Diploma in Civil Engineering / Diploma in Electrical & Mechanical Engineering

Term-End Examination

June, 2006

BCE-034 : ESTIMATING & QUANTITY SURVEYING-I

Time : 2 hours *Maximum Marks : 70*

Note : *Question number 1 is* ***compulsory****. Attempt any* ***four*** *questions from the remaining. Assume suitable data wherever necessary and state it clearly. Use of calculator is allowed.*

1. Choose the correct answers from the given alternatives. *7×2=14*

(i) In a RCC beam having effective length (L) and effective depth (d), the total length of a 45° bent up/crank bar at both sides will be

(a) L — 2 × 0·4 d

(b) L — 0·42 d

(c) L + 2 × 0·42 d

(d) L + 0·042 d

(ii) The Damp Proof Course (DPC) is measured in

(a) Cu m

(b) Sq m

(c) Metres

(d) Cft

(iii) The item of steel work measured in sq m is

(a) Rolling shutters

(b) Reinforcement bar in RCC

(c) Hold fasts

(d) Iron work in trusses

(iv) Cement Sand Mortar used for ceiling plaster is

(a) 1 : 6

(b) 1 : 4

(c) 1 : 3

(d) 1 : 2

(v) The type of pointing in which V-shaped projection outside the wall surface is provided is

(a) V-pointing

(b) Tuck-pointing

(c) Struck-pointing

(d) Beaded pointing

3. Work out quantities of concrete and reinforcement for a RCC lintel of size 300 × 600 mm, which is used over a clear span of 5·00 m. It has 300 mm bearing on both sides. Lintel has 25 mm dia main bars, one of them is bent up 45° at span/5 distance. There are two anchor bars of 10 mm dia at top side. Lintel has 6 mm dia vertical stirrups @ 300 mm center to center throughout the length. Assume a clear cover of 25 mm. *14*

4. Prepare the Analysis of Rates for any ***two*** of the following items : *2×7=14*

(a) 12 mm thick 1 : 6 cement plaster on super-structure walls.

(b) Teak wood frame wrought, framed and fixed of section 8 × 12 cm for door size 2·14 × 1·20 m without bottom sill.

(c) Brickwork 1 : 6 in cement mortar in foundation and plinth.

5. Write down detailed specifications of any ***two*** of the following items : *2×7=14*

(a) Distempering on walls

(b) Lime concrete 1 : 4 : 8 in foundation

(c) RCC works 1 : 2 : 4 in roof slabs

6. (a) Discuss briefly the "Contract System" for civil construction work from inviting of tender to allotment of contract.

(b) Write in brief about Termination of Contract. *2×7=14*

7. Write short notes on any ***four*** of the following : $4 \times 3\frac{1}{2} = 14$

(a) Special repair works

(b) Security money

(c) Administrative Approval

(d) Work charged establishment

(e) Schedule of Rates

(f) Analysis of Rates