

Second Year

BUILDING CONSTRUCTION AND MAINTENANCE TECHNICIAN**Second Year (P.C-315/71)****Subject : Civil Engineering Lab – II****Paper - I****Time : 3 Hours****Max. Marks : 50****Section - I****1 x 40 = 40 Marks**

1. Construct layer of English bond of 230 mm brick masonry wall. (Aim, Equipments, Procedure and Results).
2. Construct a C.R.S stone Masonry of 450 mm thick wall. (Aim, Equipments, Procedure and Results).
3. Determine the water absorption capacity of burnt clay building bricks. (Aim, Equipments, Procedure and Results)
4. Determine the bulking of sand. (Aim, Equipments ,Procedure and Results)
5. Determine the fineness modulus of coarse and fine aggregates by sieve analysis. (Aim, Equipments ,Procedure and Results)
6. Determine the workability of mixed concrete by compaction factor test. (Aim, Equipments ,Procedure and Results)
7. Determine the initial setting time and final setting time of cement. (Aim, Equipments, Procedure and Results)
8. Determine the workability of given by slump cone test. (Aim, Equipments ,Procedure and Results)
9. Determine the normal consistency of cement by vicat needle method. (Aim, Equipments, Procedure and Results)
10. Perform connection of stone ware pipe from water closet to septic tank. (Aim, Equipments, Procedure and Results)
11. Perform the water supply connection in a given room. (Aim, Equipments, Procedure and Results)

12. Perform the cold water distribution in a building and draw plan.
(Aim, Equipments, Procedure and Results)
13. Perform sanitation fittings in building and draw plan. (Aim,
Equipments, Procedure and Results)
14. Draw plan of rain water harvesting by percolation pit method
and explain. (Aim, Equipments, Procedure and Results)

Section - II

Record	5 Marks
Viva	5 Marks

BUILDING CONSTRUCTION AND MAINTENANCE TECHNICIAN**Second Year****MODEL QUESTION PAPER****Subject : Civil Engineering Lab – II****Paper - I****Time : 3 hours****Max. Marks : 50****Section - I****1 x 40 = 40 Marks**

8. Determine the workability of given by slump cone test. (Aim, Equipments ,Procedure and Results)

Section - II

Record

5 Marks

Viva

5 Marks

Note : The serial numbers of the questions mentioned in are the serial numbers in question bank. In practical examination only the serial number of the questions will given, the examiner shall decode it with question bank and give the questions.

BUILDING CONSTRUCTION AND MAINTENANCE TECHNICIAN**Second Year**

PRACTICAL SCHEME OF VALUATION KEY

Subject : Civil Engineering Lab – II**Paper - I**

Time : 3 hours**Max. Marks : 50**

Section - I**1 x 40 = 40 Marks**

Equipment and materials	:	10 Marks
Procedure	:	10 Marks
Presentation	:	15 Marks
Result	:	5 Marks

Section - II

Record	:	5 Marks
Viva	:	5 Marks

BUILDING CONSTRUCTION AND MAINTENANCE TECHNICIAN**Second Year (P.C. -315/72)****Subject : Civil Engineering Drawing****Paper - II****Time : 3 Hours****Max. Marks : 50****Section I****1 x 5 = 5 Marks**

1. Draw the conventional signs of (i) Concrete (ii) Wood.
2. Draw the conventional signs of (i) Gas (ii) Brick Masonry
3. Draw the Panel door of sizes 1.00 x 2.00 m.
4. Draw a neat sketch of glass window size 1.20 m x 1.20 m.
5. Draw cross section of R.R. Masonry foundation (specify the sizes of the parts).
6. Draw a neat sketch of rectangular column footing of size 1.20 m x 1.50 m (Specify the sizes of the parts).
7. Draw neat sketch of gully trap.

Section - II**1 x 5 = 5 Marks**

8. Draw sections of P-Trap, Q-Trap, S-Trap.
9. Draw a rough sketch of Bath Room with conventional signs of fixtures.
10. Draw a neat sketch of two types of stair case (not to scale)
11. Draw a neat sketch of W.C specify the sizes.
12. Draw a rough sketch of manhole.
13. Draw the bar bending schedule of reinforcement of slab of single room.
14. Draw the cross section of T-Beam specify dimensions.

Sections III**2 x 15 = 30 Marks****Select any 1 question between (1-5) and the Second question from (6-10)**

15. Draw plan, section of single room building (specify sizes).
16. Draw plan, elevation of single room building (specify sizes).
17. Draw the line diagram of double bed room with details and sizes.
18. Draw the cross section of two storied single room building specify the sizes.
19. Draw the plan section of dog legged stair case of 1.5 m x 3.6 m.
20. Draw a neat sketch of over head tank and specify pipe connections.
21. Draw a neat sketch of septic tank with pipe connections and specify the components parts.
22. Draw a neat sketch of deep man hole and specify the components.
23. Draw a neat sketch of reinforcement schedule of the roof slab of double room building.
24. Draw a neat sketch of toilet block and show the drainage connections.

