

CBCS SCHEME

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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.

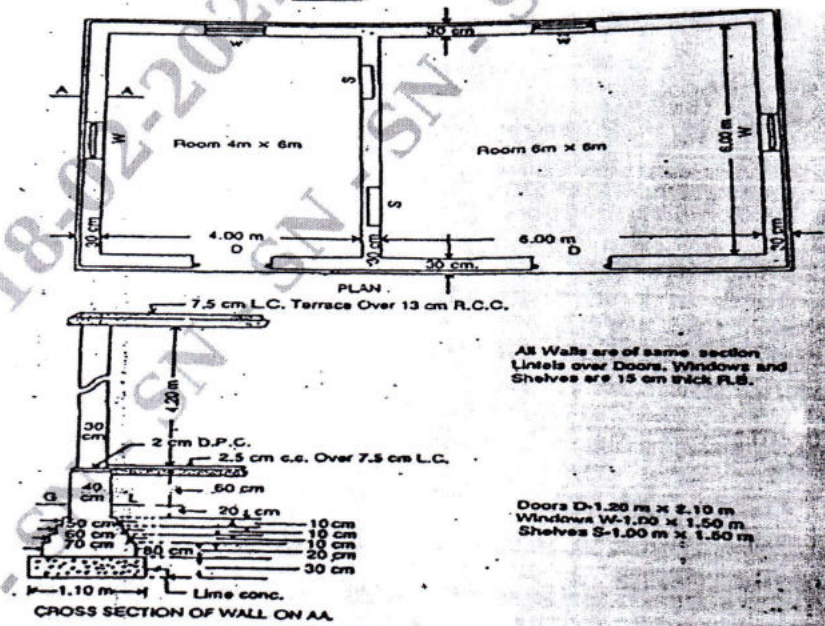


Fig.Q4

1 of 4

(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 1st principles? Explain briefly. (10 Marks)
- b. Prepare the rate for below mentioned item of work from 1st 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/m³, 20 mm aggregate CA – Rs.980/m³, Brick (table moulded) – Rs.8/No. Prepare a detailed rate analysis from 1st 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

