Register No.:

661

October 2017

Time – Three hours
(Maximum Marks: 75)

[Sketch 'A' and 'B' to accompany]

[N.B: (1) Q.No. 8 in PART – A and Q.No. 16 in PART – B are compulsory. Answer any FOUR questions from the remaining in each PART - A and PART - B.

(2) Answer division (a) or division (b) of each question in PART-C.

(3) Each question carries 2 marks in PART – A, 3 marks in Part – B and 10 marks in PART – C.]

PART – A

1. Define revised estimate.
2. What is carpet area method?
3. What is level section?
4. What is standard data book?
5. Write the unit of plastering and brick work.
6. What is meant by taking off quantities?
7. What is dimension paper?
8. Write any two points to be remembered while checking the bill.

PART – B

9. Differentiate between trade and group systems.
10. Write short notes on end ordinate rule.
11. Calculate the volume of embankment of which cross sectional area at 20m interval is as follows. Use trapezoidal formula.

Distance (m)	0	20	40	60	80	100	120
Area (m^2)	10	40	64	72	160	180	26

12. Briefly explain the preparation of data.
13. When will you provide lumpsum provision in abstract estimate? Give two examples.
14. Name the various methods used to take dimensions from the drawing.
15. Write short notes on centre line method.

16. Write any five advantages of group system.

PART – C

17. (a) (i) What are the duties and requirements of good quantity surveyor?

(ii) Write briefly about plinth area method of preparing approximate estimate.

(Or)

(b) The plinth area of a proposed sloped roof building is 82m². The height of main walls above floor level is to be 3m and the rise of roof above the wall is 1.2m. The cube rate for a similar building is arrived at ₹ 615 per m². Find out the approximate cost of the building.

18. (a) Draw a cross section of two level section. State the expression to compute the area of cross section of a two level section.

(Or)

(b) A cutting is to be made for the formation of a railway track with side slopes of 1:5 and formation width of 10m. The ground is having a transverse slope of 1 in 10. The depth of cutting along the centre line of formation will be 1.5m, 2.4m and 1.2m at three consecutive sections space at 30m apart. Calculate the volume of earthwork in cutting in this 60m length using prismoidal formula.

19. (a) Analyse and determine the rates for the following items of works with the given data. Centering of soffits of RCC slabs including strutting 3m height–Rate for 1m².

Materials and labour requirement:

Centering of soffits of RCC slabs including strutting 3m height - 1m².

Country wood boarding 40mm thick	- 0.4m³
Country wood joists	- 0.12m³
Casurina post	-98.5m
(The above materials can be used for 5 operations)	
Carpenter I class	- 3.8Nos.
Mazdoor I class	- 5.4Nos.
Mazdoor II class	-21.5Nos.
Wedge, nails and coirs etc.	- ₹ 100(L.S)

(Or)

19. (b) Analyze and determine the rates for the following items of work with the given data. Flooring with 100mm thick base concrete using 40mm size broken stone in cement mortar 1:4 and finished with 20mm thick Ellis pattern concrete surface - $1m^2$.

Materials and labour requirement:

Cement concrete base with 40mm broken stone in CM 1:4 - $10m^3$.

40mm broken stone	- $9.5m^3$
Cement mortar 1:4	- $3.8m^3$
Mason category - II	- 1.8 Nos.
Mazdoor category - I	- 17.7 Nos.
Mazdoor category - II	- 14.1 Nos.

Flooring with 100mm thick base concrete using 40mm size broken stone in CM 1:4 and finishing with 20mm thick Ellis pattern cement concrete surface - $10m^2$

Cement concrete base	- $1m^3$
Stone chips	- $0.24m^3$
Cement	- 117kg
Mason category - I	- 0.50 No.
Mazdoor category - I	- 1.10 Nos.
Mazdoor category - II	- 4.30 Nos.

20. Take off the quantities of following works for a residential building with three rooms as shown in Sketch 'A' by trade system.

(a) (i) Earthwork excavation for foundation.
(ii) Brick masonry in CM 1:5 using I class bricks in foundation and basement.

(Or)

(b) (i) Cement concrete 1:5:10 mix using 40mm hard broken stone for foundations.
(ii) Brick masonry in CM 1:5 using I class bricks in superstructure.

21. Take off the quantities of following works for a community hall with columns and T beams as shown in Sketch 'B' by group system.

(a) (i) Earth work excavation for column footing.
(ii) Brick work with CM 1:6 for superstructure and parapet walls.

