No. of Printed Pages : 5

BCE-034

DIPLOMA IN CIVIL ENGINEERING (DCLE(G)) DCLEVI

Term-End Examination

00452

December, 2012

BCE-034 : ESTIMATING AND QUANTITY SURVEYING - I

Time : 2 hours *Maximum Marks : 70*

Note : *Attempt **five** questions in all. Question number **1** is **compulsory**. Assume suitable data, wherever required. Use of calculator is **permitted**.*

1. Select the correct answer from the given alternatives : **7x2=14**

   (a) Which of the following is 'Prismoidal Formula' used for earth work :

   (i) $V = \left(\frac{A_1 + A_2}{2}\right) l$

   (ii) $V = A_m \times l$

   (iii) $V = \frac{l}{6}(A_1 + 4A_m + A_2)$

   (iv) $\frac{\Sigma A}{6}$

(b) Half brick masonry is constructed using bonds :

(i) Flemish bond (ii) Header bond

(iii) Harrying bond (iv) Stretcher bond

(c) Brick on edge flooring measurement unit is :

(i) Per m^3 (ii) Per m^2

(iii) Per km (iv) Per kg

(d) Porcelain bath tub is fixed in bathroom of :

(i) Class - 'A' Buildings

(ii) Class - 'B' Buildings

(iii) Class - 'C' Buildings

(iv) Every class of Buildings

(e) Queen-post roof truss is best suited for a span of :

(i) Less than 3 metre

(ii) Less than 9 metre

(iii) Upto 6 metre

(iv) 9 m to 14 metre

(f) Measurement books are used for :

(i) Recording the work executed

(ii) Preparation of estimate

(iii) Writing specifications

(iv) Quotation of rates

(g) Which of the following is not the type of pointing :

(i) Struck (ii) Keyed

(iii) V-grooved (iv) Y-shaped

2. A berm of canal is to be prepared by filling earth work. The cross sectional area of filling of a 250 m long stretch at both ends are 20.50 m^2 and 18.40 m^2, respectively. Using 'Average-cross-sectional Area Method' calculate the quantity of earthwork in filling. **14**

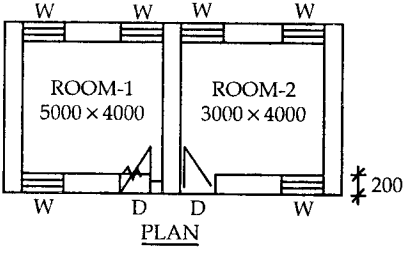
3. With the help of given sketch calculate the following items : **4x3½=14**

   (a) Earthwork in excavation in foundation trenches

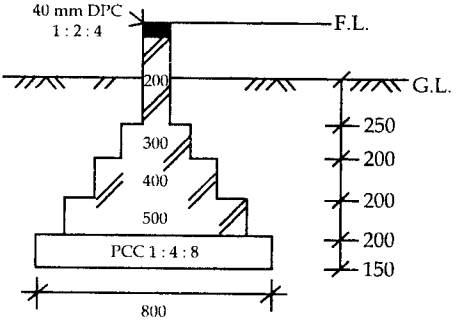
   (b) Cement concrete in foundation base of 1 : 4 : 8 mix.

   (c) Brick work in foundation upto ground level in cement mortar 1 : 6.

   (d) 40 mm thick 'Damp-proof course' with c.c. 1 : 2 : 4 mix.



PLAN



FOUNDATION SECTION

Window $W = 1200 \times 1500$ mm

Door $D = 1000 \times 2100$ mm

Note : All dimensions are in mm

4. Prepare analysis of rates for ***any two*** of the following : **2x7=14**

   (a) Cement concrete with 4 cm gauge stone ballast, coarse sand and cement in 4 : 2 : 1 proportion.

   (b) First class brick work in Jack Arches in 1 : 3 cement and coarse sand mortar.

   (c) First class brick work in white lime and surkhi mortar 1 : 3 in foundation and plinth.

5. Differentiate between ***any four*** of the following : **4x3½=14**

   (a) 'Panelled door shutters' and 'wire gauzed door shutters'.

   (b) 'Petty works' and 'Major works'.

   (c) 'Lump-sum contract' and 'Item rate contract'.

   (d) 'Semi-circular arch' and 'segmental arch'.

   (e) 'Class-'A' Buildings' and 'Class-'C' Buildings'.

   (f) 'Muster Roll' and 'Measurement Book'.

6. Write the specifications for ***any two*** of the following : **2x7=14**

(a) Earth work in filling.

(b) Lime concrete work in buildings

(c) Half brick masonry

(d) Cement and sand mortar pointing on brick walls

7. Write short notes on ***any four*** of the following :

(a) Arch work in stone masonry **4x3½=14**

(b) King post roofs

(c) Deposit works

(d) Item rate contract

(e) Pre-cast concrete work

(f) Various type of arches