14/11/2024

BE/civil/sem-VII/CBCGS/R-19/c-scheme/QSEV/SH-24

Time: 80 Marks **Time: 4 Hours**

QP-10067804

Q.1. Workout the quantities of the following items of work by referring Plan & Section ***shown in figure 1 and 1a.*** **(20)**

a) Total Volume of Concrete in Plinth Beam and Lintel (Considering 0.15 cm for jams)
b) Volume of First-class brickwork in Superstructure with C.M 1:4
c) Total Volume of Concrete in all Footings
d) Internal plaster on walls and ceiling in CM 1:5, 12 mm thick.

Q2. a) Prepare an approximate estimate for G + 7 RCC Building. Building consists of eight flats on each floor and each flat has a carpet area of 150 square meter. Assume area occupied by walls and columns etc as 10 % of Built up area and area of circulation as 20 % of Built up area. Assume cost of construction as Rs.10000/m2. **(10)**

b) What is Contract? Explain valid contract, Void and Voidable contract. **(5)**

c) What is Bar Bending Schedule? Also explain, why it is prepared? **(5)**

Q 3 a) Estimate the cost of Earthwork for a portion of a road for 400 m length from the following data by mid sectional area method. The formation level at "0 m" Chainage is 52 m. Formation level has a downward Gradient of 1 in 200 m. The formation width of road is 10 m. Side slopes are 2:1 in Banking & 1.5:1 in cutting. The unit rate for cutting and filling are Rs 600 & Rs 550 respectively. **(12)**

Chainage(m)	**0**	**40**	**80**	**120**	**160**	**200**	**240**	**280**	**320**	**360**	**400**
R.L. of Ground (m)	**51.0**	**50.9**	**50.5**	**50.8**	**50.6**	**50.7**	**51.2**	**51.4**	**51.3**	**51**	**50.6**

b) Define Specification. Explain its importance and state various purposes served by specification. Draft the detailed specification of first-class Brickwork in superstructure. **(8)**

Q 4 a) Explain in detail the procedure of submission and opening of tender. **(5)**

b) What is Depreciation? List the methods to determine depreciation of a Building and explain any one of them. **(5)**

c) What is meant by rate analysis? What are the purposes of doing the Rate Analysis? Perform Rate Analysis for Random Rubble Masonry in CM 1:6 in foundation and plinth **(10)**

Q 5. a) Total construction cost of a newly constructed Building with 3 floors is Rs 1, 20, 00,000. The Building is constructed on a plot area measuring 600 sq m. The prevailing rate of the plot in the locality is Rs 12000 per sq m. Workout the standard rent per floor per month assuming the following Outgoings.

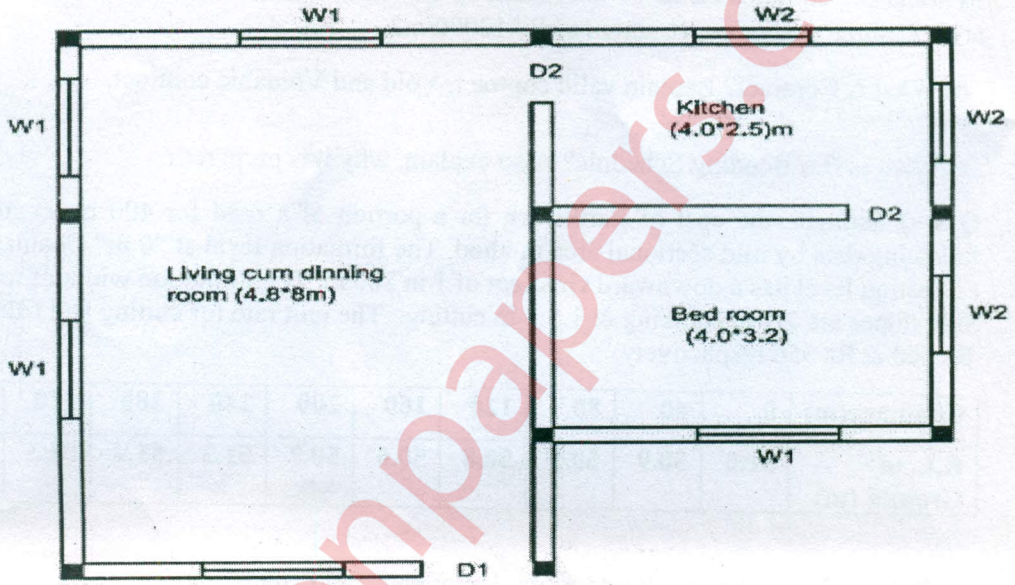
i) Municipal taxes @ 25% of Gross rent
ii) Repairs at 1% of cost of Construction
iii) Sinking fund @ 5% for 65 years on 90 % of cost of Construction
iv) Assume 6% as Net Return on of cost of Construction and 5% on cost of Land. **(10)**

b) Explain Sinking fund and Year's Purchase. **(5)**

c) Deduction rules for masonry and plastering work as per IS 1200 **(5)**

Q 6. Write short note on any **FOUR** **(20)**

A) Explain Belting Method of valuation of a Property with an example
B) Write short notes on Defect Liability period and Retention Money
C) Types of contracts and discuss the suitability of each type of contract.
D) State true or False with justification: "A lowest tender can be rejected".
E) Explain Security deposit and Earnest money deposit.



