3
Crash duration (days)	3	2	3	1	2
Cost of crashing/day	30	20	40	30	60

19. Explain the various features and facilities in MS Project 2010 Software.

Or

20. Briefly discuss regarding computer aided project management and improvements in this area using new software developments.

(5 × 12 = 60 marks)