

\*3425\*

C09-C-404

3425

BOARD DIPLOMA EXAMINATION, (C-09)  
OCTOBER/NOVEMBER-2018  
DCE - FOURTH SEMESTER EXAMINATION

QUANTITY SURVEYING

Time : 3 Hours ]

[ Total Marks: 80

PART-A

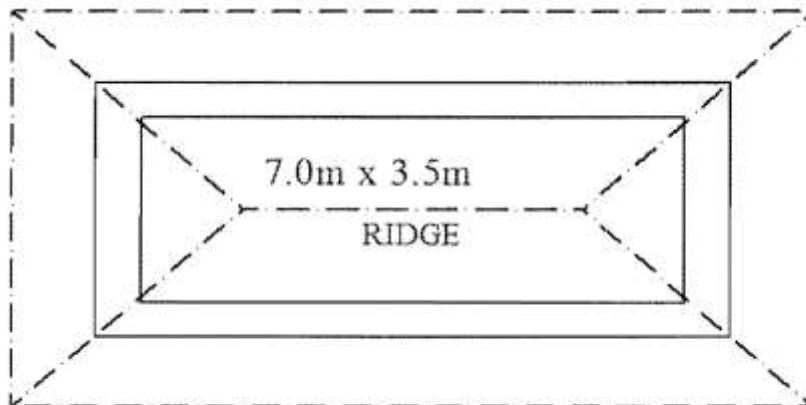
3X10=30

- Instructions :**
1. Answer **All** questions.
  2. Each question carries **three** marks.
  3. Answer should be brief and straight to the point and shall not exceed five simple sentences.

1. List any four duties of quantity surveyor.
2. Write the difference between detailed estimate and abstract estimate
3. For a hipped roof shown in the following drawing. Calculate
  - (a) Length of the common rafter
  - (b) NO. of common rafters spaced at 500mm/cc.

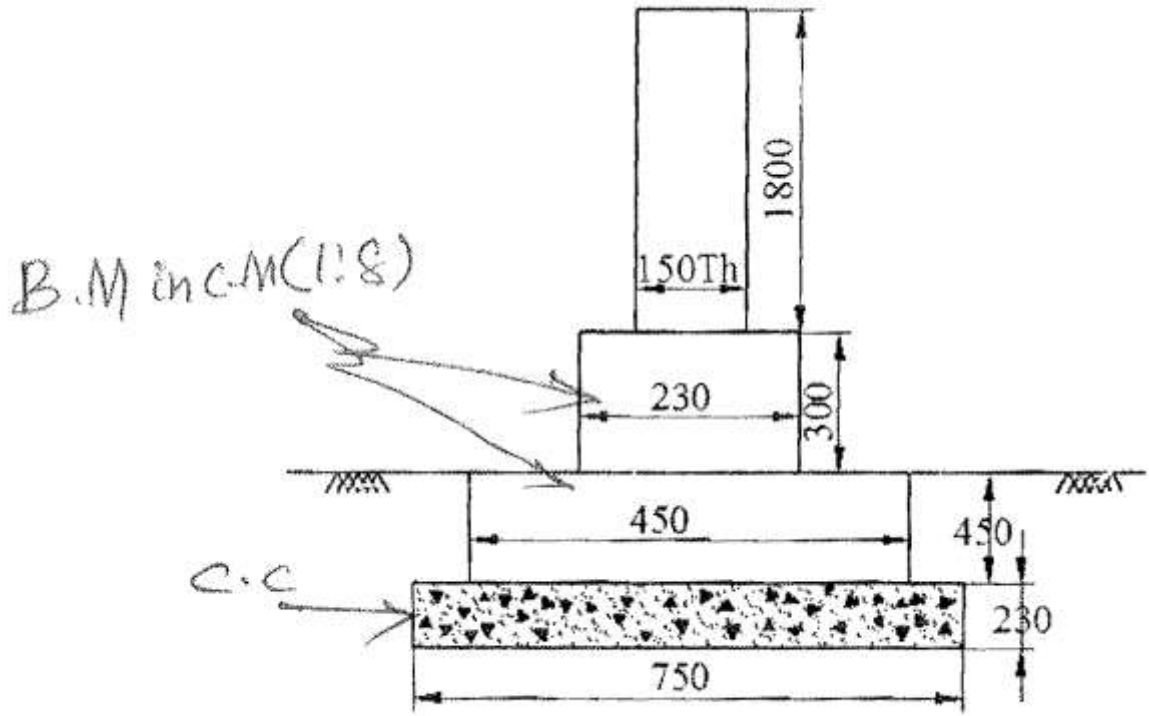
Note:

