

Roll No.

Total No. of Page : 2

BT-1/DX: 8019-A

ME-105-E: Engineering Graphics and Design

Time : Three Hours

Maximum Marks : 100

Note:- Attempt any five questions.

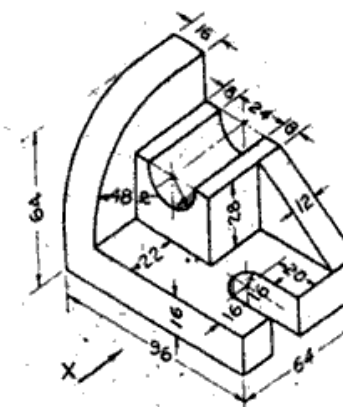
- Q.1. On a Russian map, a scale of verts is shown. One measuring it with a metric scale, 150 verts are found to measure 15 cm. Construct a comparative scale of two units to measure upto 200 verts and 200 km respectively. 1 vert = 1.067 km. 20
- Q.2. A point 30 mm above xy line is the plan view of two points P and Q. the elevation of P is 45 mm above the HP while that of the point Q is 35 mm below the HP. Draw the projections of points and state their position with reference to the principal planes and the quadrant in which they lie. 20
- Q.3. The projections of the ends of a line AB are 5 cm apart. The end A is 2 cm above the HP and 3 cm in front of the VP. The end B is 1 cm below the HP and 4 cm behind the VP. Determine the true length and traces of AB and its inclination with the two planes. 20

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- Q.4. A regular hexagon of 25 mm side has one side on the ground. Its plane is inclined at 30° to the HP and perpendicular to the VP. Draw its projection and show its traces. 20
- Q.5. A hexagonal pyramid base 25 mm side and axis 50 mm long has an edge of its base on the ground. Its axis is inclined at 30° to the ground and parallel to VP. Draw its projections. 20
- Q.6. A pentagonal pyramid base 40 mm side and axis 65 mm long has its base on the HP and one of the edges of the base parallel to the VP. It is cut by a section plane perpendicular to VP inclined at 45° to the HP and bisecting the axis. Draw the development of lateral surface of the truncated pyramid. 20
- Q.7. Draw three views of square headed bolt 24 mm diameter and 100 mm long with a hexagonal nut and washer. 20
- Q.8. Draw the front view, side view and the top view of the object shown in figure below. 20



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