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Code No. : 11227 N/O

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD

Accredited by NAAC with A++ Grade

B.E. I-Semester Main & Backlog Examinations, Jan./Feb.-2024

Basic Engineering Drawing

(Common for CSE, AIML & IT)

Time: 3 hours

Max. Marks: 60

Note: Answer all questions from **Part-A** and any **FIVE** from **Part-B**

Part-A (10 × 2 = 20 Marks)

Q. No.	Stem of the question	M	L	CO	PO
1.	Sketch the continuous thick line and name it.	2	1	1	1
2.	Mention the types of dimensions used in the drawing	2	2	1	1
3.	Draw the projection of a point A which is in the HP and 25mm in front of VP.	2	1	2	2
4.	Define trace of a LINE?	2	2	2	2
5.	What is meant by oblique plane?	2	1	3	2
6.	In the projections of planes, if front view and top views are lines, where will get true shape of the plane?	2	1	3	2
7.	Draw the projections of square prism side 20mm and height 40mm, edge of the side is perpendicular to VP.	2	1	4	3
8.	Differentiate between the polyhedron and solids of revolution.	2	1	4	3
9.	Define isometric projections	2	2	5	2
10.	Draw the isometric view of cube side 40mm	2	2	5	2
Part-B (5 × 8 = 40 Marks)					
11. a)	Draw a curve which has eccentricity is 2/3, focus is 50mm from the directrix, name the curve.	4	2	1	1
b)	Draw the regular pentagon of side 40mm.	4	2	1	1
12. a)	Draw the projection of a line 90mm, one end is in the HP and 25mm in front of VP, line is inclined to 30° to HP and 45° to the VP, also locate its traces	4	2	2	2
b)	Distance between the projectors of two points are 45mm, one point is on the HP and 25mm in behind VP, other one is 25mm above HP and 35mm in front of VP, find the inclination of the lines joining front views and top views.	4	2	2	2
13. a)	Draw the projection of a hexagonal plate has side 35mm, one edge is on the HP and surface makes 45° to HP and edge on the HP is inclined to 35° To VP.	4	2	3	3

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b)	A circular plate of diameter 50mm appears as ellipse in the front view with major axis is 50mm and minor axis 30mm, draw its top view when the major axis is horizontal	4	3	3	3
14. a)	Draw the projections of square prism of side 40mm and height 55mm, has one of the corner in the HP and axis makes 35° with HP.	4	3	4	2
b)	Draw the development of surface of pentagonal prism of side 25mm and axis 50mm	4	3	4	2
15. a)	Draw the Isometric view of Pentagonal prism of side 35mm and axis 55mm, when the axis is perpendicular to VP.	4	3	5	1
b)	Draw the isometric view of sphere of diameter 45mm resting on cube of side 60mm	4	4	5	1
16. a)	Draw the engineering curve, if fixed point is 30mm from the vertex, curve having eccentricity $3/2$.	4	2	1	1
<i>radius</i> / <i>length</i> b)	Draw the projection of a straight line, one end is in the HP and other end is in the VP. angle make by line with HP is 30° , when with VP is 60°	4	2	2	2
17.	Answer any <i>two</i> of the following:				
a)	Differentiate between the prisms and pyramids	4	1	3	2
b)	When and where the parallel line method is used for development of surfaces	4	2	4	2
c)	Define isometric view, justify the difference between isometric view and isometric projection	4	4	5	2

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

i)	Blooms Taxonomy Level – 1	20%
ii)	Blooms Taxonomy Level – 2	36%
iii)	Blooms Taxonomy Level – 3 & 4	44%
