Reg. No.: | | | | | | | | | | | |

Question Paper Code: R1709

B.E./B.Tech. DEGREE EXAMINATION, NOV/DEC 2024

First Semester

Computer Science and Engineering

R21UME109–ENGINEERING GRAPHICS

(Common to EEE, ECE, MECH,IT, Chemical, AGRI, CSE(SC) &

CSE (IoT) branches)

(Regulations R2021)

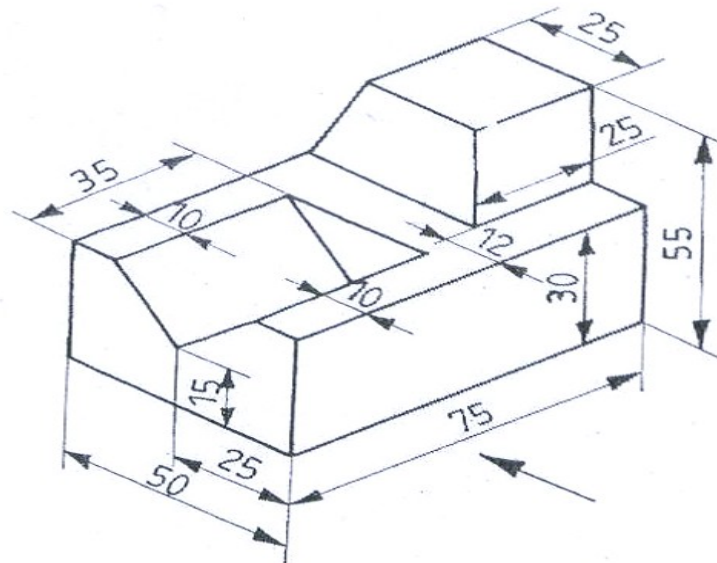Duration: Three hours   Maximum:100 Marks

PART A- (5x20 =100 Marks)

Answer All Questions

1. (a) A Cylinder of diameter 40 mm and height 60 mm is resting on   CO2-App   (20)
         ground on a base. It is then tilted such that its axis makes an angle
         of 40^0 with HP and parallel to VP. Draw the Projections.

                                   Or

    (b) A Cone of base diameter 45 mm, axis length 70 mm is resting on   CO2-App   (20)
         HP on one of its base points with its axis inclined at 40^0 to HP and
         parallel to VP. Draw the Projections.

2. (a) A square pyramid of base 30mm and height 55mm long rests with   CO2-App   (20)
         its base on HP such that two of the edges equally inclined to VP. It
         is cut by a section plane perpendicular to VP, inclined at 45° to HP
         and passing through the axis 25 mm from the apex. Draw the
         elevation, sectional plan and the true shape of section.

                                   Or

    (b) A triangular pyramid of side 40mm and axis 60mm long resting   CO2-App   (20)
         on HP with one of the edges is perpendicular to VP. It is cut by a
         sectional plane perpendicular to VP and inclined at 45° to HP and
         passing through the axis 30 mm from the vertex. Draw the
         sectional Top view, Front view and true shape of the section.

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3. (a) A triangular prism of base side 40 mm and height of 70 mm,   CO3-App (20)
sectioned by a plane, bisecting the axis of the prism and inclined
at 35° to HP. Draw the lateral surface of the development.

<div align="center">Or</div>

(b) A cone of diameter 45 mm and height 70 mm is cut by a plane   CO3-App (20)
perpendicular to VP and 30^0 to HP and bisecting the axis. Draw the
development of the lateral surface of the cone.

4. (a) Draw the Isometric view of a cylinder of base 50 mm diameter and   CO4-App (20)
70 mm height when its rests with its base on HP.

<div align="center">Or</div>

(b) A Hexagonal pyramid of base side 35mm and height 70mm rests   CO4-App (20)
on its base on HP with two of its base edges are perpendicular to
VP. It is cut by a plane perpendicular to VP and inclined at 40° to
HP, meeting the axis at a point 35 mm above the base of the
pyramid. Draw the isometric view of the truncated pyramid.

5. (a) Draw three views of the blocks shown pictorially in figure according   CO5-App (20)
to first angle projection. All dimensions are in mm.

<div align="center">Or</div>

<div align="right">**R1709**</div>

(b) Draw the three principal views of the component shown in the CO5-App (20)
Figure. All dimensions are in mm.

FRONT ELEVATION