

[Total No. of Questions - 9] [Total No. of Printed Pages - 3]
(2064)

14619

B. Tech 2nd Semester Examination
Engineering Graphics and Drawing (O.S.)
ME-1001

Time : 3 Hours

Max. Marks : 100

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Candidates are required to attempt five questions in all selecting one question from each of section A, B, C and D of the question paper and all subparts of questions in section E. All Questions carry marks mentioned against them. Missing data, if any, can be assumed suitably.

SECTION - A

1. A line AB 60 mm long has its end A 20mm above HP and 30mm in front of VP. Draw its projections, if
 - (a) the line is kept perpendicular to HP and parallel to VP
 - (b) the line is kept perpendicular to VP and parallel to HP
 - (c) the line is kept parallel to both HP and VP (20)
2. Draw a full size diagonal scale to read meters, decimeters and centimeters, when its R.F. is 1/60, long enough to read up to 9 meters. (20)

SECTION - B

3. Draw the projections of a pentagonal pyramid, base 30 mm edge and axis 50 mm long, having its base on the HP and an edge of the base parallel to the VP. Also draw its side view. (20)

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4. A hexagonal prism, base 40 mm side and height 40 mm has a hole of 40 mm diameter drilled centrally through its ends. Draw the projections when it is resting on one of its corners on the HP, with its axis inclined at 60° to the HP and two of its faces parallel to the VP. (20)

SECTION - C

5. A right hexagonal prism, side of base 25 mm and length of axis 72 mm, lies on one of its rectangular faces in HP, with its axis inclined at 30° to VP. A vertical sectional plane parallel to the VP cuts axis at a distance of 6 mm from the end face away from the VP. Draw its top view and sectional front view. (20)
6. Draw the isometric view of the frustum of a right regular hexagonal pyramid, side of base hexagon is 20 mm, side of top hexagon is 10 mm and the height of frustum 40 mm. (20)

SECTION - D

7. A right circular cone of diameter 50 mm and 60 mm long, resting on its base on the ground is cut by a sectional plane inclined at an angle of 45° to HP and bisecting the axis of the cone. Draw the development of the truncated cone and the sectional top view. (20)
8. A square prism, edge of base 30 mm and height of 60 mm, resting on its base in HP. It is penetrated completely by another square prism, edge of base 20 mm and 70 mm long, such that axes of two prisms bisect each other at right angles and faces of both prisms are equally inclined to VP. Draw the projections of the solids showing lines of intersection. (20)

SECTION - E

9. (i) List the various types of lines.
(ii) List the various types of scales.

- (iii) Differentiate between the first and third and second angle projection.
- (iv) Draw the various regular polyhedral by free hand drawing.
- (v) Define the right solid, oblique solid and regular solid.
- (vi) What do you mean by apparent section?
- (vii) Explain in brief various methods of Projections.
- (viii) What do you mean by the development of surfaces?
- (ix) What are various surfaces?
- (x) Explain the use of intersection of surfaces in practical uses.
(2×10=20)