MAHARASHTRA JEEVAN PRADHIKARAN
RESEARCH AND TRAINING CENTRE, NASHIKROAD

Professional Examination of Sub Divisional Officers / Engineers / Assistant Engineer Grade- I

October 2011

Subject :- Practical Test (Civil)

Date :- 21/10/2011 Time :- 8.00 onwords
Marks :- 50

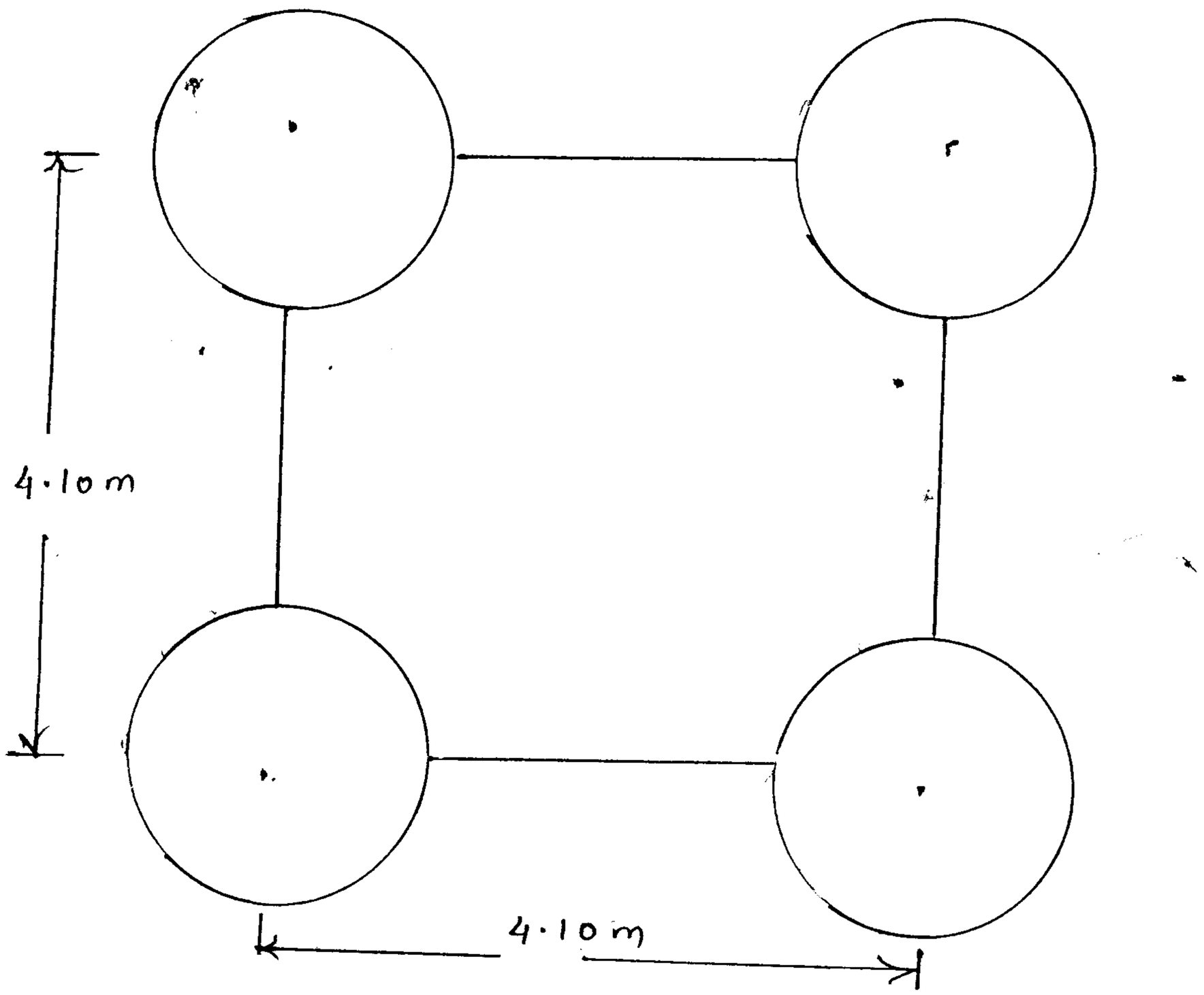
Note :-
(1) All questions are compulsory.
(2) Figure in right side bracket indicates full marks.
(3) Mobile is not allowed.

