

NOTE : Practice Study Notes & Points are made available as per the request of the Examinee for their reference only. Check the content at your end. No complaints related to this shall be considered by META, Nashik..

Guidance Notes-1 12.08.24

Drawing Online Paper Guidelines for your Study...

A) Basic of drawing :

1. Role of Drawing in engineering
2. Application/use of drawings
3. Instruments used for Drawing
4. Use of instruments
5. Details of instruments
6. Identity instruments
7. Various pencils used in drawing 🖋️
8. Drawing board
9. Drawing paper and sizes
10. Various lines used in drawing
11. Isometric
12. Orthographic
13. First & Third angle method
14. Name plate of drawing sheet
15. Views top, side, elevation
16. Cross section of drawing
17. Dimensions
18. Scale used in drawing
19. Perspective view
20. 2D & 3D drawing

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Guidance Notes-2

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Guidance Notes-2 12.08.24

Surveying Online Paper Guidelines for you.:

1. What is the primary purpose of a theodolite in surveying?
 - A) Measuring distances
 - B) Measuring angles
 - C) Measuring elevations
 - D) Measuring area
2. Which instrument is used to measure horizontal and vertical angles?
 - A) Level
 - B) Total Station
 - C) Theodolite
 - D) GPS
3. What does the term "benchmark" refer to in surveying?
 - A) A reference point with a known elevation
 - B) A type of measuring instrument
 - C) A method of measuring angles
 - D) A unit of measurement
4. In surveying, what is a "line of sight"?
 - A) A line that is visible from a specific location
 - B) A line that connects two survey points
 - C) A line along which the surveyor looks through the instrument
 - D) A line indicating the boundary of the survey area
5. What is the main purpose of a leveling instrument?
 - A) To measure angles
 - B) To measure distances
 - C) To establish a horizontal line
 - D) To measure vertical distances
6. Which type of survey is used to determine the elevations of points on the ground?
 - A) Plane Surveying
 - B) Geodetic Surveying
 - C) Topographic Surveying

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Guidance Notes-2

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D) Hydrographic Surveying

7. What does "contour line" represent in a topographic map?

- A) Line of equal elevation
- B) Line of equal temperature
- C) Line of equal distance
- D) Line of equal pressure

8. What is the purpose of a survey chain or tape?

- A) To measure angles
- B) To measure elevations
- C) To measure distances
- D) To calculate area

9. Which survey method is typically used for large-scale mapping projects?

- A) Plane Surveying
- B) Geodetic Surveying
- C) Topographic Surveying
- D) Hydrographic Surveying

10. In the context of surveying, what does "closure" refer to?*

- A) The accuracy of measurements
- B) The final check of instrument calibration
- C) The return to the starting point in a closed traverse
- D) The completion of a survey report

11. What does "offset" mean in surveying terms?

- A) A correction made to measurements
- B) The distance between a baseline and an object
- C) A type of survey instrument
- D) A calculation of area

12. Which instrument uses laser technology for measuring distances?

- A) Total Station
- B) Transit
- C) Theodolite

D) Level

13. What is a "traverse" in surveying?

- A) A method for calculating areas
- B) A series of connected lines with measured angles and distances
- C) A type of leveling instrument
- D) A procedure for calibrating survey instruments

14. What does "datum" refer to in surveying?

- A) The reference point for measurements
- B) The instrument used for measuring distances
- C) The type of map used for surveys
- D) The technique for calculating elevations

15. What is the purpose of a "prism" in total station surveys?

- A) To measure angles
- B) To measure distances using reflected signals
- C) To establish horizontal lines
- D) To calculate elevation changes

16. Which type of survey is essential for determining land boundaries?

- A) Topographic Surveying
- B) Hydrographic Surveying
- C) Cadastral Surveying
- D) Geodetic Surveying

17. In surveying, what does "horizontal distance" refer to?

- A) The straight-line distance between two points on the same elevation
- B) The distance along a slope
- C) The distance measured using a vertical reference
- D) The distance along a curved path

18. What is the primary difference between a "plane survey" and a "geodetic survey"?

- A) Plane surveys do not account for Earth's curvature, while geodetic surveys do
- B) Plane surveys use different instruments than geodetic surveys
- C) Plane surveys are conducted indoors, while geodetic surveys are outdoors