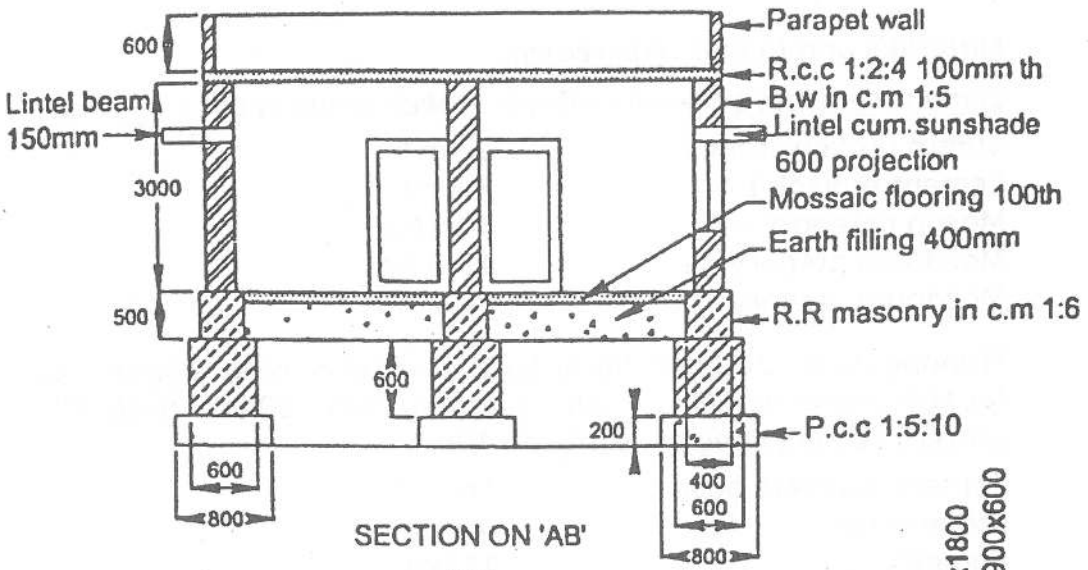
(Or)

(b) (i) PCC 1:5:10 for column footing.
(ii) RCC 1:2:4 for footing bed, footing tapper, column up to GL and earth beam around.

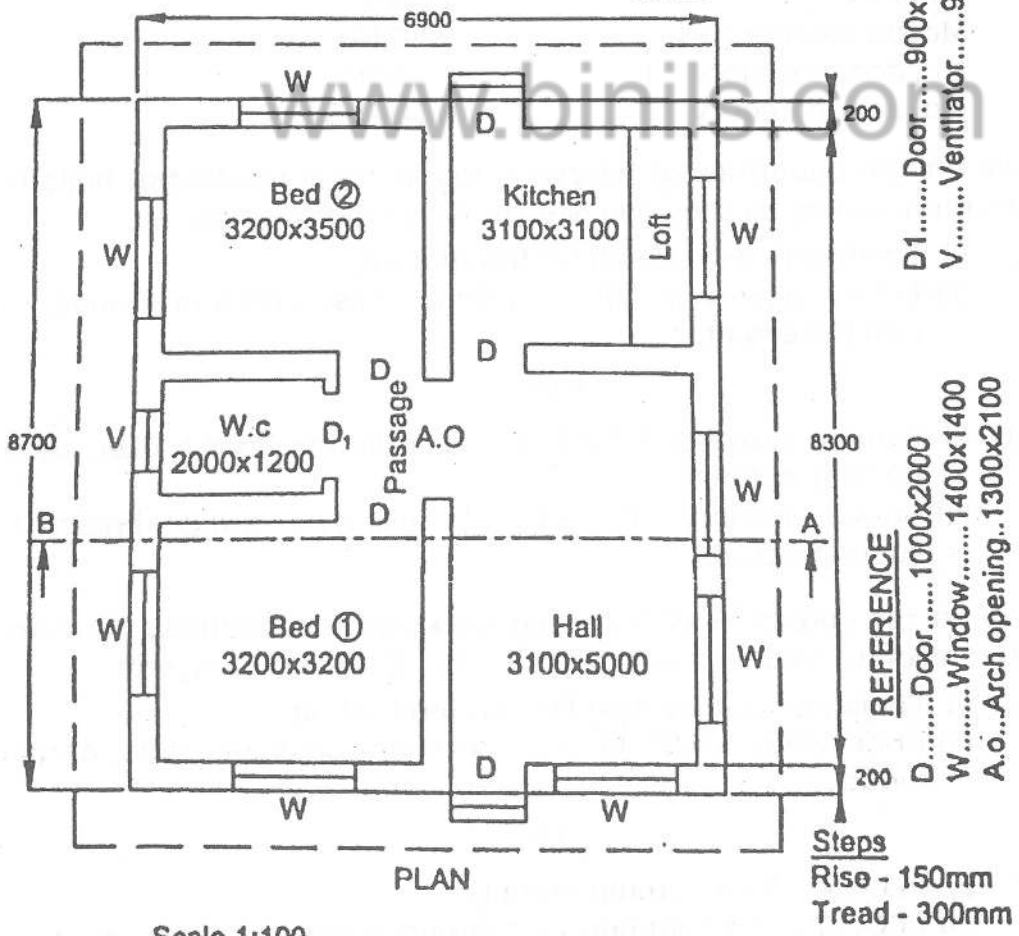
[Turn over...