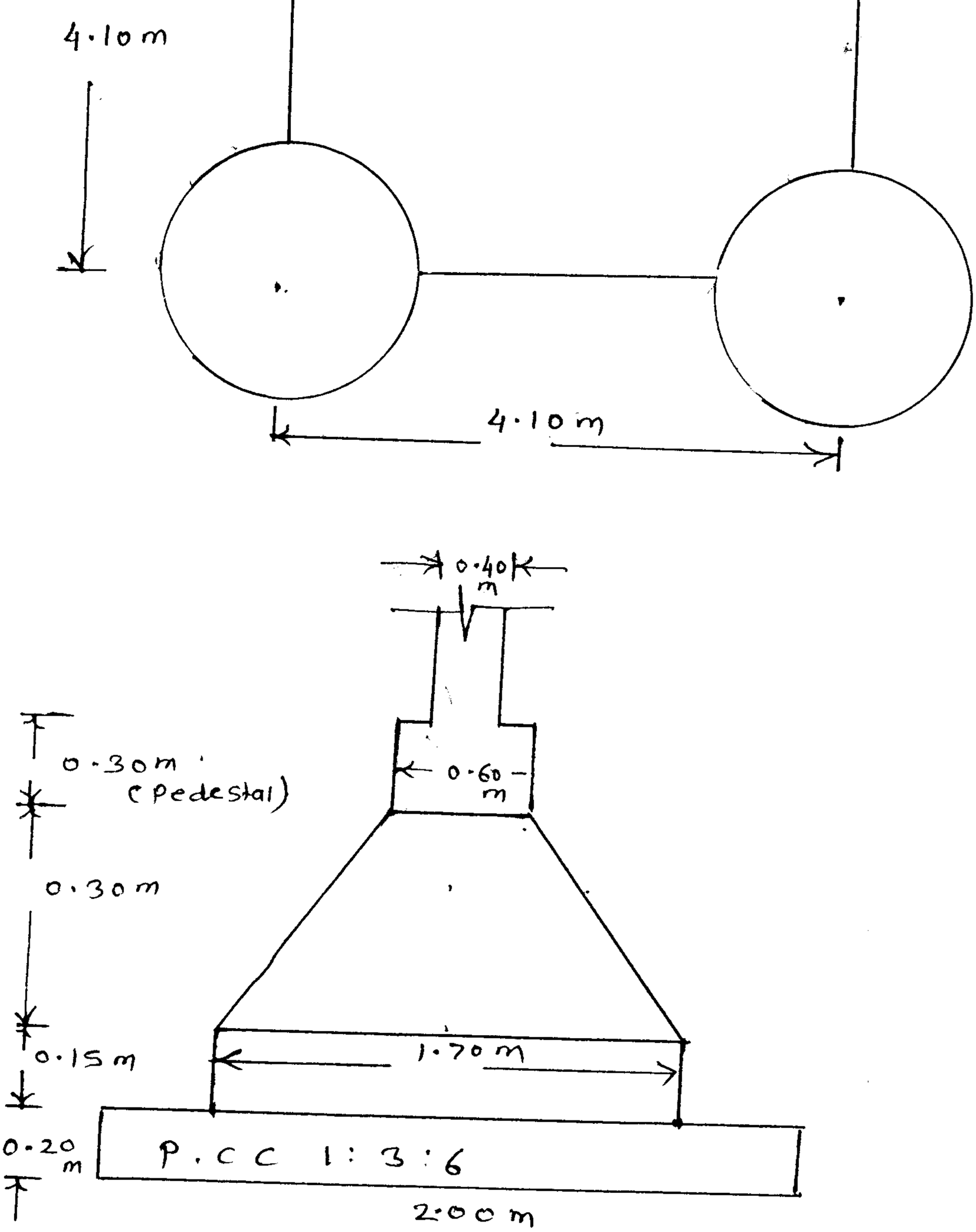
Question No.1 Prepare a detailed foundation plan of R.C.C. Elevated service Reservoir of 100000 liters capacity. The line plan is enclosed the foundation plan may be set up on the ground (20)

Question No.2 Carry out the survey from given T.B.M. & workout reduced levels for given points, A,B,C,D,E by Rise & Fall method or height of collimation method.
Rule out the page of files book and mention all details, Apply field check by fly leveling survey & give usual checks. (20)

Question No.3 Set up the THEODOLITE at point 'o' given to you and measure vertical angle AOB between A & B. Also measure vertical angle between plane of collimation and the point 'A' (10)

Que No :- 1 Diagram (Line Diagram of Resembler)





Sectional Elevation of column Footing.