- D) Plane surveys are used only for small areas, while geodetic surveys are for large areas
19. Which survey technique involves using satellite signals to determine positions?
- A) Theodolite Surveying
 - B) GPS Surveying
 - C) Leveling Surveying
 - D) Chain Surveying
20. What does the term "bearing" mean in surveying?
- A) The direction of a line relative to a reference direction
 - B) The distance between two survey points
 - C) The elevation of a point
 - D) The accuracy of measurements
21. What is the purpose of "triangulation" in surveying?
- A) To measure distances using multiple reference points
 - B) To measure angles and determine positions
 - C) To establish horizontal and vertical lines
 - D) To calculate the area of a plot of land
22. Which type of survey is focused on underwater features?
- A) Topographic Surveying
 - B) Cadastral Surveying
 - C) Hydrographic Surveying
 - D) Geodetic Surveying
23. What does "azimuth" refer to in surveying?
- A) The angle between a line and the North direction
 - B) The distance between two survey points
 - C) The elevation of a point
 - D) The accuracy of measurements
24. What is "resection" in surveying?
- A) A method for determining the position of a point using known positions
 - B) A method for calculating distances
 - C) A type of leveling instrument

D) A procedure for calibrating survey instruments

25. Which instrument is used to measure both distance and angles simultaneously?

A) Level

B) Theodolite

C) Total Station

D) GPS

Guidance Notes-3. 14.08.24

Drawing Online Paper Guidelines for your Study...

B) Basic understanding of AutoCAD:

1. What is CAD.
2. AutoCAD interface
3. Various shortcuts keys
4. Units in AutoCAD
5. Toolbars
6. Drawing lines, curves, poly line, circle etc.
7. commands F8, F12 etc. Function keys 🖱️
8. Understand Scale 1:50, 1:100, 1:200 etc.
9. Drawing sizes
10. Commands like Trim, Extend, mirror, offset, copy, paste, line etc.
11. similar to AutoCAD software.
12. Text commands for line, area, leader, hatching etc.
13. Labelling of drawings
14. Dimensions in drawing
15. Identity tool, commands etc.
16. Axis used in drawing
17. Extension of drawing file .dwg
18. Various menu on screen
19. Text in drawing
20. Keyboard and Mouse etc.



AUTOCAD®

Shortcuts Guide

One Key Shortcuts

Toggles and Screen Management

Hot Keys A-Z

Printable Keyboard Stickers

Guidance Notes-4 19.08.24

Drawing Online Paper Guidelines for your Study...

C) Civil Engineering structures:

1. Cross section of earthen dam & its components
2. C/s of canal
3. Spillway
4. Energy dissipation arrangement
5. Guide wall & Divide wall or Retaining walls
6. Overflow & Non overflow section
7. Barrage and it's components
8. K.T. weir (Kolhapur Type Weir) & it's components
9. Bridge & its parts
10. Types of foundation
11. Raft foundation
12. Types of Gates in Dams
13. Reinforcement details in slab, beam, cantilever beams
14. Main & Distribution r/f
15. Road signs
16. Material symbols e.g. brick, stone masonry, glass, wood,
17. Coarse & uncoarsed masonry
18. Rigid & flexible pavement
19. Super elevation
20. Kerb, etc
21. Shallow & Deep foundation
22. Hearting & casing material
23. Line plan, detailed plan, cross section, elevation, plan etc.
24. Significance of North direction in drawing
25. Dado, skirting, lintel, chakra, sill etc.
26. What is Ventilation
27. Foundation plan
28. Cutting, banking
29. Most economical section
30. Contours, ridge, valley etc
31. Bench mark
32. Compression, tension & shear r/f
33. Grade of steel & concrete
34. Is codes for RCC & steel
35. Bridge Piers & foundation types etc..

STUDY NOTE : 41 ACCOUNTS

1. Store
2. Forms.
3. Account Heads
4. Field Book
5. Tender & Tender conditions
6. Measurement Book
7. Plant & Machinery
8. Cash Book
9. Material at Site
10. Types of Tenders
11. Tools & Plants
12. DSR & CSR
13. Divisional Accountant
14. Long Forms
15. Imprest, DDO |