

THE OPEN UNIVERSITY OF SRI LANKA  
FACULTY OF ENGINEERING TECHNOLOGY  
BACHELOR OF INDUSTRIAL STUDIES (Industrial Management)  
FINAL EXAMINATION 2007/2008

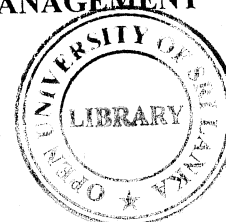


MEX 5255 – MAINTENANCE MANAGEMENT AND PROJECT MANAGEMENT

DATE : 18<sup>th</sup> May 2008

TIME : 0930 hrs- 1230 hrs

DURATION : 03 HOURS



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**INSTRUCTIONS:**

Answers to Part A and Part B should be written in separate answer books.

Answer 05 questions selecting at least 02 questions from each part.

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**PART - A**

QUESTION 01

- 1.1 Explain "Total Productive Maintenance" (TPM) concept.
- 1.2 In which way does TPM bring about an attitude change between the production and the maintenance staff. Explain.
- 1.3 Write down the main objectives expected to be achieved by introducing TPM.
- 1.4 Explain the basic steps necessary to introduce TPM to a manufacturing organization.

QUESTION 02

- 2.1 "Plant maintenance in a manufacturing organization is a very expensive affair. Yet we are compelled to implement a satisfactory maintenance programme". Comment on the above statement highlighting the benefits you can achieve as against the cost.
- 2.2 Explain how the preventive maintenance cost could be reduced without compromising the quality of maintenance.
- 2.3 Show in a graph the relationship between the production output Vs level of maintenance (cost of maintenance) in a plant.
- 2.4 If the variation of lost output against cost of maintenance is known, draw this variation too on the same graph. Hence determine the optimum operating level of maintenance.

### QUESTION 03

3.1 Define the following terms and give their units of measurement.

- i Luminous Flux
- ii Illumination
- iii Luminance
- iv Contrast

3.2 Explain how Glare, Flicker and Stroboscopic effects take place causing visual discomfort.

3.3 How does "the continuous work in dim light" affect the human eye?

### QUESTION 04

4.1 Explain "Radiant energy".

4.2 Classify different types of radiant energy according to the ascending order of its wave length.

4.3 Explain the Radiant energies that are hazardous to human being.

## **PART - B**

### QUESTION 05

5.1 Name three important things that you will accomplish during the project planning process and explain one of them in detail.

5.2 The table below considers the development of a short course in a project management. From the information given, construct the Activity On Arrow diagram.

Activity	Description	Duration/ weeks	Preceding Activity
A	Design course overview	4	-
B	Identify suitable staff members	2	-
C	Construct detailed syllabus	6	-
D	Publicity for the course	10	A
E	Confirm availability of staff	2	B
F	Select staff for the cause	1	E
G	Acknowledge the receipt of application	3	D
H	Identify written cause material	2	F
I	Preparing of teaching aids	20	G,H
J	Allocate a room for course	1	G

Determine the ESTs and LSTs, the project duration and critical path activation.

QUESTION 06

6.1 Why is it reasonable to think that as managers any action can have an effect on a project outcome?

6.2 Why is the study of time management be fundamental to a project manager?

QUESTION 07

Suppose you are in the midst of receiving bids for work on an upcoming project. Your favorite vendor contract, whom you have used many times in the past, offers you and your family tickets to box seat at the upcoming mega event. If you decide to decline this offer, **on what basis** are you going to explain the vendor about your decision?

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