

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
B.Tech examinations (S) September 2020 S1/S2 (2015 Scheme)

Course Code: BE110

Course Name: ENGINEERING GRAPHICS

Max. Marks: 50

Duration: 3 Hours

PART A

Answer any two questions, each carries 10 marks.

Marks

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| 1 | The point A of a line AB is in HP and 60mm in front of VP, the point B is in VP and 40mm above HP. The distance between projectors is 70mm. Draw the projections of the line, find the true length, inclinations and locate the traces. | (10) |
| 2 | A straight line AB measuring 120 mm long has its vertical trace 80mm above xy- line and the HT 100 mm below the xy- line. The projectors through the HT and VT are 110 mm apart. If the point A is 10 mm above HP, draw the projections of AB and find its true inclinations with respect to HP and VP. | (10) |
| 3 | Draw the projections of a cylinder rests on HP which has 60mm diameter and 70mm height, if the base face makes an angle 45° to HP and top view of axis makes 30° to VP. | (10) |

PART B

Answer any three questions, each carries 10 marks.

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| 4 | Draw the isometric view of the frustum of a cone with 60mm base diameter and 40mm top diameter and 70mm height resting on its base on the HP. | (10) |
| 5 | A pentagonal pyramid of base side 30 mm and axis 60 mm is resting on its base on the H.P. with an edge of the base nearer the VP, parallel to it. A vertical section plane inclined at 45° to the VP, cuts the pyramid at a distance of 8 mm from the axis. Draw its sectional front view, top view and true shape of the section. | (10) |
| 6 | A square pyramid with 30 mm side of base and 50 mm long axis is resting on its base such that all the sides of the base are equally inclined to the V.P. It is cut by a section plane perpendicular to V.P. and inclined at 60° to H.P. The section plane is passing through the mid-point of the axis. Draw the development of bottom portion of the cut pyramid. | (10) |
| 7 | A square prism of base edge 35mm and axis height 65mm is completely penetrated by a horizontal square prism of base edge 25mm and axis length 75mm. The axes of the two prisms are bisecting each other at right angles to each other and the faces of the prisms are equally inclined to the vertical plane. Draw the projection of the prisms showing the lines of intersection. | (10) |
| 8 | A hexagonal pyramid of height 60mm and base edge 35mm is resting on its base with one base edge parallel and 15mm behind PP. The station point is 20mm in front of PP, 38mm to the right of the axis and 70mm above GP. Draw the perspective view. | (10) |