Wall thickness = 300mm, Eaves projection = 500mm, rise of roof = 170mm



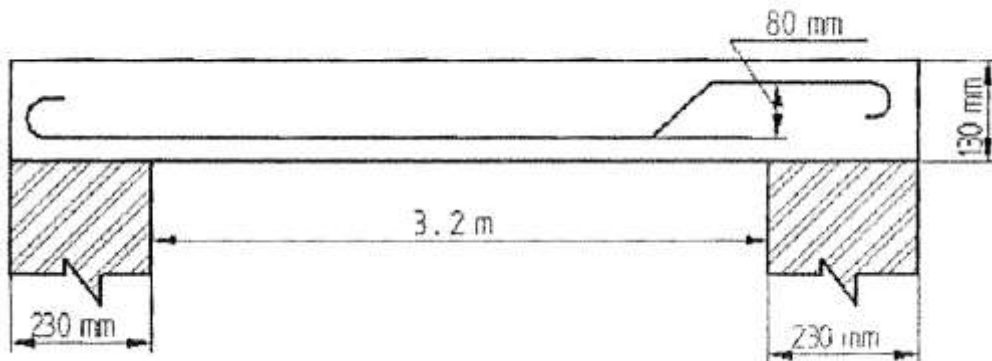
4. Calculate the following quantities if the length of the compound wall shown in figure is 20m.

- \* (a) Cement concrete for foundation.
- (b) Brick masonry in C.M. (1:8) for footing and basement.



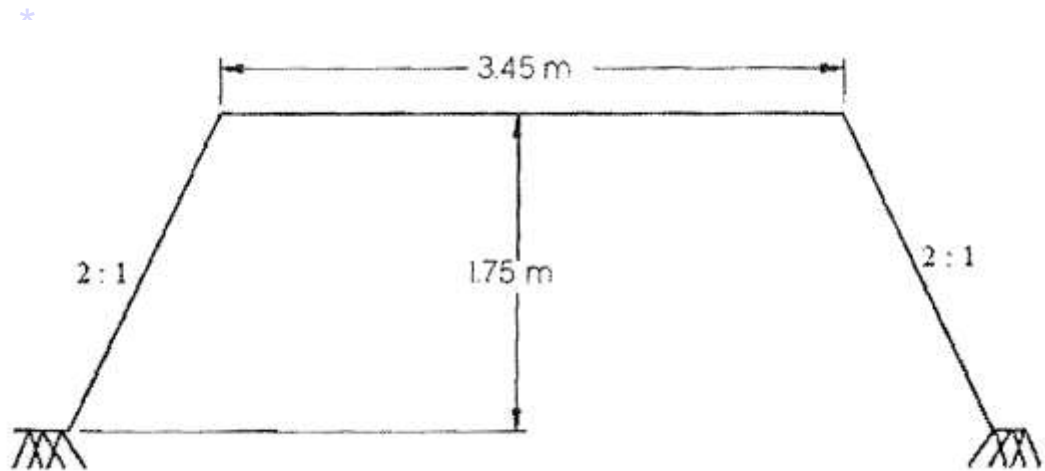
All dimensions are in mm.

