

Total No. of Questions : 12]

SEAT No. :

P15

[Total No. of Pages : 4

[5871] - 515

B.E. (Civil)

QUANTITY SURVEYING CONTRACTS AND TENDERS
(2015 Pattern) (Semester - II)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates :

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8, Q.9 or Q.10, Q.11 or Q.12.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Use of logarithmic tables slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.
- 5) Assume suitable data, if necessary.

Q1) a) State the types of approximate estimate. Explain plinth area estimate with example. [3]

b) What is the necessity of considering contingency & work charge establishment & how much amount is usually considered for Civil Engineering Work. [3]

OR

Q2) a) Discuss briefly DSR or SSR & elaborate on its use in Civil Engineering Work. [2]

b) Prepare approximate estimate for a proposed commercial complex for shopping mall with the following details Plinth area = 750 sqm/floor, Height of each floor = 3.0m No of Storey's = G + 2

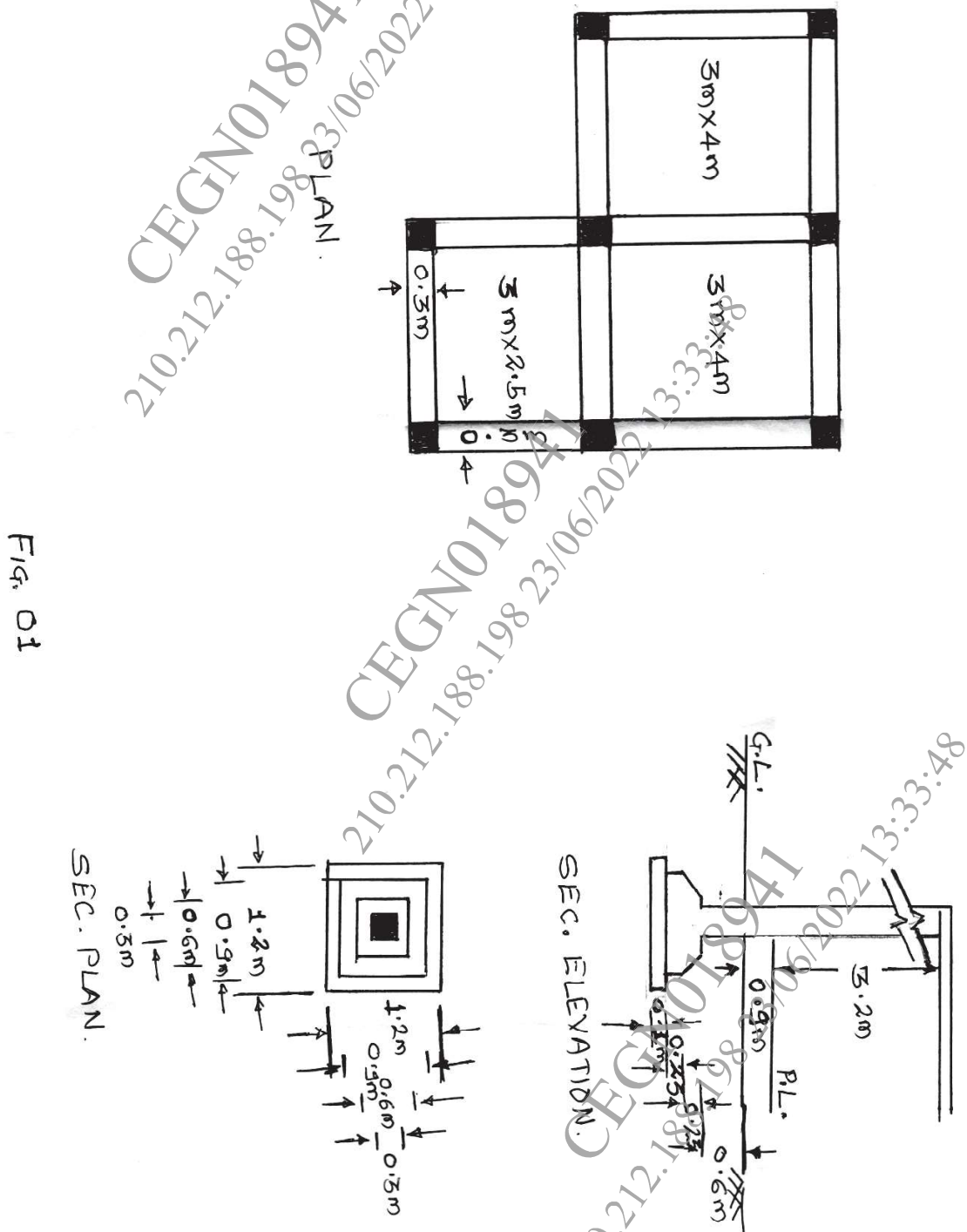
Cubical content rate = Rs. 3000/m³ [4]

