

320734(20)

B. E. (Seventh Semester) Examination,

April-May 2020 / NOV-DEC 2020

(New Scheme)

(Civil Engg. Branch)

QUANTITY SURVEYING and COST EVALUATION

Time Allowed: Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

Note : Attempt all questions. Part (a) from each question is compulsory. Attempt any two parts from part (b), (c) and (d) of each question. Assume the missing data suitably if missing.

Unit-I

1. (a) Explain the mode of measurement of:

2

(i) Half brickwork

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- (ii) Shutter of door and Window
 - (iii) Flooring
 - (iv) Binding of steel reinforcement
- (b) Explain in brief of following : 1¾×4=7
- (i) Muster roll
 - (ii) Measurement Book
 - (iii) Standard Measurement Book
 - (iv) Material of file account
- (c) Prepare a preliminary estimate of a residential building project with a total plinth area of all the building 1800 m². The following information is given : 7
- (i) Plinth area rate - Rs. 500/- m²
 - (ii) Additional amount allowed for special architectural features : 1.5% of bulding cost
 - (iii) Extra for water supply and sanitary fitting : 5% of building cost
 - (iv) Extra for building services : 7.50% of building cost.
 - (v) Contigencies : 2% of overall cost
 - (vi) Supervision charges = 7.5%

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[3]

- (d) Write short notes on : 7
- (i) Differentiate between contingencies and workcharged establishment
 - (ii) Purpose of preparing approximate estimate and detail estimate

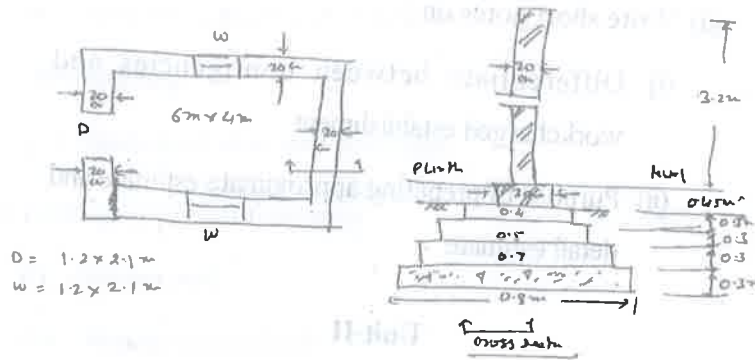
Unit-II

2. (a) List the factors to be considered for preparing of a detail estimate. 2
- (b) What are various methods of calculating detail estimate? Explain Centre line method compared to other methods. 2+5=7
- (c) Estimate the following items of work for a single room 6.0 m × 4.0 m building as per given section of wall and foundation as shown in fig. by centreline method. 1¾×4=7
- (i) Earth work in excavation in foundation
 - (ii) Concrete in foundation
 - (iii) Brickwork in plinth and foundation
 - (iv) Brickwork in superstructure

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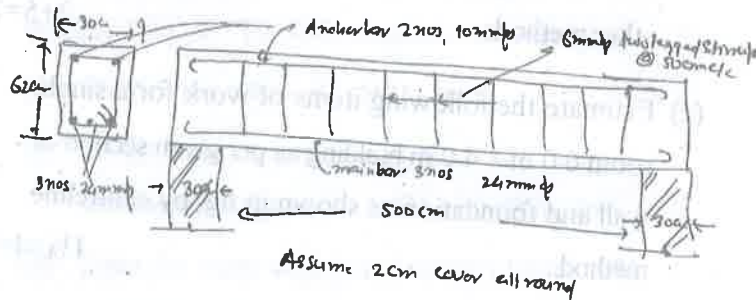
[4]



Fig

(d) Fig. show the longitudinal section and cross section of simple beam of clear span 5.0 m. thickness of supporting all is 30 cm.

7



Fig

Unit-III

3. (a) How the provision of establishment charges included in rate analysis.

2

[5]

- (b) Analysis the rate of plaster of 100 m² cements and sand motor ratio 1:4 thickness of plaster = 15 mm. 7
- (c) Define rate analysis. List the factors and describe in brief affecting the rate analysis. 1+6=7
- (d) Describe in brief general specification of first class building. 7

Unit-IV

- 4. (a) What are the essentials of a contract? 2
- (b) Differentiate between labour contract and item rate contract? 7
- (c) Write the conditions of informal tender? 7
- (d) What is contract document? What are the documents that shall be attached with contract agreement? 7

Unit-V

- 5. (a) Write the methods of valuation of a property? 2
- (b) Describe the rental method of estimation of building? 7
- (c) Describe in brief methods of calculating depreciation? 7

(d) Explain the following : $1\frac{3}{4} \times 4 = 7$

(i) Sinking fund

(ii) Annuity

(iii) Obsolescence

(iv) Market value