22207

12526

4 Hours / 70 Marks Seat No. | | | | | | | | |

Instructions – (1) All Questions are *Compulsory.*

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Assume suitable data, if necessary.

(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following : **10**

a) Draw the conventional representation of –

i) Single V Butt Joint

ii) Fillet Weld

b) Draw the conventional representation of following materials –

i) Iron

ii) Wood

c) Draw a proportionate free hand sketch of Cup Headed Rivet.

d) Draw a neat free hand sketch of Eye Foundation Bolt.

e) Draw conventional representation of following materials –

i) Rubber

ii) Concrete

f) Draw a free hand sketch of Lewis Foundation Bolt.

g) A line AB of length 60 mm is in both the Planes HP and VP. Draw its projections.

P.T.O.

Marks

2. Attempt any THREE of the following : **12**

a) The TV of a line PQ 65 mm long measures 50 mm. The end P is 20 mm from both the Planes. Draw the projection of the line, when it is parallel to VP. Also find the inclination of line with HP

b) Rectangular Lamina 40 × 60 mm is resting on the shorter side in HP. Draw its projection when its surface is inclined at 30° to HP and perpendicular to VP.

c) A Circular Lamina 60 mm diameter, is resting on a point of its circumference in the VP. Its surface is perpendicular to HP and inclined to VP in such a way that its FV appears as an Ellipse with major Axis 60 mm and minor axis 40 mm. Draw its projections.

d) A Square Pyramid base 40 mm side and axis 90 mm long is lying on one of its triangular faces on HP, with its axis parallel to VP. Draw its projections.

e) An equilateral Triangular prism, base 60 mm side and axis 100 mm long, is resting on one of its base corner in HP. Draw its projections when its axis is inclined at 60° to HP and parallel to VP

3. Attempt any TWO of the following : **16**

a) A Hexagonal Pyramid base 35 mm side and slant height 90 mm is resting on one of its base corner in the HP. Draw its three views when its base is inclined at 45° to HP and perpendicular to VP.

b) A Cube of 60 mm side is resting on one of its base on HP with all the edges of base equally inclined to VP. It is cut by a section plane perpendicular to VP and inclined to HP in such a way that true shape of section is a regular hexagon. Draw its –

i) FV

ii) Sectional TV

iii) True Shape of Section

Marks

c) Right Circular Cone base 70 mm diameter and axis 90 mm long is resting on its base in HP with its axis parallel to VP. It is cut by an Auxiliary Inclined Plane such that the true shape of section is an Isosceles Triangle with base 50 mm. Draw its –

i) FV

ii) Sectional TV

iii) True Shape of Section

4. Attempt any TWO of the following : **16**

a) Figure No. 1 shows the isometric view of an object. Using first angle method of projection, draw the following views looking along the direction of Arrow X.

i) Sectional FV Section A-A

ii) TV

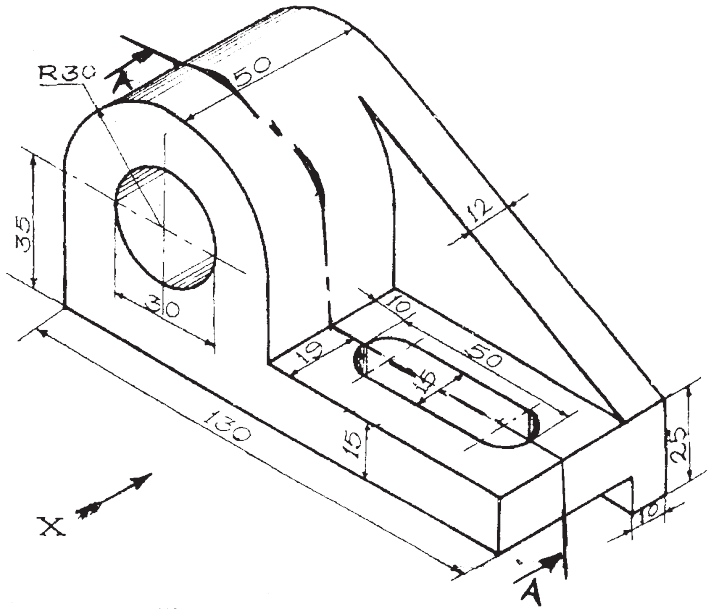

Fig. No. 1

Marks

b) Figure No. 2 shows the isometric view of an object. Using first angle method, draw the following views looking along the direction of Arrow X.
   i) Sectional FV Section B-B
   ii) TV

