Code No: **R42011** **R10** **Set No. 1**

IV B.Tech II Semester Supplementary Examinations, July/August - 2017

ESTIMATION SPECIFICATIONS & CONTRACTS

(Civil Engineering)

Time: 3 hours **Max. Marks: 75**

Question paper consists of Part-A and Part-B
Answer any THREE questions from Part-A
Answer one question from Part-B
*****

Part-A *(3x15=45)*

1. a) List out the main items of work in construction and explain them in detail. [8]
   b) What are the principle of units for various items of works? [7]

2. Describe the procedure for the calculation of rate per unit cum of Cement Concrete 1:2:4 with ballast 40 mm. [15]

3. Prepare a detailed estimate for earth work for a portion of a road from the following data:

Distance in m	0	100	200	300	400	500	600	700	800
R.L of Ground	113.5	113.7	114.25	115.1	115.85	117.25	117.1	116.8	116.75

Formation level is 114.00,Upward gradient 1 in 200 up to 600m and downward gradient 1 in 400.Formation width is 10 m side slope in banking as 2:1 and in cutting as 1.5:1.The unit rate for earth work is Rs 400 for cutting and Rs 300 in filling. [15]

4. What are the various types of contracts? Explain them briefly. [15]

5. Write detailed specifications for cement concrete (1:4:8) and stone masonry in C.M. 1:6. [15]

Part-B *(1x30=30)*

6. Estimate the quantities of following items by using short wall and long wall method from fig.1(a) &1(b)
   (a) Earth work excavation for foundation
   (b) Plain cement concrete for foundation
   (c) Brick masonry in C.M 1:6 for superstructure with deductions
   Note: Make suitable assumptions where necessary [30]

Code No: **R42011** **R10** **Set No. 1**

7. a) Estimate the quantities of following items by using centre line method from fig.2(a) and 2(b).
(i) Earth work excavation for foundation
(ii) Plain cement concrete (1:4:8) in foundation
(iii) Plastering with C.M 1:3 inside only
Note: Make suitable assumptions where necessary [20]

b) Compare out- to - out and in - to - in method with centre line method of estimating building works. [10]

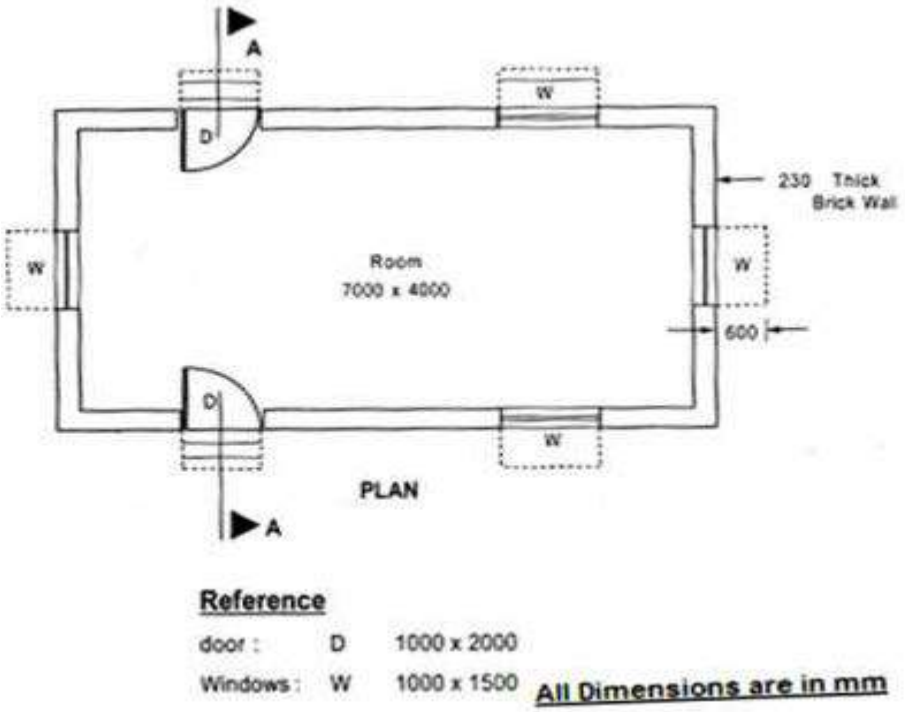


Figure 1(a)

