

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 - 2009
 Time Allowed: **Three (03) Hours**

Date: 10-03-2010 (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) Identify common risks involved in a Construction Contract. (Marks 05)
- (b) From the Contractor's point of view, which type of contract would offer the least risks out of the under mentioned types;
- (a) Cost Plus Fixed Fee Contract.
- (b) Lump Sum Contract.
- (c) Remeasurement (measure and pay) Contract.

You are required to give adequate reasons to support your answer.

(Marks 20)

Q2..

In a Contract for building a rural hospital complex, the intended period of construction was 340 days. Due to reasons beyond the control of the Contractor, the actual completion of works was delayed by 69 days. Among other claims for loss or damages the Contractor submitted a claim for additional payments under the following items in Preliminaries - Bill No. 01 in the Contract Bill of Quantities:

- Revalidating the Performance Security
- Revalidating the Advance Payment Security
- Extending the Insurance Cover for Works, Machinery & Equipment, Material, Third Party Personnel & Property etc.
- Providing facilities to the Engineer and his staff including constructing, maintaining and removal on completion of Works, of a temporary building.
- Providing telephone and facsimile facilities, electricity, water for drinking & construction work including connection charges, consumption, rentals etc.

If you are the Engineer's Representative, describe the manner in which you will process the Contractor's Claim for prolongation of above services.

(Marks 25)

Q3.

Give details of the "all-in cost" of following materials in computing the basic cost per unit, for estimating purposes:

- (i) Timber for structural members of roof framing, sawn size of member 150 x 100 mm. Price of timber in log form is Rs. 54,644.00 per m³. (give rate per meter length excluding VAT)
- (ii) Reinforcement steel rods diameters over 20 mm, priced at source of supply Rs. 48,000.00 per t. (give rate per tonne excluding VAT)

- (iii) Lateritic earth filling over site. Price of earth supplied to site is Rs. 420.00 per m³. (give rate per m³ of compacted volume excluding VAT)

(Marks 25)

Q4.

Total estimated tender price excluding Preliminaries and Provisional Sums of a project is Rs. 184,200,000.00. The tenderer is entitled to trade discounts stated against the following materials:

| | | |
|-------|---|------|
| (i) | Reinforcement steel (all diameters) | 7 ½% |
| (ii) | Gypsum ceiling panels and metal framing | 16% |
| (iii) | All types of paint | 12% |
| (iv) | P.V.C. pipes and fittings | 20% |

The construction input percentage of the work involving above materials are as follows;

| | | |
|---|---|--------|
| • | Reinforcement steel (all diameters) | 10.40% |
| • | Metal framed ceiling with Gypsum ceiling panels | 1.80% |
| • | Paint | 2.70% |
| • | P.V.C. pipe and fitting | 2.10% |
| • | Waterproofing (laid complete) | 15.0% |

The overheads and profit component (Mark-up) included in the B.O.Q. is 30% of the basic cost. If the tenderer wishes to discount his offer by an amount equal to 60% of the above trade discounts, calculate the overall discount the tenderer could allow in the item of work in the "measure section" of the priced Bill of Quantities, the estimated total of which is Rs.184,200,000.00.

Rates in Bill of Quantities do not include VAT.

(Marks 25)

SECTION B: MARKETING

Q5.

- (a) Describe the four important business (concepts) strategies related to selling and marketing functions with a special reference to their beliefs, focus and means. Also comment on their applicability in the current business scenario. Using 'cement sand block' as a product, explain how these strategies can be used to prosper in business.

(Marks 15)

- (b) Elaborate in detail what is understood by market research. Explain how a paint manufacturer could use market research for survival in the face of stiff competition.

(Marks 10)

Q6

- (a) There are many approaches a firm can take in selecting a target market. Describe each approach with the aid of illustrations.

(Marks 06)

- (b) Give examples for different 'products' and 'markets' under each approach referred to in part (a) for selection of target market. Use the core product 'paint', as the basis for your explanation.

(Marks 06)

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

(Marks 06)

- (d) Describe four P's of marketing mix.

(Marks 07)