

CBCS SCHEME



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18EGDL15/25

First/Second Semester B.E. Degree Examination, Jan./Feb. 2021

ENGINEERING GRAPHICS

Time: 3 Hours

(COMMON TO ALL BRANCHES)

Max. Marks: 100

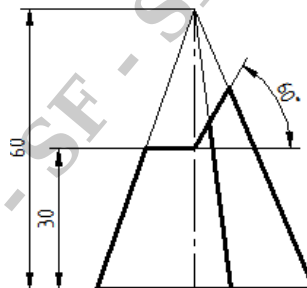
Note:

1. Answer three full questions.
2. Use A4 sheets supplied.
3. Draw to actual scale.
4. Missing data, if any, may be assumed suitably.

1. A line has its end A 10mm above HP and 15mm in front of VP. The end B is 55mm above HP and line is inclined at 30° to HP and 35° to VP. The distance between the end projectors is 50mm. Draw the projections of the line. Determine the true length of the line and its inclination with VP. **25 Marks**

OR

1. An isosceles triangular plate of negligible thickness has base 25 mm long and altitude 35mm. It is so placed on HP such that the front view is seen as a n equilateral triangle of 25 mm side with the side that is parallel to VP is inclined at 45° to HP. Draw its top and front views. Also determine the inclination of the plate with the reference plane. **25 Marks**
2. A hexagonal pyramid 25mm side of base and 50mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40° and VP at 30° . **45 Marks**
3. A pentagonal pyramid 30mm sides with a side of base perpendicular to VP. Draw the development of the lateral surfaces of the retained portion of the pyramid shown by dark lines in the following figure.



30 Marks

OR

3. A sphere of diameter 60 mm is placed centrally on the top face of a square prism side 60 mm and height 70 mm. Draw the isometric projection of the combination. **30 Marks**