

November 2022

*Time - Three hours*  
*(Maximum Marks: 75)*

*(Sketch 'C' and 'D' 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.
  4. Any missing data may be assumed suitably.]

PART - A

1. Name the various types of specification.
2. Write any two points to be considered while writing a technical report for a project.
3. What is meant by sinking fund?
4. What are the methods of valuation of buildings?
5. What do you mean by observed data?
6. Write any two items of work involved in rain water harvesting.
7. Why are cambers provided in road?
8. Write the essential requirements of specification.

PART - B

9. What particulars are to be incorporated in detailed specification of materials?
10. What is report writing?
11. Define book value, market value.
12. What is the use of form work?
13. What is lump sum provision? Write any two lump sum provisions being made in the estimate.
14. Sketch a cement concrete road with side drains.

[Turn over.....

15. What is wearing coat in slab culvert? State the unit of measurements?
16. What is standard data book?

PART - C

17. (a) Write a detailed specification for providing RCC in slabs and beams.

(Or)

- (b) Write a detailed report for laying a water bound macadam road for a village.

18. (a) The built up portion of a I class building on  $240\text{m}^2$  land, near city is  $120\text{m}^2$ , the plinth area rate in the neighbourhood including water supply, sanitary and electrification charges is Rs  $16,000/\text{m}^2$ . The age of the building may be taken as 12 years. The cost of land in the locality is Rs  $10,000/\text{m}^2$ . Assuming the rate of depreciation as 1% calculate the present value of the property.

(Or)

- (b) Work out the gross rent and net rent per month of a building which is constructed at a cost of Rs 2,00,000 on a free hold property. The area of land is  $150\text{m}^2$  and the cost of land is Rs  $5,000/\text{m}^2$  assume the outgoings including sinking fund is Rs 20,000 per annum. Expected net rent is 6% of land and 12% of construction cost.

19. (a) Analyse and determine the rates for the following items of work with the given data.

Supplying and fixing position of Indian water closet size 580 X 440mm with glazed earthen ware of approved quality with P or S trap with sand cushion and forming flooring all-round the closet using 40mm broken jelly in line concrete 1:2:5 mix, 100 mm thick and finishing the top with required slope and including necessary connection to cast iron soil pipe by dismantling brick masonry or floor slab without leakage etc. complete complying with standard -1 No.

Materials required

Water closet 580 mm	1 No
C.I. Pipe 100 mm	0.6m
Sand for filling	0.45 m <sup>3</sup>
Brick jelly 40 mm	0.11 m <sup>3</sup>
Plumber I Class	0.25 no
Plumber II Class	0.25 no
Mason I class	1 No
Mazdoor I Class	1 No
White cement	1 kg
Cement	6 kg
Spurn yarn	0.40kg
Sundries	L.S

Cost of Materials

Indian water closet	Rs 4,500/set
C.I Pipe	Rs 300/m
Sand	Rs 600/m <sup>2</sup>
Brick jelly 40 mm	Rs 300/ m <sup>3</sup>
White cement	Rs 150/kg
Cement	Rs 8,000/ton
Spurn yarn	Rs 45/kg

Cost of labour

Mason I class	Rs 800 each/day
Mazdoor category I	Rs 600 each/day
Plumber I class	Rs 750 each/day
Plumber II class	Rs 600 each/day

(Or)

[Turn over.....

- (b) Wooden frame for doors-wood work in frame, wrought framed and fixed of size 1.20 X 2.00 m door without sill.

Materials required

Timber-0.056 m<sup>3</sup>

Carpenter I class-1/16 nos

Carpenter II class-0.75 nos

Helper-0.5 nos

Sundries-L.S

Cost of materials

Timber-Rs 55,000/m<sup>3</sup>

Cost of labour

Carpenter I class-Rs 750/each/day.

Carpenter II class-Rs 600/each/day.

Helper-Rs 350/each/day.

20. (a) Take the quantity of the following item of work for open well with masonry steining shown in sketch 'C' using trade system.

Brick work in C.M. 1:4 in steining.

(Or)

- (b) Take the quantity of the following item of work for open well with masonry steining shown in sketch 'C' using trade system.

