

**DIPLOMA IN CIVIL ENGINEERING
(DCLEVI)**

Term-End Examination

June, 2013

01362

**BCE-042 : ESTIMATING & QUANTITY
SURVEYING-II**

Time : 2 hours

Maximum Marks : 70

Note : Attempt five questions in all. Question no. 1 is compulsory. Assume suitable data wherever required.

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

(a) MES SSR Part I (2004) has :

- (i) 19 sections
- (ii) 21 sections
- (iii) 41 sections
- (iv) 18 sections

(b) When any item neither exists in SSR nor the rates can be derived, a special rate is prepared for pricing such item of work which is called ?

- (i) Star Rate
- (ii) Prorata Rate
- (iii) Not SSR Rate
- (iv) Missing Rate

- (c) As per MES practice, take off sheet column No.3 is used for :
- (i) Timsing
 - (ii) Description
 - (iii) Recording dimensions
 - (iv) Recording, squaring results of Dimensions
- (d) Most accurate estimate is based on :
- (i) Plinth area
 - (ii) Service unit
 - (iii) Typical Bay
 - (iv) Item wise
- (e) The expected outturn for brick masonry in super structure per mason per day is :
- (i) 2.00 m^3
 - (ii) 1.5 m^3
 - (iii) 1.25 m^3
 - (iv) 1.0 m^3
- (f) For a Panelled shutter, the painting factor for each face is taken as :
- (i) 0.75 times
 - (ii) 1.0 time
 - (iii) 1.20 times
 - (iv) 1.3 times

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

(i) Rs. 10,000

(ii) Rs. 50,000

(iii) Rs. 60,000

(iv) Rs. 1.0 lac

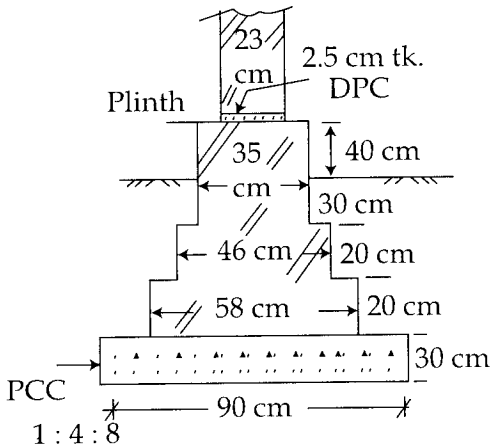
2. (a) Prepare an Analysis of Rate for : cement concrete in foundation, filling and mass concrete type D₂ 1:4:8 (40 mm graded aggregate). 2x7=14

(b) Prepare a prorata for providing 35 mm thick flush shutter, solid core, construction with block board core and plywood face panels, commercial types both sides.

3. (a) What are main items of works for complete estimation of one building? Write with brief specifications. 2x7=14

(b) A Hospital building is proposed to be constructed for 60 bed capacity. If cost of similar building is Rs. 43250 per bed + 7.5% Building Cost Index then calculate cost of the project.

4. A beam of size 300×600 mm has been used over a clear span of 5.00. Bearing on wall is 200 mm on each side. It has main bars 3 Nos, 20 mm ϕ and 2 Nos, 16 mm ϕ Anchor bars at top. Stirrups 8 mm ϕ @ 230 mm c/c have provided. Assuming end covers 50 mm and side, top, bottom cover 25 mm calculate $4 \times 3\frac{1}{2} = 14$
- Main reinforcement of beam
 - Stirrups reinforcement
 - RCC 1 : 2 : 4 in beam
 - Centering and shuttering
5. Calculate the following quantities from given drawing for a room size 3.50×2.50 m $4 \times 3\frac{1}{2} = 14$
- Earth work in excavation
 - PCC 1 : 4 : 8 in foundation
 - Brick work 1 : 6 upto plinth.



- (d) 2.5 cm thick DPC of mix 1 : 2 : 4 including water proofing compound.
6. A room of internal dimension 4.0×5.0 m has one door and two windows of size 1.20×2.10 m and 1.0×1.0 m respectively. Wall thickness is 230 mm. $2 \times 7 = 14$
- Calculate following items of works :
- (a) RCC roofing 1 : 2 : 4 assuming full bearing on walls. Slab thickness 10 cm.
- (b) Ceilling plaster 1 : 3 with cement mortar.
7. Write short notes on **any four** of the following :
- (a) Major factors affecting Analysis of Rate
- (b) Standard schedule of Rate $4 \times 3\frac{1}{2} = 14$
- (c) Procedure of Take Off
- (d) Star Rates
- (e) Urgent requisition
- (f) Estimation on Typical bay basis
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