

**SUBJECT CODE NO:- P-42**  
**FACULTY OF ENGINEERING AND TECHNOLOGY**  
**S.E.(MECH/PROD) Examination May/June 2017**  
**Machine Drawing**  
**(Revised)**

[Time: Four Hours]

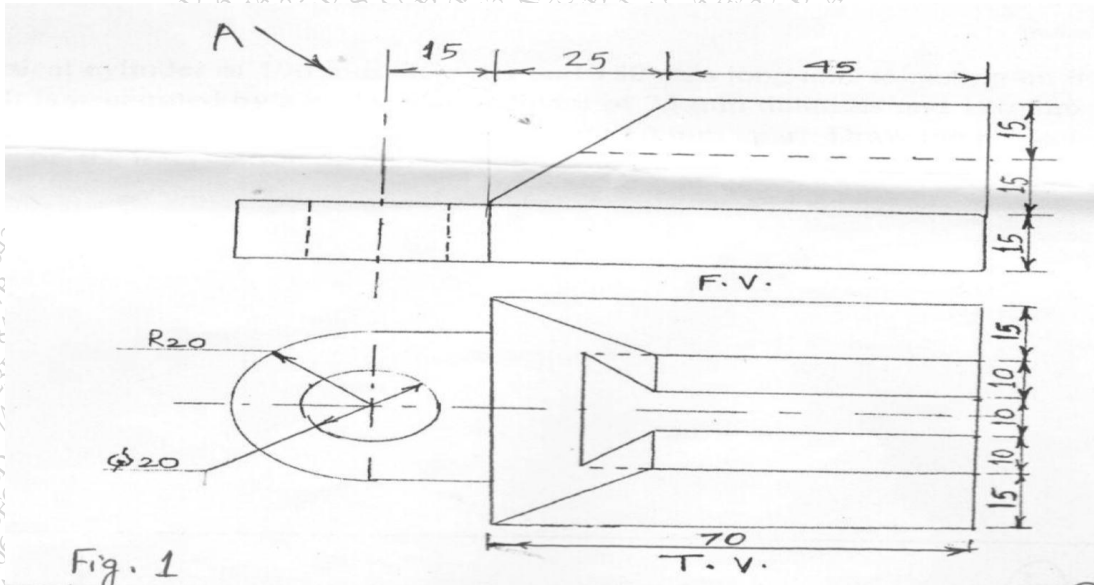
[Max.Marks:80]

Please check whether you have got the right question paper.

- N.B
- i. All the questions are compulsory.
  - ii. Figures to the right indicate full marks.
  - iii. Assume suitable data, if and wherever necessary.

Section A

- Q.1 a) Draw involute of a pentagon of 40mm side. Also draw a normal and tangent to it at a point 100mm from the center of the pentagon. 08
- b) The vertex of a hyperbola is 65mm from its focus. Draw the curve if the eccentricity is  $\frac{3}{2}$ . Draw a normal and tangent at a point on the curve, 75mm from the directrix. Fig. no. 1 shows front view, incomplete top view and partial auxiliary view of an object. 08
- Q.2 Draw the following views"- 12
- i. Front view and top view
  - ii. Left hand side view
  - iii. Auxiliary view from the direction 'A'



OR

Q.2 Two views of an object are shown in the fig. no. 2. Draw its isometric view.

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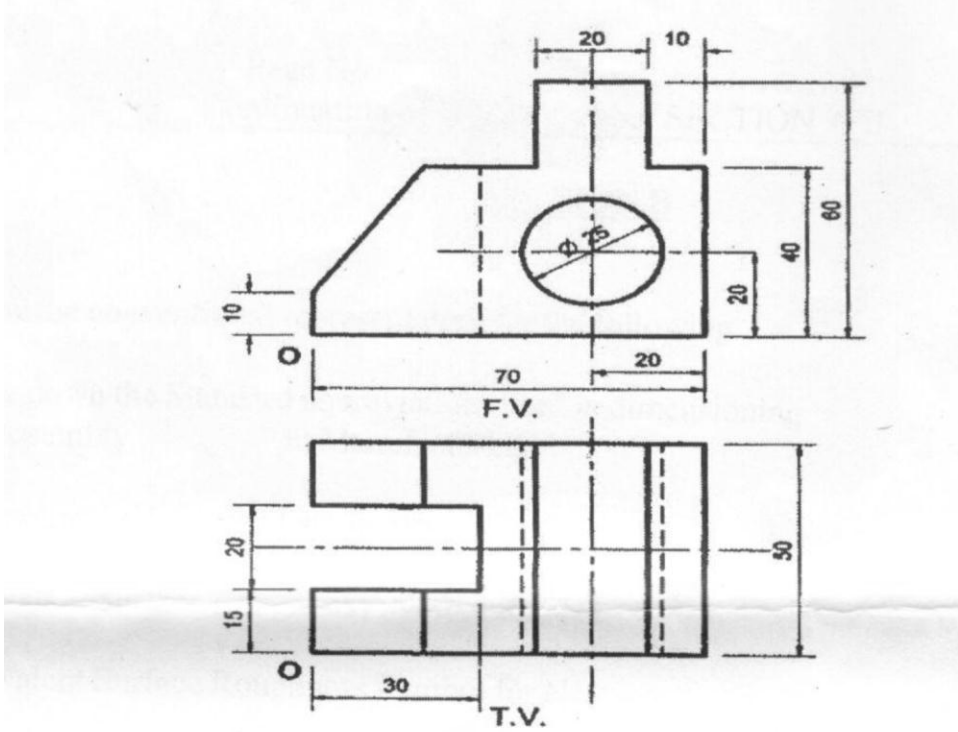


Fig. No.2

Q.3 Two equal prisms whose ends are equilateral triangles of 40mm side and axes 100mm long. Intersect at right angles. One face of each prism is on the ground. The axis of one of the prism is inclined at  $30^\circ$  to the V.P. Draw the three views showing the lines of intersection.