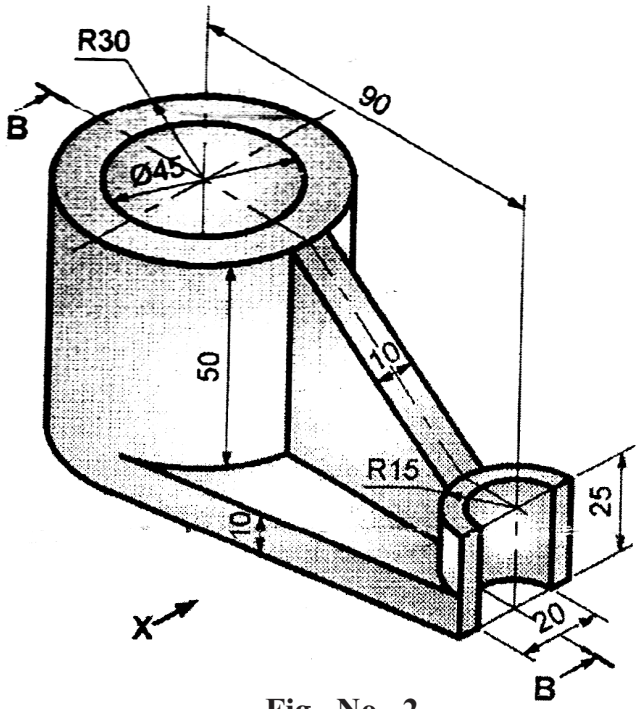

Fig. No. 2

c) Figure No. 3 shows FV & RHSV of an object. Draw the following views of the same. (Use first angle method)
i) TV
ii) FV
iii) Sectional RHSV Section A-B

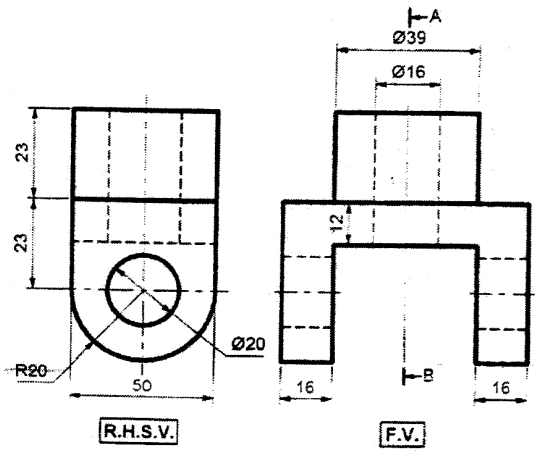

Fig. No. 3

Marks

5. Attempt any TWO of the following : **16**

a) Figure No. 4 shows the Elevation & Plan of an object.
Draw the following views of the same (Use first angle method)

