

FACULTY OF ENGINEERING
B.E. I year (Backlog) Examination, May/ June 2019
Subject: Engineering Graphics

Time: 3 Hours

Max. Marks: 100

Note: Answer all questions from Part – A, & Any five questions from Part – B.

PART – A (35 Marks)

1. List the basic computer instructions formats. Explain three types of lines with neat sketches. (3)
2. What is Representative Fraction? An area of 144 sq. cm on a map represents an area of 36 sq.m on the field. Find the R.F. (4)
3. Draw the projections of a 50 mm long straight line when it is inclined at 45° to the V.P. in the H.P and its one end in the V.P. (3)
4. A square plate of 30 mm side has a corner on the H.P and 25 mm in front of V.P. All the sides of the square are equally inclined to the H.P and parallel to the V.P. Draw its projections. (4)
5. What are solids of revolutions? Explain with examples. (3)
6. Draw the projections of a cylinder, base 40 mm diameter and axis 60 mm long with its base resting on the ground and its axis 30 mm in front of V.P. (4)
7. Explain true shape of a section. (3)
8. What are the different methods of development of surfaces? (4)
9. Distinguish between isometric projection and isometric view. (3)
10. A ball is thrown in air attains 45 m height and covers a horizontal distance of 80 m on ground. Draw the path of the ball assuming it to be a parabola, using rectangle method. (4)

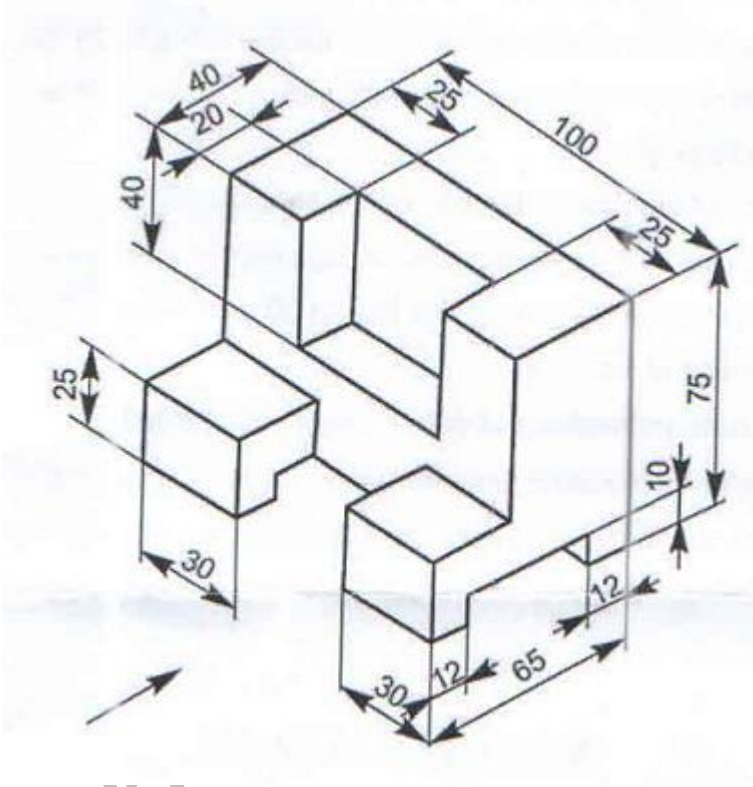
PART – B (65 Marks)

11. Construct a scale of R.F = $1/2.5$ to show decimeters and centimeters and by a vernier to read millimeters, to measure up to 4 decimeters. Mark a distance of 2.39 decimetre and 0.91 decimetre on it. (13)
12. A line AB 75 mm long has its end A 25 mm above the H.P and 35 mm in front of V.P , the line is inclined at 30° to H.P and 45° to V.P. Draw the projections. (13)
13. A regular hexagon of 40 mm side has a corner in the H.P. The diagonal passing through that corner is inclined at 45° to the HP and the top view of the diagonal through that corner which is in the H.P, with the axis inclined at 45° to the V.P. Draw its projection. (13)
14. Draw the projection of a pentagonal prism, base 30 mm side and axis 60 mm long. Resting on one of its rectangular faces on the H.P with the axis inclined at 45° to the V.P. (13)
15. The frustum of a square pyramid has its base 35 mm side, top 15 mm side and height 50 mm. Draw the development of its lateral surface. (13)

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16. A cube of 20 mm side is placed centrally on top of a cylindrical block of 50 mm diameter and 20 mm height. Draw the isometric view of the two solids. (13)

17. Draw the orthographic projection (front view, top view and one side view) of the given isometric projection. (13)



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