

# GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII(NEW) EXAMINATION – SUMMER 2019

Subject Code:2184001

Date:09/05/2019

Subject Name: PROFESSIONAL PRACTICE AND VALUATION OF INFRASTRUCTURE

Time:10:30 AM TO 01:00 PM

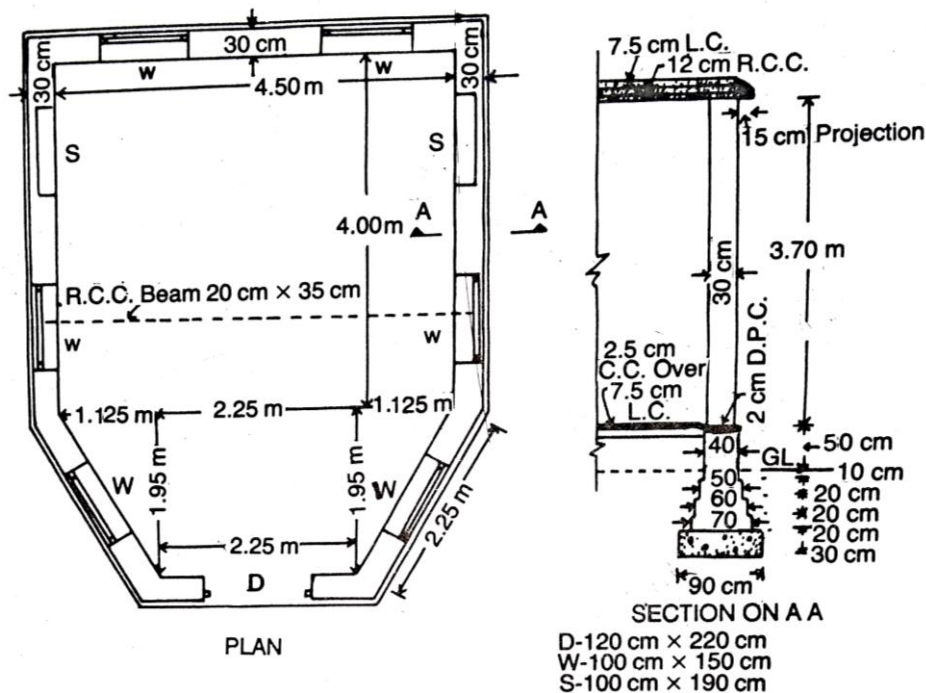
Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

