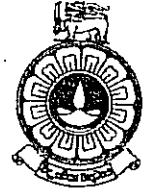


**THE OPEN UNIVERSITY OF SRI LANKA  
COMMONWEALTH EXECUTIVE MASTER OF BUSINESS/PUBLIC  
ADMINISTRATION  
FINAL EXAMINATION – APRIL 2006  
MCP 2602 – PROJECT MANAGEMENT  
DURATION : THREE (03) HOURS**



**Date : 02<sup>nd</sup> April 2006**

**Time: 9.30 a.m. 12.30 p.m.**

Answer **FIVE** questions.

01. a. Explain in your own words the purpose of project objectives. Describe briefly the importance of setting objectives right at the outset of a project and give an example of a clearly written project objective to illustrate your point. (05 marks)
- b. Comment on the following statement made by the client at a project phase review meeting:  
*'We cannot afford to terminate the project now. We have already spent more than 50% of the budget.'* (05 marks)
- c. Briefly describe the important elements of a good project plan. Also list out the inputs required from different project management knowledge areas for preparing a comprehensive project plan. (05 marks)
- d. Project Integration Management is often viewed as the most important project management knowledge area. Discuss why this might be so and the main processes in this knowledge area. (05 marks)
02. a. Describe briefly the following parameters used in project cost management:  
i. Earned Value (EV)  
ii. Planned Value (PV)  
iii. Schedule Variance (SV)  
iv. Cost Variance (CV)  
v. Cost Performance Index (CPI) (10 marks)
- b. A construction company has undertaken a pipe-laying contract, and the project manager of the contractor decided to evaluate the project performance at the end of the first two months. The cost data collected by him for the above period are given in Table Q.2.

**Table Q2**

Item	Rs. (In thousands)
Actual cost to date	550
Budgeted cost for the work scheduled for the first 2 months	350
Cumulated earned value to date	400
Total original budget for the project (BAC)	6,500

- i. Find the cost and schedule variances at the end of the above two-month period.
- ii. Determine Cost Performance Index (CPI) and Schedule Performance Index (SPI) for the project.
- iii. Given the current information, will the project finish on budget? Justify your answer.

(10 marks)

03. a. A 200 bed hospital in Colombo is in the planning and design stage of adding a new children's ward building and is scheduled to begin construction in two months. The Engineering Services Department (ESD) of the hospital is normally responsible for assigning a project manager for all projects within the hospital. Currently, ESD has no one with experience in the construction of an entire building. As a result, the president is considering using the Engineering & Architectural Consultant who is currently designing the building to do the project management as well. The head of ESD believes that his senior project engineer can handle the job for three reasons: she has a good technical background, she pays meticulous attention to detail, and she is currently available.

If you were the Chairman of the company owning the hospital, what would your choice be? Why? What additional information would you try to obtain before making a decision? What are the desirable characteristics of a good project manager? Discuss.

(10 marks)

- b. The performance of four selected project activities are shown in Table Q3. Using the information given in the table, calculate the cost variance, and performance indices for the activities. Also, indicate which project activities are on target and which need to be investigated and comment on the situation for each of the activities.

**Table Q.3**

Activity	Actual Progress (Days)	Scheduled Progress (Days)	Budgeted Cost (Rs.)	Actual Cost (Rs.)
A	2	2	4000	3500
B	4	6	3000	4000
C	1	3	5000	7000
D	3	2	2500	2500

(10 marks)

4. a. Briefly describe the processes involved in Project Time Management in their correct order. (05 marks)
- b. Draw an Activity-on-Arrow network diagram using the information given in Table Q4.
- From the network diagram, do the forward pass and find the project duration.
  - Do the backward pass and identify the critical path.
  - Assuming that the completion time is critical, identify which activities you would suggest should be the focus for management attention.

Table Q4.

Activity	Description	Duration (weeks)	Preceding Activity
A	Select software	4	-
B	Upgrade office network	3	A
C	Install hardware	6	A
D	Test software	2	B
E	Structure database	3	B
F	Train staff	5	C,D
G	System run-up	1	E,F

(15 marks)

05. a. Describe the following three types of cost estimating techniques used project management together with their advantages and disadvantages.
- Top-down or Analogous Estimates
  - Bottom-up Estimating
  - Parametric modeling
  - COCOMO (Constructive Cost Model)
- (08 marks)

- b. Project risk management involves identifying, assigning and responding to risks throughout the life of a project in order to meet the project objectives. Taking a project of your choice as an example, identify possible risk conditions associated with the following project management aspects:
- time management
  - cost management
  - human resource management
  - procurement management
  - quality management
  - scope management

(12 marks)

Cost  
0  
0  
0  
0

06. a. "The financial feasibility is not the only criterion for selection of projects". Discuss. (03 marks)
- b. Describe briefly the following financial appraisal models used in the selection of projects.
- i. Net Present Value
  - ii. Pay Back Period
  - iii. Weighted Scoring Model. (09 marks)
- c. The projected costs and benefits of a project for a period of four years are given in Table Q.6. Using a discount rate of 10 percent, determine the net present value (NPV) and payback period for this project. Also, discuss whether you would recommend investing in this project, on the basis of your financial analysis.

Table. Q.6

Year	1	2	3	4
Costs (Rs.'000)	1500	300	300	300
Benefits (Rs.'000)	0	1400	1400	1400

(18 marks)

07. a. Performance reporting keeps the stakeholders informed about how resources are being used to achieve project objectives. Briefly describe two methods that can be used for this purpose. (04 marks)
- b. A company involved in software development projects may act as the buyer in one situation and the supplier in another. Discuss how the risks of the company would vary with respect to the following types of contracts it may enter into in the above two situations.
- i. Cost reimbursement
  - ii. Fixed price (Lump sum) (04 marks)
- c. Briefly describe the following cost of quality using suitable examples:
- i. Prevention Cost
  - ii. Appraisal Cost
  - iii. External Failure Cost. (06 marks)

You are Project Manager of an IT project implemented by a company in the business of e-commerce. Should business run behind the schedule, it would cost your client Rs. 250,000 per day in lost sales. With four months to completion, you realize that the project is running late. What measures would you propose to avoid or minimize possible delay in completion.

(06 marks)

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