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B. Tech. (Sem. – 1<sup>st</sup>)

ENGINEERING DRAWING

SUBJECT CODE: BTME - 102 (2011 Batch)Paper ID: [A1110]

Time: 03 Hours

Maximum Marks: 60

Instruction to Candidates:

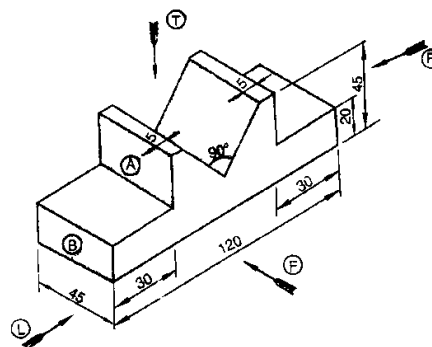
- 1) Section - A is **Compulsory**.
- 2) Attempt any **Five** questions from section - B & C.
- 3) Selecting atleast **two** questions from section - B & C.

**Section - A***(2 Marks each)*

- Q1)** a) How do we classify lettering and state what is GOTHIC LETTERING.
- b) Name the systems of dimensioning and show one of them with free hand Drawing.
- c) Name the different sizes of scale and give example of enlarging scale.
- d) What do you mean by ORTHOGRAPHIC projections?
- e) Draw free hand; the Isometric scale.
- f) Differentiate between First Angle and third angle projection.
- g) What are the principal planes of projections show them with free hand sketch?
- h) How the solids are divided. Give some examples of Regular polyhedra.
- i) What do you mean by True section of a solid.
- j) How do use the development in the practical life.

**Section - B***(8 Marks each)*

- Q2)** Draw the Front view (F), Top view (T) and Left side view (L) by the First angle projection of the solid shown below:



- Q3)** Draw the projections of the following points in First Angle projection.
- Point A lies in HP and 30 mm in front of VP.
  - Point B lies in VP and 30 mm above HP.
- Q4)** A straight line AB, 60 mm long makes an angle of  $30^\circ$  to HP and  $60^\circ$  to VP. The one end of the line AB lies in HP and is 20 mm in front of VP. Draw its Projections.
- Q5)** A hexagonal prism base edge 25 mm and height 50 mm is resting on an edge of its base on HP in such a manner that the base makes an angle of  $45^\circ$  with HP. Draw its projections.

**Section - C****(8 Marks each)**

- Q6)** A square pyramid, base edge 25 mm and height 50 mm is resting on its base in HP in such a way that one of its base edges makes an angle of  $30^\circ$  with the VP. It is cut by a sectional plane parallel to HP and passing at a distance of 25mm from the base along the axis. Draw the front view and sectional top view.
- Q7)** A vertical cylinder 50 mm dia and height 70 mm standing on its base in HP, is completely penetrated by a horizontal cylinder of the same dia and length. Their axes bisect each other at right angles and are parallel to VP. Draw the projections showing lines of interpenetration.
- Q8)** A right cylinder of 30 mm diameter and 50 mm height of axis is cut by a sectional plane inclined at  $30^\circ$  to HP and passing 20 mm from base. Draw the development of the truncated cylinder.
- Q9)** A cube of 40 mm side rests centrally on a square block of 70 mm edges and 30 mm thick. Draw the isometric view of the two objects with edges of the two blocks kept parallel to each other.

