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Question Paper Code: 41107

B.E./B.Tech. DEGREE EXAMINATION, DECEMBER 2014.

First Semester

Computer Science and Engineering

14UME107 – ENGINEERING GRAPHICS

(Common to EEE and ECE branches)

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

(5 x 20 = 100 Marks)

1. (a) A line PQ has its end P 25 mm above the HP and 20 mm in front of the VP and the other end Q 50 mm above the HP and 45 mm in front of the VP. The length of the top view is 55 mm. Draw the projections and find its true length and its inclinations. (20)

Or

- (b) A square lamina ABCD of side 40 mm rests on the ground on its corner A in such a way that the diagonal AC is inclined at 45° to the HP and apparently inclined at 30° to the VP. Draw the projections. (20)

2. (a) A cone of diameter 40 mm and axis 70 mm resting on HP one of its generators with the axis is parallel to VP. Draw the projections. (20)

Or

- (b) A cube of side 40 mm resting on one of its edges on the HP. Draw the projections of cube when the diagonal is perpendicular to VP. (20)

3. (a) A pentagonal pyramid of base 35 mm and height 60 mm, rests with its base on the HP such that one of its base edges is perpendicular to the VP. A section plane inclined at 45° to the HP and perpendicular to the VP cuts the pyramid

through its axis at 25 mm from the apex. Draw the sectional views and true shape of the section. (20)

Or

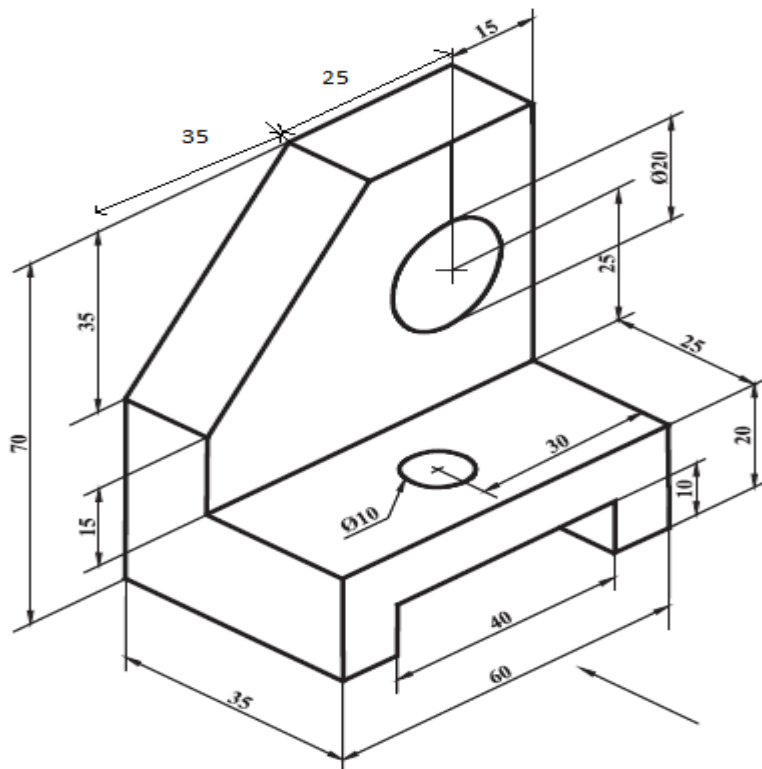
(b) A hexagonal prism is placed on the HP such that one of the edges of its base is parallel to the VP. The height of the prism is 50 mm and its base edge is 30 mm. A cutting plane inclined at 45° to the HP, passes through one of the corners at the top face of the prism. Draw the lateral development of the prism below the cutting plane. (20)

4. (a) Draw the isometric view of a frustum of a hexagonal pyramid of base side 25 mm and top side 10 mm and height 50 mm rests on its base on the HP with two of its base edges parallel to the VP. (20)

Or

(b) A cylinder of diameter 60 mm and axis 80 mm stands on HP. A sectional plane inclined at 50° to HP cuts the solid at 50 mm from the base on the axis. Draw the isometric view of the truncated cylinder and show the cut surface. (20)

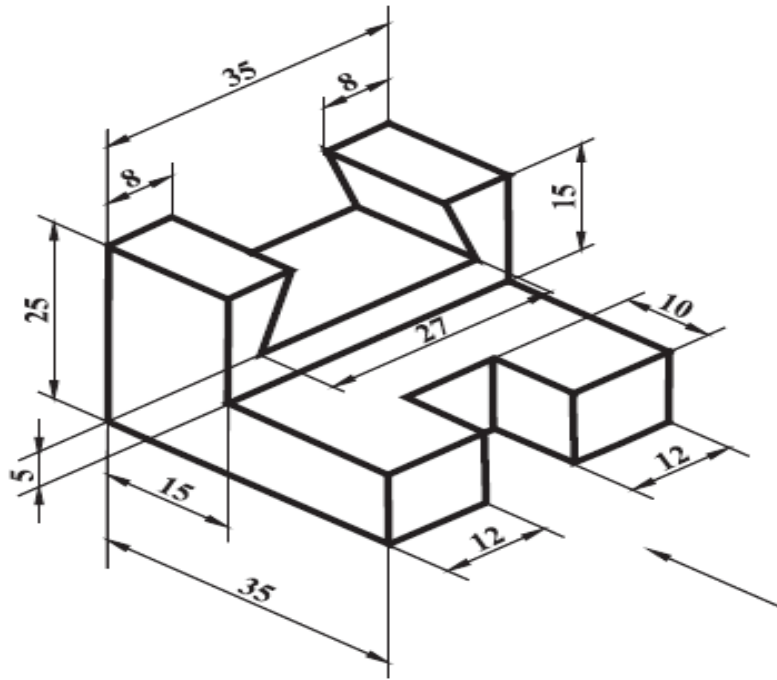
5. (a) Draw the plan, elevation and side of the following object. All dimensions are in mm.



(20)

Or

- (b) Draw the plan, elevation and side of the following object. All dimensions are in mm.



(20)