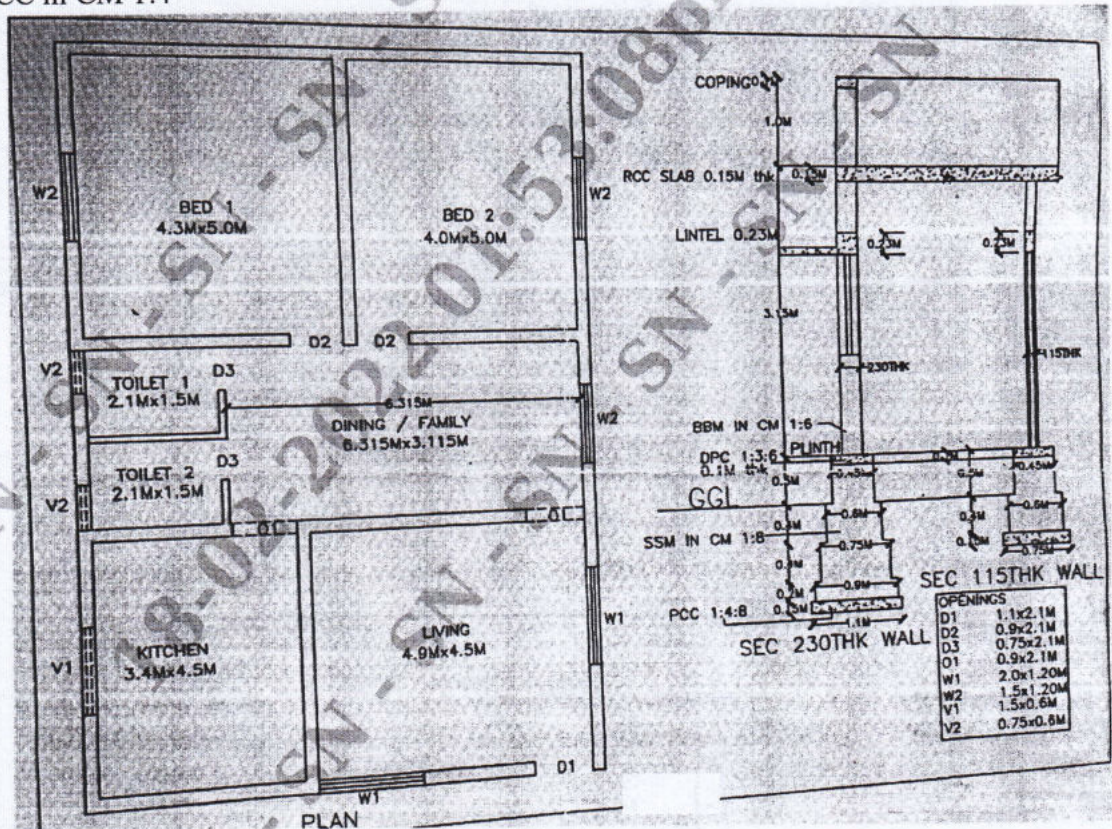


Fig.Q7

(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.

