

Vocational Practical Question Bank

First & Second Year

Construction Technology

Course Code : 310



State Institute of Vocational Education

O/o the Commissioner of Intermediate Education

Andhra Pradesh, Hyderabad

&

Board of Intermediate Education,

Andhra Pradesh, Hyderabad

First Year

CONSTRUCTION TECHNOLOGY**First Year (P.C. 310/21)****Subject : Construction Materials****Paper - I****Time : 3 Hours****Max. Marks : 50****Section - I****1 x 40 = 40 Marks**

1. Conduct water absorption test on given brick sample and determine quality of bricks.
2. Determine the Crushing strength of given set of bricks.
3. Determine the Fineness of the given sample of cement by sieve analysis.
4. Determine the Normal consistency of cement sample.
5. Determine Initial Setting time of given sample of cement.
6. Determine the bulking of sand of the given sand sample.
7. Determine the dry density of soil by standard proctor test.
8. Determine the percentage of voids in coarse aggregate.
9. Determine the percentage of voids in fine aggregate.
10. Determine the fineness modulus of coarse aggregate by Sieve Analysis.
11. Determine the Fineness Modulus of Fine Aggregate by Sieve Analysis.
12. Determine the workability of concrete by Slump Cone test.
13. Cast the Concrete Cube in the given mould for determining Compressive Strength.
14. Determine Compressive Strength of given set of Concrete Cubes.

Section - II

Record

5 Marks

Viva Voce

5 Marks

CONSTRUCTION TECHNOLOGY**First Year****MODEL QUESTION PAPER****Subject : Construction Materials****Paper - I****Time : 3 hours****Max. Marks : 50****Section - I****1 x 40 = 40 Marks**

11. Cast the Concrete Cube in the given mould for determining Compressive Strength.

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.

CONSTRUCTION TECHNOLOGY**First Year**

PRACTICAL SCHEME OF VALUATION

Subject : Construction Materials**Paper - I**

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

Section - I

Aim, equipment and material required	:	5 Marks
Procedure and Tabular formula	:	10 Marks
Recording and Observations	:	15 Marks
Calculations	:	5 Marks
Result	:	5 Marks

Section - II

Viva	:	5 Marks
Record	:	5 Marks

CONSTRUCTION TECHNOLOGY**First Year (P.C. 310/22)****Subject : Surveying Practice****Paper - II****Time : 3 Hours****Max. Marks : 50****Section - I****1 x 40 = 40 Marks**

1. Determine area of the given field by the method of Chain Triangulation.
2. Determine area of the given field by conducting Cross-Staff Survey.
3. Find the bearings of given station points and calculate their included angles.
4. Conduct a Compass Survey along the closed traverse and plot the traverse.
5. Find the Reduced Levels of the given points using Levelling instrument. Take Bench Mark as 100.000m.
6. Find the Reduced Levels of the given points involving atleast one point lying above the line of collimation.
7. Determine the Horizontal Angle between the given points by Repetition method using Theodolite.
8. Determine the Horizontal Angle between the given points by Reiteration method using Theodolite.
9. Measure the Vertical Angle of a given point with respect to the instrument station and other given point by using Transit Theodolite.
10. Determine the Height of a given object by measuring Vertical Angle using Transit Theodolite.
11. Measure the Horizontal Angle and Distance between given Two Stations using Total Station.
12. Measure the area of a closed traverse using Total station.

Section - II

Record

5 Marks

Viva Voce

5 Marks

CONSTRUCTION TECHNOLOGY**First Year**

MODEL QUESTION PAPER

Subject : Surveying Practice**Paper - II**

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

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

10. Determine the Height of a given object by measuring Vertical Angle using Transit Theodolite.

Section - II

Record

5 Marks

Viva Voce

5 Marks

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CONSTRUCTION TECHNOLOGY**First Year****PRACTICAL SCHEME OF VALUATION****Subject : Surveying Practice****Paper - II****Time : 3 hours****Max. Marks : 50****Section I**

Aim equipment and material required	:	5 Marks
Procedure and Tabular formula	:	10 Marks
Recording and Observations	:	15 Marks
Calculations	:	5 Marks
Result	:	5 Marks

Section II

Viva	:	5 Marks
Record	:	5 Marks

CONSTRUCTION TECHNOLOGY**First Year (P.C. 310/23)****Subject : Engineering Drawing****Paper - III****Time : 3 Hours****Max. Marks : 50****Section - I****(10 Marks)****Section - A****(1 x 2 = 2 Marks)**

