

# CBCGS SCHEME



USN 

--	--	--	--	--	--	--	--	--	--

18ENG74

## Seventh Semester B.Arch. Degree Examination, Feb./Mar. 2022 Specifications, Quantity and Costing of Buildings

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 a. What is an estimate? Why are estimates prepared in a building project? (08 Marks)
- b. Explain the following:
  - (i) Detailed estimate      (ii) Supplementary estimate      (iii) Revised estimate (12 Marks)

OR

- 2 Write detailed technical specification for the following:
  - a. Earthwork excavation for foundation (06 Marks)
  - b. Providing and laying PCC 1:2:4 for roof slab (07 Marks)
  - c. Providing and constructing Burnt brick masonry in CM 1:6 for superstructure using table moulded bricks. (07 Marks)

### Module-2

- 3 a. What is a tender document? What are the essentials of tender? (08 Marks)
- b. Write short notes on the following:
  - (i) Earnest money deposit and security deposit
  - (ii) Measurement book
  - (iii) Safety norms to be followed at site and its importance
  - (iv) Administrative approval and technical sanction (12 Marks)

OR

- 4 Estimate the quantities of the following items of a two roomed building from Fig.Q4.
 

a. Earthwork in excavation in foundation	b. Cement concrete in foundation
c. SSM in CM 1:6 for foundation and plinth	d. 2.5 cm DPC

Use long wall short wall method.

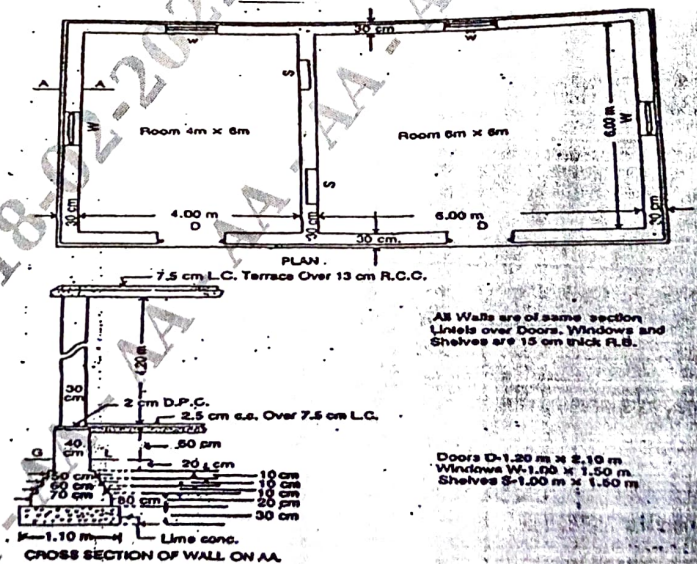


Fig.Q4

(20 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

**Module-3**

- 5 a. What is rate analysis? How is rate analysed from 1<sup>st</sup> principles? Explain briefly. (10 Marks)  
 b. Prepare the rate for below mentioned item of work from 1<sup>st</sup> principles. Providing and constructing burnt brick masonry in CM 1:6 for superstructure. (10 Marks)

OR

- 6 The basic cost of material is Rs.270/bag of cement, fine aggregate is Rs.400/m<sup>3</sup>, 20 mm aggregate CA – Rs.980/m<sup>3</sup>, Brick (table moulded) – Rs.8/No. Prepare a detailed rate analysis from 1<sup>st</sup> principles for.  
 a. P/L PCC 1:3:6 for foundation plinth as DPC using 20 mm down size coarse aggregate. (10 Marks)  
 b. P/L PCC 1:1.5:3 for roof slab using 20 mm and down size coarse aggregate. (10 Marks)

**Module-4**

- 7 The Fig.Q7 shows the details of a 2 bedroom building. Prepare a detailed estimate for below mentioned work.  
 a. Centre line calculations  
 b. Earthwork excavation for foundation in hard soil  
 c. SSM in CM 1:6 for foundation and basement  
 d. PCC in CM 1:4