Section - IV

Record

5 Marks

Viva

5 Marks

BUILDING CONSTRUCTION AND MAINTENANCE TECHNICIAN**Second Year****MODEL QUESTION PAPER****Subject : Civil Engineering Lab Drawing****Paper - II****Time : 3 hours****Max. Marks : 50****Section - I****1 x 5 = 5 Marks**

6. Draw a neat sketch of rectangular column footing of size 1.20 m x 1.50 m (Specify the sizes of the parts).

Section - II**1 x 5 = 5 Marks**

13. Draw the bar bending schedule of reinforcement of slab of single room.

Section - III**2 x 15 = 30 Marks**

4. Draw the cross section of two storied single room building specify the sizes.
9. Draw a neat sketch of reinforcement schedule of the roof slab of double room building.

Section - IV

Record

5 Marks

Viva

5 Marks

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BUILDING CONSTRUCTION AND MAINTENANCE TECHNICIAN**Second Year**

PRACTICAL SCHEME OF VALUATION KEY

Subject : Civil Engineering Drawing**Paper - II**

Time : 3 hours**Max. Marks : 50**

Section - I, II**1 x 5 = 5 Marks**

- (i) Drawing : 3 Marks
(ii) Usage of instrument / Description : 2 Marks

Section - III**2 x 15 = 30 Marks**

- (i) Drawing : 5 Marks
(ii) Usage of instrument / Description : 5 Marks
(iii) Result : 5 Marks

Section - IV

- Record : 5 Marks
Viva : 5 Marks

BUILDING CONSTRUCTION AND MAINTENANCE TECHNICIAN**Second Year (P.C. 315/73)****Subject : CADD LAB****Paper - III****Time : 3 Hours****Max. Marks : 50****Section I****5 x 2 = 10 Marks**

1. Set the limits of given drawing sheet.
2. Draw the given figure by line command.
3. Draw a circle in different methods.
4. Draw an ellipse.
5. Draw a polygon.
6. Modify the given figure by using modify commands.
7. Draw a rectangle with chamfer/fillet.
8. Draw a figure with dimension lines.
9. Draw a figure hatch with different patterns.
10. Draw a figure and copy, move, etc.
11. Print table by text command.
12. Draw a figure with different colors.
13. Draw a five types of lines.
14. Draw a donut, solid a given figures.
15. Array the given object in two methods.
16. Prepare a text document by MS Word.
17. Create cell in MS Excel.
18. Select different fonts and sizes print a sentence.
19. Write a formulae to give cell in MS Excel.
20. Set the cell height and enter the data.

Section II**15 x 2 = 30 Marks**

21. Construct a given figure in different colors and dimensions (specify the figures).
22. Construct a double room building plan/ section elevations in details.
23. Draw a 2BHK building plan with all details in different colors / lawers.
24. Prepare site plan / lactation plan with information required.
25. Draw a line diagram of columns, beams, foundations in different layers.
26. Draw a isometric view of given figure (give fig).
27. Draw the reinforcement details slab with T-beam.
28. Draw 1 BHK plan show water supply and sanitary connections.
29. Draw a over head tank, show the pipe connections.
30. Draw a layout of plots, show the drainage, roads etc.
31. Prepare MS Word document for permission of work.
32. Prepare a estimate in MS-Excel.
33. Prepare analysis of rate of any item in excel.
34. Prepare table in MS Word for lead statement.

Section - III

Record

5 Marks

Viva

5 Marks

BUILDING CONSTRUCTION AND MAINTENANCE TECHNICIAN**Second Year****MODEL QUESTION PAPER****Subject : CADD LAB****Paper - III****Time : 3 hours****Max. Marks : 50****Section - I****5 x 2 = 10 Marks**

10. Draw a figure and copy, move, etc.
15. Array the given object in two methods.

Section - II**15 x 2 = 30 Marks**

29. Draw a over head tank, show the pipe connections.
34. Prepare table in MS Word for lead statement.

Section - III

- | | |
|--------|----------------|
| Record | 5 Marks |
| Viva | 5 Marks |

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BUILDING CONSTRUCTION AND MAINTENANCE TECHNICIAN**Second Year**

PRACTICAL SCHEME OF VALUATION KEY

Subject : CADD LAB**Paper - III**

Time : 3 hours**Max. Marks : 50**

Section - I**1 x 5 = 5 Marks**

- (i) Drawing : 2 Marks
(ii) Demonstration : 3 Marks

Section - II**1 x 15 = 15 Marks**

- (i) Drawing : 5 Marks
(ii) Demonstration : 2 Marks
(iii) Procedure : 5 Marks
(iv) Result : 3 Marks

Section - III

- Record : 5 Marks
Viva : 5 Marks