D1=1.2*2.1m
D2=0.9*2.1m
W1=1.5*1.5m
W2=1.2*1.5m
Wall thickness 0.23m

Fig 1: Plan

Q. No. 1

FIGURE NO. 1.a

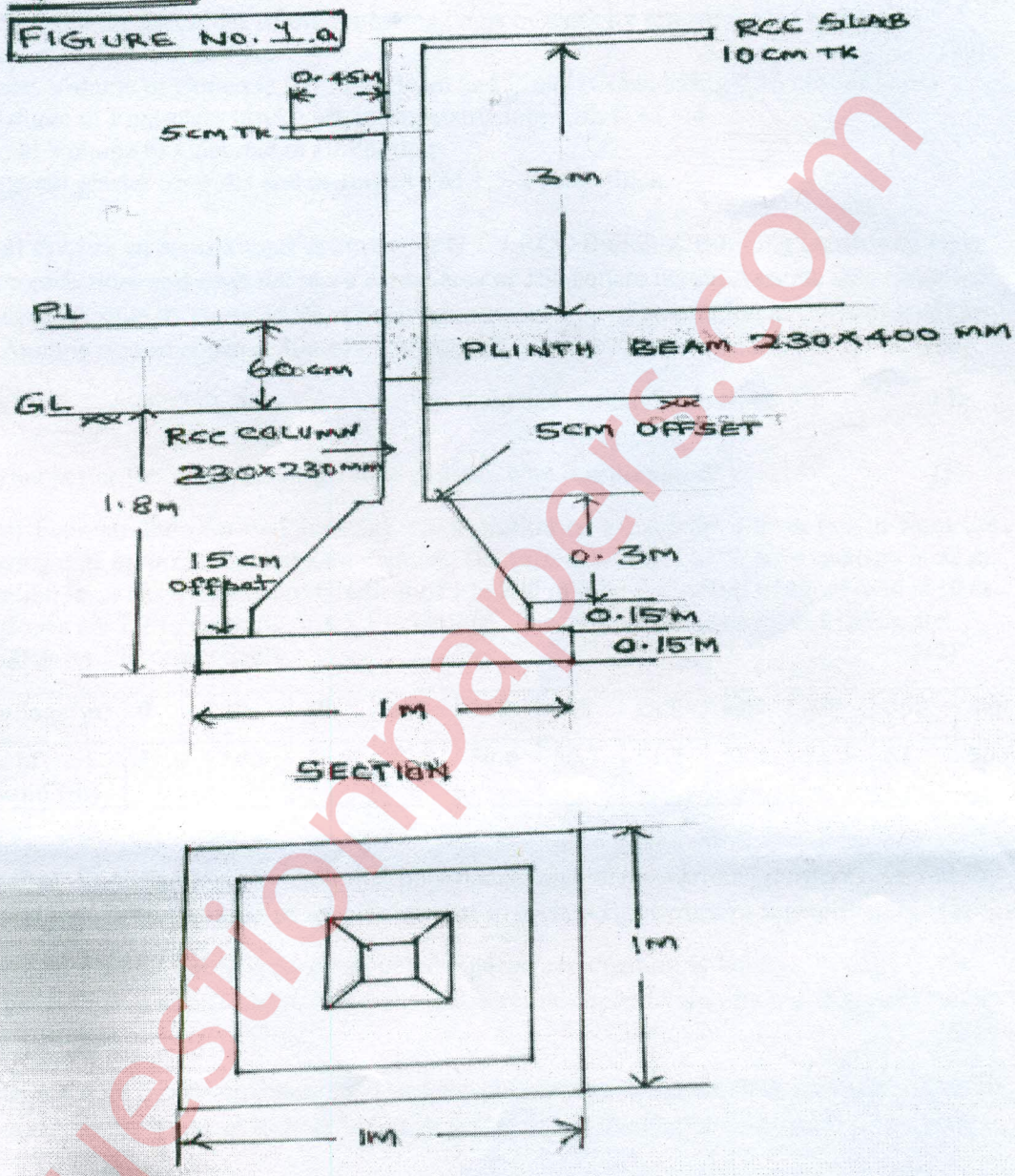


Figure 1.a: Section