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Question Paper Code:R1709

B.E./B.Tech. DEGREE EXAMINATION, NOV 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 cone base 50mm diameter and 70mm height has its axis parallel to VP and inclined at 35° to HP. Draw its projections. CO2-App (20)

Or

- (b) A Square pyramid base side 45 mm and height 75 mm is resting on one of its base sides on HP. Its axis is inclined at 30° to HP and parallel to VP. Draw its Projections. CO2-App (20)

2. (a) A Pentagonal Prism of base side 30 mm and axis length 60 mm resting on HP with one of its vertical face is perpendicular to VP. It is cut by a plane Inclined at 35° to HP and parallel to VP and passing through a point at a distance 12 mm from the top. Draw its sectional front view, top View and true shape of the section. CO3-App (20)

Or

- (b) A triangular pyramid of side 40mm and axis 70 mm long is resting on HP with one of edges perpendicular to VP. It is cut by a sectional plane perpendicular to VP and inclined to HP at 45° from apex 32mm. Draw its sectional front view, top View and true shape of the section. CO3-App (20)

3. (a) A cube of side 35 mm rests on its base on the HP with a vertical face inclined at 25° to the VP. It is cut by a plane perpendicular to VP and inclined at 50° to HP. The plane bisects the axis of the cube. Draw the development of the surfaces of the right portion of the cut cube. CO4-App (20)

Or

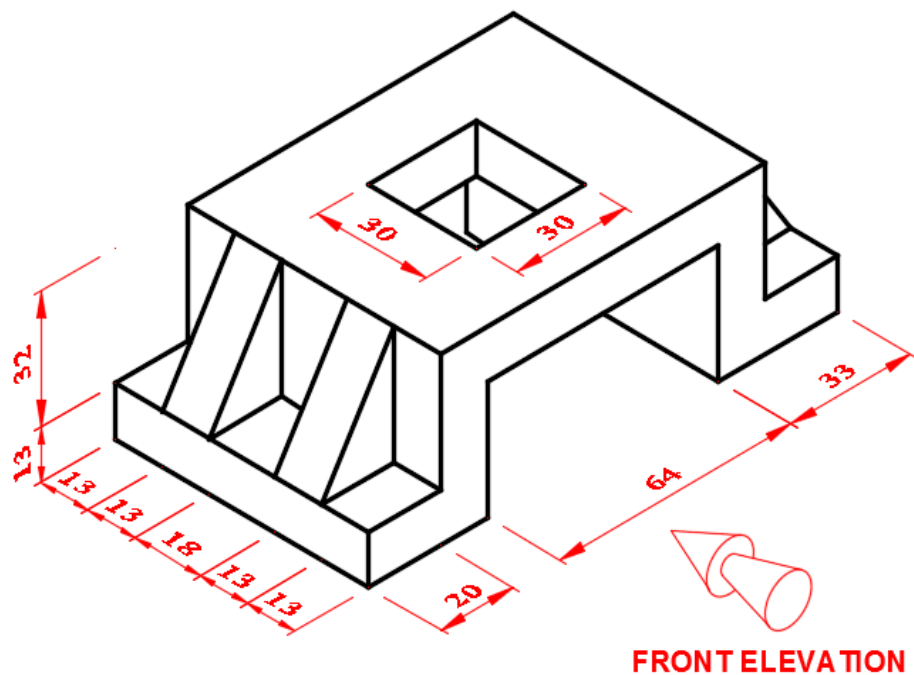
- (b) A Pentagonal Pyramid of base 25 mm and Height 65 mm stands with its base on HP such that one of the base edges is parallel to VP. It is cut by a sectional plane Perpendicular to the VP and inclined at 30° to HP, bisecting the axis. Draw the development of the surface of the cut solid. CO4-App (20)

4. (a) Draw the Isometric view of a cone of base 55 mm diameter and 70 mm height when it rests with its base on HP. CO5-App (20)

Or

- (b) A hexagonal prism of base side 30mm and axis 60mm is resting on HP on one of its bases with two of the vertical faces perpendicular to VP. It is cut by a plane inclined at 30° to HP and perpendicular to VP passing the axis at a distance of 20mm from the top surface. Draw the isometric view of the truncated prism. CO5-App (20)

5. (a) Draw three views of the blocks shown pictorially in figure according to first angle projection. 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.

