	DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE		
	Supplementary Examination – Summer 2022		
	Course: B. Tech. **Branch : All Branches** **Semester : II**		
	Subject Code & Name: BTES203G Engineering Graphics		
	Max Marks: 60 **Date:12/01/2023** **Duration: 3 Hr.**		

Instructions to the Students:
1. *All the questions are compulsory.*
2. *The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in ( ) in front of the question.*
3. *Assume suitable data wherever necessary and mention it clearly.*

|		(Level/CO)	Marks
Q. 1	**Solve Any Two of the following.**		
A)	Construct regular hexagon of 40 mm side by general method keeping two opposite sides vertical.	Remember	**6**
B)	Draw the projections of following points on the same XY line by keeping the 30 mm distance between two successive projectors i. Point A 20mm above H.P. and 35mm behind V.P. ii. Point B 35mm below H.P. and 30mm behind V.P. iii. Point C 45mm above H.P. and 30mm in front of V.P. iv. Point D 50mm below H.P. and 25mm in front of V.P. v. Point E 40mm above H.P. and 40mm behind V.P. vi. Point P 20mm in front of V.P. and 20mm below H.P.	Understand	**6**
C)	A 80 mm long line PQ has its end P 25 mm above the HP and 35 mm in front of the VP. The line is inclined at 45° to the HP and 30° to the VP. Draw its projections.	Evaluate	**6**
Q.2	**Solve Any one of the following.**		
A)	Fig. 1.1 shows the pictorial view of an object, draw it's FV looking from direction of X, TV and Side view by using First Angle Projection method.	Apply	**12**
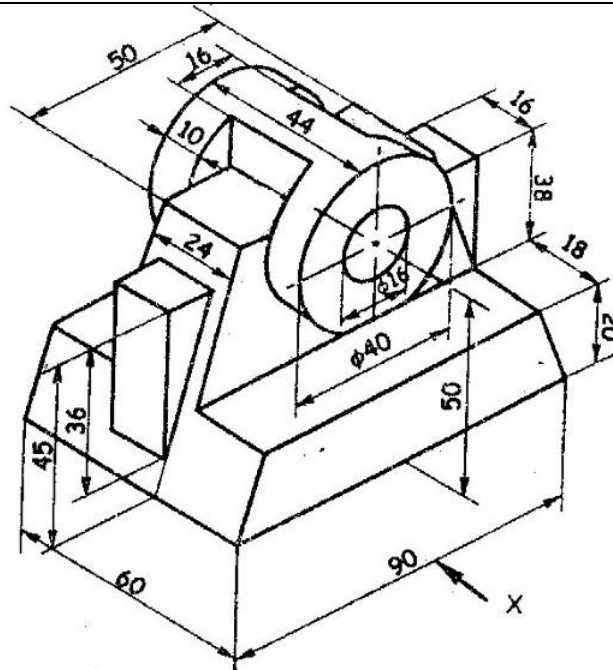
Fig. 1.1

