SKR ENGINEERING COLLEGE
SAMPLE QUESTION PAPER
ENGINEERING GRAPHICS

SEM /YEAR : I / I **MAX.MARKS :100**

1) a) A circle of 50 mm diameter rolls on a straight line without slipping. Trace the locus of the point P on the circumference of the circle rolling for one revolution. Name the curve and also draw tangent and normal 55mm from the baseline. (20)

or

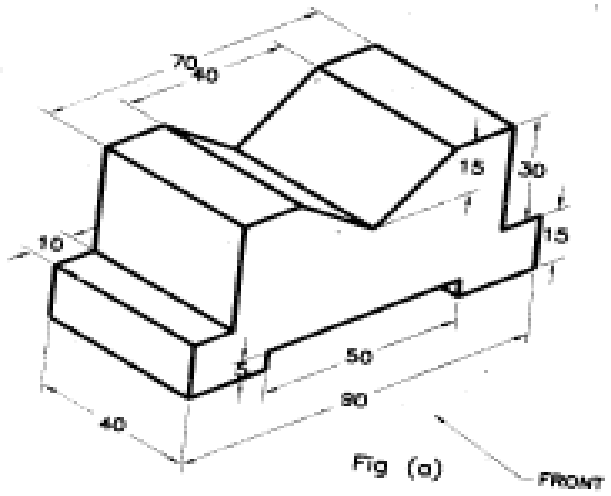

Fig (a)

b) Draw the front view,top view and side view from the above pictorial representation.(20)

2) a) The plan of the line AB is 80 mm long and makes 35 ^{0} with XY. Its elevation makes 55^0 with XY and the line intersects XY at A. Find its true length and inclinations to HP and VP. (20)

or

b) Draw the projection of a circular thin plate of diameter of 50mm resting on the ground on a point A on the circumference, its plan inclined at 45^0 to HP and plan of the diameter AB making 30^0 with VP. (20)

3) a) Draw the projections of the cube of side 40mm is resting on HP on one of its faces with vertical face inclined to 30^0 to VP. It is then tilted such that the axis is inclined at 30 ^{0} to HP, with a corner in HP. (20)

or

b) Draw the projections of the cone of diameter40 mm and an axis height of 60 mm is freely suspended from one of its base points such that the axis parallel to VP. (20)

4) a) A pentagonal pyramid base side 40mm and altitude 75mm rests with its base on HP and with a side of base parallel to VP. It is cut by a section place perpendicular to VP and inclined at 35^0 to the HP and bisecting the axis. Draw the sectional plan of the pyramid and the true shape of section. (20)

or

b) A cylinder of diameter 50mm and height 70mm is resting vertically on one of its ends on the HP. it is cut by a plane perpendicular to VP and inclined at 45^0 to the HP. The plane meets the axis at a point 40mm from the base. Draw the development of the lateral surface of the lower portion of the truncated cylinder. (20)

5) a) Draw the isometric projection of cylinder of base diameter 50 mm and an axis height of 80 mm when it rests with its base on HP and VP. (20)

or

b) A cube of base side 50 mm resting on the ground on one of its faces, with a vertical face in P.P.and the rest behind it. The central plane is located 60 mm to the left of the centre of the cube. The station point is 50 mm in front of VP and 70 mm above G.P.Draw the perspective view of the solid. (20)

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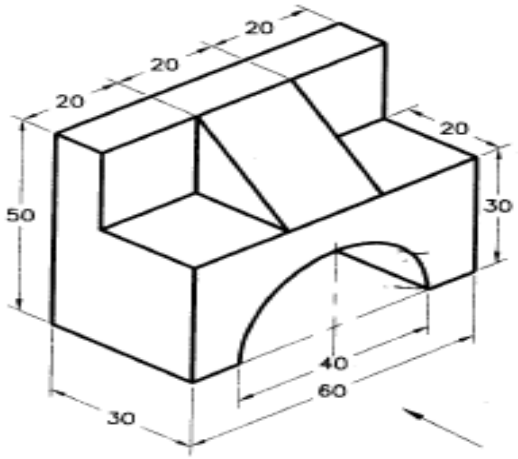
a) An inelastic string of length 100 mm of wound round a circle of 26 mm. Draw a path trace by the end of the string also with tangent normal at any point of the curve. (20)

or



b) Draw the front view,top view and side view from the above pictorial representation.(20)

1) a) A line KL 70mm long whose mid point is 35mm above HP and 25mm in front of VP. The line is inclined at 35^0 to HP and 45^0 to VP. Draw its projection. (20)

or

b) A hexagonal lamina of side 40 mm rest on one of its base side on HP. It is inclined at 60^0 to VP and 35^0 to HP. Draw the projection. (20)

2) a) Draw the projections of right pentagonal pyramid of base side 25mm and altitude 70mm rests on one of its base edges on HP, then one of its base edge with the triangular face inclined at 35^0 to HP,the axis parallel to VP. (20)

or

b) A cylinder of a diameter 40mm and axis height 70mm is lying on the ground on a point of its base circle such that the axis is inclined at 45^0 to the HP and the plane containing the axis makes an angle of 30^0 VP. Draw the projection of the cylinder. (20)

3) a) A square pyramid of base side 40mm, which is equally inclined to VP and height of 65mm, is cut by a plane perpendicular to VP, 40^0 to the HP meeting the axis at a distance of 30mm from the base. Draw the development of the lateral surface of the pyramid. (20)

or

b) A pentagonal prism axis vertical and base edge 35mm is 65mm height such that one base edge is parallel to VP. It is cut by a plane perpendicular to HP and inclined at 35^0 to VP and passes through a point 8mm away from the axis. Draw the sectional elevation and true shape of the section. (20)

4) a) Draw the isometric projection of cylinder of base diameter 45 mm and an axis height of 70 mm when it rests with its base on HP and VP. (20)

or

b) A cube of base side 40 mm resting on the ground on one of its faces, with a vertical face in P.P.and the rest behind it. The central plane is located 60 mm to the left of the centre of the cube. The station point is 50 mm in front of VP and 70 mm above G.P.Draw the perspective view of the solid. (20)