- i) Water supply & sanitary connection – 10%
- ii) Electrical connection at 7%
- iii) Providing Road & Lawn at 5%
- iv) Architectural finish at 3%

P.T.O.

Q3) Work out detailed estimate for the following item of Work for the framed structure shown in fig.1.

- Footing for column in M20 [4]
- CCM20 for RCC column [2]
- Quantity of steel considering 1% for footing, 2% for column. [2]



OR

- Q4) a)** What is the need for preparing bar bending schedule & what are the content of bar bending schedule table. [2]
- b)** A R.C.C simply supported beam of side 300mm × 650mm is reinforced with 4,20 mm ϕ bars. The main bottom bar are placed in one row of which two are bent up at 45°. Two top anchor bars of 12mm ϕ are provided, and 6mm ϕ stirrup are provided at 150mm c/c. The span of beam is 5.6m and end bearing (both sides) is 30 cm. calculate total quantity of steel reinforcement. [6]

- Q5)** Workout unit rate of the R.C.C work in CCM20 (1:1.5:3). Following rates for material & labour may be assumed. [6]

- | | |
|--|-----------------------------------|
| a) Cement = Rs. 300/bag | b) Sand = Rs. 1750/m ³ |
| c) Aggreagate = Rs. 800/m ³ | d) Steel = Rs. 68,000/MT |
| e) Head mason = Rs. 950/day | f) Mason = Rs. 700/day |
| g) Maz door = Rs. 500/day | h) Men & Women = Rs. 350/day |

OR

- Q6)** What is the necessity of drafting specification for Civil engineering work. Explain briefly [6]

- a) General specification.
b) Detailed specification.

- Q7) a)** Why do depreciation occur in the valuation of property? What are the different methods of calculating depreciation. Explain any one method of calculating depreciation stating formula used, merits & demerits. [6]
- b)** What are the factors which effect value of a property? Explain [6]
- i) Salvage value ii) Book value
iii) Fair market value
- c)** Explain concept of free hold & lease hold property. What are the reasons under which the property is leased & what are the liabilities of lessor & lesee? [6]

OR

- Q8) a)** The depreciated replacement value of building has to be found out with the following data
- i) Total builtup area = 500m²
ii) Age of building = 25 years
iii) Life of building = 90 years
iv) Scrap value after useful life = 10%
v) Per centage for sinking fund = 5%
- Assume rate of construction as Rs. 2000/sq-m [6]

- b) Explain in brief : [6]
- i) Sinking fund
 - ii) Year's purchase
 - iii) Different form of lease & explaining anyone
- c) Under what condition belting method of valuation is used explain in detail the procedure for finding the value of property by belting method. [6]

- Q9)** a) What are the approvals required to be obtained for executing any PWD work & explain the sequential process in such case. [4]
- b) How are PWD works classified based on the cost of work, nature of work. [6]
- c) Explain [6]
- i) Retention Money
 - ii) Interim Payment &
 - iii) Secured advance

OR

- Q10)** a) What is meant by a "Tender"? State various method of inviting tenders & explain any one method. [6]
- b) What is meant by qualification of contractor & what are the types of qualification considered in tending process, explain each type of qualification. [6]
- c) Explain any two types of tenders & their suitability. [4]

- Q11)** a) Describe Lump sum contract with respect to following : [8]
- i) Nature of agreement
 - ii) Mode of payment
 - iii) Suitability
 - iv) Advantages
- b) Explain briefly the following : [8]
- i) Null or void contract
 - ii) Liquidated damages
 - iii) Security deposit
 - iv) Cost plus contract

OR

- Q12)** a) What are the different types of arbitration, explain any one type of arbitration. [6]
- b) Can a contract be terminated & what are the different methods of termination of contract & explain any one method. [6]
- c) What are the powers & duties of arbitrator? [4]

