

**731****October 2017***Time – Three hours  
(Maximum Marks: 75)**(Sketch 'M' 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 estimate.
2. When revised estimate is prepared?
3. What is the necessity of specification?
4. Define data.
5. Define depreciation.
6. Write some of the outgoings.
7. List some contingencies work.
8. What do you mean by schedule of rates?

**PART – B**

9. Define supplementary estimate. In which circumstances it is prepared?
10. What is meant by standard specification? List out the department which have developed their own standard specifications.
11. Write short notes on lead statement.
12. Define out turn of works.
13. Define obsolescence.
14. Define years purchase.
15. Write the qualities of quantity surveyor.

**[Turn over.....**

16. What do you mean by approximate estimate? Write the types of approximate estimate.

PART - C

17. (a) What are the types of estimate? Explain them.

(Or)

- (b) The actual cost of a single storey residential building of plinth area  $90\text{m}^2$  is found to be ₹ 15,30,000, in which 60% is towards the cost of materials and 40% towards the labour. It is proposed to construct a similar building of same specification with a plinth area of  $120\text{m}^2$  at a place where the cost of materials to be 20% more and cost of labour 15% less. Estimate the rough cost of the proposed building.

18. (a) (i) Write the essential requirements of specifications.  
(ii) Write detailed specification for laying cement concrete flooring.

(Or)

- (b) An estimate is prepared for a water supply system for a village. Prepare a report in support of the proposal.

19. Analyse and determine the rates for the following items of work with the given data:

- (a) RCC roof slab 120mm thick of mix 1:1½:3 using 20mm broken jelly with suitable reinforcement including centering, curing etc. complete -  $1\text{m}^3$ .

(Or)

- (b) Brick work in CM in partition with plastering with first class bricks in CM 1:4 for partition including plastering both faces with CM 1:5, 12 mm thick -  $10\text{m}^2$ .

Materials and Labour Required:

Cement concrete 1:1½ :3 -  $10\text{m}^3$ .

Broken stone 20mm size	= $9\text{m}^3$
Sand	= $4.5\text{m}^3$
Cement	= 4308kg
Mason II class	= 3.5 Nos.
Mazdoor I class	= 21.2 Nos.
Mazdoor II class	= 35.30 Nos.

(b) Brick Work with 1<sup>st</sup> class bricks in CM 1:4 for partition - 10m<sup>2</sup>

Brick 1 <sup>st</sup> class	= 5000 Nos.
CM 1:4	= 1.4m <sup>3</sup>
Mason I class	= 7 Nos.
Mason II class	= 7.1 Nos
Mazdoor I class	= 7.1 Nos
Mazdoor II class	= 7.1 Nos

Plastering with CM 1:5, 12mm thick - 10m<sup>2</sup>

CM 1:5	= 0.12m <sup>3</sup>
Mason I class	= 0.5 Nos.
Mazdoor II class	= 1.1 Nos.

RCC roof slab of mix 1:1½ :3, 120mm thick - 1m<sup>3</sup>

Concrete 1:1½ :3	= as required
Steel	= 90kg/m <sup>3</sup> of concrete
Binding wire	= 1% of reinforcement
Centering	= As required. Add 20% extra for sides
Bar bending	= As required.

Brick work in CM 1:4 for partition, including plastering both faces with CM 1:5 - 10m<sup>2</sup>.

B.K in CM 1:4	= 20m <sup>2</sup>
Plastering with CM 1:5	= 10m <sup>2</sup>
Mason 1 <sup>st</sup> class	= 1 No.

Cost of materials and labour:

Cement	= ₹ 5200/tonne
Steel	= ₹ 20,000/tonne
Binding wire	= ₹ 75/kg
Broken stone (20mm size)	= ₹ 500/m <sup>3</sup>
Sand	= ₹ 400/m <sup>3</sup>
Brick 1 <sup>st</sup> class	= ₹ 5000/1000 Nos.
Mason I class	= ₹ 550 each.
Mason II class	= ₹ 500 each.
Mazdoor I class	= ₹ 450 each
Mazdoor II class	= ₹ 400 each
Bar bending	= ₹ 200/100kg
Centering charges	= ₹ 100/m <sup>2</sup>
Mixing charges	= ₹ 75/m <sup>2</sup> .

20. (a) Find the value of a free hold property with the following particulars.

Area of land	=600m <sup>2</sup>
Builtup area	=200m <sup>2</sup>
Gross annual rent	=₹ 72,000
Permissible builtup area	=50% area of plot.
Estimated life of structure	=50 years
Estimated rate of open land	=₹ 800/m <sup>2</sup>
Interest on capital	=8%
Interest on redemption of capital	=5%
Outgoings	=30% of gross rent.

(Or)

- (b) A person has invested ₹ 5,00,000 on a plot and ₹ 15,00,000 on construction of a building over it expecting 5% return. Assuming the cost of annual repairs to be ₹ 5,000 and other outgoings to be 25% of gross rent, calculate the reasonable rent, if the annual instalment of sinking fund ₹ 15,000

21. Prepare the detailed estimate for the industrial building with AC sheet as shown in Sketch 'M' by using trade system.

