I B. Tech II Semester Supplementary Examinations, April/May - 2019
ENGINEERING DRAWING
(Com. to CSE, PCE, IT, Chem E, Aero E, Auto E, Min E, Pet E & Metal E)

Time: 3 hours　　　　　　　　　　　　　　　　　　　　　　　　Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is Compulsory
3. Answer any **THREE** Questions from **Part-B**

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PART –A

1.　a)　Represent first angle projection. (3M)

　　b)　Draw the projections of the Point B lies in the VP and 30mm away from the HP. (3M)

　　c)　Draw the projections of the following points on the same ground line, keeping the Projectors 30mm apart. (4M)
　　　　(i) Point A, 30mm below the HP and in the VP.
　　　　(ii) Point B, 35mm below the HP and 20mm in front of the VP.

　　d)　Draw the isometric view of a square prism, with side of base 40mm and length of axis 70mm, when its axis is horizontal. (4M)

　　e)　Draw the projections of a cone of base diameter 25mm and 50mm long resting on VP on its apex with axis perpendicular to and 30mm above the HP. (4M)

　　f)　Draw the isometric view of a cylinder, base 40mm diameter and axis 55mm long, When its axis is Horizontal. (4M)

PART –B

2.　a)　The major and minor axes of an ellipse are 120mm and 70 mm respectively. Construct an ellipse using oblong method. (8M)

　　b)　Construct a diagonal scale of R.F =1/4000 to show metres and long enough to measure up to 500meters. Mark on it a distance of 425 meters. (8M)

3.　a)　A vertical line AB, 75mm long, has its end A in the HP and 25mm in front of the VP. A line AC, 100mm long, is in the HP and parallel to the VP. Draw the projections of the line joining B and C, and determine its inclination with the HP. (8M)

　　b)　A line RS 40mm long is parallel to both the planes. It is 20 mm above the HP and 15mm in front of the VP. Draw the projections of the line. (8M)

4.　　　A pentagonal pyramid base 30 mm side and axis 60 mm long lying on one of its triangular faces on the HP with the axis parallel to VP. A vertical section plane whose H.T bisects the top view of the axis and makes an angle of 30 degrees with reference line cuts the pyramid removing its top part. Draw the top view, sectional front view and true shape of the section. (16M)

5.　　　A hexagonal prism side of base 35 mm and height 75 mm is resting on one of its corners on the H.P with a longer edge containing that corner inclined at 60⁰ to the H.P and a rectangular face parallel to the V.P. A horizontal section plane cuts the prism in two equal halves. (16M)

　　　　(i) Draw the front view and sectional top view of the cut prism,
　　　　(ii) Draw another top view on the auxiliary inclined plane which makes an angle of 45^0 with the HP.

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6. Draw the top and front view of the cone of base diameter 46mm and height 65mm lying   (16M)
    with one of its generators on the HP. The axis is parallel to the VP.

7. Draw the perspective view of a pentagonal prism lying on the ground plane on one of its   (16M)
    rectangle faces, the axis being inclined at 38 the picture plane and a corner of the base
    touching the picture plane the station point is 6.5 cm in front of the picture planes and lies
    in a central plane which bisects the axis. The horizon is at the level of the top edge of the
    prism.