



Roll No.

**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF ENGINEERING**

**TEST - 1**

**Even Semester:** 2018-19

**Course Code:** CIV 215

**Course Name:** Estimating, Costing and Valuation

**Programme & Sem:** B.Tech & VIII Sem (Group-I)

**Date:** 01 March 2019

**Time:** 1 Hour

**Max Marks:** 40

**Weightage:** 20%

**Instructions:**

- (i) Read the question properly and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and Non-programmable calculators are permitted.

**Part A**

Answer **all** the Questions. **Each** question carries **four** marks.

(3Qx4M=12)

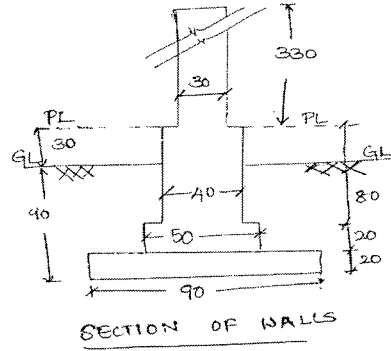
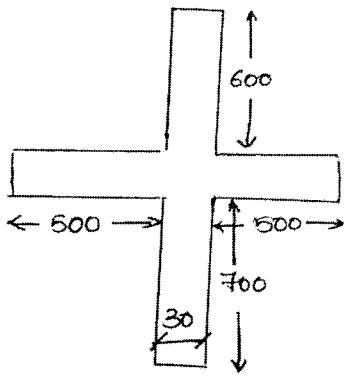
1. What are the units of measurements of the following item of works:
  - a. Pointing
  - b. Excavation
  - c. Installation of fence
  - d. Installation of Doors and Windows
2. What are the deduction made for opening in brickwork according to IS 1200?
3. Explain about the factors to be considered while preparing a detailed estimate.

**Part B**

Answer **all** the Questions. **Each** question carries **eight** marks.

(2Qx8M=16)

4. The plinth area of an apartment is 800sqm. Determine the total cost of the building from the following data:
  - a. Rate of construction = Rs.1100/m<sup>3</sup>
  - b. Height of the building= 16.25 m
  - c. Cost of water supply at 10% of the building cost
  - d. Cost of sanitation and electrification at 12% of the building cost
  - e. Cost of architectural features at 4% of the building cost
  - f. Cost of contingencies at 5% of the building cost
5. Calculate the quantities of the following item of work using the centerline method from the figure given below:
  - a. Earthwork excavation in foundation
  - b. 1st class brickwork in superstructure



**Part C**

Answer the Question. Question carries **twelve** marks.

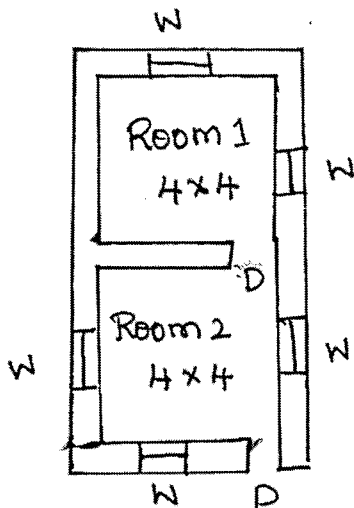
(1Qx12M=12)

