

**THE OPEN UNIVERSITY OF SRI LANKA**  
**FACULTY OF ENGINEERING TECHNOLOGY**  
**MASTER OF TECHNOLOGY IN INDUSTRIAL ENGINEERING – LEVEL 07**  
**FINAL EXAMINATION – 2011/2012**



**MEX 7120 – PROJECT MANAGEMENT**

**DATE : 18 March 2012**

**TIME : 1400-1700**

**DURATION : Three (03) hours**

**Answer any five (5) questions. All questions carry equal marks.**

1.
  - a. Success of a project depends on how good you have built team(s). List important team –building guidelines that ensure success of a project.
  - b. What are the problems a project manager may face in an imposed team?.
  - c. How do you solve the problems that are associated with the imposed team? Substantiate the answer with your work experience.
2.
  - a. What are the limitations/ draw backs of the Grant chart?.
  - b. The hierarchical activities of Installing of an Industrial Mixer are as shown below:

Week number

Activity	Duration (weeks)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Budgeted Cost Rs (00)
1.1 Clear site	2	-----																				2400
1.2 Prepare site	3		-----																			3600
2.1 Install plinth	4			-----																		6000
3.1 Install trunking	2				-----																	2400
4.1 Install piping	5					-----																6000
2.2 Install industrial mixer	2											-----										2400
3.2 Lay cables	3												-----									3600
4.2 Connect pipes	2													-----								2400
3.3 Connect electrics	2														-----							2400
3.3 Test electrics	1																					1200
2.1 Test system	5																					6000

- i. At the end of the 10<sup>th</sup> week all work on schedule except installing of plinth has completed only 50%. What is the Budgeted Cost Work Performed (BCWP) at the end of the 10<sup>th</sup> week?. (Assume budgeted cost is equally rated per week)
- ii. If the installing of plinth requires another 4 weeks to finish the work, what is the Actual Cost of Work Performed (ACWP) of the Project?. (Assume Budgeted cost is equally rated per week)

- 3. In many projects even if a problem is found to exist it may have a pre-restructured solution and the level of involvement of the project manager is minimal. Discuss how different types of organizational structures manage the situation. Illustrate your answer with examples.
- 4.
  - a. In creating a schedule what are the skills that you need to apply?
  - b. What are the important points that you have to keep in mind concerning delays?
  - c. How do you fix the problem if a delay has occurred? Elaborate your answer with prior know how.
- 5.
  - a. Critically analyze "parallel scheduling is more beneficial than serial scheduling".
  - b. Draw a resources limited schedule with staff limit of a five (5) member team.

Activity	duration(weeks)	precedence	staff
A.1	4	-	5
A.2	5	A.1	5
B.1	7	A.2	4
C.1	4	A.2	1
D.1	9	A.2	5
C.2	5	C.1	2
B.2	4	B.1, C.2, D.1	3
D.2	3	B.2	3
C.3	4	B.2	2
C.4	2	D.2, C.3	2
B.3	9	C.4	4

- c. Deduce the percentage of staff -week waste.
- 6. Discuss on how Work Break Down Structure (WBS) is portrayed as a vehicle that brings a project success. Substantiate your answer with your work experience.
- 7. Discuss with scenarios how a project manager manages his members:
  - i. To get the work done while keeping his team motivated.
  - ii. To monitor and control work schedule and expenses.

8. (a) Critically analyze "identification of stakeholders is critical to a project success".
- (b) A newsagent's shop is a part of a major national chain. The branch in question sells a wide selection of national and local newspapers, range of magazines and booklets and books.

The executive and regional management of the chain give the store manager some degree of independence. They select items to sell, decide what stocks to hold and how these are displayed. The branch employs a store manager, two full time assistants (one of whom act as an assistant manager), Saturday helpers and delivery boys and girls. Apart from the main public sales and display area there is a separate office and a staff rest room. One of the part - time assistant who works mainly in the office, acting as a stock clerk and book keeper.

Regional manger decides on a project to install a central computer with terminals in each branch. Apart from keeping a basic staff attendance record for computing wages, the store manager is free to decide what use may be made of the new facility.

- (i) Who might be the major influences on this branch?
- (ii) Who are likely to be the stakeholders in existing practices and who will be affected by the project, and how might the project affect them?
- (iii) Draw a stakeholder map. Draw the lines showing the relationship between stakeholders.

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