(Drawing Not to scale)

MAHARASHTRA JEEVAN PRADHIKARAN
MAHARASHTRA ENVIRONMENTAL ENGINEERING
TRAINING & RESEARCH ACADEMY, NASHIK
Professional Examination of Sub Divisional Officers / Engineers / Assistant Engineer Grade- I
October 2012

Subject :- Practical Test (Civil)

Date :- 12/10/2012 Time :- 8.00 onwords
Marks :- 50

Note :- (1) All questions are compulsory.
(2) Figure in right side bracket indicates full marks.

Question No.1 Draw the detailed foundation plan of R.C.C. Circular E.S.R. having Hexagonal shape. Column size is 600 mm dia. Work out the Capacity of E.S.R. (For 4000 souls & L.P.C.D. 135 lit) & size of footing with the help of following data. Also set it on the Ground. (See Fig-I on Annex-I) (30)

1) Assume Total load – 600 MT (Excluding water load)

2) Bearing capacity – 20 T/M2

3) Footing size in square

4) Water depth – 3.70 meter & Thickness of container wall 200 mm.

5) E.S.R. to be filled Twice in a day.

6) Prepare a line sketch plan showing an arrangement of By- pass, overflow, washout, Inlet & Outlet pipes. Overflow pipe should be connected to Delivery line. Propose the necessary valves wherever required.

Question No.2 Carry out the survey from given T.B.M. & workout Reduced levels for given points, A, B, C, D & E by using the Rise & Fall method Or Height of Collimation method. Rule out the page of field Book & mention all details. Apply field check by fly leveling survey & give usual checks. (15)

Question No.3 Set up the THEODOLITE at point 'T' as given and measure an angle RTS between R & S point. (5)

