

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

Day : Friday
Date : 17-06-2022

S-13611-2022

Time : 02:30 PM-06:30 PM
Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figure to the right indicate **FULL** marks.
 - 3) Use of non programmable **CALCULATOR** is allowed.
 - 4) Assume suitable data **WHEREVER** necessary.
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- Q.1** a) Describe how the knowledge of estimating costing and valuation is essential during extinction & project. **(05)**
- b) Write one description of brick masonry and plastering in measurement sheet as per D.S.R. **(05)**

OR

- Q.1** a) Differentiate between prime cost items and provisions item. **(05)**
- b) State the various modes of measurements of building as specified in IS1200. **(05)**

- Q.2** The Two rooms with common wall consists of **(10)**
- i) kitchen room 4mx3.5m (Internal diminution)
 - ii) Living room 5mx3.5m (Internal diminution)
 - iii) All the wall are of 0.3 thick
 - iv) Height of brick masonry up to slab level above the flooring is 3.2m
 - v) Slab thickness 0.12m as a roof on this rooms.
- Draw the plan and find our quantities of following items by centre line, method.
- a) Brick masonry in super structure –in 1:6cm
 - b) Internal and external plastering in super structure in 1:4 C.M.
 - c) Quantity of 1:2:4 cement concrete for Slab 0.12m thick.
 - d) Internal and external painting

OR

- Q.2** RCC beam has a following details determine quantities of 1:15:3 concrete and steel and prepare bar bending schedule. **(10)**
- i) Span of beam-7.5m
 - ii) Size of beam 0.3mx 0.70m
 - iii) Bottom steel 3 nos. bent up bars 20mm diameter
 - iv) Three straight bars 16 mm diameter
 - v) Top steel 12 mm diam 2 nos.
 - vi) Stirrups are provided at 150mm C/C/ with 8 mm diam throughout the beam.
 - vii) Assume suitable covers as per IS.
 - viii) Draw the sketch of the beam showing all above details.

P.T.O.

- Q.3 a)** Determine the rate per cum for RCC beam in M20 grade concrete. (07)
- b)** Determine materials required for 95 cum of brick masonry in super structure in 1:6 cement mortar. (03)

Q.3 Following reduced levels are taken on a centre line of road from 1 st chain - age 0 to 200m, the formation level at 0 chainage is 107.5m and road have downward gradient of 1 in 150. The formation width of road is 12m and side slope of banking are 2:1. Draw longitudinal section of the road and find out quantity of earth work in tabular form by mid sectional area method. (10)

Chainage	0	20	40	60	80	100	120	140	160	180	200
R.L. meters	104.8	105.3	105.2	105.6	105.10	104.5	105.2	104.4	104.6	104	103.50

- Q.4 a)** Determine standard monthly rent for a property using following data. (08)
- Area of plot-500sqm
 - Built up Area 350sqm.
 - Present land cost Rs-1500/- per sqm
 - Present construction rate Rs-10000/- per sqm
 - Expected return on land and building-5%
 - Rate of interest for redemption of capital and sinking fund -6%
 - Total out going -25% of gross rent
 - Expected future life of the building-60 years.

- b)** Define book value and sentimental value. (02)

OR

- Q.4 a)** The details of certain built up property are given below determine present market value of the property. (08)
- Built up area =450sqm
 - Plot Area = 550sqm
 - Age of the building-30 years
 - Expected future life-60 years
 - Present construction rate Rs.12000/- per sqm
 - Present land cost-Rs.5000/- per sqm
 - Rate of interest for sinking fund-6%

- b)** Define salvage value and scrap value (02)

- Q.5 a)** Briefly give the essentials of tender notice (06)

- b)** Explain one procedure of submission of tender. (04)

OR

- Q5 a)** Draft a tender notice inviting tenders construction of G+4 building having plot on Pune Satara road having cost of work Rs. 75 Lakh. (06)

- b)** What are different forms of BOT renders. (04)

- Q.6 a)** State different types of contract and explain any two in detail. (07)

- b)** Explain conditions of valid contract (03)

OR

- Q.6 a)** What are the qualification of Arbitrator? (05)

- b)** Explain Defect liability period. (05)