

Mid-West University  
**Examinations Management Office**

End Semester Examinations 2081

Master level/ M. Sc. (Construction Management)/ 1<sup>st</sup> Semester

Time: 3 hours

**Subject: Project Management (CMT511)**

Full Marks: 60

Pass Marks: 30

- Attempt all the questions.
- Figures in the margin indicate full marks.
- Assume suitable values, with a stipulation, if necessary.
- Candidates are required to answer the questions in their own words as far as possible.

1. Define Project Management Cycle. Describe about project life cycle and major activities with any example (such as Road, building etc.). [1+4]
2. You are given a task of creating a new hierarchical form (organizational structure) of Department of Infrastructure and Asset Management under Ministry of Physical Infrastructure, Karnali Province. Suggest a suitable chart. [4]
3. A construction company has total capital of Rs 10, 00,000 which consists of 40 % share and 60 % loan issued @ 12% interest. It requires Rs 20, 00,000 more to invest in a project and is considering for the following two options.

- i. Rs 8,00,000 share and Rs 12,00,000 loan @14 % interest
- ii. Rs 10,00,000 share and Rs 10,00,000 preference share @15 % interest

Which is best option based on Earning per Share calculation if earnings before interest and tax in the year are Rs 5, 30,000 and tax applicable is 25 %? [6]

4. Suppose that an activity had 5 days' duration and was expected to cost Rs 10,000 set into the projects and prior to finishing an activity, the following data were obtained about the progress to that activity
  - a. Have so far worked for 3.5 days on activity.
  - b. 60 % of activity has been accomplished
  - c. Rs 8500 already spent on activity.

Perform EVA analysis. [6]

5. Calculate the minimum cost and minimum duration schedule using time cost trade-off analysis of the project with following detail. Indirect cost is Rs. 1200 per day. [8]

Activity	Predecessor	Normal Duration	Crash Duration	Normal Cost	Crash Cost
A	-	5	2	5000	6500
B	A	4	3	6000	7000
C	A	3	2	5000	6500
D	A	6	4	4000	4400
E	B	5	3	15000	17000
F	D	4	2	3000	4800
G	C,E,F	6	3	8000	10400

6. A construction company has Rs 950,000 in current assets, which includes Rs 300,000 in inventories. It has Rs 700,000 in current liabilities. What is the current ratio and quick ration of the firm? Interpret your answer. [3]
7. What is ABC Analysis? How to use ABC analysis in material inventory system? [5]

8. Draw a CPM network and find all types of floats. [8]

Activity	A	B	C	D	E	F	G	H	I
Predecessor	-	-	A	A	B,C	B,C	D,E	F	G,H
Duration Days	4	4	0	6	8	8	6	3	2

9. Write a short note on (*any five*). [5x3=15]

- Application of computer in project management
- Fundamental of Value Engineering
- Responsibilities of Project Manager
- Project monitoring and quality control
- Work break down structure
- Difference between planning and scheduling

**The End**