TME-803

B. Tech.

(SEM. VIII) EXAMINATION, 2007-08
PROJECT MANAGEMENT

*Time : **3** Hours]*   *[Total Marks : **100***

Note :   (1)   Attempt **all** questions.

(2)   All questions carry **equal** marks.

(3)   Be precise in your answers.

1   Attempt any **four** parts :

(a)   Explain meaning and concept of project with examples.

(b)   Describe characteristics of a project.

(c)   What are various stages in the total life cycle of a project ? Explain with suitable diagram.

(d)   How are projects classified ? Explain in brief.

(e)   What are steps required in project identification ? Explain in brief.

2   Attempt any **two** parts :

(a)   Describe functional organization. What are its limitations ?

(b)   Describe product organization. What are its advantages over functional organization ?

(c)   Explain in detail the method of choosing an organization structure to suit a given project.

3   Attempt any

     (a)   What pr⎯⎯⎯⎯⎯⎯⎯⎯⎯e in mind while defining the cost and benefit of a capital expenditure proposal ?

     (b)   What are the components of cost in an industrial project ? Discuss in brief.

     (c)   Discuss various methods of project performance evaluation.

4   Attempt any **two** parts :

     (a)   Explain bar chart. What were the problems in bar charts that led to development of network techniques.

     (b)   What do you mean by CPM and PERT. Illustrate with examples the differences between CPM and PERT.

     (c)   Consider the PERT network involving six task (a to f)

Task	Predecessor	Expected task time (day)	Variance in time (in day)
a	–	30	25
b	a	40	64
c	a	60	81
d	b	25	9
e	b, c	45	36
f	d, e	20	9

Calculate :

     (i)   The expected completion time of the project.

     (ii)   The standard deviation of the critical part of the project.

5   Attempt any **two** parts :

(a)   A small project consists of jobs in the table given below with each job is listed, its normal and minimum time. The cost of crashing is also given.

Job	Normal duration (day)	Crash duration (day)	Cost of crashing
1 – 2	9	6	Rs. 20 per day
1 – 3	8	5	25
1 – 4	15	10	20
2 – 4	5	3	10
3 – 4	10	6	15
4 – 5	2	1	40

Calculate :

(i)   Normal duration of project and minimum project duration.

(ii)   Minimum crashing costs schedules.

(iii)   Optimal duration of project schedule, if overhead cost is Rs. 60 per day.

(b)   What are essential requirements of a PM software package ?

(c)   Explain the following :

(i)   Enterprise wide project management.

(ii)   Use of Lotus - 1, 2, 3; or MS Excel in developing financial projections.