- \* 5. Calculate the quantity of cement required in bags for 20 cum of brick work in CM (1:6). If 0.38 cum of CM (1:6) is used for one cu.m. of brick work.
- 6. Calculate the length of steel rod of 10mm dia as shown in figure. Assume end cover as 20mm



\*

7. Find the earth work in embankment for a 2.0km road, whose cross section is given below:



8. Calculate the quantity of gravel to be collected for granular shoulders, on either side of WBM road having length 800.00m. The width of shoulders is 1.00m. The compacted thickness is 100mm (loose thickness 120mm)
9. Write short notes on scrap value.
10. Write short notes on calculation of standard rent.

### PART-B

10X5=50

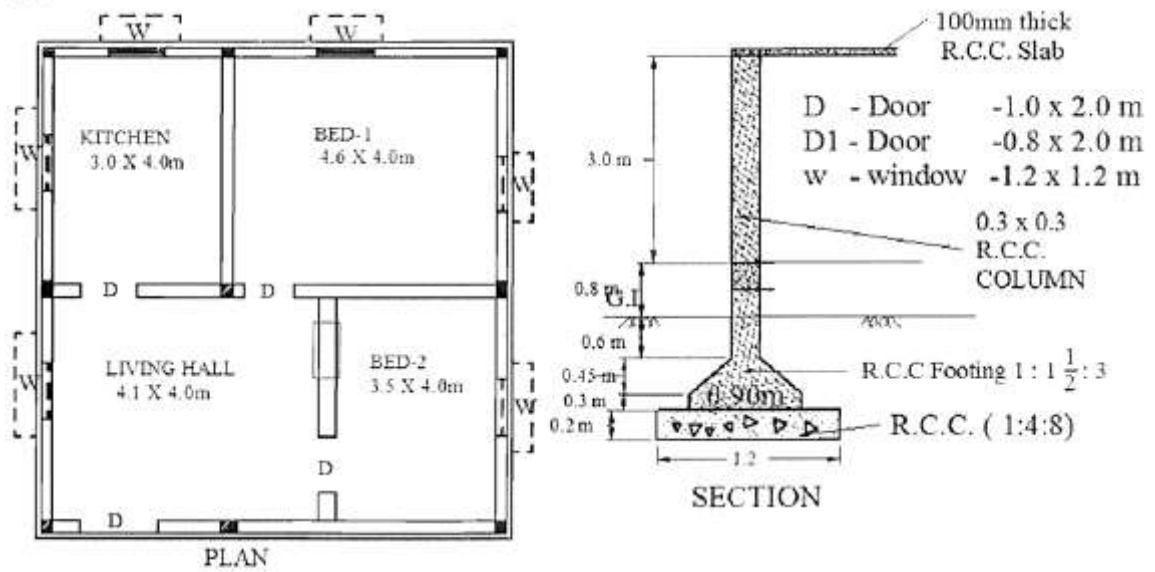
\*

- Instructions :**
1. Answer any **Five** questions.
  2. Each question carries **ten** marks.
  3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

