Seat No.

Total No. of Pages : 4

MAR_APR 2025 SUMMER EXAMINATION

11731 Bachelor of Technology (NEP-2.0)

Sub. Name: Engineering Graphics

Sub. Code: 71814/72504/83282

Day and Date: JUNE ,20-06-2025 **Total Marks: 70**

Time: 10:30 AM To 02:00 PM

Instructions: **1. All questions are compulsory**
2. Assume suitable data wherever necessary and mention it boldly
3. Drawings must be drawn to the given scale

Special Inst.: **1) All DImensions are in mm.**
2) Use both side of Drawing paper.

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Q1) **a)** A hexagonal lamina of side 35 mm rests on one of its sides is in the VP and parallel to HP. Draw its projections if the surface of the lamina is inclined at 45 degree angle to the VP. **(10)** **[15]**

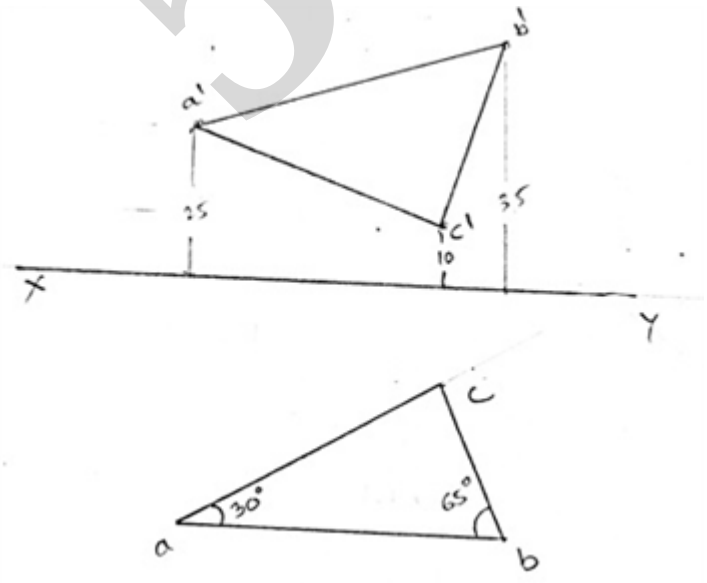
OR

a) A semi-circular disc plate of diameter 65 mm has its straight edge in the VP and inclined at 45 degree angle to HP. Draw its projections if the surface of the plate makes an angle of 30 degree angle with the VP. **(10)**

b) Solve any One

i) Draw the projections of line AB if its bearing is S45E at A. Its grade is +70 % and its front view length is 70 mm. Assume point A to be 15 mm above HP and 15 mm In front of VP. **(5)**

ii) Find the True shape of plane ABC refer following figure **(5)**



Q2) A pentagonal pyramid of 50 mm base sides and height 90 mm is lying on one of its **[10]**

triangular surface on the ground, such that the top view of the axis is inclined at an angle of 45 degree angle to the VP. Draw the projections.

Q3) Solve any two **[10]**

a) Draw the involute of a circle of 40 mm diameter. **(5)**

b) Construct an ellipse when the length of major axis is 100 mm and the distance between foci is 64 mm. **(5)**

c) Construct a hyperbola when the distance of a fixed point from fixed vertical line is 70 mm and eccentricity is 3/2.**(5)**

Q4) A cylinder with 50 mm base diameter and 68 mm height of axis is cut by a section plane passing through the midpoint of axis of cylinder making an angle of 25 Degree angle to the H.P. Draw the F.V., sectional T.V. and develop the remaining part of cylinder after taking the section. **[10]**

Q5) Figure shows the views. Draw its isometric view. (Solve only one) **[10]**

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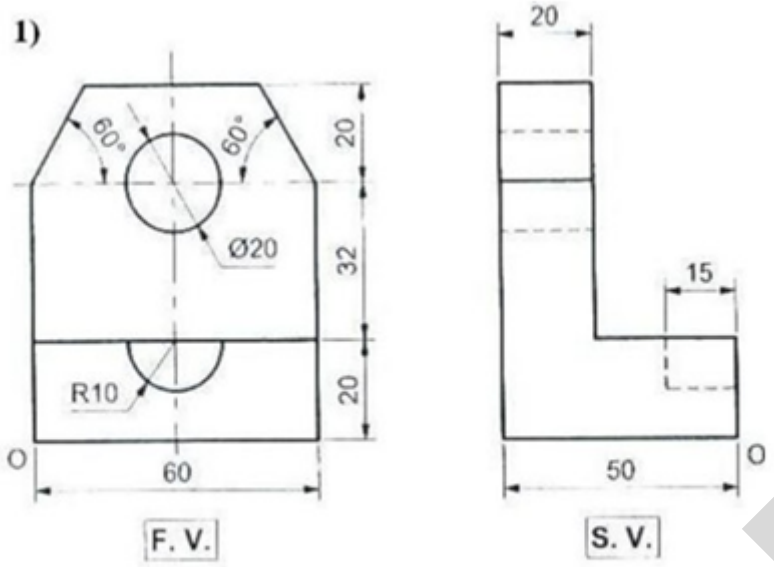
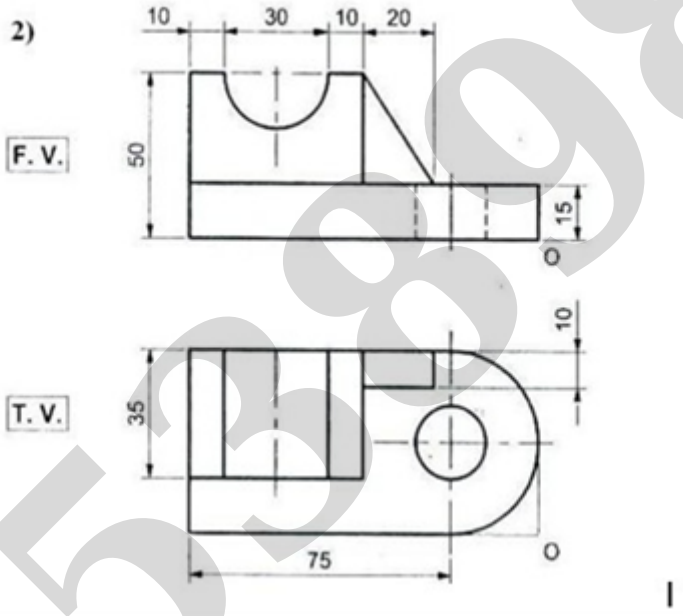
1)



