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Question Paper Code:R1709

B.E./B.Tech. DEGREE EXAMINATION, APRIL 2024

First Semester

Computer Science and Engineering

R21UME109 – ENGINEERING GRAPHICS

(Common to ALL branches)

(Regulations R2021)

Duration :Three hours

Maximum:100Marks

PART A- (5x20 =100 Marks)

Answer All Questions

1. (a) A pentagonal prism of base side 35mm, axis height 60mm is resting on HP on one of its base edges with its axis inclined at 45° to HP and parallel to VP. Draw the projections of the prism. CO2-App (20)

Or

- (b) A hexagonal pyramid of base side 30mm, altitude 70mm is resting on HP on one of its base corners with its axis inclined at 55° to HP and parallel to VP. Draw the projections of the prism. CO2-App (20)

2. (a) A hexagonal prism of base side 30mm and axis 65mm rests on HP on its base with two base edges parallel to VP. It is cut by a plane inclined at 40° to HP and cutting the axis of the prism at 20mm from the top. Draw the sectional top view, front view and true shape of the section. CO3-App (20)

Or

- (b) A Square pyramid side of base 25mm and axis 55mm long rests with its base on HP such that two of its sides are equally inclined to VP. It is cut by a sectional plane Perpendicular to VP, inclined at 45° to HP and passing through the pyramid at a distance of 25 mm from the apex. Draw the sectional front view, top view and true shape of the section. CO3-App (20)

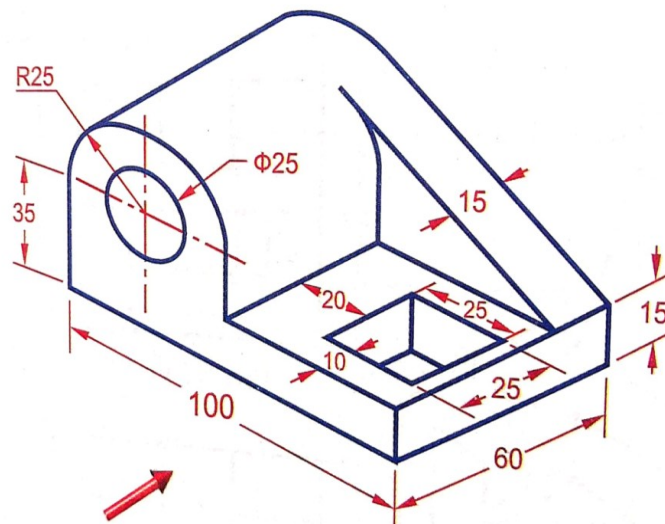
3. (a) A Pentagonal Prism of base 30 mm and Height 65 mm stands with its base on HP such that one of the base edges is parallel to VP. It is cut by a sectional plane perpendicular to the VP and inclined at 45° to HP and bisecting the axis. Draw the development of the surface of the cut solid. CO4-App (20)

Or

- (b) A square pyramid, with side of base 30 mm and axis 60 mm long, is resting on its base on HP with an edge of the base parallel to VP. It is cut by a section plane, perpendicular to VP and inclined at 30° to HP. The section plane is passing through the mid-point of the axis. Draw the development of lateral surface of the pyramid. CO4-App (20)
4. (a) A square pyramid of base side 35 mm and axis height 75 mm resting on HP with its base parallel to VP. It is cut by a cutting plane inclined at 35° to HP and bisecting the axis. Draw the isometric view. CO5-App (20)

Or

- (b) A cylinder of base diameter 40 mm and height 60 mm resting on HP with its base. It is cut by a cutting plane, perpendicular to VP and inclined to HP at 30° and meeting the axis at 20 mm from the top end. Draw the isometric view of the truncated solid. CO5-App (20)
5. (a) Draw the three orthographic views for the following figure. CO6-App (20)



Or

- (b) Draw the front view, top view and right side view of the machine CO6-App (20)
element shown in figure.