6. Estimate the quantities for the following items using longwall shortwall method for the plan given below:

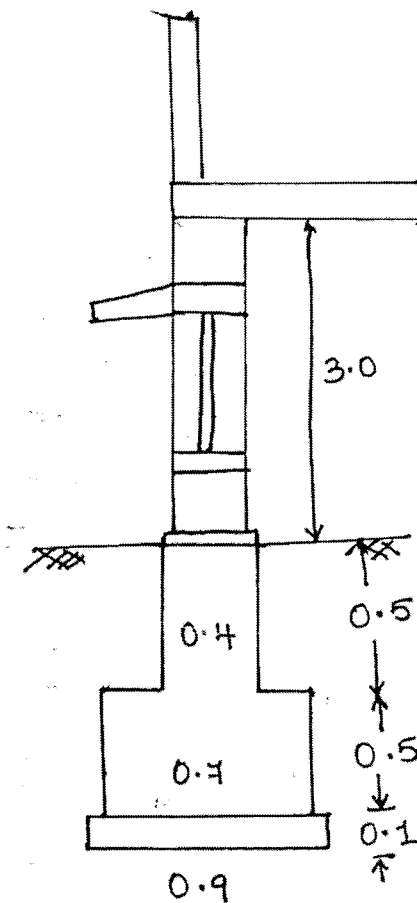
- Earthwork in excavation in foundation
- Lime concrete bed in foundation
- 1<sup>st</sup> class brickwork in foundation and plinth
- 1<sup>st</sup> class brickwork in cement mortar considering deductions for openings

Schedule of openings:

- Door: 1.2X2.1
- Window: 1.0X1.5

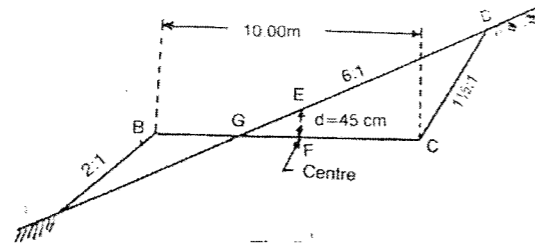


PLAN OF A BUILDING



CROSS-SECTION

cutting 1.5:1, depth at the centre is 45 cm althrough. Calculate the quantity of earthwork in banking and cutting for a length of 200m. Estimate the cost of making the formation of road if the rate of earthwork is Rs.275/cum.



**PRESIDENCY UNIVERSITY  
BENGALURU  
SCHOOL OF ENGINEERING  
END TERM FINAL EXAMINATION**

**Even Semester:** 2018-19  
**Course Code:** CIV 215  
**Course Name:** Estimation, Costing and Valuation  
**Program & Sem:** B.Tech & VIII Sem (Group-I)

**Date:** 20 May 2019  
**Time:** 3 Hours  
**Max Marks:** 80  
**Weightage:** 40%

**Instructions:**

- (i) Read the question properly and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and Non-programmable calculators are permitted

5. Calculate the quantity of earthwork using all three methods for 200m length for a portion of a road in an uniform ground the heights of the bank at two ends are given as 1.00m and 1.60m. The formation width is 10m and side slope is 2:1. Assume there is no transverse slope.

**Part C**

Answer **both** the Questions. **Each** question carries **fifteen** marks. (2Qx15M=30M)

- 6. Perform rate analysis on:
  - a. 12mm cement plastering in ceiling 1:6 ratio
  - b. RCC work for column 1:1.5:3 with 2% steel.
- 7. Prepare an estimate for the portion of the road from chainage 14 to 22 from the data given below. Draw also the longitudinal and typical cross sections for cutting and banking. The rate of earthwork is Rs.280/m<sup>3</sup>  
The Road formation is proposed at uniform falling gradient 1in 200 passing through GL at chainage 14. Length of one chain= 30m.

Chainage	14	15	16	17	18	19	20	21	22
Ground Level	108.60	109.25	109.40	108.85	108.50	107.25	106.80	107.15	107.20

**Part A**

Answer **all** the Questions. **Each** question carries **one** mark (10Qx1M=10M)

- 1. Choose the appropriate answer from the following options:
  - i. The main factor to be considered while preparing a detailed estimate, is
    - a. Quantity of the materials
    - b. Availability of materials
    - c. Transportation of materials
    - d. All the above
  - ii. The brick work is measured in sq metre, in case of
    - a. Brick flat Soling
    - b. Half brick wall
    - c. Partition wall
    - d. All of the above
  - iii. The cross-sections for a highway is taken at
    - a. Right angle to the centre line
    - b. 30 meters apart
    - c. Intermediate points having abrupt change in gradient
    - d. All of the above





Roll No.

