

B.Tech. SEM -VI (Civil) 2014 Course (CBCS) : WINTER - 2018

SUBJECT- ESTIMATING COSTING AND VALUATION

Day: Thursday
Date: 15/11/2018

W-2018-2451

Time: 10.00 AM TO 02.00 PM
Max. Marks: 60

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures 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 various factors to be considered while preparing estimate for a project. (05)
- b) State the rules for deduction of openings for brick masonry and plastering in super structure for main walls and partition walls. Also state their units of measurements. (05)

OR

- Q.1** a) Enlist different types of estimates and explain revised and supplementary estimate (05)
- b) Discuss contingencies and work charged establishment with suitable example. (05)

- Q.2** A well is excavated in to the ground whose dimensions are as follows (10)
- i) Diameter of well-11.5m
 - ii) Depth of well -8.7m up to ground level.
 - iii) Depth above ground level- 0.6 m
 - iv) 450 mm thick stone masonry in 1: 6 cement mortar up to 5.5 m height.
 - v) 300mm thick brick masonry for remaining height in 1:6 cement mortar
 - vi) 20 mm thick sand faced plaster in 1:4 cement mortar
- Find out quantities of following items
- i) Earthwork in excavation
 - ii) stone masonry
 - iii) brick masonry
 - iv) plastering

OR

- Q.2** Determine quantity of M20 grade concrete and steel for footing from given data. Prepare bar bending schedule. Assume covers as per IS (10)
- Size of footing- 1.7m X1.9m
Bottom box 180mm height
Trapezoidal portion height 0.5m.
Column size 230mm X 450mm
Steel reinforcement 10mm diam. 160mm in X direction and 12mm diam. 140mm/c in Y direction.

P.T.O.

- Q.3** a) Determine quantities of material required for 13 cum of 1:3:6 cement concrete. (05)
- b) Determine quantities of material required for 120 sqm of cement plaster in 1:3 cement mortar. (05)

OR

Q.3 Enlist different methods of calculating earthwork quantities. Explain mid sectional area method with its tabular form. (10)

- Q.4** a) A person wish to sell his property at Rs. 15.00 lakh. The life of the building is 80 years and its scrap value is 10 %. Find the depreciated value of the building if the current age of building is 20 years also at what price building the building should be purchased. (06)
- b) State and explain how depreciation is calculated by different methods, state where the above methods are used. (04)

OR

- Q.4** a) Define depreciation and hence determine the book value of a hot mix plant after four years by sinking fund method use following data. (07)
- i) Cost of hot mix plant- Rs.10 lakh.
 - ii) Scarp value Rs. 1 lakh
 - iii) Life of plant 10 years
 - iv) Rate of interest on government securities 6%.

b) Define cost, value and price. (03)

- Q.5** a) Explain the following (04)
- i) Global tender ii) open tender
 - iii) Limited tender iv) informal tender

b) Draft specimen tender notice for construction of bridge having cost Rs 50 lakh (06)

OR

Q.5 a) Explain the purpose of administrative approval and technical sanction. (05)

b) Differentiate between manual tendering and E- tendering (05)

Q.6 a) Explain void, voidable and valid contract. (05)

b) What is mean by arbitration? What is its necessity? (05)

OR

Q.6 a) What are the essentials of valid contract? (04)

b) Explain running account bill, measurement book, final bill (06)

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