Plastering with C.M 1:3 in steining.

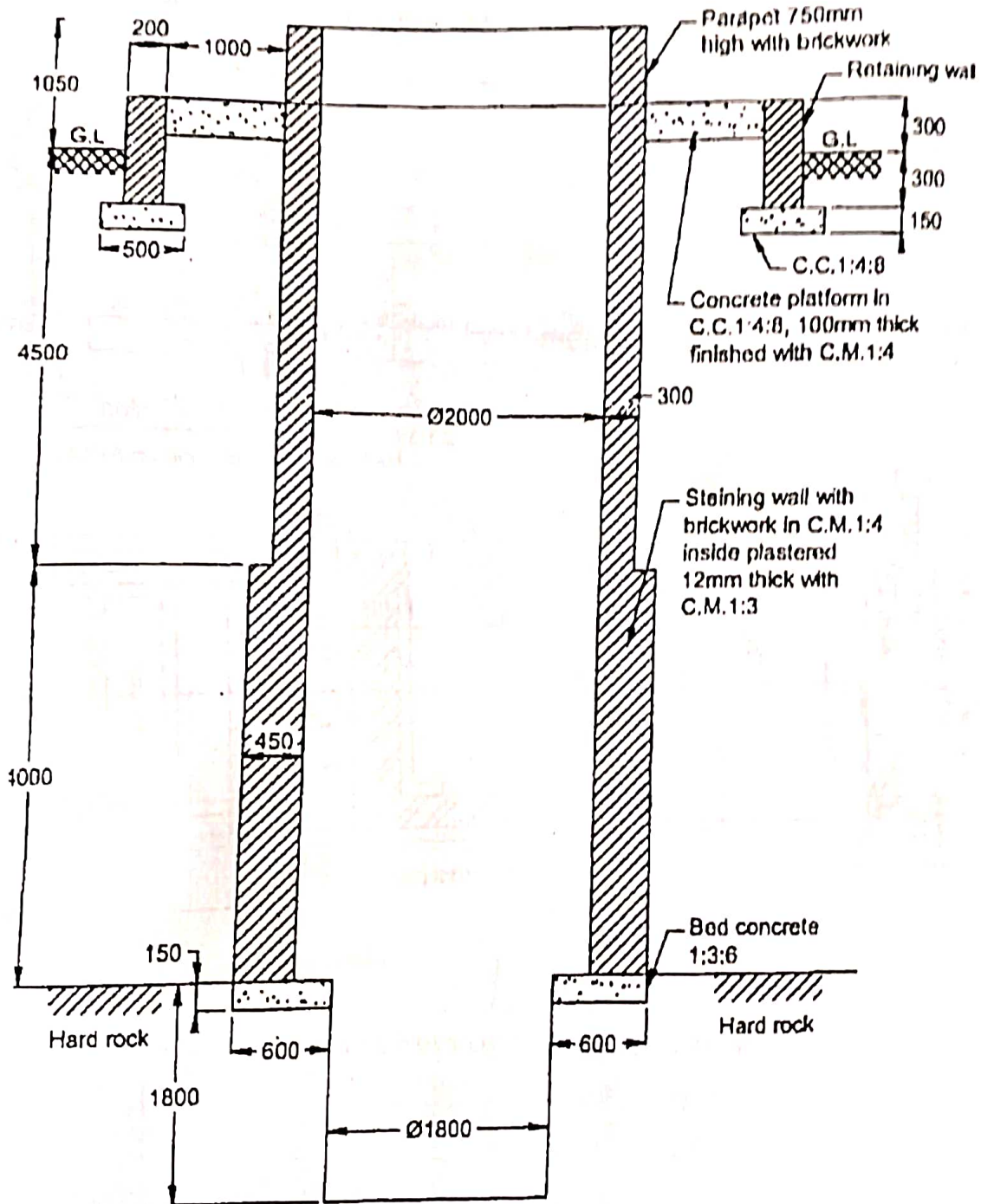
21. (a) Take the quantity of the following works of RCC in beams and slabs of the slab culvert shown in sketch 'D' using trade system.

(Or)

- (b) Take the quantity of brick work in abutment and wing wall of the slab culvert shown in Sketch 'D' using trade system.