i) Sectional elevation, Section A-B

ii) End View from Left

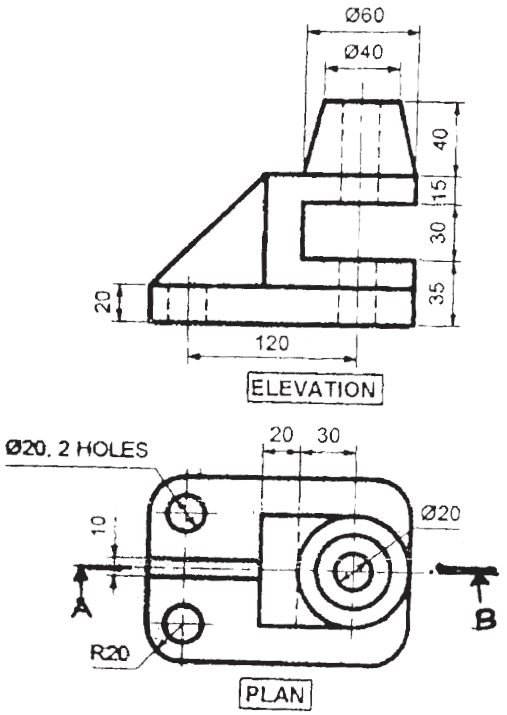

Fig. No. 4

b) Figure No. 5 shows FV, Auxiliary TV & incomplete SV of an object. Draw the given views and complete the side view.

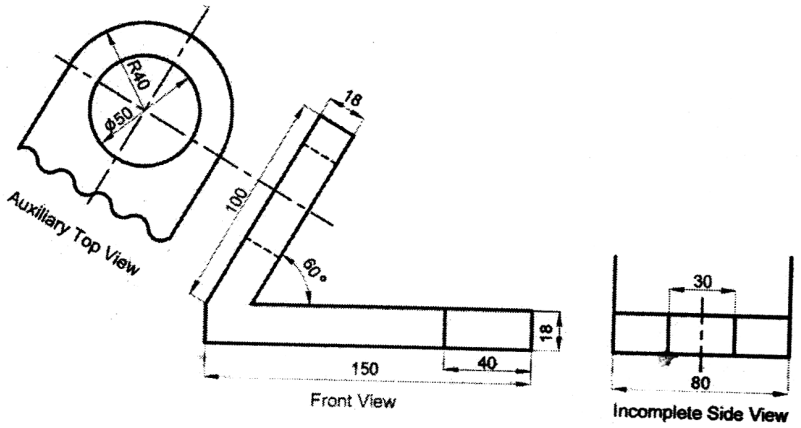

Fig. No. 5

P.T.O.

Marks

c) Figure No. 6 shows FV & LHSV of an object. Project an Auxiliary TV looking in the direction of arrow X.

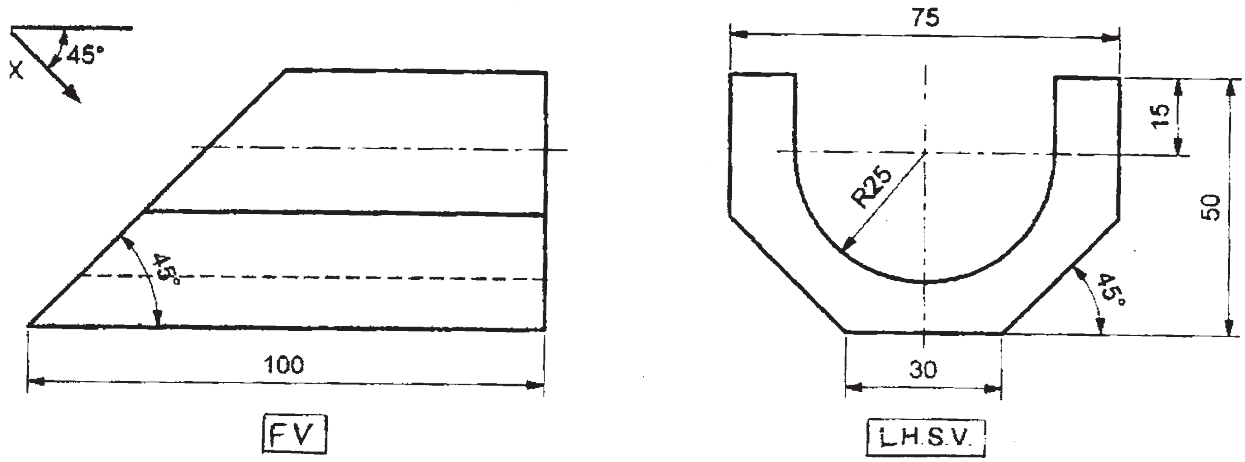

Fig. No. 6