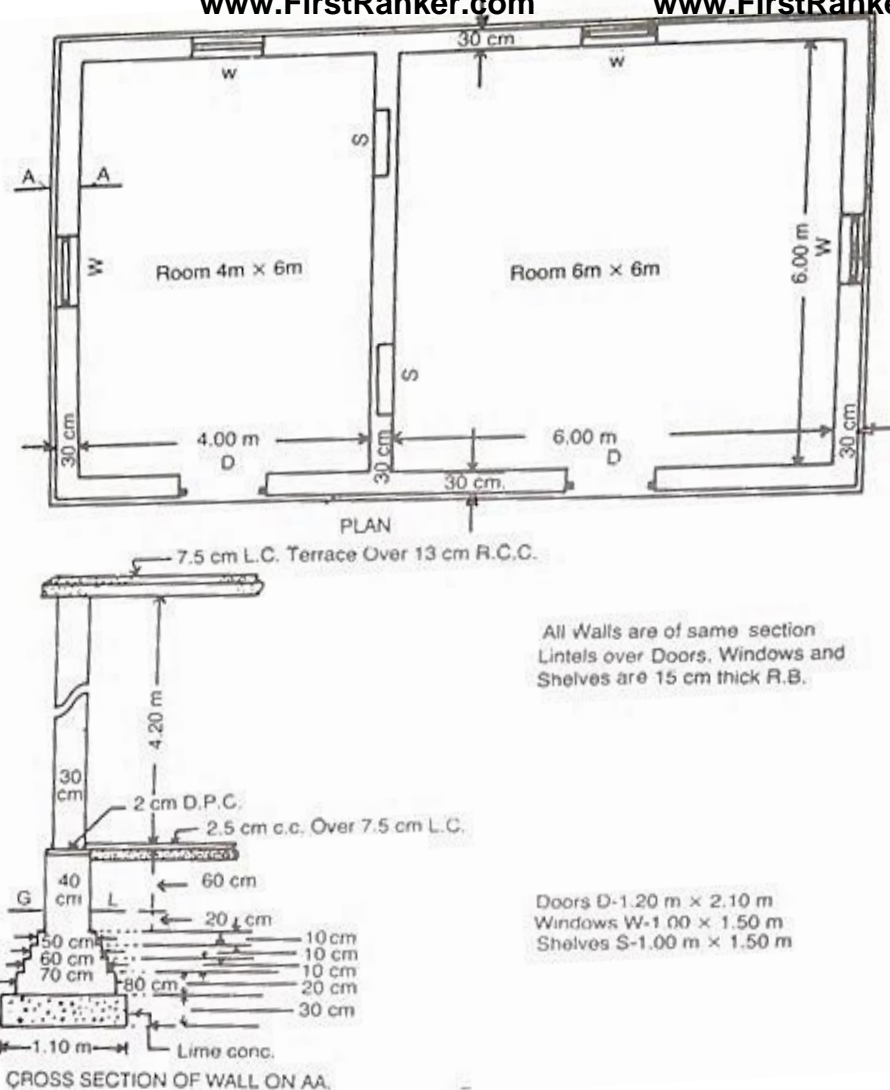
MARKS

- Q.1** (a) What are various types of estimate for building; give suitability of each type with example. **03**
- (b) What is the use of construction cost index in estimation? Justify your view with suitable example. **04**
- (c) Explain FIDIC contract conditions? Evaluate and mark the difference between FIDIC contract conditions and state R&B contract norms. **07**
- Q.2** (a) Draw flowchart of preparation of detailed estimates. **03**
- (b) Discuss all characteristics of a “good” contract document briefly. **04**
- (c) For the given plan, derive detailed estimate for **07**
1. Concrete in foundation
  2. Brickwork in foundation and
  3. Brickwork in plinth level



OR

- (c) For the given plan, derive detailed estimate. **07**
1. Earthwork in excavation for foundation
  2. Lime Concrete in foundation
  3. 1<sup>st</sup> class Brickwork in foundation and plinth level
  4. 2.5 cm Cement Concrete (CC) damp proof course



- Q.3** (a) Discuss the statement “Owner agrees to pay actual cost plus an agreed % of actual cost (to cover overhead and profit)” with reference to Cost plus percentage contracts with suitable example. **03**
- (b) Write important features of “Tender notice”. **04**
- (c) Explain all dispute resolution mechanisms in a contract agreement with suitable example for each. **07**
- Q.4** (a) Discuss the statement “Owner will have definite information on the resource requirements” with reference to Lump sum contract. Justify your comments with suitable examples. **03**
- (b) Discuss various reasons for rejection of a tender or all tenders. **04**
- (c) A three-story building standing on a plot of 800 sq. m. the plinth area of each story is 400 sq m. RCC framed structure with 70 years of future life may be assumed. A gross rate of 1500 Rs per month is received. Workout the capitalized value of the property on the basis of 6% net yield. For sinking fund 3% compound interest may be assumed. Cost of land may be taken 40 Rs per sq m. Assume following outgoings: **07**
1. Repairs at 0.5 times of gross income
  2. Municipal tax at 20% of gross income
  3. Property tax of 5% on gross income
  4. Insurance premium of 0.5% of gross income
  5. Management charges at 6% of gross income
  6. Other miscellaneous charges are at 2% of gross income.

OR

- (c) In a plot of land costing 20,000, a new construction of building is done at a cost of 80,000 Rs. The building consist of 4 flats. The owner expect 8% return on the cost of construction and 5% return on cost of land. Consider sinking fund of 4% interest basis for a future life of 60 years. Also annual repairs cost at 1% of construction. Other outgoing including taxes at 30% of the return on the building. Calculate the standard rent per month for each flat of the building. **07**

- Q.5** (a) What do you mean by scrap value, salvage value, market value & book value? **03**  
(b) What do you mean by Specifications; Explain with some suitable examples? **04**  
(c) Derive the cost of reinforcement in beam per unit length with your comments. **07**

**OR**

- (c) Find labor (Skilled / Semi Skilled / Unskilled) productivity for concreting of column per meter run. **07**

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