11. Prepare the detailed estimate for the following items of work for the building shown in fig.

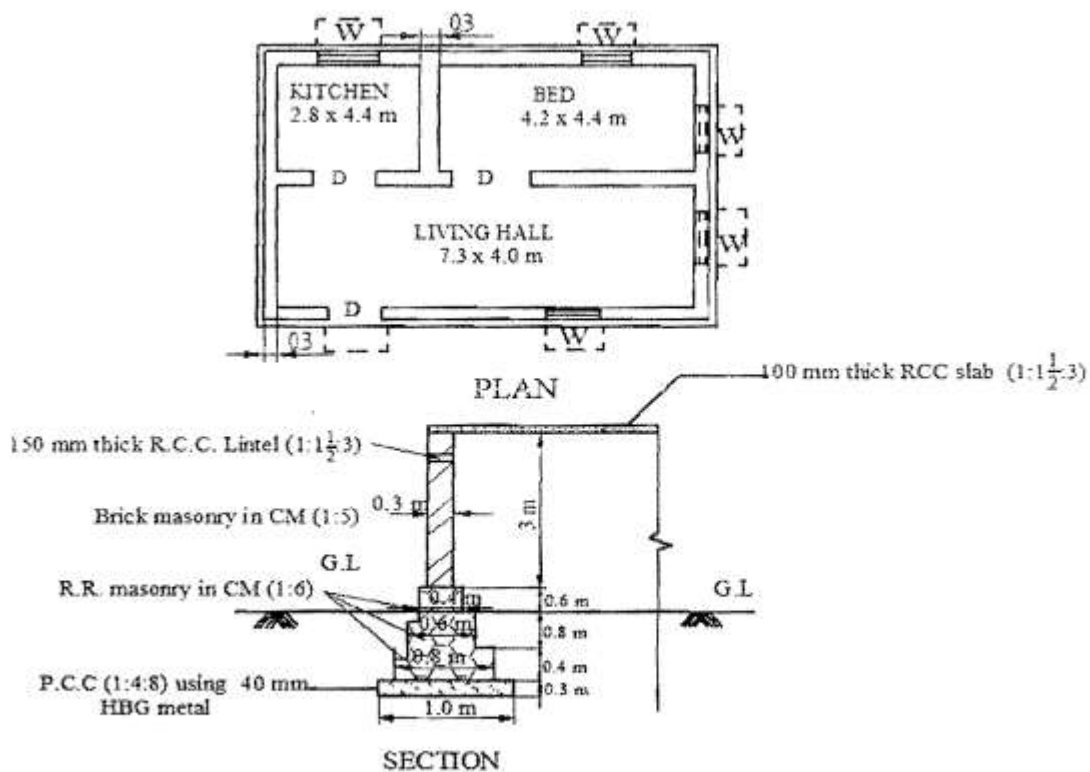
- (a) R.C.C. 1:1 ( $\frac{1}{2}$ ):3 in columns up to G.L. only including footings
- (b) R.C.C. 1:2:4 in slab.

\*



12. Prepare the detailed estimate for the following items of work for the building shown in figure:

- R.R. masonry in C.M (1:6) for the footings and basement.
- Plastering with C.M. (1:8) 12mm thick for inside the building without deductions.
- Plastering with C.M. (1:3) for ceiling



13. Prepare the data sheet and calculate the cost of the items given below:

a. C.C. (1:5:10) using 40mm HBG metal – unit 1 cu.m

0.92 m <sup>3</sup>	40mm HBG metal
_____	Sand
_____	Cement
0.06 No.s	Mason I class
0.14 No.s	Mason II class
1.80 No.s	Man mazdoor
1.40 No. s	Women mazdoor
L.S.	Sundries

b. R.R. stone masonry in C.M (1:6) – unit 1 cu.m

1.05 cu.m	Rough stone
0.05 cu.m	Bond stone
0.34 cu.m	C.M (1:6)
0.54 No.s	Mason I class
1.26 No.s	Mason II class
1.40 NO.s	Man mazdoor
1.40 No. s	Women mazdoor
L.S.	Sundries

**Rates of labour and materials at site:**

HBG 40mm size	=	Rs. 440.00/1 cu.m
Sand	=	Rs. 200.00/1 cu.m
Cement	=	Rs. 3400.00/1 cu.m
Rough stone	=	Rs. 280.00/1 cu.m
Bond stone	=	Rs. 700.00/ cu.m
Mason I class	=	Rs. 160.00 per day
Mason II class	=	Rs. 140.00 per day
Man mazdoor	=	Rs. 110.00 per day
Woman mazdoor	=	Rs. 110.00 per day
Mixing charges for CM.	=	Rs. 20.00/ cu.m

14. Prepare the data sheet and calculate the cost of items given below:

a. Plain cement concrete for foundations (1:4:8) unit – 1 cu.m

0.92 m <sup>3</sup>	40mm size HBG metal
_____	Sand
_____	Cement
0.06 No.s	Mason I class
0.14 No.s	Mason II class
1.18 No.s	Man mazdoor
1.40 No. s	Women mazdoor
L.S.	Sundries

b. Plastering with CM (1:6) 12mm thick unit – 10m<sup>2</sup>

0.15 cu.m	CM 1:6
1.10 No	Mason
0.50 No.	Man mazdoor
0.10 No.	Women mazdoor
LS	Sundries

**Rate of materials at site :**

HBG metal 40mm size	:	Rs. 440.00/1cu.m
Sand	:	Rs .200.00/1 cu.m
Cement	:	Rs. 3400.00/MT.