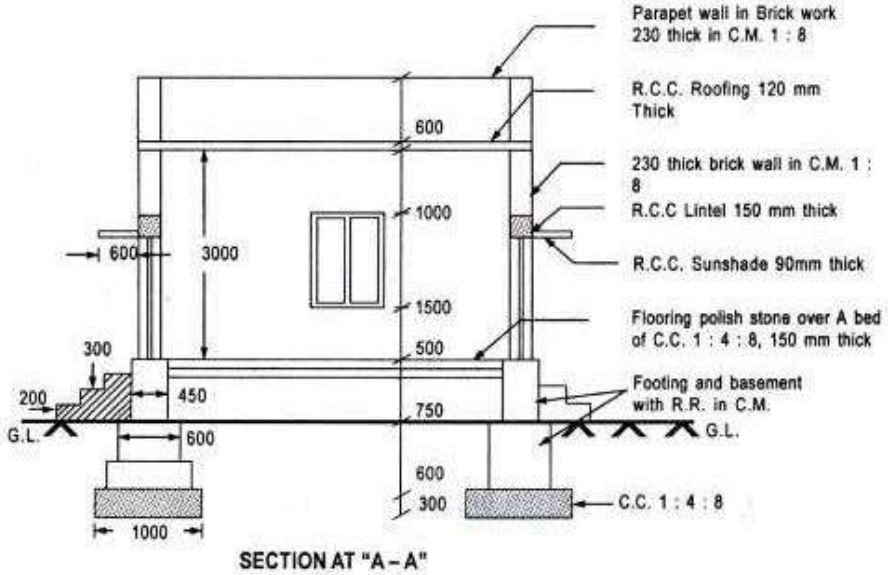
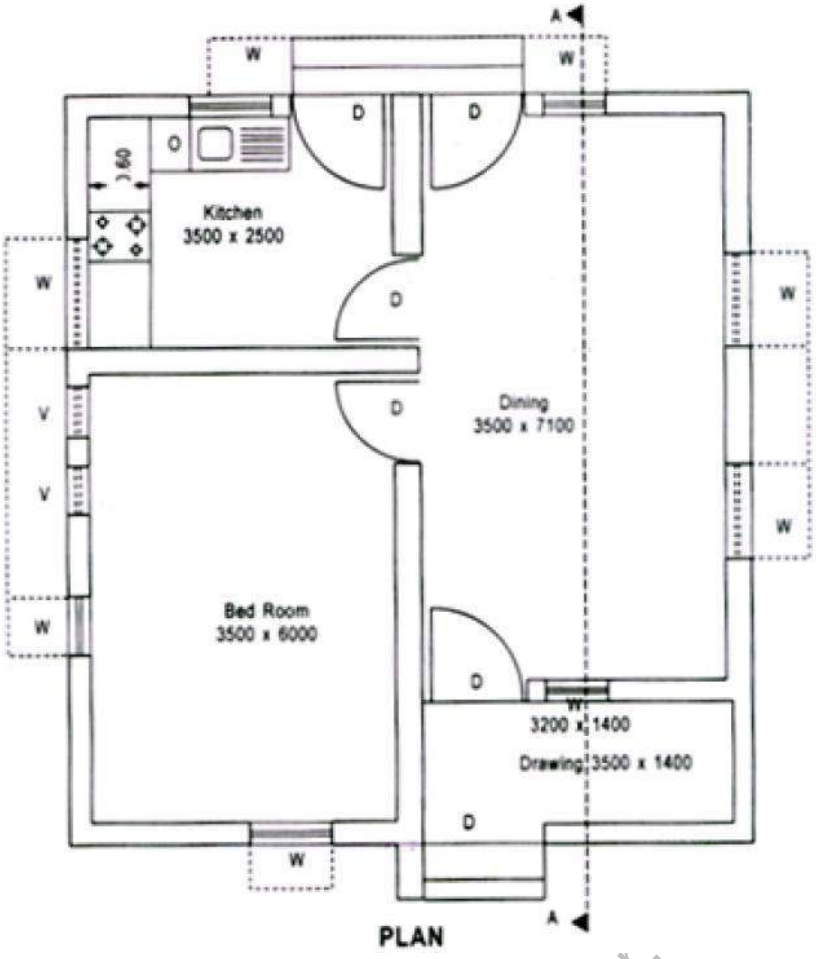


