Hall Ticket Number:

Code No. : 12022 AS N/O (B)

VASAVI COLLEGE OF ENGINEERING *(Autonomous)*, HYDERABAD
B.E. (CBCS) II-Semester Advanced Supplementary Examinations, July-2019

Engineering Graphics-II
(Civil, EEE & Mech.)

Time: **3** hours

Max. Marks: **60**

Note: Answer ALL questions in Part-A and any FIVE from Part-B

	Part-A (10 × 2 = 20 Marks)	
1.	A cone with a 60 mm base diameter and 70 mm long axis is resting on its base on the HP. It is cut by a sectional plane parallel to HP and passing through a point 30mm from base. State the shape and size of the sectional view.	
2.	If the sectional line is perpendicular to the base of the solid, sectional view is coinciding with which view?	
3.	Show by means of the drawing development of lateral surface for a cylinder is rectangular	
4.	State the principal of development of surfaces.	
5.	Write the engineering applications of intersection of solids.	
6.	State the significance of key points in intersection of surfaces.	
7.	Distinguish between the orthogonal axis and isometric axis.	
8.	Draw isometric projection of a equilateral triangular plane of side 25mm.	
9.	Why the isomeric projections are lesser than the orthographic projection?	
10.	Draw the orthogonal views (FV,TV and SV) of s square pyramid having side 20mm and height 50mm.	
	Part-B (5 × 8 = 40 Marks)	
11. a)	Write the advantages of section of solids in engineering field?	3
b)	Show by means of the drawing the sectional plane is inclined to the axis of a cone, sectional shape is ellipse, if sectional plane is cutting all the generators.	5
12. a)	Draw development of surfaces of a cube of side 20mm.	3
b)	Draw the development of surface of a cylinder of base 40mm and axis 80mm, it is cut by a sectional plane passing through edge and make an angle of 45 with the HP.	5
13. a)	Identify the importance of intersection of surfaces in fabrication of engineering machinary.	3
b)	Draw the intersection of a cylinder penetrated to another cylinder of same diameter, if the axes are perpendicular and having offset of 4mm, take diameter of cylinder is 50mmas horizontal cylinder, 60mm diameter for vertical cylinder.	5
14. a)	Distinguish between the isometric planes and isometric planes.	3
b)	Draw the isomeric view of sphere of diameter 50mm placed on a square prism of side 40mm and axis 80mm	5
15. a)	Define the isometric view, isometric axis?	3

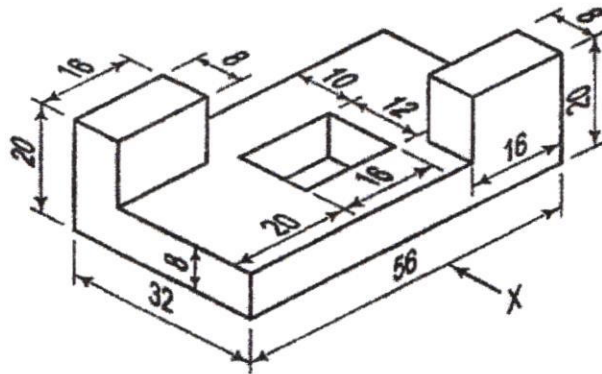| b)	Draw the front view, top view and side view of isometric figure(Fig:1) given below. All dimensions are in mm.	5

Fig: 1.

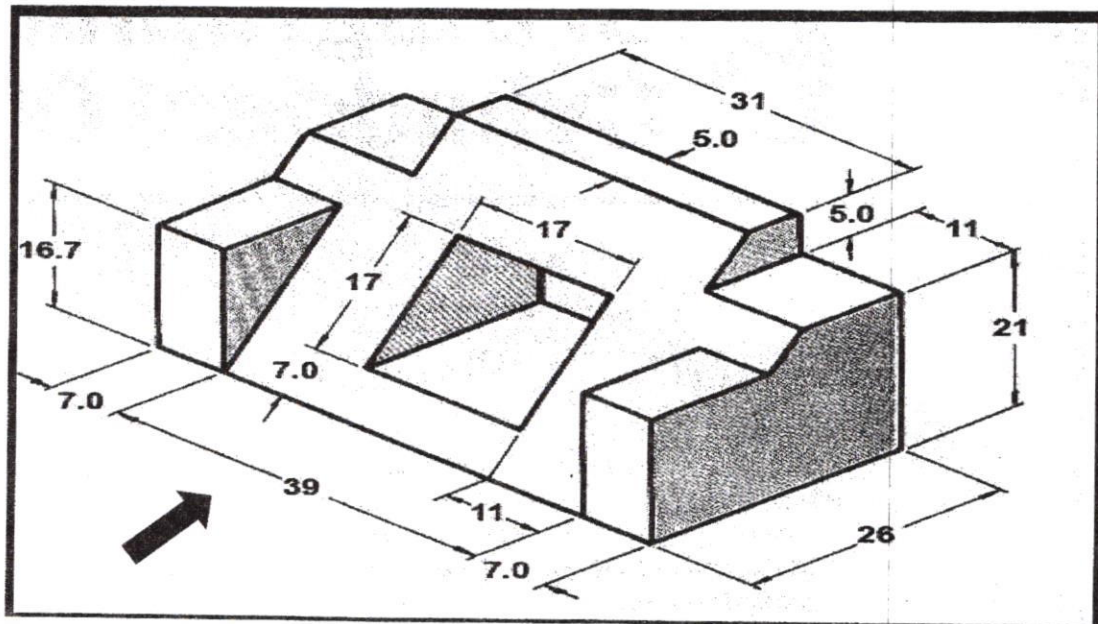| 16. a)	Distinguish development of surfaces for prisms and pyramid	3
b)	A square prism of side 40mm and axis 80mm base, its edge is in the HP one of its rectangular face is parallel to VP, axis makes an angle of 45 with the HP.It is cut by a sectional plane parallel to HP and bisecting the axis, draw its position of the solid.	5
17.	Answer any *two* of the following:	
a)	Draw the intersection of a cylinder penetrated to a cone has base diameter 60mm and axis height 75mm, if the axes are perpendicular bisectors, take diameter of cylinder is 50mm	4
b)	Draw the isometric view of the frustum of cone resting on a cube. Frustum of Cone base diameter 50mm at base and 30mm at top, cube has a side of 60mm.	4
c)	Draw the front view, and top view from the isometric diagram fig 2, all dimensions are in mm.	4

Fig 2

* * *