**Labour charges:**

1 <sup>st</sup> class mason	:	Rs. 190.00/day
2 <sup>nd</sup> class mason	:	Rs. 160.00/day
Man mazdoor	:	Rs. 120.00/day
Woman mazdoor	:	Rs. 120.00/day
Mixing charges for C.M.	:	Rs. 30.00/m <sup>3</sup>

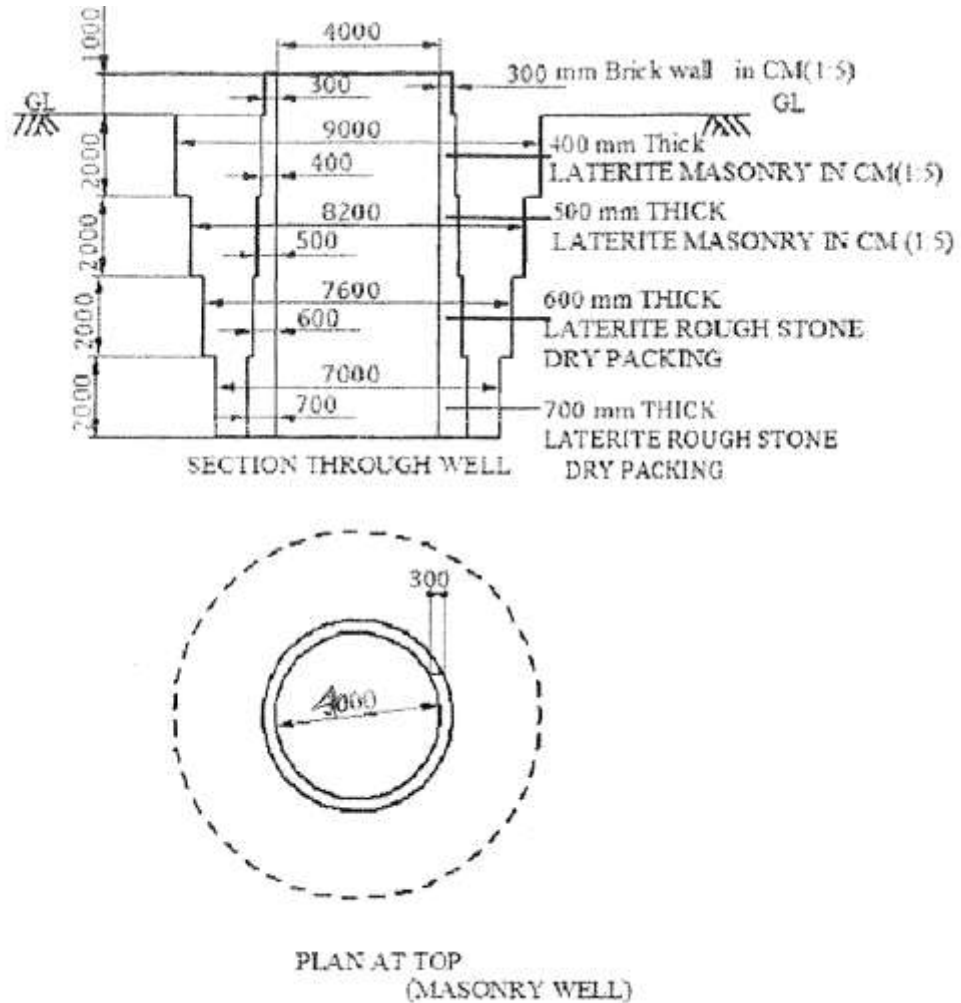
15. A road in embankment has the following data:

Change in m	0	30	60	90	120	150	180
R.L. of ground in m	49.60	50.20	50.90	51.35	51.90	52.30	52.80

The formation level at zero chainage is 52.00 and having a rising gradient of 1 in 100. The top width is 12.0m and side slopes 2 horizontal to 1 vertical. Assuming ground is level in traverse direction, calculate the quantity of earth work.