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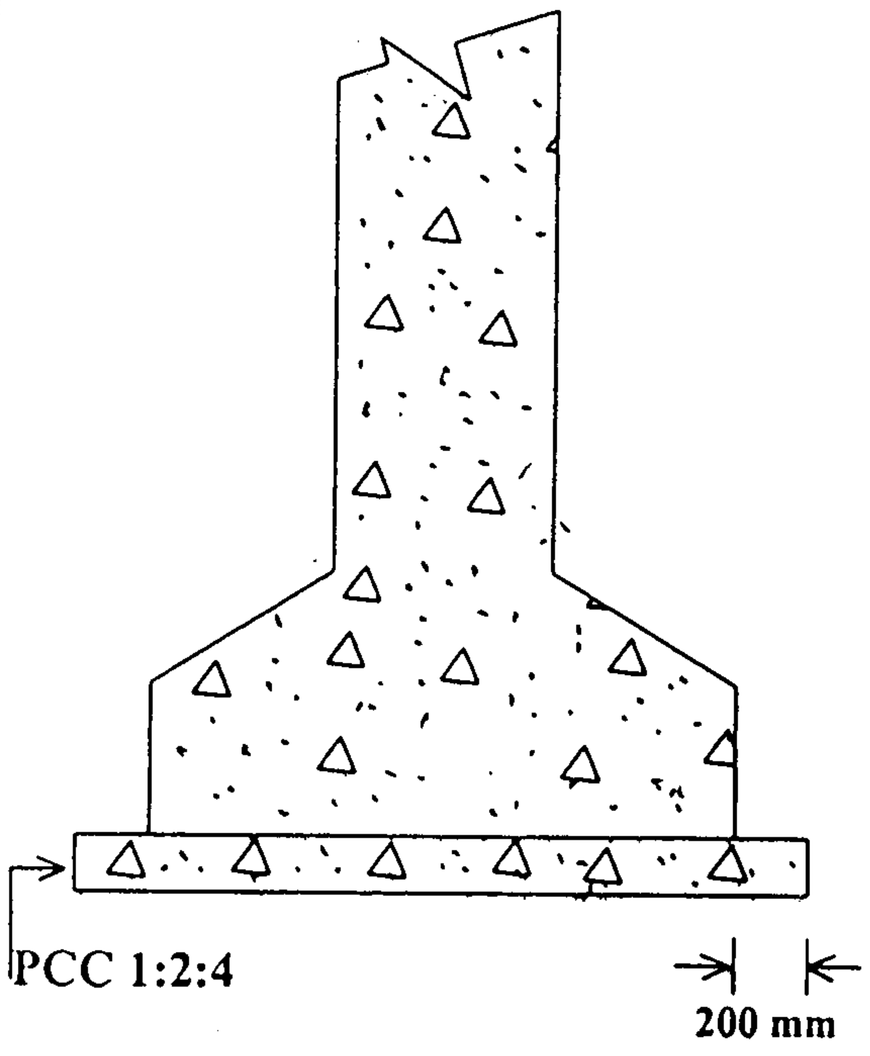
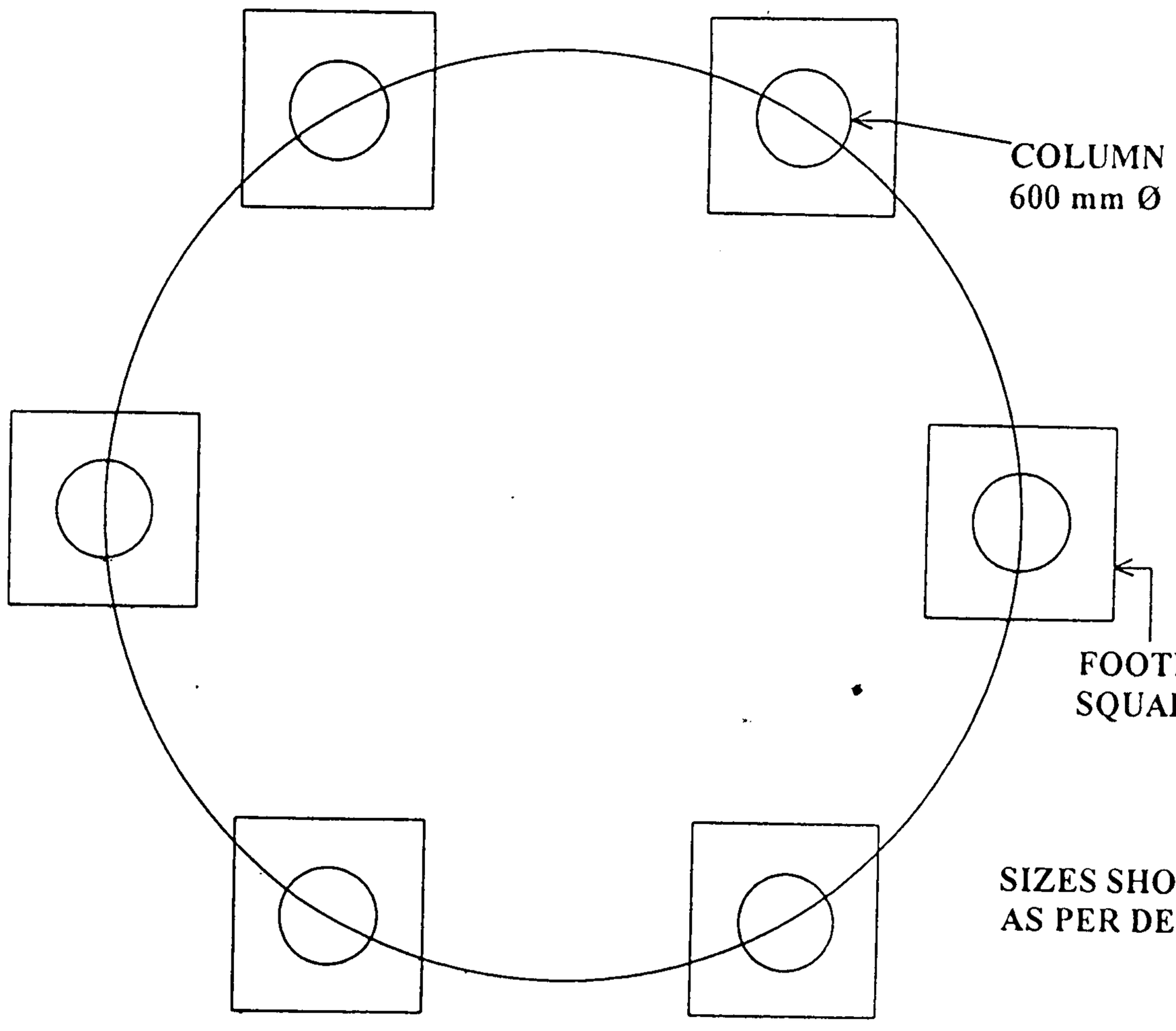
ANNEX - I

