

**ENGINEERING DRAWING-I**  
**1<sup>st</sup> Exam/Mech./Auto/MECHATRONICS/7152/Dec'22**  
**(For 2018 Batch Onwards)**

**Duration: 4Hrs.**

**M.Marks:100**

**SECTION-A**

**Q1. a) Fill in the blanks:**

**10x1.5=15**

- i. A hidden object is shown by \_\_\_\_\_ line.
- ii. Section lines are drawn at an angle of \_\_\_\_\_.
- iii. Guide lines should be drawn very \_\_\_\_\_ and \_\_\_\_\_.
- iv. Abbreviation for counter sunk is \_\_\_\_\_.
- v. Projection and dimension lines should not \_\_\_\_\_ other lines.
- vi. Length of scale = \_\_\_\_\_ x Maximum length to be shown on scale.
- vii. Front view lies above H.P. in \_\_\_\_\_ quadrant.
- viii. An isometric view of a circle is an \_\_\_\_\_.
- ix. An isometric view shows \_\_\_\_\_ surfaces of the object.
- x. Isometric length = \_\_\_\_\_ x True length.

**b) Draw any five symbols of following.**

**5x1=5**

- |                |                 |                       |                   |             |
|----------------|-----------------|-----------------------|-------------------|-------------|
| i) Center line | ii) object line | iii) short break line | iv) cutting plane | v) Concrete |
| vi) asbestos   | vii) lead       | viii) round section   | ix) petrol        |             |

**SECTION-B**

**Q2. Attempt any three questions.**

**3x10=30**

- a. Differentiate 1<sup>st</sup> angle and 3<sup>rd</sup> angle projection.
- b. Draw the following in single stroke vertical gothic letters in 7:4 ratio. Taking height 15mm.  
**WORK IS WORSHIP**
- c. Show the chain dimensioning, parallel dimensioning and progressive dimensioning by taking suitable example.
- d. Draw a scale to show metres and decimeters, when 1 metre is represented as 2.5 cm. and long enough to measure 5m. Find R.F. and indicate on scale  
i) 3m4dm    ii) 7dm    iii) 2.8m
- e. Draw the projections of the following point on the same ground line :-  
A 40 mm above H.P. and 25 mm in front of V.P.  
B 28 mm below H.P. and 20 mm behind the V.P.  
C 25 mm above H.P. and 35 mm behind the V.P.  
D 25 mm below H.P. and 30 mm in front of V.P.  
E in the H.P. and 25 mm behind the V.P.

**SECTION-C**

**Attempt any two questions.**

**2x25=50**

**Q3. Figure no. 1** shows the pictorial view of an object. Draw the front view, side view and top view.

**Q4. Figure no. 2** shows the pictorial view of an object. Draw the following views:-

- |                                  |              |             |
|----------------------------------|--------------|-------------|
| a) Sectional front view along XX | b) Side view | c) Top view |
|----------------------------------|--------------|-------------|

**Q5.** A cube of side 30 mm rests axially on a cylinder of 60 mm diameter and 30 mm high. Draw its isometric view.

**Q6.** Draw the top view, front view and side view of a block shown in figure no.3 and identify its surfaces.

Isometric view of a mechanical part with the following dimensions:

- Base dimensions: 90 (X-axis) and 60 (Y-axis).
- Left side height: 60.
- Right side height: 40.
- Top surface dimensions: 60 (X-axis) and 60 (Y-axis).
- Internal cutout dimensions: 30 (width) and 20 (height).
- Orientation: X, Y, and Z axes are indicated.

Figure No.2

S. B. Roll. No.....

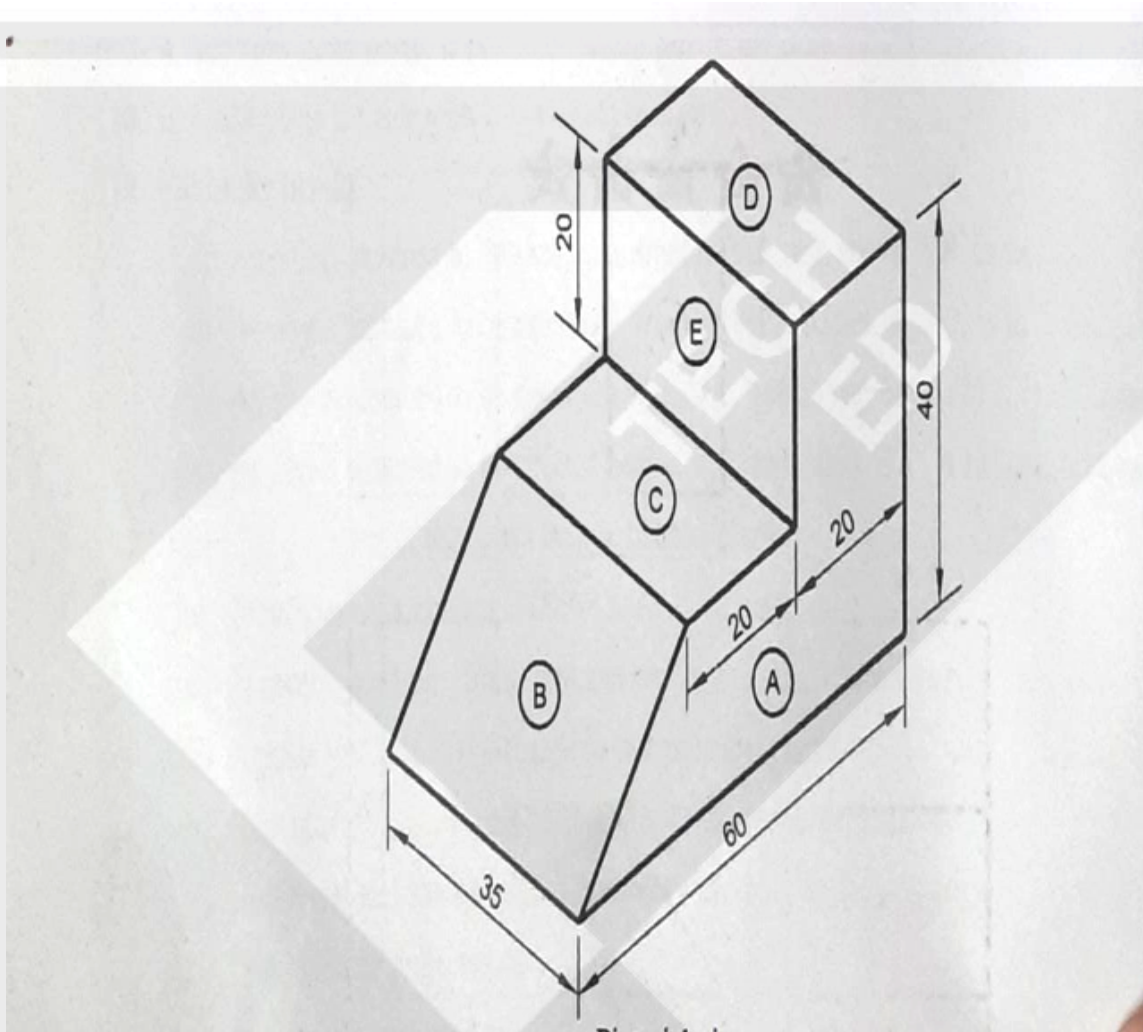


Figure No. 3