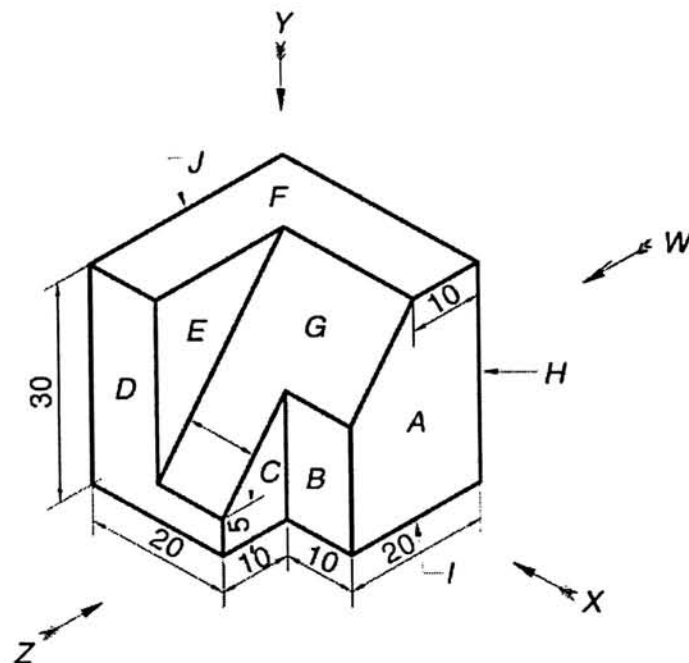Roll No _____

B. Tech.

Subject: Engineering Drawing
Paper No.: BTME-102
Paper ID- A1110

Time Allowed: 3 Hours   **Maximum Marks: 60**

NOTE:
1. Question No. 1 is compulsory.
2. Attempt any Five questions from Part – A and Part – B selecting at least two questions from Part – A and Part – B.

Q. No.1 (a)	What are the standard sizes of the drawing sheets according to B.I.S.? Which size is suitable for the technical drawing?	02
(b)	Draw suitable lines recommended by BIS for the following applications. (a) hidden lines (b) centre lines	02
(c)	State the angles that can be made with the help of a pair of set-squares.	02
(d)	What is a comparative scale?	02
(e)	The auxiliary inclined plane (AIP) is inclined to HP and perpendicular to VP. (True/False)	02
(f)	An object is cut by a plane perpendicular to the VP and inclined to the HP the True shape will be seen in the _____ view.	02
(g)	In development of a cone and cylinder, the chord length between two successive points on the circumference is used for development, instead of the arc length. Is it a correct approach? Comment.	02
(h)	Differentiate between right and oblique solid.	02
(i)	Name two common methods of getting the development of spheres.	02
(j)	Intersection of two surfaces gives point or line. (True/False).	02
Part – A		
Q.No. 2	An area of 200 cm^2 on a map represents 50 km^2 of actual land area. Draw a diagonal scale to measure a distance up to a single decametre. Mark off the following distances on the scale: (i) 5 km, 7 hectometres and 6 decametres (ii) 3.04 km (iii) 458 decametres.	08
Q.No. 3	A straight line PQ has its end point P 10 mm above the HP and 20 mm in front of the VP. The line is inclined at 45° to the HP, and its front view is inclined at 60° to the XY line. Draw its projections if its top view is of 40 mm length. Find its inclination with the VP and the true length of the line.	08
Q.No. 4	Rectangle with 30mm and 50mm sides is resting on HP on one small side which is 30° inclined to VP, while the surface of the plane makes 45° inclination with HP. Draw it's projections.	08
Q.No. 5	A right circular cone, 40 mm base diameter and 60 mm long axis is resting on HP on one point of base circle such that it's axis makes 45° inclination with HP and 40° inclination with VP. Draw it's projections.	08

Part – B

Q.No. 6	A sphere of 45 mm diameter is kept on the top face of the square prism of base 45 mm and height 20 mm. Draw the isometric projections of the combined solid.	08
Q.No. 7	A hexagonal pyramid side of base 25 mm and axis 50 mm long rests with its base on HP and an edge of its base is perpendicular to VP. It is cut by section plane perpendicular to VP, inclined at 30°to HP and passing through a point on axis 20mm below axis. Also draw the true shape of section side by side and on a single plane.	08
Q.No. 8	Draw the lateral development of a square pyramid of base edge 30 mm and height 60 mm lying with its base on the HP. One of the edges of its base is parallel to the VP.	08
Q.No. 9	For the object shown in Figure below, draw Front View, Top View and Left Hand Side View.	08

————— End —————