OR

2)



Q6) Solve any one **[15]**

a) From the following **figure 1** draw,

i. Sectional front view along A-B in the direction X

ii. Top view

iii. Show important dimensions

b) From the following **figure 2** draw,

i. Sectional front view along A-A in the direction X

ii. Left hand side view

iii. Show important dimensions

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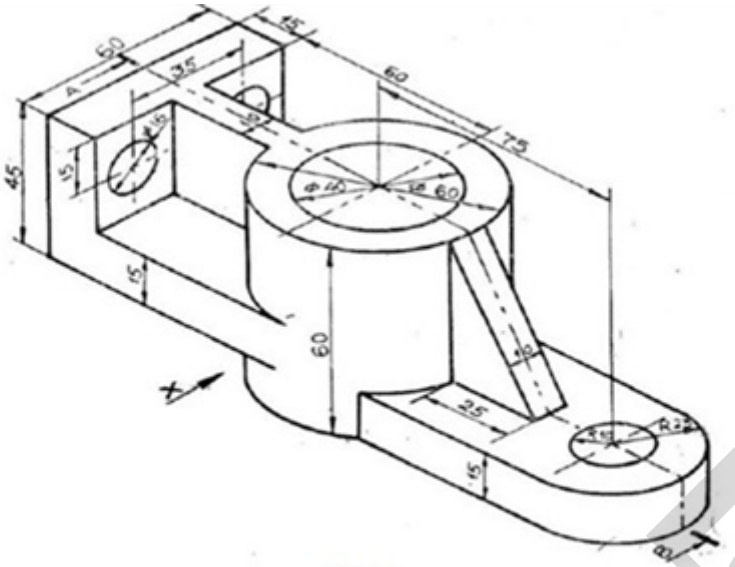

Fig.1

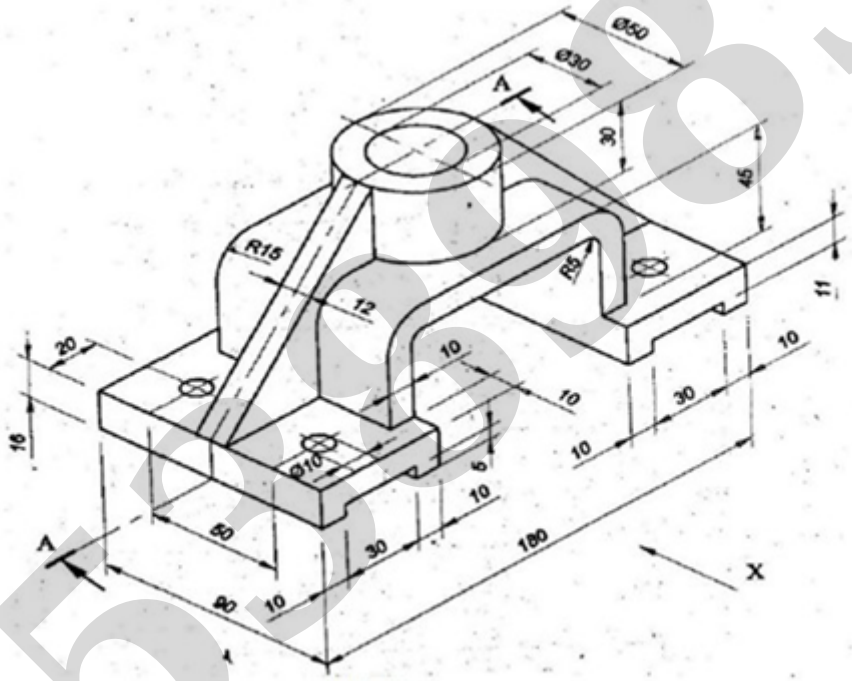

Fig.2

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End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -
This Question Paper may be distributed for following Subjects as common code.
सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (1154) B.Tech. CBCS (71814) Engineering Graphics Part 1 SEM 1
2] (1154) B.Tech. CBCS (72504) Engineering Graphics Part 1 SEM 2
3] (1154) B.Tech. CBCS (83282) Engineering Graphics Part 2 SEM 3