Reg. No. : | | | | | | | | | | |

Question Paper Code: 31107

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2016

First Semester

Civil Engineering

01UME107-ENGINEERING GRAPHICS

(Common to ALL Branches)

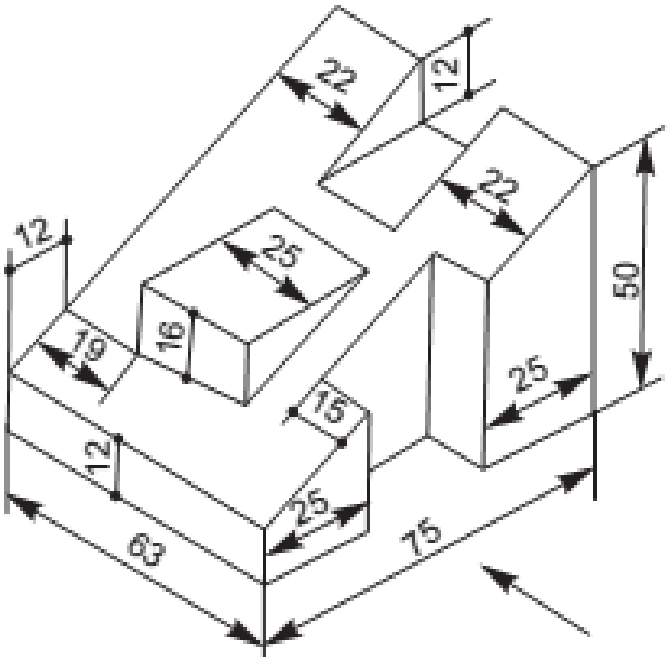
(Regulation 2013)

Duration: Threehours Maximum: 100 Marks

Answer ALL Questions

(5 x 20 = 100 Marks)

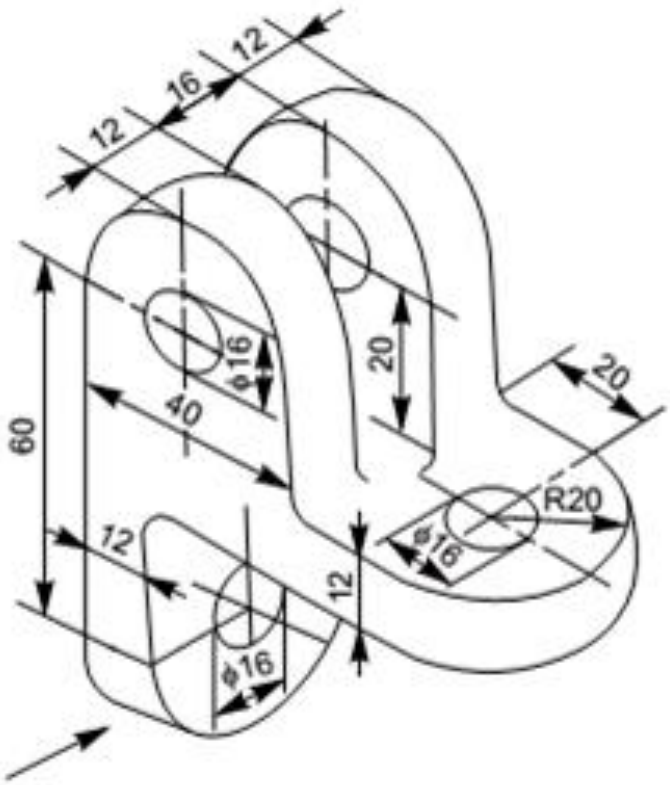
1. (a) Draw the top, front and left side views of the object shown below. (20)



All dimensions are in *mm*

Or

(b) Draw the top, front and right side views of the object shown below. (20)



All dimensions are in *mm*

2. (a) A straight line *AB*, 80 *mm* long has its end *A*, 50 *mm* in front of VP and 15 *mm* above HP. The length of the top view of the line is 52 *mm*. The end *B* is 15 *mm* in front of VP and above HP. Draw the front view and measure its length. Also determine the true inclinations of the line. (20)

Or

(b) A circular plate of diameter 70 *mm* has the end P of the diameter *PQ* in the HP and the plate is inclined at 40° to the HP. Draw its projections when the diameter *PQ* appears to make 45° to the VP in the top view. (20)

3. (a) A tetrahedron of side 50 *mm* is resting on HP on one base side such that its axis is parallel to VP and 30° to HP. Draw the projections. (20)

Or

(b) Draw the projections of a square pyramid of base side 40 *mm* and axis 60 *mm* when it is resting on HP on one of its base corners with a base side containing the corner making 35° with HP. The axis is inclined at 30° to VP and is parallel to HP. (20)

4. (a) A pentagonal pyramid of base side 35 *mm* and altitude 70 *mm* rests on HP on its base with an edge of the base parallel to the VP. It is cut by a vertical plane inclined at 45° to VP at a distance of 8 *mm* from the axis. Draw top view, sectional front view and true shape of section. (20)

Or

(b) A cone of base diameter 60 *mm* and axis 70 *mm* is resting on HP with its base. It is cut by a section plane 30° to HP bisecting the axis. Draw the development of the surfaces. (20)

5. (a) A square prism of base side 40 *mm* and height 65 *mm* rest on one of its ends on HP. All the base sides of the prism are equally inclined to VP. It is cut by a plane perpendicular to VP and inclined at 45° to HP passes through a point on the axis 10 *mm* from the top. Draw isometric view of truncated portion of prism. (20)

Or

(b) A pentagonal pyramid of 30 *mm* edge of the base and 65 *mm* height stands on HP such that an edge of the base is parallel to VP and nearer to it. A sectional plane perpendicular to VP and 30° to HP cuts the pyramid passing through a point on the axis at a height of 35 *mm* from the base. Draw isometric view of truncated portion of pyramid. (20)