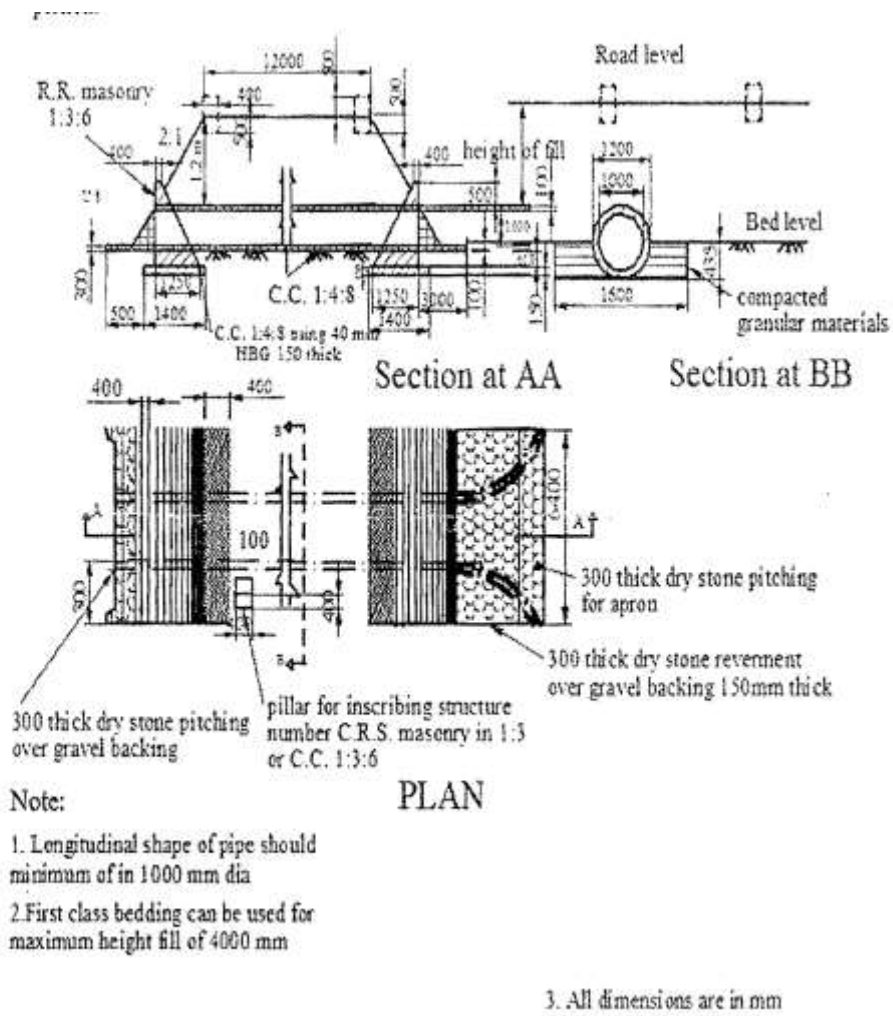
16. Calculate the quantities for the following items of work for an open well shown in figure:

- (a) Refilling with excavated earth around the well staining.
- (b) Laterite rough stone dry packing for well staining



17. Prepare the detailed estimate for the following items of work for a pipe culvert shown in figure:

- (a) C.C (1:4:8) under head walls
- (b) Compacted granular material for bedding and benching under pipe without deduction for pipe portion.



18. What are the factors causing reduction in the market value of property?

\*\*\*\*\*