1. Print the following in Single Stroke Lettering of size 10mm:

CONSTRUCTION

2. Draw the Chain Dimensioning assuming suitable dimensions.

3. Draw the Parallel Dimensioning assuming suitable dimensions.

4. Draw the Combined Dimensioning assuming suitable dimensions.

Section - B**(1 x 2 = 2 Marks)**

5. What is an Isometric Projection?

6. What is the angle required with the horizontal to draw an Isometric View ?

7. Differentiate between Isometric View and Isometric Projection.

Section - C**(1 x 2 = 2 Marks)**

8. Draw the cross-section of a Singly Reinforced Simply Supported Beam of size 30cm x 60cm and four bars of 12mm dia (Not to Scale).

9. Draw the cross-section of a Lintel cum Sun shade. Assume dimensions.

10. Draw the Plan of a One Way Slab of span 3m and length 6m with reinforcement of 8mm bars at 15cm c/c.

Section - D**(1 x 2 = 2 Marks)**

11. List out the various Input devices.

12. List out the various Output devices.

13. What are the various types of Storage devices?

14. What is an Icon?

Section - E

(1 x 2 = 2 Marks)

15. How do you create a New Document in MS Word?

16. How do you create Margins in MS Word?

17. How do you change the Column width in MS Excel ?

18. How do you enter values in MS Excel ?

Section II (Answer one question from each section)

Section - A

3 x 10 = 30 Marks

19. Draw the following

(a) Trisect the angle 90degrees.

(b) Divide the given straight line of length 102mm into 7 equal parts.

20. Draw the following

(a) Draw a Perpendicular Bisector of a given straight line 70mm long.

(b) Bisect the angle 45 degrees.

21. Construct a regular Hexagon with a given radius of 60mm.

22. Construct an Ellipse by Concentric Circles method with Major axis as 90mm and minor axis as 70mm.

23. Draw a Parabola with base 100mm and axis height 80mm.

24. Draw a Rectangular Hyperbola through a point 'P' which is at a distance of 30mm from OY and 50mm from OX.

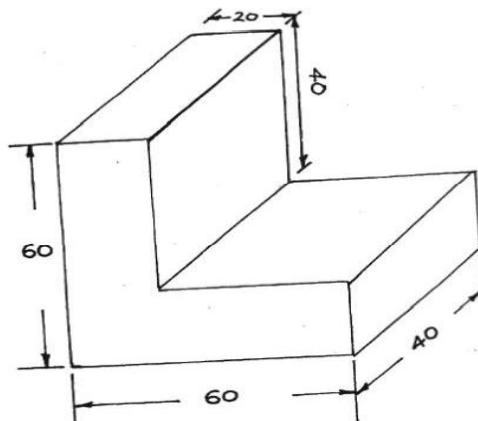
25. A triangular prism with base 50mm, side 70mm long, has its axis perpendicular to H.P and side of the base parallel to and 20mm behind V.P. Draw its projections.

26. A Hexagonal Prism base 40mm and Height 60mm has its axis parallel to both H.P and V.P and 50mm from both the planes. Draw its projections when one of the end face is 20mm left of PP and two rectangular faces are parallel to H.P.

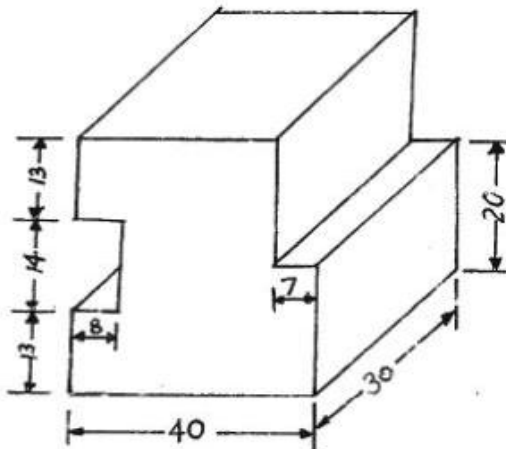
27. A Cone has base 40mm diameter and axis 60mm long has its axis inclined at 30° to V.P and apex is 45mm below H.P. Draw the projections if a point on the base lies in V.P.

