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Question Paper Code : 31007

B.E./B.Tech. DEGREE EXAMINATION, AUGUST 2021

First Semester

Mechanical Engineering

01UME107 – ENGINEERING GRAPHICS

(Common to CSE and EEE branches)

(Regulation 2013)

Duration: 1:45 hour

Maximum: 50 Marks

PART A - (10 x 2 = 20 Marks)

(Answer any ten of the following questions)

1. In 1st angle projection the object is kept in _____.
(a) First Quadrant (b) Second Quadrant (c) Third Quadrant (d) Fourth Quadrant
2. Hatching lines are drawn at ____ degree to reference line.
3. The minimum number of orthographic view required to represent a solid on a flat surface is _____.
4. Front view of a cube resting on HP on one of its faces, and another face parallel of VP, is _____ .
5. To find the true shape of the section, it must be projected on a plane parallel to the _____ plane.
6. A cylinder is placed on H.P on its base and section plane is parallel to V.P cutting the solid the section gives _____.
7. The development of the surface of a cube consists of ____ equal squares
8. The development of cylinder is a _____ .
- 9.. Explain six standard views?
10. The intersection of two plane surfaces produces an?
- 11 Define circumference
- 12 Define angle of inclination
- 13 Explain front view with example

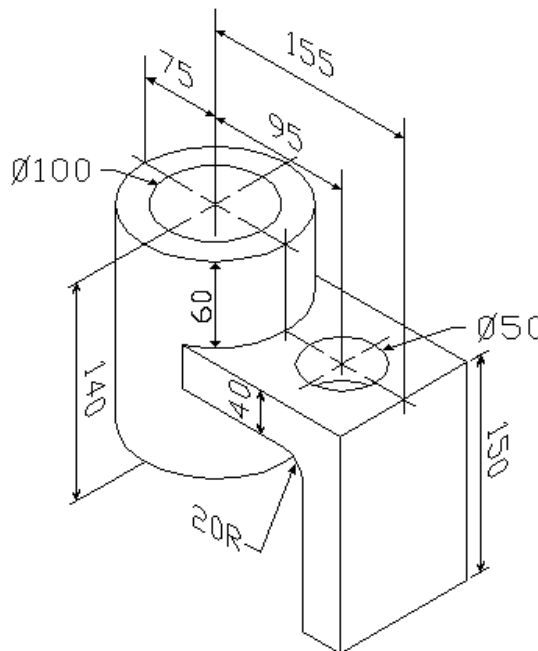
- 14 Explain top view with example
- 15 Explain about free hand sketching

PART – B (3 x 10= 30 Marks)

(Answer any three of the following questions)

16. Sketch by free hand, the following views of the object shown in Figure 1. The dimensioning is also to be made by free hand. CO1- App (10)

- (1) the front view in the direction of the arrow
- (2) the top view
- (3) the right side view



17. A regular hexagonal lamina of 35 mm sides has one edge in HP and inclined at an angle of 30° to VP. Draw its projection when its surface is inclined at 45° to HP. CO2- App (10)
18. A hexagonal prism of base side 30 mm and axis 60 mm long is rest on HP on one of its base edge and its axis is inclined at 50° to the HP and parallel to VP. Draw its front and top views CO3- App (10)
19. A pentagonal pyramid of base side 26 mm and altitude 52 mm is resting on H.P on its base with one of its base sides is perpendicular to V.P. It is cut by a plane inclined at 45° to H.P and perpendicular to V.P and is bisecting the axis. Draw the front view, sectional top view and true shape of the section. CO4- App (10)
20. A flower vase is in the form of a frustum of a pentagonal pyramid, base 24 cm and top 40 cm side. Draw the isometric view CO5- App (10)

of the flower vase, if the height is 54 cm .