Figure 1(b)

Code No: **R42011** **R10** **Set No. 1**



SPECIFICATIONS :

Foundation	:	C.C. Bed 1 : 4 : 8 & Stone in CM is 1 : 6
Super Structure	:	Brick Masonry in Cm 1 : 6
Lintels & Chujjas	:	R.C.C.
Roof	:	R.C.C. 1 : 2 : 4
Flooring	:	Shahabad Stone
Steps	:	Brick Masonry in cm 1 : 6
Tread	:	30 cm
Rise	:	15 cm

REFERENCE :

Plinth Area	:	70.46 sq.m.
Door	:	D 1000 x 2000
		D1 750 x 2000
Windows	:	W 1000 x 1250
Ventilator	:	V 600 x 450

All Dimensions are in mm

Figure 2(a)

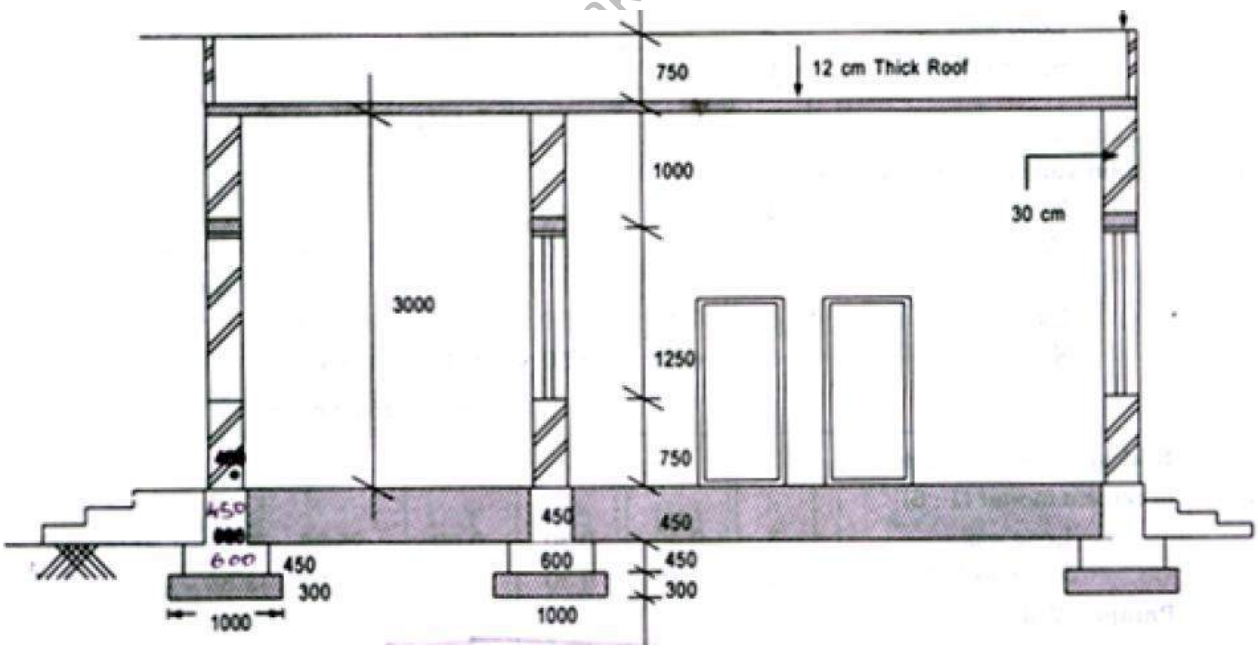


Figure 2(b)