

BACHELOR OF TECHNOLOGY (C.B.C.S.) (2014 COURSE)  
B.Tech.Sem - VI CIVIL : WINTER- 2022  
SUBJECT : ESTIMATING COSTING & VALUATION

Day : Monday

Time : 10:00 AM-02:00 PM

Date : 28-11-2022

W-13611-2022

Max. Marks : 60

**N.B.**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Assume suitable data **WHEREVER** necessary.

- Q.1 a)** What do you mean by Provisional Sum and Prime Cost Items? (05)  
**b)** Explain service unit method and bay method of estimate. (05)

**OR**

- Q.1 a)** Explain plinth area method and cubic content method of estimate. (05)  
**b)** Write down the units of measurement for any ten items of building work. (05)

- Q.2** Determine quantities of concrete and steel for slab casted on a room of (10)  
6m x 4m size with following details. Prepare bar bending schedule.  
**i)** Thickness of slab 120 mm.  
**ii)** Main steel 10 mm diameter at 150 mm C/C, alternate bent up.  
**iii)** Distribution steel 8 mm diameter 170 mm C/C  
**iv)** Assume suitable cover.

**OR**

- Q.2 a)** Write down the detailed specification for cement concrete 1:2:4 for column. (05)  
**b)** What are the rules for deduction of opening for brick masonry and plastering work? (05)

- Q.3** Calculate quantities of earthwork in cutting and filling for road with following (10)  
data. Use Mid Sectional Area method.  
**i)** Formation width of road 12 m  
**ii)** Formation level of starting changes is 53.00 m  
**iii)** Road surface have falling gradient of 1 in 200.  
**iv)** Side slopes are IV to 2 H in banking and IV to 1.5 H in cutting.

Chainage	0	20	40	60	80	100	120
Reduced Level (m)	51.30	51.40	51.70	52.20	52.40	52.30	52.00

**OR**

- Q.3 a)** Carry out the Analysis of Rate for brick masonry work in 1:5 cement mortar. (05)  
**b)** Determine quantities of materials required for 111 sqm of Plastering in 1:4 cement mortar for 12 mm thick plaster. (05)

- Q.4** Calculate standard rent for residential building from following data. (10)  
**i)** Cost of land Rs. 5,00,000/-  
**ii)** Cost of construction of building Rs. 24,00,000/-  
**iii)** Municipal house tax and other taxes 2.5% of construction cost.  
**iv)** Take standard rent 0.7%.

**OR**

- Q.4** Explain the following terms. (10)  
**i)** Freehold property  
**ii)** Building lease  
**iii)** Depreciation  
**iv)** Obsolescence  
**v)** Annuity

PTO

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**Q.5** Prepare a detailed tender notice for a lump sum contract for construction of Water Treatment Plant of estimated cost Rs. 50 Lacs. **(10)**

**OR**

**Q.5** Draft a Tender Notice for construction of Bridge having estimated cost of Rs. 80 Lacs. **(10)**

**Q.6** Enlist different types of Contracts and give their merits and demerits. **(10)**

**OR**

**Q.6 a)** What is meant by Arbitration? What is necessity of Arbitration in Construction Industry? **(05)**

**b)** What are the essentials of a Valid Contract? **(05)**

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