QUESTION NO 1

FIGURE 1





LINE PLAN OF CIRCULAR ESR

MAHARASHTRA JEEVAN PRADHIKARAN
Examination conducted by
Maharashtra Environmental Engineering Training & Research Academy
(MEETRA), Nashik
Professional Examination of Asstt. EE/A.E.-I/SDE/SDO(Civil)
November 2014

Subject :- Practical Examination (Civil Engr.)
Date :- 14/11/2014 **Time** :- 8.00 onwards
Marks :- 50

Note :- 1) All questions Compulsory.
2) Use of calculator, Log, table are allowed.
3) Figure in bracket on right hand side indicate total marks.
4) Make suitable assumptions where necessary & state them.
5) Use of mobile, laptop & tab are not allowed.

Que.No.1. Carry out the survey from given T.B.M. & workout Reduced levels for given points, A, B, C, D & E by using the Rise & Fall method Or Height of Collimation method. Rule out the page of field Book & mention all details. Apply field check by fly leveling survey & give usual checks. (20)

Que.No.2 Draw the detailed foundation plan of R.C.C. Circular E.S.R. having Hexagonal shape. Column size is ~~450~~ 600mm dia. Work out the Capacity of E.S.R. (For 4000 souls & L.P.C.D. 135 lit) & Size of footing with the help of following data. Also set it on the Ground. (20)
(See Fig-I on Annex-I)

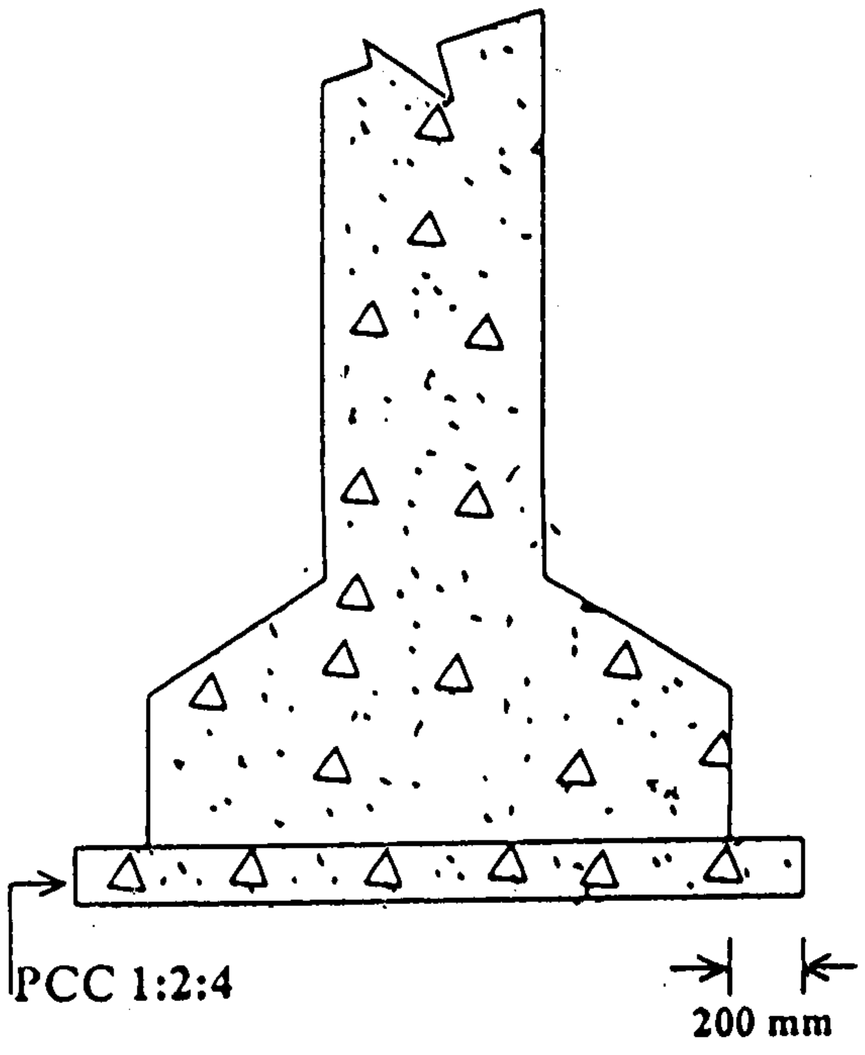
1) Assume Total load – 600 MT (Excluding water load)
2) Bearing capacity – 20 T/M^2
3) Footing size in square.
4) Water depth – 3.70 meter & Thickness of container wall 200 mm.
5) E.S.R. to be filled Twice in a day.
6) Prepare a line sketch plan showing an arrangement of By-pass, overflow, washout, Inlet & Outlet pipes. Overflow pipe should be connected to Delivery line. Propose the necessary valves wherever required.

