

THE OPEN UNIVERSITY OF SRI LANKA
 Department of Civil Engineering
 Construction Management Programme - Level 7
 Post Graduate Diploma / Stand Alone Courses
 CEX7104- Estimating Tendering & Marketing in the Construction Industry



FINAL EXAMINATION - 2010
 Time Allowed: Three (03) Hours

Date: 09-03-2011 (Wednesday)

Time: 0930 - 1230 hrs.

Answer Four (04) questions with at least one (01) question from each section.

SECTION A: ESTIMATING AND TENDERING

Q1.

A 4.0 metres wide and 38.0 metres long walk way leading to a building is designed to be paved with pigmented interlocking cement blocks of size 220 mm x 100x 80 mm. Road surface is to be finished to a slope of 1:400. The upper edge of the road cross section is to be lined with a pre-cast kerb bedded in Grade 20 concrete (20 mm aggregate). Paving blocks are to be laid on 75 mm compacted sand bed and sub grade is to be manually completed before laying the sand bed. The lower edge of this road cross section is to be provided with Pre-Cast concrete kerb and channel units set in Grade 20 concrete.

- a) List the activities involved in the above work.

(Marks 05)

- b) Calculate the basic cost of constructing and completing the walkway described above.

Prices of materials, products and labour rates are given below. You may assume reasonable prices for materials or cost of activities not stated:

- Portland Cement -Rs. 745.00 per 50 kg. bag
- Sea Sand -Rs. 1740.00 per 1 m³ delivered to site
- Inter locking Blocks -Rs. 85.00 per each block delivered to site
- Pre- Cast concrete kerb unites (450 mm wide x 600mm long) - Rs. 540.00 each
- Pre-Cast Concrete kerb and channel units (450 mm wide x 600mm long) -Rs. 960.00 each
- Skilled Labour -Rs. 940 .00 per labourer per day
- Unskilled Labour -Rs. 700.00 per labourer per day

(Marks 20)

Q2.

- (a) Explain in detail the purpose of including the Preliminaries Section in a Bills of Quantities.

(Marks 10)

- (b) Identify time related items in the Preliminaries Section and explain the manner in which such amounts stated under respective items could be adjusted due to extension of the period of contract due to no fault of the Contractor.

(Marks 15)

Q3.

Daywork Schedule is an essential part of a Bidding Document. Explain in detail the circumstance that may require the Engineer to order certain work to be executed under Daywork procedure.

(Marks 25)

Q4.

The Architect to a project requires you to prepare a cost comparison between the following two alternative proposals for external walls of a three story (ground and two upper floors) apartment building:

- i. 220 mm thick common brick wall in 1:6 cement- sand mortar plastered both sides with 15mm thick 1:1:5 lime- cement- sand mortar, painted internally with emulsion paint and externally with external quality emulsion paint such as 'Weathershield'
- ii. 220 mm thick extruded wire cut clay brickwork exposed externally with recess pointing and internally plastered and painted as above.

The cost comparison shall include a detailed breakdown of cost for both alternatives.

The following prices of applicable materials and labour listed under question No-1 (Q1) shall be used in your calculation:

- i. Common clay bricks -Rs. 6,800/= per 1,000 (avg. size of a brick is 206 x 95x58 mm)
- ii. Wire cut clay bricks -Rs. 9,880/= per 1,000 (brick of standard size)
- iii. Lime (slaked) -Rs. 7,600/ = per m³
- iv. Paint - Primer -per litre Rs. 372/=
- v. Paint- Emulsion -per litre Rs. 412/=
- vi. Paint-External Emulsion -per litre Rs. 460/=

(Marks 25)

SECTION B: MARKETING

Q5.

- (a) Explain with the aid of the product 'floor tile' how a business venture could be implemented using the four alternative business strategies (concepts) while emphasizing on the focus and means of each strategy.

(Marks 07)

- (b) Explain how a firm engaged in selling medium size houses adopts marketing strategy to succeed in the business.

(Marks 11)

- (c) Explain how the marketing mix ('four Ps') could be used by a paint manufacturer trying to introduce a new Emulsion paint.

(Marks 07)

Q6.

- (a) Explain how a large scale local contractor could use market research for survival in the face of competition.

(Marks 10)

- (b) There are many approaches a firm can adopt in selecting a target market. Describe each approach while supporting your answer with diagrams.

(Marks 08)

- (c) Describe what is meant by 'market segmentation' and explain how this procedure could be used by a firm engaged in building houses for sale in order to maximize profits.

(Marks 07)