

# END TERM EXAMINATION

SIXTH SEMESTER [B.TECH] MAY-JUNE 2016

Paper Code: ETCE-306

Subject: Quantity Surveying and  
Cost Estimation

Time: 3 Hours

Maximum Marks: 75

Note: Attempt any five questions including Q.no.1 which is compulsory.  
Assume missing data suitably, if not given.

- Q1 (a) Attempt **any five** parts from the following: (5x5=25)
- (i) Plinth area
  - (ii) Carpet area
  - (iii) Circulation area
  - (iv) Floor area
- (b) Explain the following detailed estimate/  
(i) Individual wall method  
(ii) Centre line method
- (c) Briefly explain the various methods for calculating depreciation.  
(d) What are the various methods for the calculation of present-day cost.  
(e) Define valuation. What are the different purposes of valuation? Write the different methods of valuation.  
(f) Explain the detailed specifications for any four items of work?  
(g) Explain the different types of estimates & differentiate detailed estimate from cube rate estimate?
- Q2 A three-storied building is standing on a plot of land measuring 800 sq m. the plinth area of each storey is 400 sq m. the building is of rcc framed structure and the future life may be taken as 70 years. The buildings fetches a gross rent of Rs. 50,000 per month. Work out the capitalized value of property on the basis of 6% net yield. For sinking fund 3% compound interest maybe assumed. Cost of land may be taken Rs. 20,000 per sq m. Other data required may be assumed suitably. (12.5)
- Q3 Calculate the annual rent of a building with the following data. (12.5)
- Cost of land = Rs. 20000/-  
Cost of building = Rs. 80000/-  
Estimate life = 80 years  
Return expected = 5% on land 6% on building  
Annual repairs are expected to be 0.7 % of the cost construction and other out goings will be 25% of the gross rent. There is no proposal to set up a sinking fund.
- Q4 Estimate the following quantity for the figure given below? (12.5)
- (a) Earth work excavation
  - (b) PCC
- Q5 Estimate the following quantity for the figure given below? (12.5)
- (a) Brickwork above & below Ground level
  - (b) RCC work

P.T.O.

ETCE-306



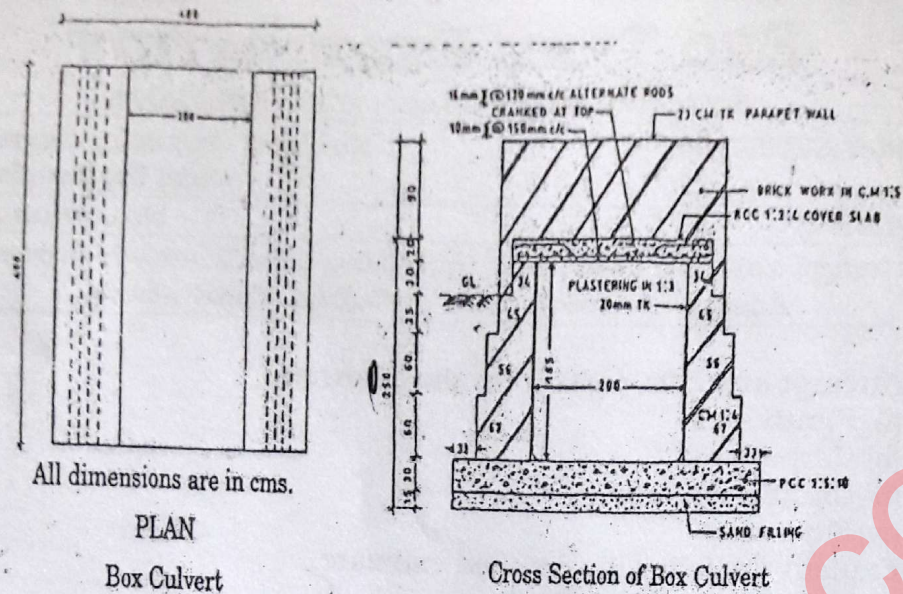


Fig.1

- Q6 Estimate the cost of earthwork for a portion of a road from the following data. Road width at the formation surface is 8 m. Side slopes 2:1 in banking and 1.5:1 in cutting. Length of chain is 30 m. (12.5)

Chainage	20	21	22	23	24	25	26	27	28	30
Ground level	71.20	71.25	70.90	71.25	70.80	70.45	70.20	70.35	69.10	69.70

Formation 70.00 Upward gradient of 1 in 200 level.  
Take the rates of earthwork as Rs. 275/per cum in banking and Rs. 350/per cum in cutting.

- Q7 Estimate the retaining wall quantity for the figure given below? (12.5)

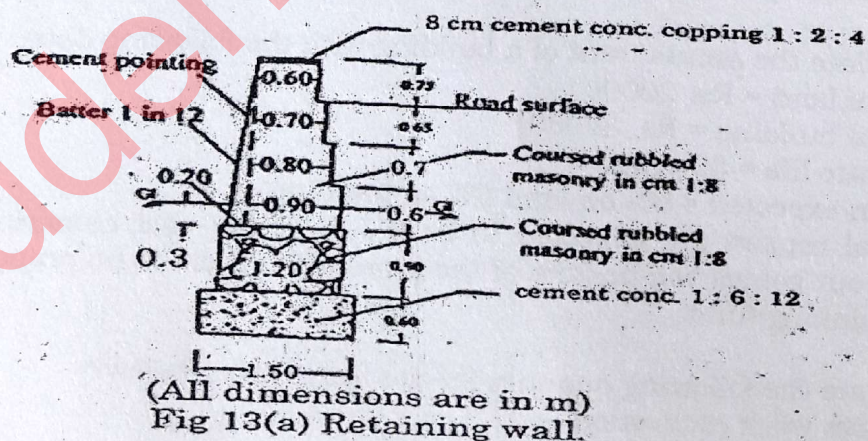


Fig.2

- Q8 Analyse the rates for Bituminous Painting or Surface Dressing First Coat for 1 sq m work. For 3.70 m road a batch of about 50 labourers working per day will paint 167 m for first coat painting. Take rates of materials and labours as per Delhi Scheduled Rates. (12.5)

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