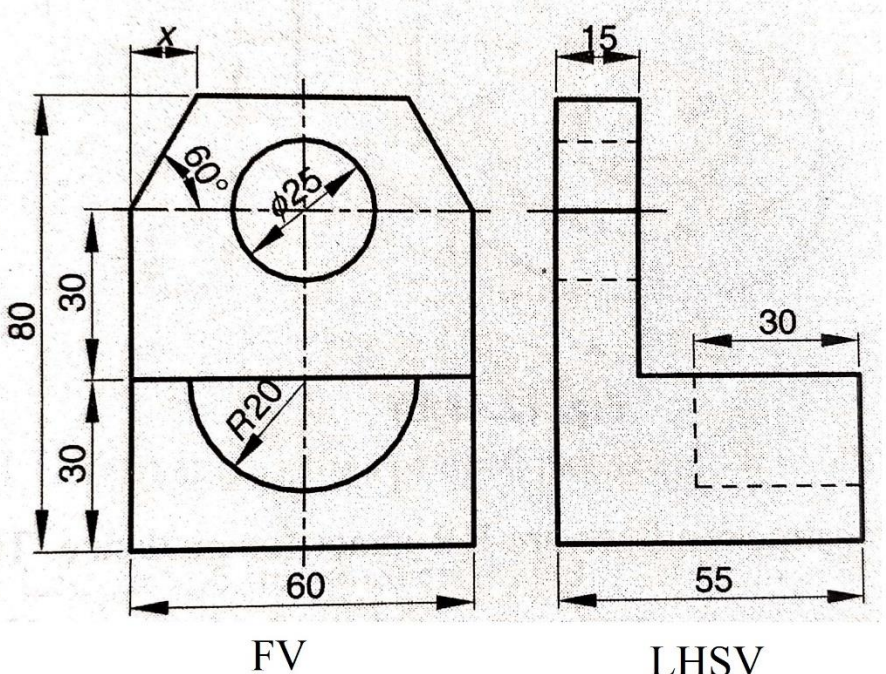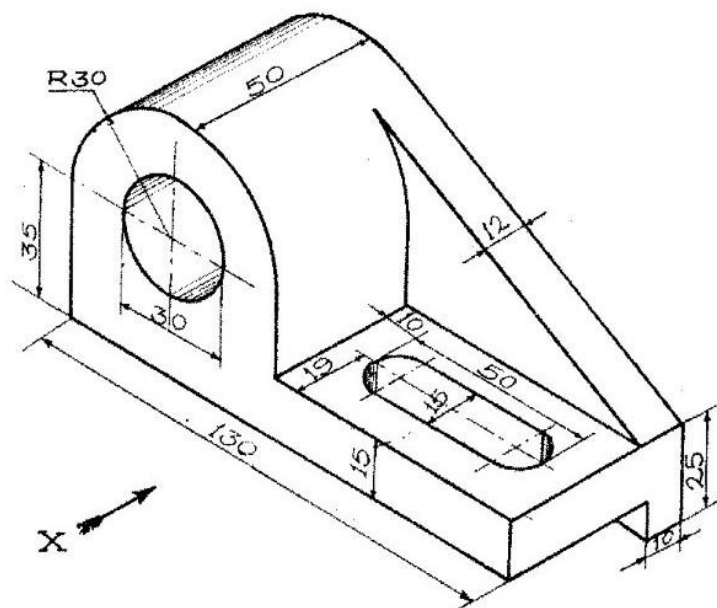|			
B)	Fig. 1.2 shows the pictorial view of an object, draw it's F.V. looking from direction of X, T.V. and Side view by using Third Angle Projection method.	Apply	**12**

Fig. 1.2

Q. 3	**Solve Any One of the following.**		
A)	A line AB has its end A 12 mm above the HP and 10 mm in front of the V.P. The end B is 50 mm above the HP and the line is inclined at 30º to the H.P. The distance between end projectors of the line is 50 mm. Draw the projections of the line, find its inclination with V.P. and locate traces.	Evaluate	**12**

B)	A hexagon plane of 40 mm side, has its corner A in the H.P. The surface of the plane is inclined at 40º to H.P. and the diagonal containing that corner A is inclined at 35º to the VP. Draw its projections.	Evaluate	**12**
Q.4	**Solve any one of the following.**		
A)	A hexagonal pyramid of 30 mm base side and 60 mm long axis has an edge of its base on the ground and the axis inclined at 30º to the HP. The edge of the base on which it rests is inclined at 45º to the VP. Draw its projections.	Evaluate	**12**
B)	Draw the projections of a cone, having a base with a 50 mm diameter and a 60 mm axis, when it is resting on the ground on a point of its base circle with the axis inclined at 30º to the HP and the top view of the axis is inclined at 45º with the VP.	Evaluate	**12**
Q. 5	**Solve Any One of the following.**		
A)	A hexagonal prism of base 30mm and axis 60mm long is resting on HP on one of its bases with two of the vertical faces are perpendicular to VP. It is cut by a plane inclined at 45º to the top base and it is passing through a point 20 mm from top of the axis. Draw its front view and sectional top view.	Evaluate	**12**
B)	Fig.1.3 Shows two views of an object, draw an Isometric view of it. Also mentioned the basic difference between Isometric view and Isometric Projection. FV LHSV Fig.1.3	Synthesize	**12**
	*** End ***		