**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF ENGINEERING**

**TEST - 2**

**Even Semester:** 2018-19

**Course Code:** CIV 215

**Course Name:** Estimation, Costing and Valuation

**Program & Sem:** B.Tech & VIII Sem (Group-I)

**Date:** 13 April 2019

**Time:** 1 Hour

**Max Marks:** 40

**Weightage:** 20%

**Instructions:**

- (i) Read the question properly and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and Non-programmable calculators are permitted.

**Part A**

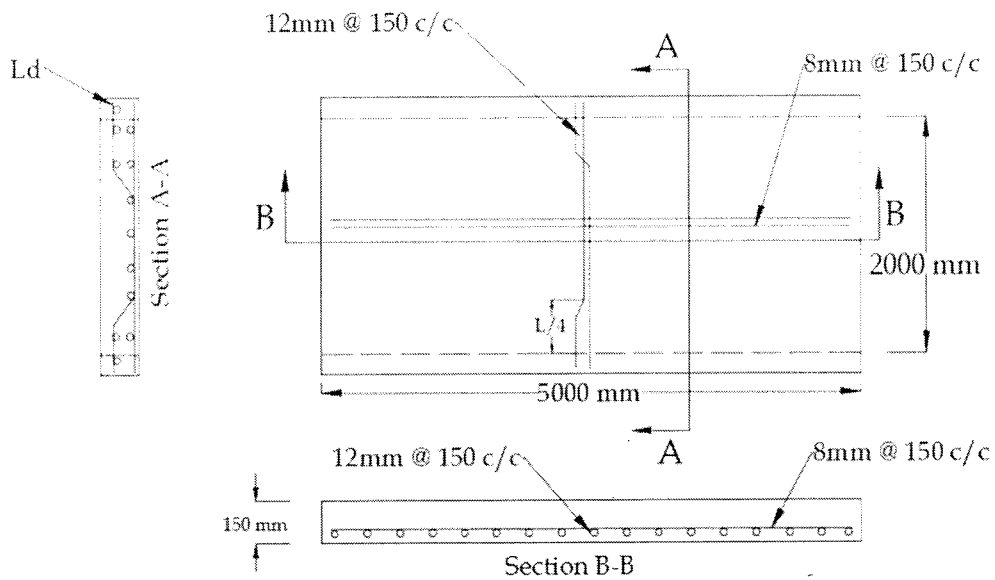
Answer **all** the Questions. **Each** question carries **four** marks. (3Qx4M=12)

1. Calculate lead and lift if the excavated earth is to be moved from 5.5m below ground to truck which is parked 250m away from the site of excavation.
2. Calculate the area of side sloping surface if the mean depth is 1.5m with side slope 1.5:1 for the length of 400m road.
3. The total volume of concrete of mixed proportion 1:2:4 required for construction of staircase is given as 63cft. Calculate the quantity of cement, aggregate and sand required for the concrete.

**Part B**

Answer the Questions. The Question carries **eight** marks. (1Qx8M=8)

4. Calculate the quantity of steel in one way slab using the given data:
  - a. Main bars are 12 mm in diameter @ 150 mm centre to centre spacing
  - b. Distribution bars are 8 mm in diameter @ 150 mm centre to centre spacing. (Main Bar & Distribution Bar Difference)
  - c. Top and Bottom Clear Cover is 25 mm
  - d. Consider Development length as 40 d
  - e. Thickness of Slab – 150 mm



### Part C

Answer the Question. The Question carries **twenty** marks.

(1Qx20M=20)

5. Determine the quantities of earthwork for the portion of the road between chainage 50 and 56 the following data, lengths being measured with a standard 20 m chain.

Chainage	50	51	52	53	54	55	56
Ground Level	131.1	131.2	130.9	131.2	130.8	130.7	130.6

The formation level at 50 is 130 and the road is in a rising gradient of 1 in 200. The width of the formation is 10m and the side slopes is 1:1 in cutting. Draw longitudinal and cross section using the above data and also calculate the cost of the earth work if cutting is done at Rs.250/m<sup>3</sup>.