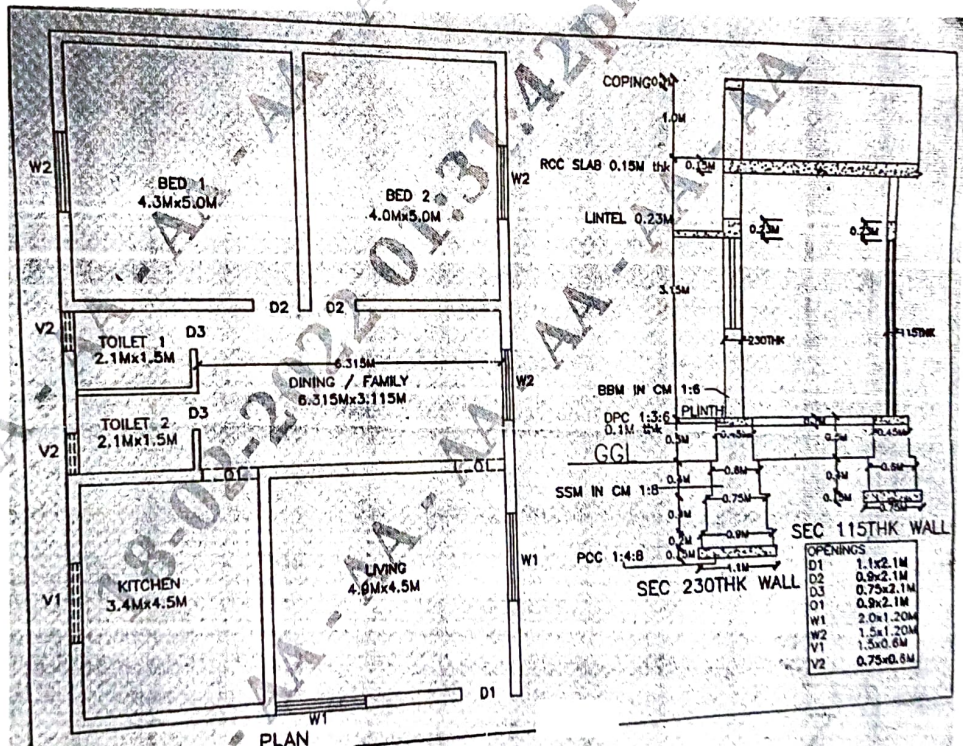


Fig.Q7

(20 Marks)

OR

- 8 Prepare a detailed estimate of a RCC roof slab of 3 m clear span and 6 m long from the drawing shown in Fig.Q8.

