

The Open University of Sri Lanka
Faculty of Engineering Technology



Study Programme	: MASTER OF TECHNOLOGY IN INDUSTRIAL ENGINEERING - LEVEL 07
Name of the Examination	: Final Examination
Course Code and Title	: MEX7120 - PROJECT MANAGEMENT
Academic Year	: 2013/14
Date	: 31 August 2014
Time	: 0930 - 1230 hrs
Duration	: 3 hours

General instructions

1. Read all instructions carefully before answering the questions.
2. This question paper consists of eight (8) questions.
3. Answer only five (5) questions. All questions carry equal marks.

1. Discuss the statement, "Project managers' ability to successfully manage stakeholders is an assured way to Project success". Substantiate your discussion with your work experience.
2. As a project manager how do you maintain project quality to meet validation and verification during the execution of the project? Substantiate your answer with your work experience.
3.
 - a. How do complexities creep into a project?
 - b. Activities of implementing a new logistics operation are as shown below:-

no	activity	Duration (wks)	precedence	staff
1.	Design logistics solution	14	-	6
2.	Refine logistics solution	32	1	3
3.	Prepare planning application	04	1	2
4.	System requirements	68	1	6
5.	Supplier briefing/negotiation	36	2	2
6.	Obtain planning consent	10	3	2
7.	Mechanical handling equipment	14	6	4
8.	Build construction	24	6	4
9.	Procure tractor units	10	6	3
10.	Procure trailer units	10	6	2
11.	Recruit and train people	14	6	5
12.	Prove new system	2		3

- (i) Deduce a resource loading schedule with staff limited to 9 people.
- (ii) Calculate the staff lost percentage.

4. In many projects even if a problem is found to exist it may have a pre structured solution and the level of involvement of the project manager is minimal. Analyze how matrix organizational structure supports to achieve it.
5. "Effective project progress control is a form of closed loop feedback system". How do you apply the feedback system to manage the progress of a project?
6. Draw a hierarchical organization structure of a large construction site and show their commitment to manage risk involvement when achieving the project objective.
7. a. How does WBS (Work Breakdown Structure) support to determine the cost of a service or product?
b. A machine maintenance activities and their budgeted cost is as tabulated below:-

Activity	Precedence	Duration (wks)	Cost (\$)
A	-	4	600
B	-	2	200
C	-	4	500
D	A,B	2	400
E	B,C	2	300
F	A,B	6	900
G	C	2	600
H	D,E,F	4	800
I	D	8	2000
J	G	8	720
K	G	6	870
L	H,J	6	1500
M	K	4	1200
N	I,L	6	2400

- (i) Deduce a Budgeted Cost Work Schedule (BCWS) for the maintenance work. (Assume the cost of activities is evenly rated)
 - (ii) If the Budgeted Cost Work Performed (BCWP) at the end of the 12th week is at \$ 4805.00, how long the maintenance work lags behind the schedule?
 - (iii) Maintenance Manager wants to crash the schedule to bring back the maintenance work on schedule. If maximum possible crash time is 50% of the normal time and crash cost of the each activity is double the normal cost, what is the extra cost to be borne to bring back the project on schedule?
8. Based on your own experience of projects, list up activities that a project manager would carry out to get a project off the ground, from a people point of view.

_____END OF QUESTION PAPER_____