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**R18**

Code No: 152AG

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech I Year II Semester Examinations, November/December - 2020

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**ENGINEERING GRAPHICS**

(Electrical and Electronics Engineering)

Time: 2 hours

Max. Marks: 75

Answer any three questions  
All questions carry equal marks

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AG 1. Construct a hyperbola when the distance between the focus and directrix is 45 mm and eccentricity is  $5/4$ . Also draw the tangent and normal to any point on the curve. [25] A

2. A pentagonal lamina of side 30 mm rests on one of its corner on H.P. the edge opposite to resting corner is inclined at  $45^\circ$  to V.P. The surface of the lamina is inclined to H.P. such that the edge opposite to the resting corner is 35 mm above H.P. Draw its projection. [25]

AG 3. A right pentagonal pyramid of side 30 mm and altitude 60 mm rests on one of its edges of the base in the HP. The base is being tilted up such that the apex is 50 mm above HP. Draw the projection of the pyramid when the edge on which it is resting is perpendicular to V.P. [25] A

AG 4. A hexagonal pyramid of base side 30 mm and axis height 60 mm is resting on its base on HP with two of the base edges parallel to VP. It is cut by a plane perpendicular to VP, inclined  $30^\circ$  to HP and bisects the axis of the pyramid. Draw the development of the lateral surfaces of the lower portion of the pyramid. [25] A

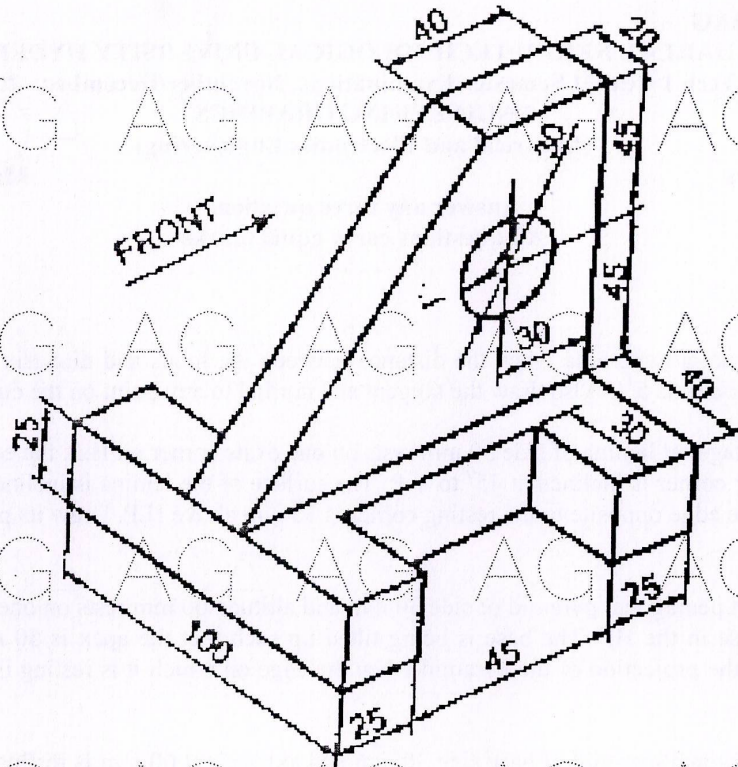
AG 5. A square prism 30 mm base sides and 70 mm axis is completely penetrated by another square prism of 25 mm sides and 70 mm axis, horizontally. Both axes intersect and bisect each other. All faces of prisms are equally inclined to VP. Draw projections showing curves of intersections. [25] A

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6. Draw the front and top view of the given figure. All dimensions are in mm. [10+15]



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