Section - B

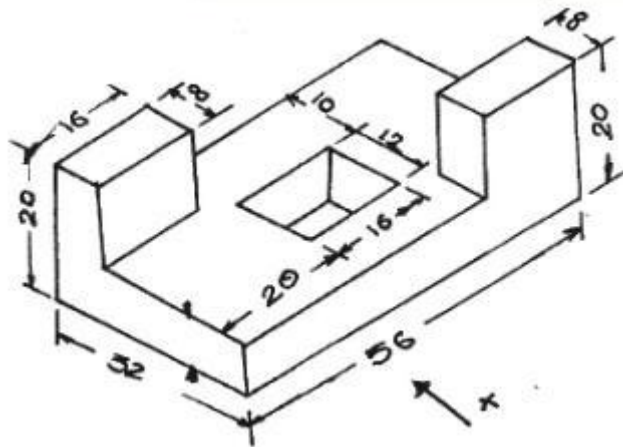
28. Draw the Plan, Elevation and Side View of the following figure in First Angle Projection:



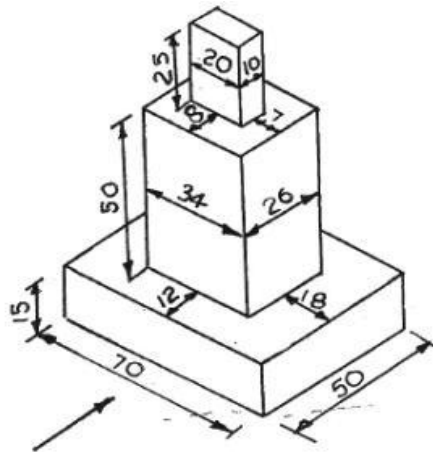
29. Draw the Plan, Elevation and Side View of the following figure in Third Angle Projection:



30. Draw the Plan, Elevation and Side View of the following figure in First Angle Projection:



31. Draw the Plan, Elevation and Side View of the following figure in Third Angle Projection:



32. Construct Isometric View of a Rectangle 60mmX40mm.

33. Draw Isometric View of a Hexagon of side 60mm.

34. Draw Isometric View of a Circle of diameter 60mm.

Section - C

35. Draw the longitudinal cross-section of One-way Slab showing reinforcement details. Assume data.

36. Draw the longitudinal Cross-section of Two-way Slab showing reinforcement details. Assume data.

37. (a) Write the stepwise procedure to Format the given text such as Font Style, Font Type, Font Size.

(b) Write the procedure to create a Table, insert 3 records into a Table and Print the document.

38. Write the Procedure to create Work Sheet, Save, SaveAs and Print a Worksheet.

39. Explain any Five Formulae /Functions in MS Excel.

Section - III

Record **5 Marks**

Viva Voce **5 Marks**

CONSTRUCTION TECHNOLOGY**First Year****MODEL QUESTION PAPER****Subject : Engineering Drawing****Paper - III****Time : 3 hours****Max. Marks : 50****Section I****(10 Marks)****Section - A****2 x 1 = 2 Marks**

2. Draw the Chain Dimensioning assuming suitable dimensions.

Section - B**2 x 1 = 2 Marks**

7. Differentiate between Isometric View and Isometric Projection.

Section - C**2 x 1 = 2 Marks**

9. Draw the cross-section of a Lintel cum Sun shade. Assume dimensions.

Section - D**2 x 1 = 2 Marks**

13. What are the various types of Storage devices?

Section - E**2 x 1 = 2 Marks**

17. How do you change the Column width in MS Excel ?

Section - II**(30 Marks)****Section - A****1 x 10 = 10 Marks**

25. A triangular prism with base 50mm, side 70mm long, has its axis perpendicular to H.P and side of the base parallel to and 20mm behind V.P. Draw its projections.

Section - B**1 x 10 = 10 Marks**

33. Draw Isometric View of a Hexagon of side 60mm.

Section - C**1 x 10 = 10 Marks**

36. Draw the longitudinal Cross-section of Two-way Slab showing reinforcement details. Assume data.

Section - III

Record **5 Marks**

Viva Voce **5 Marks**

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CONSTRUCTION TECHNOLOGY**First Year****PRACTICAL SCHEME OF VALUATION****Subject : Engineering Drawing****Paper - III****Time : 3 hours****Max. Marks : 50****SECTION - I****10 Marks****Section A** : 2 Marks**Section B** : 2 Marks**Section C** : 2 Marks**Section D** : 2 Marks**Section E** : 2 Marks**SECTION - II****30 Marks****Section A** : 10 Marks**Section B** : 10 Marks**Section C** : 10 Marks**Section - III**

Viva : 5 Marks

Record : 5 Marks