

**DIPLOMA IN CIVIL ENGINEERING
DCLE(G) / DCLEVI**

Term-End Examination

June, 2015

00423

**BCE-042 : ESTIMATING AND QUANTITY
SURVEYING – II**

Time : 2 hours

Maximum Marks : 70

Note : *Attempt five questions in all. Question no. 1 is compulsory. Use of calculators is allowed. Assume suitable data wherever required.*

1. Select the correct answer from the given alternatives : $7 \times 2 = 14$

(a) For preparation of "Abstract of quantities and prices" in MES, Form No. used is

(i) IAFW – 2264 and IAFW – 2264 A

(ii) IAFW – 2158

(iii) IAFW – 6422

(iv) IAFW – 1833

(b) Bhisti is a labour of category

(i) Unskilled

(ii) Semi-skilled

(iii) Skilled

(iv) Waterman

- (c) The unit of measurement for Wooden Chaukhat for door is
- (i) Nos.
 - (ii) Sq.m.
 - (iii) Cu.m.
 - (iv) Per opening of door
- (d) MES SSR – 2004 Part I has
- (i) 19 sections
 - (ii) 29 sections
 - (iii) 11 sections
 - (iv) 21 sections
- (e) Most accurate estimate of a work is based on
- (i) Star Rate estimate
 - (ii) Plinth area estimates
 - (iii) Item-wise estimates
 - (iv) Service unit estimate
- (f) The expected out turn for Brick-work in superstructure per mason per day is
- (i) 1.0 m³
 - (ii) 1.25 m³
 - (iii) 1.5 m³
 - (iv) 1.80 m³

(g) As per general condition of contract any single work, job or service ordered on a term contract shall not exceed

(i) ₹ 1,00,000

(ii) ₹ 60,000

(iii) ₹ 50,000

(iv) ₹ 10,000

2. (a) What are the different forms of measurement? Explain with examples.

(b) Covered area of a residential building at ground floor is 125.75 sq.m. and building height is 3.50 m. Calculate the cost of the building by estimating on "Cubical Content Basis". Assuming cost per cu.m. ₹ 1,250 and + 12% Building Cost Index. $2 \times 7 = 14$

3. A beam of cross-section 250 × 500 mm is 6000 mm long. It has 4 bars of 20 mm dia at bottom, 2 bars of 16 mm dia at top and stirrups of 8 mm dia bars @ 250 mm c/c. Assuming end cover 50 mm side, top, bottom cover 25 mm, calculate the following : 14

(a) Main reinforcement of beam

(b) Reinforcement for stirrups

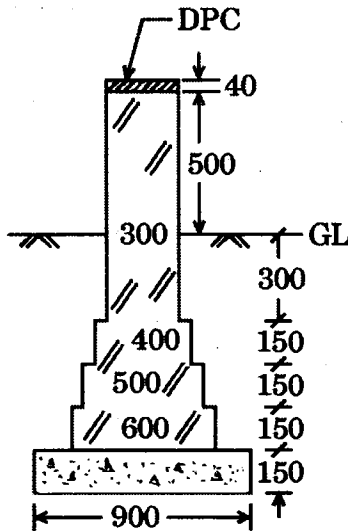
(c) RCC 1 : 2 : 4 in beam

(d) Form-work taking full bearing on walls 30 cm thick.

4. Prepare Analysis of Rate for the following items of works : 2×7=14

- (a) Form-work for suspended slabs such as roof slabs, floor slabs, landing and similar works.
- (b) Providing and laying steel reinforcement deformed or twisted bars 10 mm dia and above, cut to length, bent to shape required including cranking, bending and binding with MS wire not less than 0.9 mm dia.

5. Calculate the following quantities from the given sketch for a room having internal dimensions 3000 × 2000 mm and two door openings of size 1.20 × 2.10 m : $4 \times 3 \frac{1}{2} = 14$



(All dimensions in mm)

- (a) Earthwork in Excavation
- (b) PCC in base
- (c) Brick-work in foundation and plinth with 1 : 6 CM.
- (d) Flooring with Marble stone

(Note : Calculate the brick-work for each step, separately)

6. Prepare a Star Rate for supplying and fixing of galvanised two-strand steel barbed wire 2.24 mm dia barbed with 2 mm dia barbs at 75 mm spacings and straining and fixing to any type of standard rails, including securing or tying at crossings with and provision of galvanised MS staples as directed. (Each line of wire to be measured)

14

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

$$4 \times 3 \frac{1}{2} = 14$$

- (a) Pro-Rata Analysis
- (b) Work Orders
- (c) Procedure of Take off
- (d) Importance of Estimation
- (e) Urgent Requisition
- (f) Brief Specification of a Building
- (g) Factors affecting "Rate Analysis"