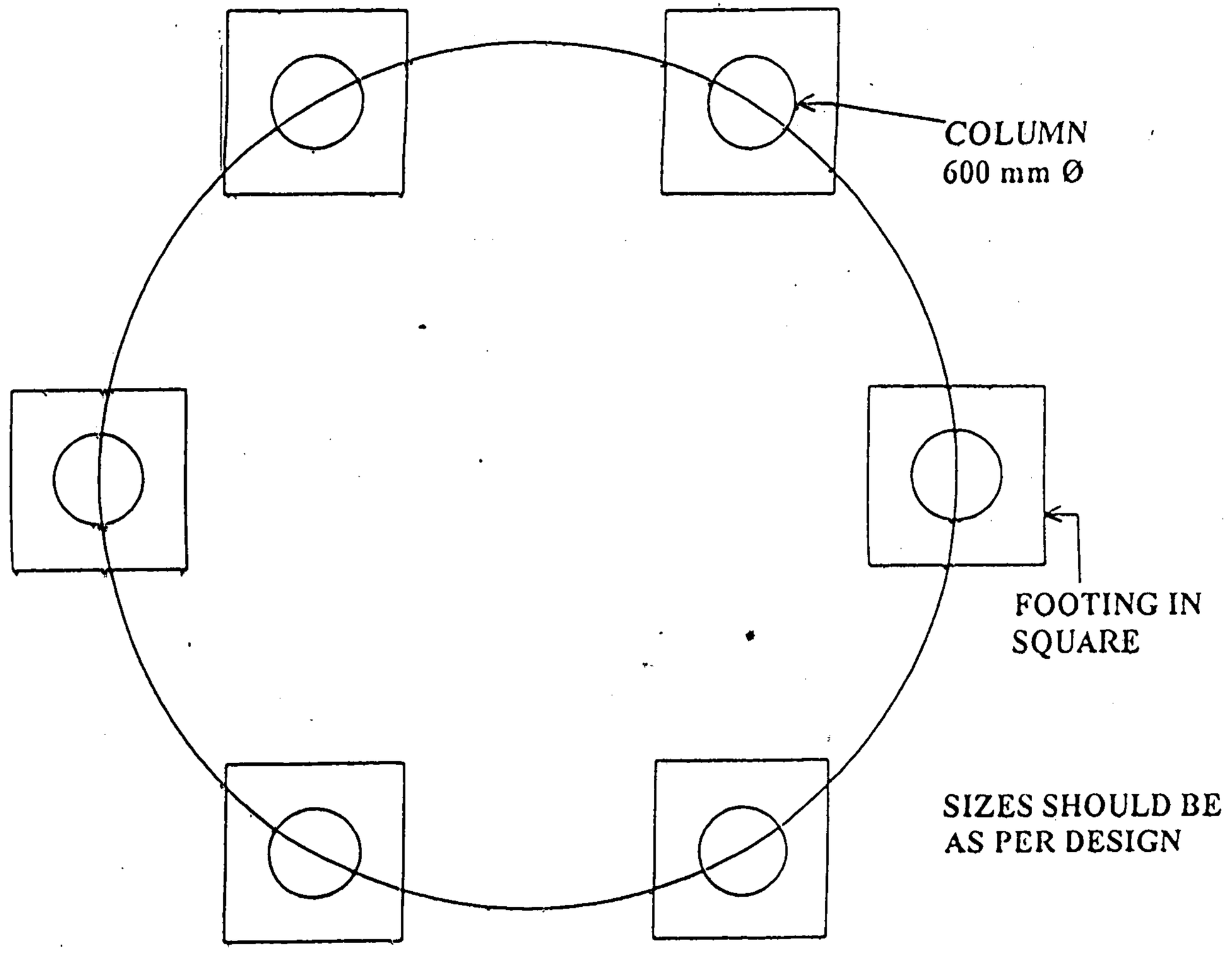
Que.No.3. Set up the THEODOLITE at point 'T' as given and measure an angle RTS between R & S point. (10)

ANNEX - I

QUESTION NO – 2–

FIGURE 1





LINE PLAN OF CIRCULAR ESR