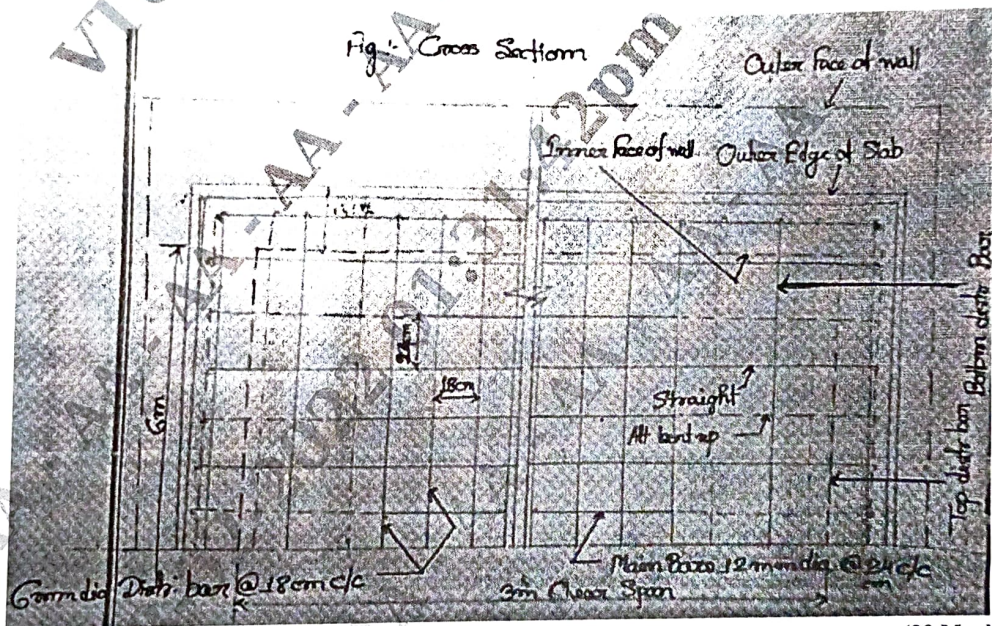
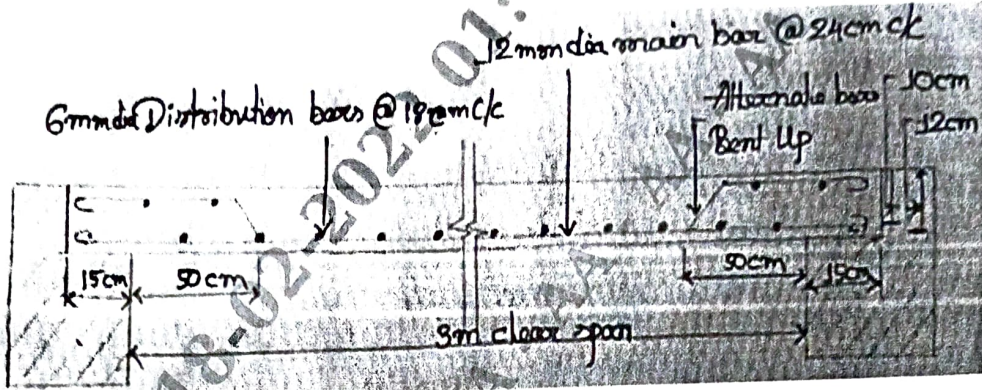
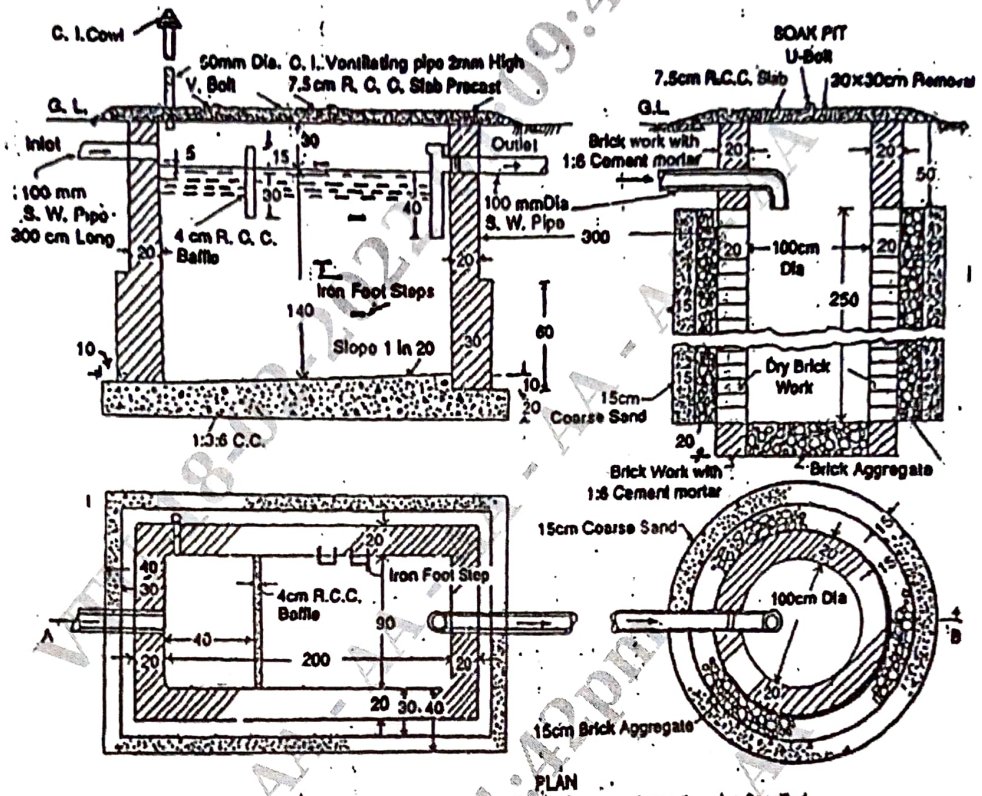


Fig.Q8

(20 Marks)

**Module-5**

- 9 Prepare a detailed estimate for a septic tank with soak pit as shown in Fig.Q9 for the following items of work:
- a. Earthwork in excavation (07 Marks)
  - b. First class brick work in septic tank (06 Marks)
  - c. 12 mm thick plastering for walls using CM 1:6 (inner surface) (07 Marks)



All Dimensions in Centimetre unless otherwise Specified.

Fig.Q9

OR

- 10 a. Explain the role of architects in monitoring specifications.  
 b. Write detailed explanation on BOQ.

(10 Marks)

(10 Marks)

\*\*\*\*\*