VASAVI COLLEGE OF ENGINEERING (*Autonomous*) HYDERABAD
B.E. I/IV (All Branches) I-Semester(Main) Examinations, Feb.2015

Engineering Graphics– I

Time: **3** hours   Max. Marks: **70**

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

Part-A (Marks: 10x2=20)

1) In _____ system all dimensions are placed that they can be read from the _____ edge of the drawing sheet.

2) Distinguish between a full size, a reduced size and an enlarged sized drawing?

3) Name the possible orientation of the plane with respect to reference planes of the projection.

4) What is the conic section? Enlist various types.

5) Why the projections of an object are not drawn in second and fourth quadrant?

6) The line AB is parallel to H.P and V.P .It has _____ trace, If the same line is inclined to the H.P and parallel to the V.P, it has only the _____ trace.

7) A rectangle ABCD perpendicular to both the planes. Its H.T and V.T are in a _____ line _____ to XY. V.T coincides with Elevation and H.T coincides with plan.

8) Show the trace of the plane, perpendicular to H.P and inclined 30^0 to V.P.

9) Differentiate between prism and a pyramid with the help of sketches.

10) A hexagon pyramid side 20 mm and height 50 mm, rest on H.P on its base with one of its base side parallel to V.P. Draw its projection .

Part-B (Marks: 5x10=50)

11) Construct a Vernier scale of 1:40,000 showing kilometers, hectometers and decameters and long enough to measure 5km. Mark a distance of 2.34km and 3.92 km on it.

12) Construct a cycloid having a rolling circle diameter as 50 mm for one revolution. Draw a normal and tangent to the curve at a point 35 mm above the directing line.

13) A semi circular plate of 80mm diameter has its straight edge on VP and inclined at 30^0 to HP, while the surface of the plate is inclined at 45^0 to VP. Draw the projections of the plate.

14) A line AB,75mm long, making $30°$ with HP has its end A 20mm from both the planes and is in first quadrant. Draw the projections of the line if the front view length of the line is 60mm. Also find its traces and its inclination with VP.

15) A square pyramid of 50mm side of base and 60mm length of axis is resting on one of its triangular faces on the HP. The axis of pyramid makes $45°$ with VP. Draw the projections such that the apex is nearer to the observer.

16) One end of a pole 2 meters long rests against a wall and the other end on the top of a table which is one meter high. The pole makes $40°$ with the table top (assumed horizontal) and $26°$ with the wall. Draw the projections and find the height of the end which rests against the wall.

17) A pentagon ABCDE has its corner "D" in V.P. and the plane makes $45°$ with V.P. Centre of the pentagon is "O" and the line OD makes $30°$ with H.P. Draw the projections of the pentagon.

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