

SUBJECT CODE:- 460
FACULTY OF ENGINEERING AND TECHNOLOGY
S.E.(MECH/PROD) Examination Nov/Dec 2015
Machine Drawing
(Revised)

[Time: Four Hours]

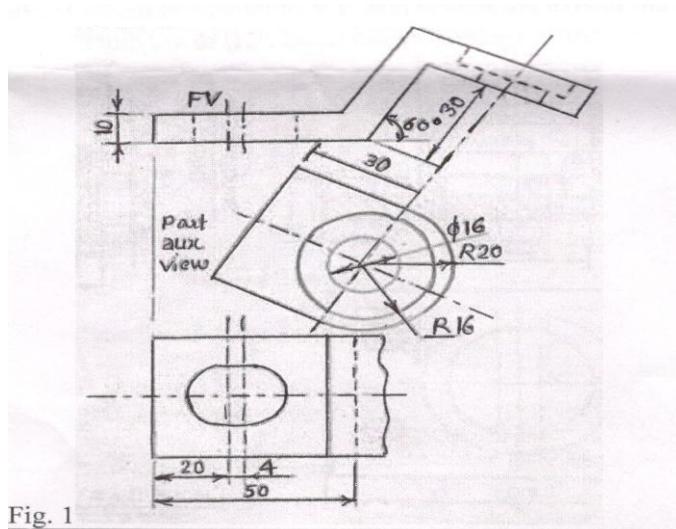
[Max. Marks: 80]

“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 circle of 40mm diameter. Also draw a normal and tangent to it at a point 100mm from the center of the circle. 08
 - b) A circle of 50mm diameter rolls along a straight line without slipping. Draw the curve traced out by a point P on the circumference, for one complete revolution of the circle. Name the curve. Draw a tangent to the curve at a point on it 40mm from the line. 08
- Q.2 Fig. no. 1 shows front view, incomplete top view and partial auxiliary view of an object. Draw the following views:- 12
- i) Front view
 - ii) Right hand side view
 - iii) Complete top view



OR

Q2 Two views of an object are shown in the Fig. No. 2. Draw its isometric view.

12

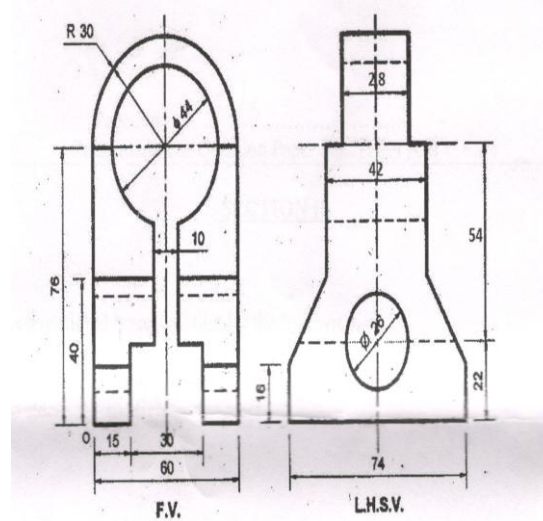


Fig. No.2

Q.3 A vertical square prism of side 60mm and height 110mm is resting on the ground and is completely penetrated by a 12 horizontal square prism of 45mm side and 110mm length. The axis of the horizontal prism is 8mm in front of the axis of the vertical prism and 55mm above the ground. All rectangular faces of both the prisms are equally inclined to the V. P. draw the three views showing the lines of intersection.

OR

A vertical cylinder of 75mm diameters and 100mm length of axis is resting on its base on H. P. it is penetrated by a 12 horizontal square prism of 40mm side of base and 120mm axis height, the axis of which is parallel to V. P. and bisects the axis of the cylinder while its faces are equally inclined with H.P. draw the projections of the both solids showing the curves of penetration.

Section-B

Q.4 Draw the conventional representation for the following.

15

- i) Write down the standard abbreviations used in dimensioning
 - a) Forged steel
 - b) High carbon steel
- ii) Glass
- iii) Square on shaft
- iv) Geometrical tolerance of profile of any surface
- v) Plug weld
- vi) Metals
- vii) Equivalent surface roughness symbol for N 9
- viii) Equivalent surface roughness symbol for N 5
- ix) Single U Butt weld
- x) Semi elliptic leaf spring with eyes
- xi) Angular dimensions of Aligned System
- xii) Interference Fit
- xiii) Draw the machining symbol to indicate that the surface is machined
- xiv) Bevel gear
- xv) Surface texture obtained by removal of material by machining.

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

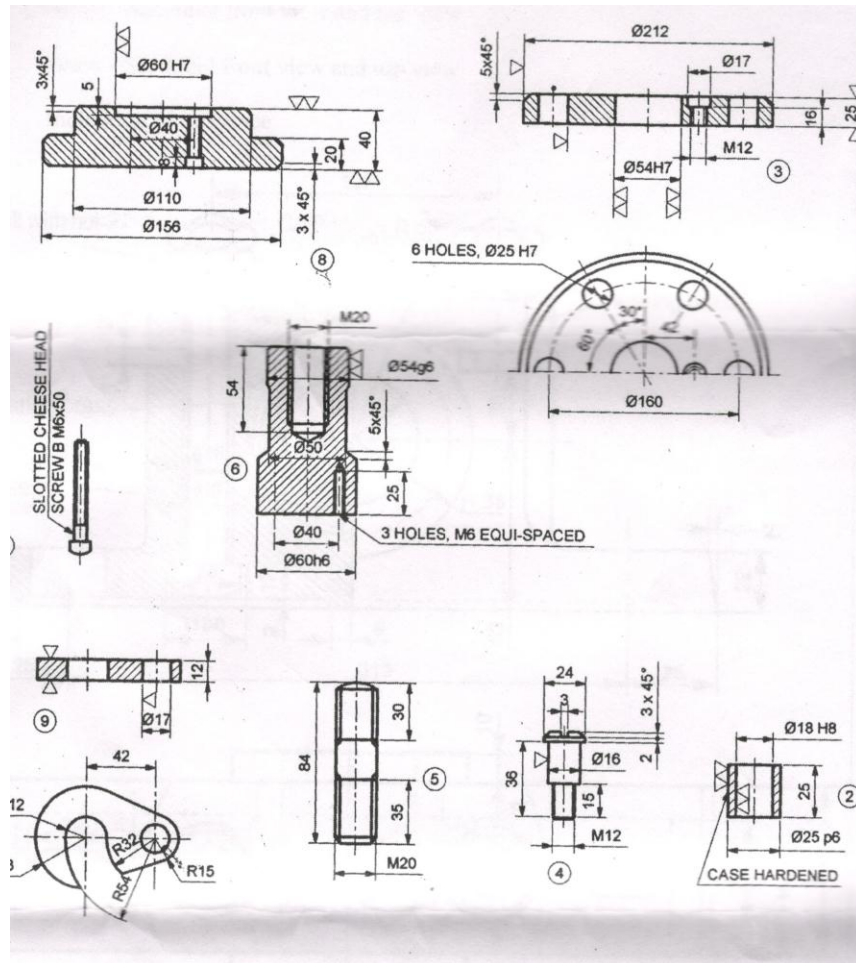


Figure.4
OR

