

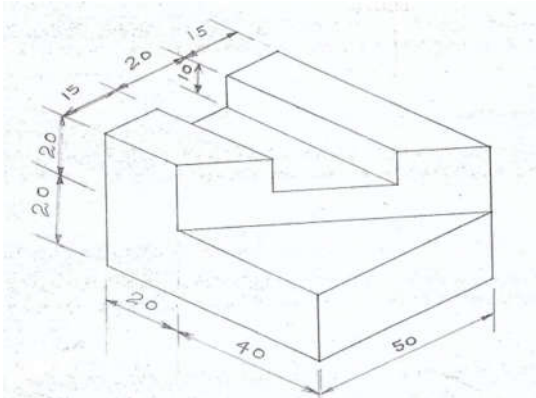
TRADE THEORY

1. What is the process of Oxy – Acetylene Welding? Give Details.
2. What are the processes of Tempering and Hardening for cutting tools?
3. How Pig Iron is produced from Blast furnace? Give full details. Why it is call Blast furnace? Draw a sketch of Blast furnace.
4. What is Lathe Machine? Explain the operation which can be done on a Lathe Machine? Draw the sketch of a Lathe Machine?
5. What is stainless steel and what are its uses?
6. Write short notes on the following metals and their uses.
 - (a) Copper
 - (b) Brass
 - (c) White – metal
 - (d) Gun metal
 - (e) Bronze Silver
 - (f) Gold
 - (g) Nickel
 - (h) Aluminium
7. What is the difference between Metals and Non- Metals?
8. What is a hexagonal – Bolt? Explain with a neat sketch.
9. What is Interchangeability?
10. What is a Stud – Extractor? Explain with a neat sketch.

1. Draw Hand Tools by Free-Hand Sketch –

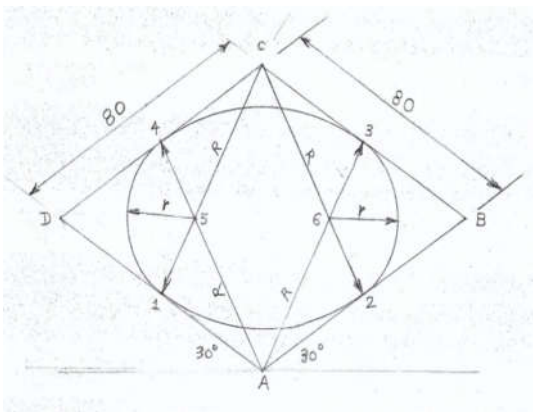
- (a) Bench Vice
- (b) Ball Pen Hammer
- (c) Hacksaw Frame with Blade
- (d) Pipe Vice
- (e) Try Square Half Round File 10"
- (f) Dot Punch 60°
- (g) Angle Plate
- (h) Anvil
- (i) Triangular File 8"

2. To draw Isometric view as per given drawing –



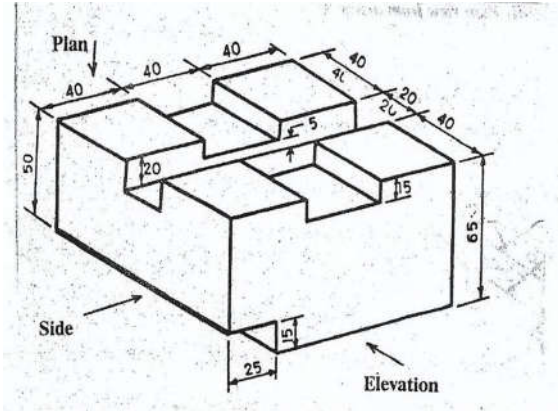
All Dimensions are in mm.

3. To draw Isometric circle/ Ellipse as per given drawing –



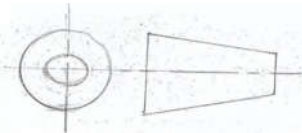
All Dimensions are in mm.

4. To draw Elevation, Plan & Side view, in First angle projection, as per given Drawing –

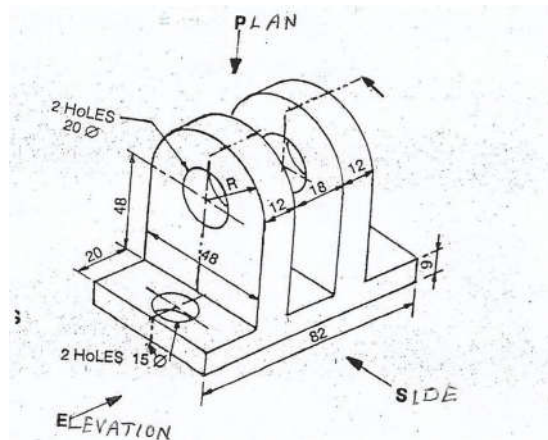


All Dimensions are in mm.

Symbol of First Angle Projection –

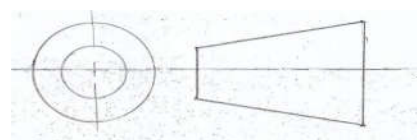


5. To draw Elevation, Plan & Side view, in Third angle projection, as per given Drawing –



All Dimensions are in mm.

Symbol of Third Angle Projection –



1. What are units? Write the classification of units.
2. Define ohm's Law. If a parallel circuit of electricity has three resistance of value 8Ω , 5Ω and 3Ω . Calculate the total resistance of the circuit?
3. What is temperature? Describe different scales of temperature. Write the relation between them.
4. Explain lever and principle of lever. State different classes of levers with their applications.
5. Define factor of safety. What safe load can be suspended from a wire 6mm diameter, if the ultimate tensile strength of its material is 3500kg/cm^2 and factor of safety is 5?
6. A man sold 9 tables and 7 chairs for Rs. 11320 and 6 tables and 13 chairs to another person for 12130. What was the price for each?
7. A rectangular sheet of metal measures 8cm by 6cm. Four quadrants of circles each of radius 2cm are cut away at corners. Find the area of remaining portion?
8. If $\sin\theta \cos\theta + \cos\theta \sin\theta = 2$, then find the value of θ ?
9. Write the difference between AC and DC?
10. Write about –
 - a) Insulator
 - b) Conductor
 - c) Semi – Conductor
 - d) Electromotive Force
 - e) Frequency
11. Define the terms –
 - (a) Magnetic flux
 - (b) Magnetic flux density
 - (c) Permeability
 - (d) Reluctivity
 - (e) Electromagnet
 - (f) Magnetomotive force
12. Define the relation between angular velocity, frequency and time period in circular motion of an object.
13. Find graphically the vertices of the triangle whose sides have the equation. $2y - x = 8$, $5y - x = 14$ and $y - 2x = 1$.
14. What is meant by friction? What are its advantages and disadvantage?
15. Classify the magnetic materials.

EMPLOYABILITY SKILLS

1. Write a note on “ world wide web “ and give it’s attributes .
2. What is communication? Explain the process of communication.
3. What is Motivation? Explain “MOSLAW ‘S NEED HIERARCHY THEORY “.
4. “We cannot manage the time, but we must manage ourselves according to time “Explain.
5. What are the Do’s and Don’ts while facing an interiors ?
6. What are the differences between values and Ethics?
7. What is Entrepreneurship? Discuss the Barriers faced by Entrepreneurs.
8. What do you mean by Small Scale Industries (SSI)?
9. Explain “SWOT “Analysis.
10. Explain “TQM”.