Sketch 'A' to accompany QP Code 661

A SMALL RESIDENTIAL BUILDING THREE ROOMS WITH RCC ROOF



SECTION ON 'AB'



PLAN

D1.....Door.....900x1800
V.....Ventillator.....900x600

REFERENCE

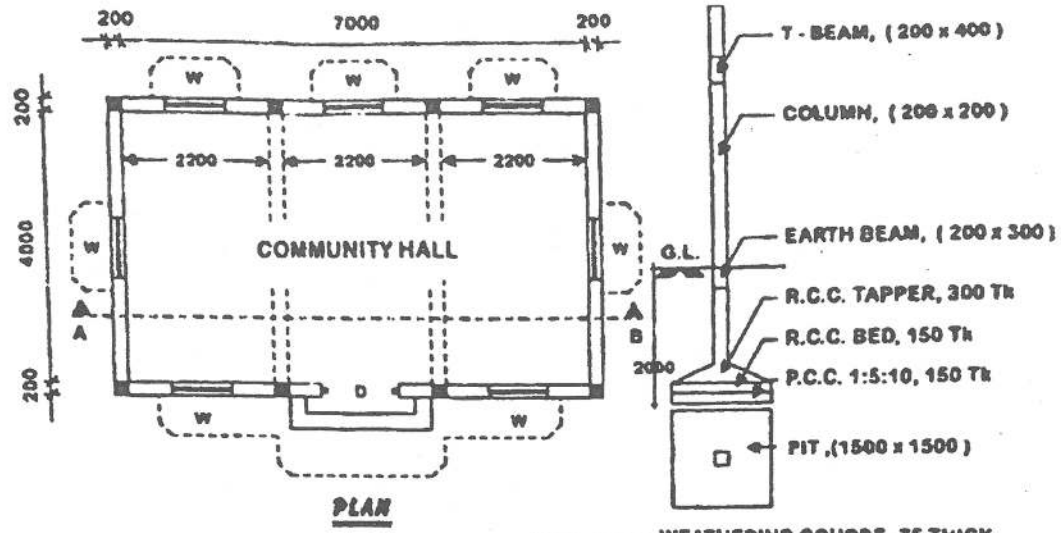
D.....Door.....1000x2000
W.....Window.....1400x1400
A.o..Arch opening..1300x2100

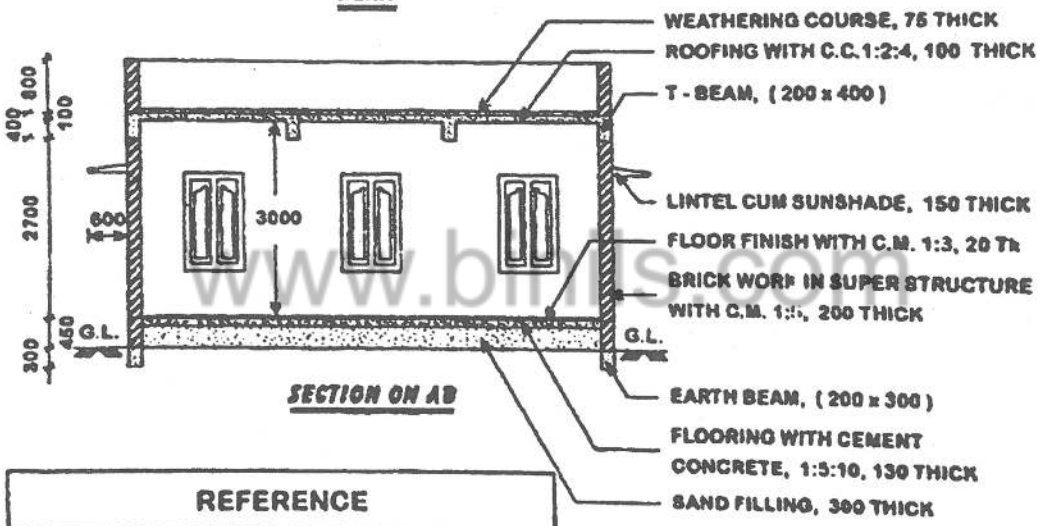
Steps
Rise - 150mm
Tread - 300mm

Scale 1:100

All dimensions are in mm

Sketch 'B' to accompany QP Code 661





REFERENCE	
FOUNDATION	P.C.C. 1:5:10, 150 Th
	R.C.C. (BED) 1:2:4, 150 Th
	R.C.C. (TAPER) 1:2:4, 300 Th
	R.C.C.COLUMN, 200 x 300
DOORS	D - 1200 x 2200 ,FULLY PANELLED
WINDOWS	W - 900 x 1500 ,FULLY PANELLED
STEPS	TREAD - 300 , RISE - 150.

COMMUNITY HALL WITH R.C.C COLUMNS AND T-BEAMS

ALL DIMENSIONS ARE IN MM.