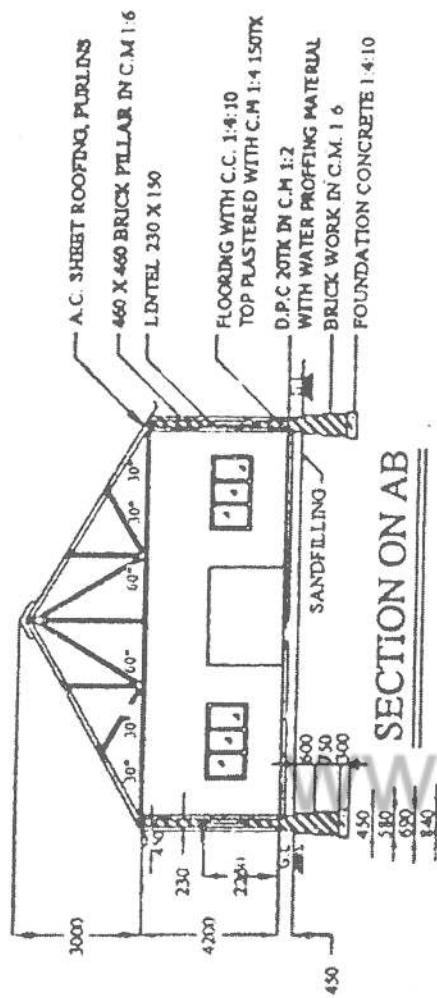
- (a) (i) Earth work excavation in foundation.  
(ii) 20mm thick DPC of CM 1:2

(Or)

- (b) (i) I class brick work in CM 1:6 in super structure.  
(ii) RCC 1:2:4 for lintels.

-----

Sketch 'M' to accompany QP Code: 731

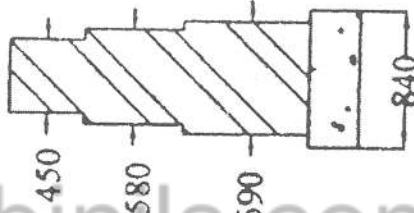


SECTION ON AB

REFERENCE

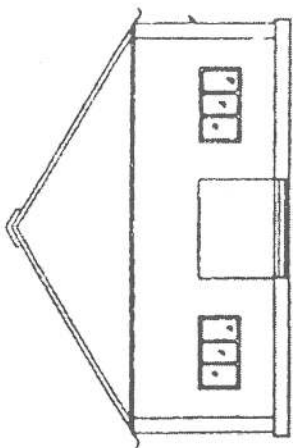
D	DOOR	3000 X 2250
W	WINDOW	2250 X 1250

FOUNDATION DETAILS

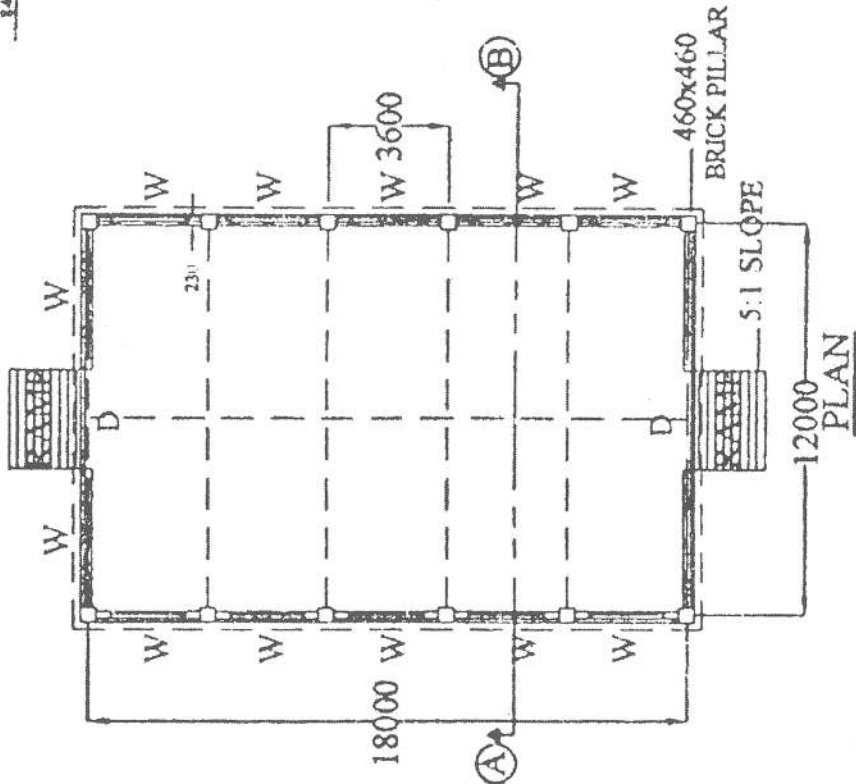


INDUSTRIAL BUILDING WITH  
A.C. SHEETS WITH STEEL TRUSSES

ALL DIMENSIONS ARE IN "mm"



ELEVATION



PLAN

[www.binils.com](http://www.binils.com)