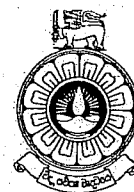


THE OPEN UNIVERSITY OF SRI LANKA
DEPARTMENT OF CIVIL ENGINEERING
CONSTRUCTION MANAGEMENT PROGRAMME - LEVEL 7
POST GRADUATE DIPLOMA / STAND ALONE COURSES



Final Examination - 2012/13

CEX 7108- Cost Control and Cash Flow in the Construction Industry

Time Allowed : Three Hours

Date: 08th August 2013

Time: 0930-1230 hrs.

This paper consists of six questions.

Answer a **total of four (4)** questions including **Q1** and any three (3) questions from **Section B**

Section A is compulsory and carries 40 marks.

You are advised to spend about one hour on this question. Graph sheets will be provided.

SECTION A - Compulsory (40 marks)

Q1. A company has undertaken a renovation project of a small building. The monthly budget for this project is given in Table 1.

Table 1.- Contractor's monthly budget for the contract

Month	1	2	3	4	5	6
Contractor's costs (Rs. '000)	5	8	10	12	16	20
Contractor's profit % added to costs to give monthly values	5	5	4	4	3	3

Calculate the following making reasonable assumptions wherever necessary.

(a) Calculate the contractor's cash flow based on the following data

- (i) A delay of one month may be assumed between the contractor incurring a cost liability and the outward cash flow.
- (ii) Payment to the contractor is made one month after each month's interim measurement.
- (iii) Retention at the rate of 5% is deducted from each monthly payment
- (iv) Half the retention is paid to the contractor, in the final monthly payment. The remaining half is paid six months after completion.

(30 marks)

- (b) In month 2, an additional work in the foundation was required, which cost the contractor Rs. 40,000.00 and the amount due to the contractor for this work was the subject of a disputed claim which was eventually settled at Rs. 50,000.00 and was paid in month 05. Calculate and comment on the effect of this, on the contractor's cash flow (10 marks)

SECTION B – Answer any three (03) questions

Q2.

- (a) Explain why cash flow forecasting is important during the pre-tender stage of a project (08 marks)
- (b) Describe in detail the types of information and data that a contractor needs in order to be able to plan costs effectively (12 marks)

Q3.

- (a) Explain why cost over-runs occur on construction projects, citing examples (10 marks)
- (b) With the aid of diagrams explain the concept of cash flow on a construction project (10 marks)

Q4.

- (a) Explain the conflict faced by a contractor in attempting to control time, cost and quality on a construction project (10 marks)
- (b) Using diagrams to illustrate your answer describe how cost control may be implemented on a project by a contractor (10 marks)

Q5.

- (a) Explain the functions of all parties involved in Cost Control at the Construction Stage of a medium scale building construction project. (10 marks)
- (b) Explain 'Capital Lock-up' with the aid of diagrams. Name three factors which can affect capital lock-up and explain the effect of each. (10 marks)

Q6.

- (a) Discuss the steps you would take to minimize the overall cost of a project by making use of the Value Engineering concept at the design stage. Use a simple example to explain the effect of this measure on cost control. (12 marks)
- (b) Discuss the 'Cost Cutting' measures that can be taken on construction sites and possible effects on quality. (08 marks)