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OR

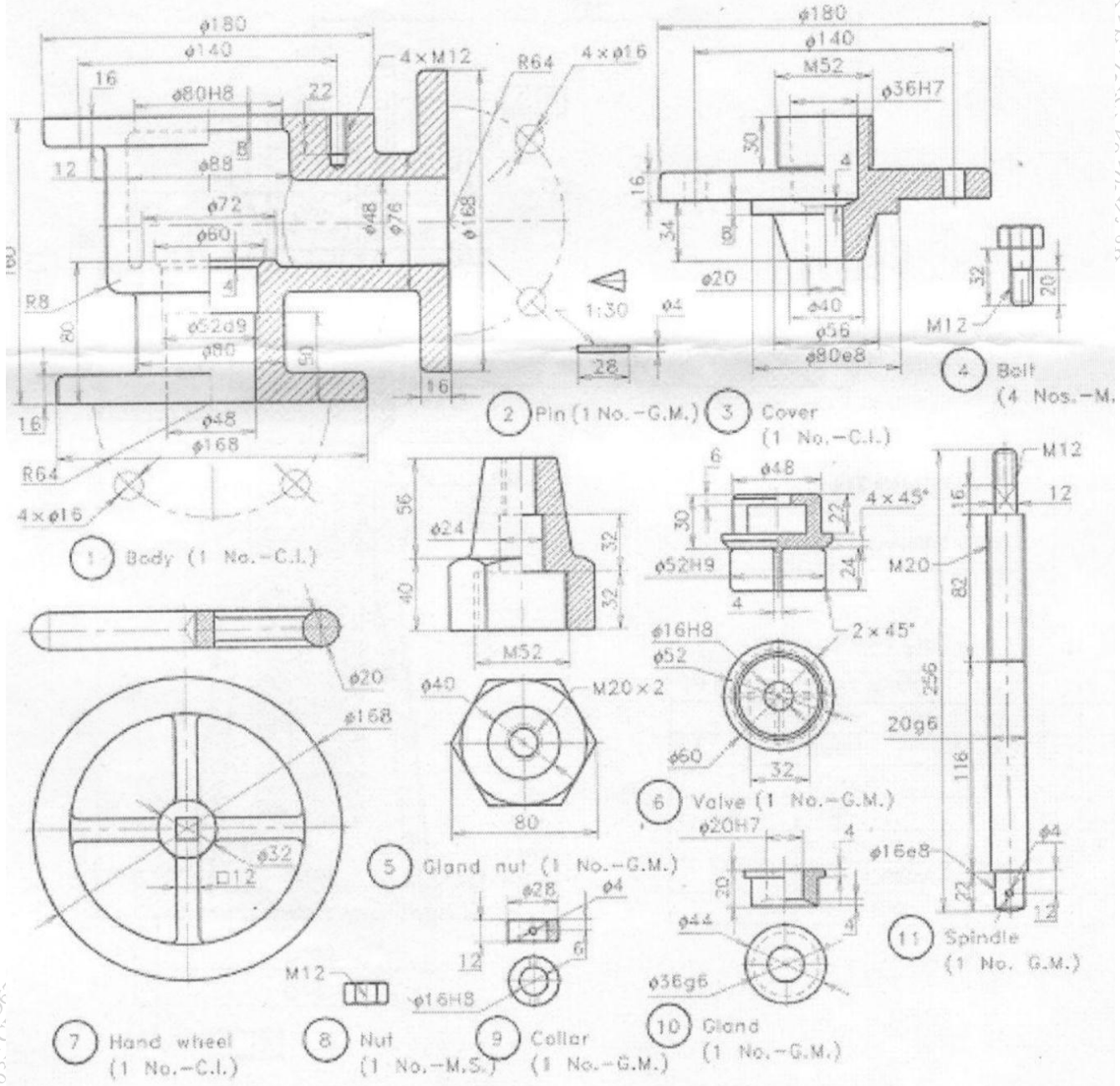
Q.3 A vertical cylinder of 100mm diameter and 150mm long axis is resting on its base on H.P. It is penetrated by a horizontal cylinder of 75mm diameter and 120mm long axis, their axes are at right angles to each other but 10mm apart. Draw the projections of the curves of the intersection on a plane parallel to the axes of the cylinders.

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Section B

- Q.4 Draw the conventional representation for the following. 15
- i. Write down the standard abbreviations used in dimensioning
    - a) Assembly
    - b) Manufacturing
  
  - ii. Geometrical tolerance of symmetry.
  - iii. Equivalent surface roughness symbol for N11.
  - iv. Equivalent surface roughness symbol for N1.
  - v. Semi elliptic leaf spring
  - vi. Geometrical tolerance of position
  - vii. Surface texture obtained by any production method.
  - viii. Liquid
  - ix. Straight knurling
  - x. Spot weld
  - xi. Conventional signs of weld
  - xii. Seam weld
  - xiii. Transition fit
  - xiv. Spur gear
  - xv. Oblique dimension of Aligned system.

- Q.5 Refer to given figure no. 3 which shows details of a Steam Stop Valve. Assemble the parts along with part numbering and part list and draw the following views: 25
- i. Sectional front view and
  - ii. Top view



**Figure 3 – STEAM STOP VALVE**

OR

