Code No.: 12115 N

## VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD

Accredited by NAAC with A++ Grade

## **B.E. II-Semester Main & Backlog Examinations, September-2022**

## **Engineering Drawing-II**

(Common to Civil & Mech.)

Time: 3 hours

Max. Marks: 60

Note: i) Answer all questions from Part-A and any FIVE from Part-B
ii) All dimensions mentioned in the figures are in mm.

 $Part-A (10 \times 2 = 20 Marks)$ 

Q. No.	Stem of the question	M	L	CO	PO
1.	What are the applications of Sections of Solids?	2	2	1	1
2.	What are the types of sectional planes? Show them with appropriate sketches.	2	1	1	1
3.	What are the applications of Development of surfaces? Mention at least two applications.	2	1	2	1
4.	What are the two different methods of obtaining developments and for what types of solids these methods are useful?	2	1	2	1
5.	What are the applications of Intersection of surfaces?	2	1	3	1
6.	What are the two different methods to obtain the intersection of surfaces? What is the importance of key points in drawing the line of intersection?	2	2	3	2
7.	Differentiate between Isometric Projection and Isometric View.	2	1	4	2
8.	What is the importance of Isometric Scale?	2	1	4	2
9.	Sketch the front view and top view of the figure shown below.	2	1	5	3
10.	Sketch neatly the symbols used for indicating the method of orthographic projection adopted in a drawing.  Part-B ( $5 \times 8 = 40 \text{ Marks}$ )	2	1	5	.1
11.	A cone, base 50 mm dia. And axis 60 mm, resting on its base on HP. It is cut by a section plane, perpendicular to VP and inclined at 60° to HP, passing through a point on the axis 20 mm from the base so that the apex is removed. Draw the FV and sectional TV. Also draw the true shape of the section.	8	3	1	3

12.	Draw the development of the lateral surface of the pentagonal pyramid [P] with one side of the base parallel to V.P., whose FV is shown in the figure below:	8	3	2	2	
	94 /P					
	20					
13.	A vertical cylinder, of base diameter 80 mm and axis 100 mm long, resting on the ground and is completely penetrated by a horizontal cylinder of 50 mm diameter and axis 120 mm long such that their axes are at right angles and 5 mm apart. Draw the curves of intersections of the solids at their interfaces.	8	2	3	3	
14.	A frustum of a cone resting centrally on top of a cube of side 60 mm. Dimensions of frustum: Base diameter 40 mm, top diameter 30 mm and axis 40 mm. Draw isometric view of the combination of solids.	8	2	4	3	
15.	Draw the Front View, Right Side View and Top View for the object shown in figure below:	8	3	5	3	
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16. a)	A square pyramid, base 40 mm and axis 65 mm long, has its base on the HP and all the edges of the base equally inclined to the VP. It is cut by a section plane, perpendicular to the VP, inclined at 45° to the HP and bisecting the axis. Draw its front view and sectional top view.	4	3	1	2	

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b)	Draw the development of lateral surface of a Square pyramid, base 30 mm and height 50 mm long.	4	2	2	2
17.	Answer any <i>two</i> of the following:				
a)	A cylinder of 50 mm diameter and 80 mm high is penetrated by a horizontal cone of 60 mm diameter and 70 mm long such that the axes of the two solids are intersecting at right angles.	4	3	3	2
b)	Draw the isometric view of the frustum of a pentagonal pyramid, two views of which are shown below:	4	3	4	3
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c)	Draw the Front View and top view for the part shown in figure below:	4	3	5	3

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level – 1	20%
ii)	Blooms Taxonomy Level – 2	30%
iii)	Blooms Taxonomy Level – 3 & 4	50%

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