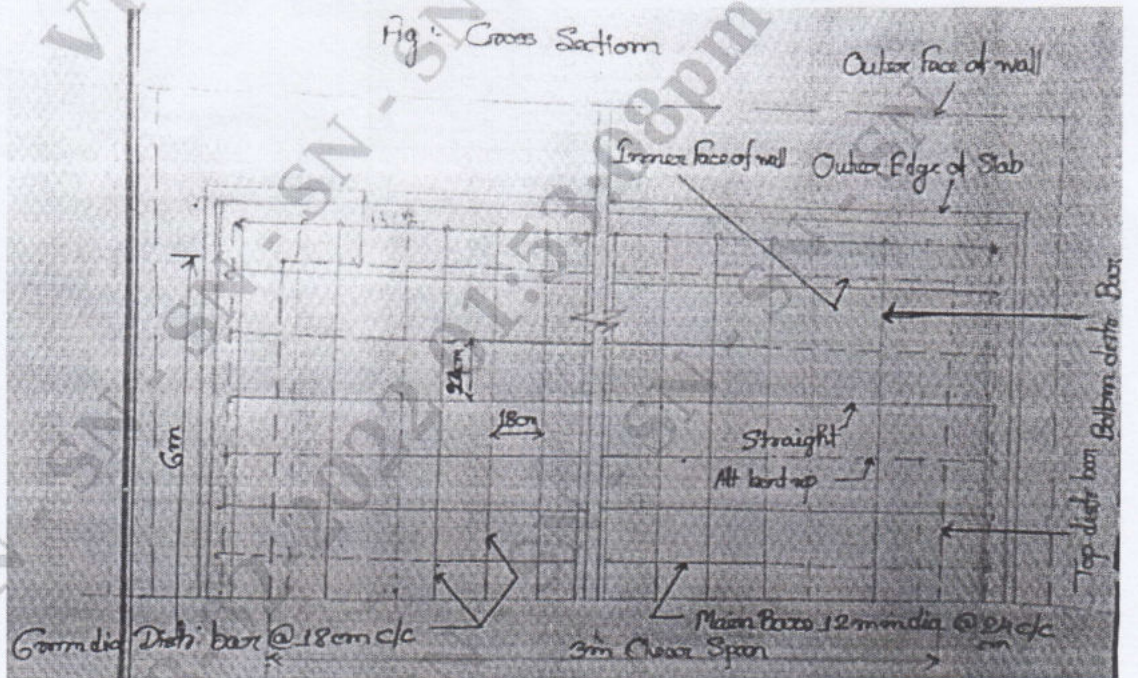
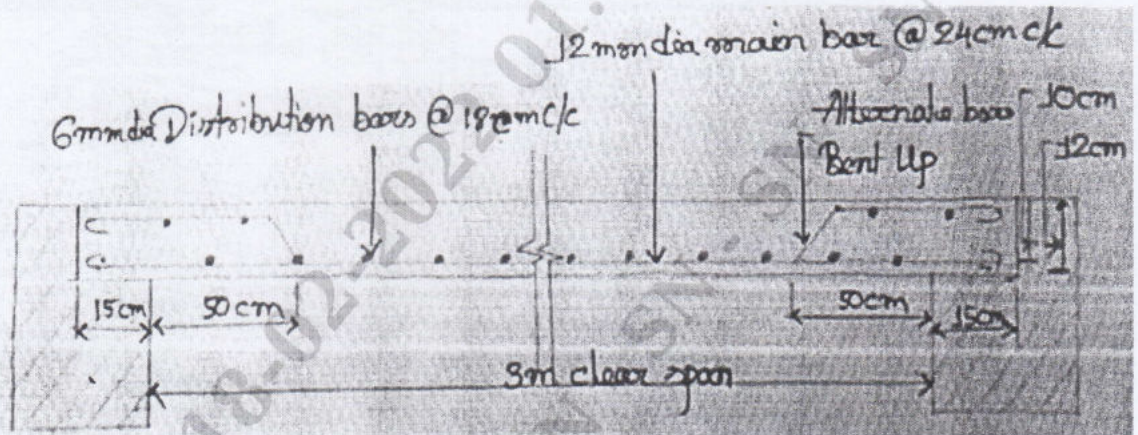
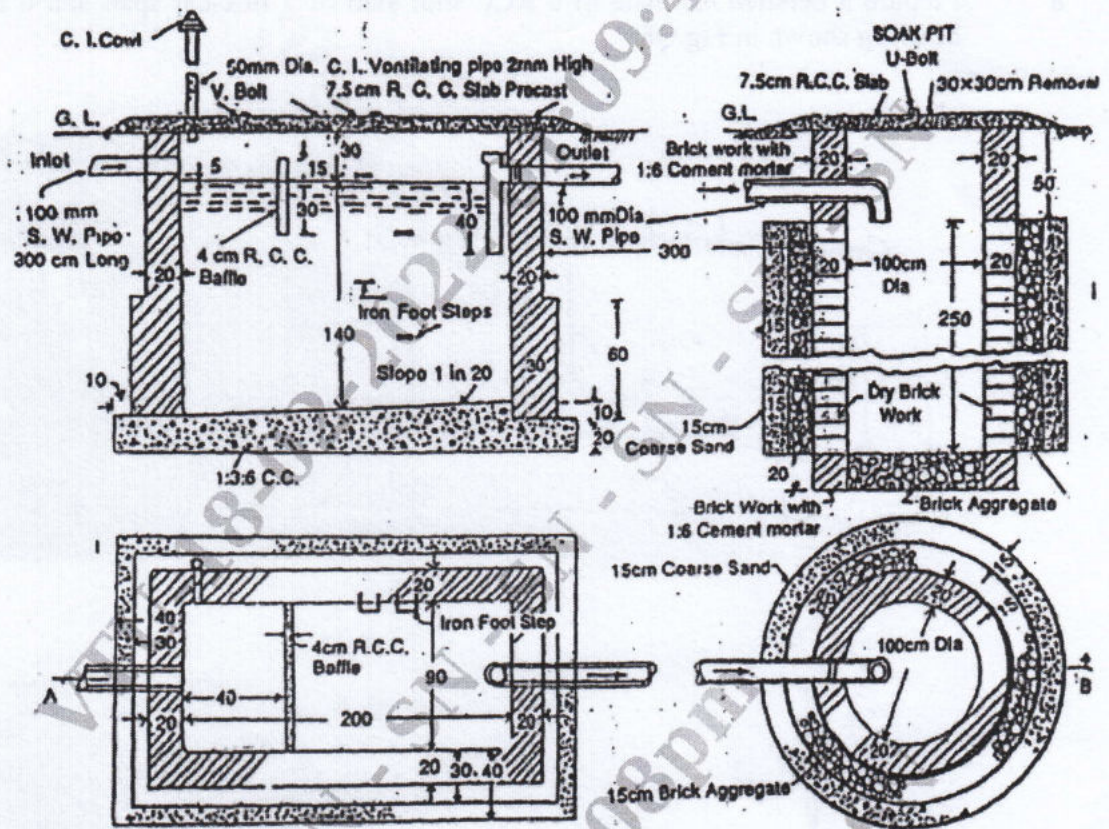


Fig.Q8

(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:
- Earthwork in excavation (07 Marks)
 - First class brick work in septic tank (06 Marks)
 - 12 mm thick plastering for walls using CM 1:6 (inner surface) (07 Marks)



PLAN
All Dimensions in Centimetre unless otherwise Specified.

Fig.Q9

OR

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