# Sketch 'C' to accompany QP Code: 926

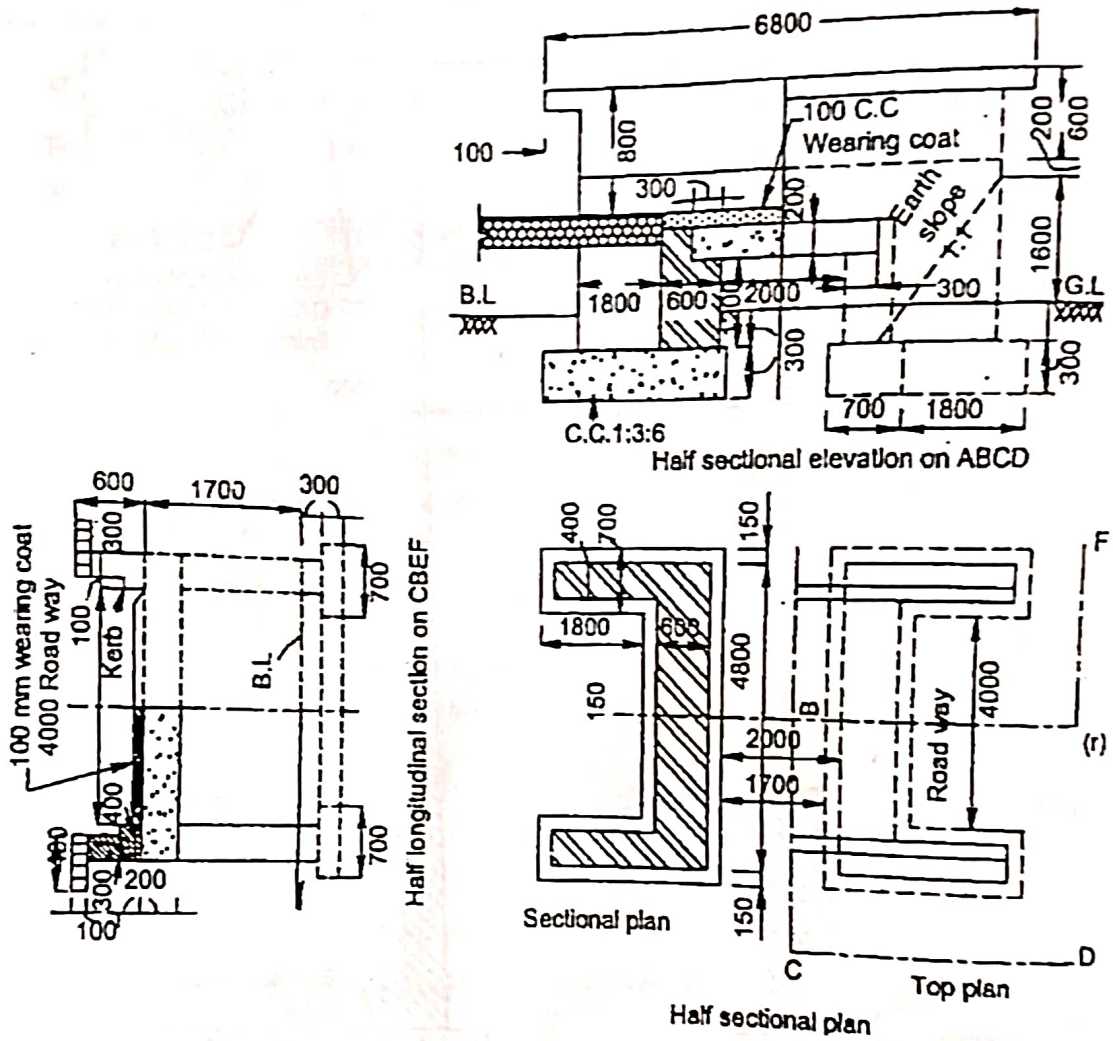
## OPEN WELL WITH MASONRY STEINING



NOTE: ALL DIMENSIONS ARE IN mm

Sketch 'D' to accompany QP Code: 926

SLAB CULVERT



NOTE. ALL DIMENSIONS ARE IN mm