

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
FIRST/SECOND SEMESTER B.TECH DEGREE EXAMINATION, JULY 2018

Course Code: BE110

Course Name: ENGINEERING GRAPHICS

Max. Marks: 50

Duration: 3 Hours

PART A

Answer any two questions, each carries 10 marks

Marks

- 1 A line PQ 108mm long has its plan and elevation lengths 60 mm and 90 mm respectively. One end of the line P is in HP while the other end is in VP. Draw its projections and locate the traces. (10)
- 2 A room measures 8m long, 5m wide and 4m high. An electric point hangs in the centre of the ceiling and 1m below it. A thin straight wire connects the electric point to a switch kept in one of the corners of the room and 2m above the floor. Draw the projections of the wire. Find the true length and the slope of angle of the wire with the floor. (10)
- 3 A hexagonal pyramid of base side 30 mm, axis length 60 mm is resting on HP on one of its triangular faces with its axis parallel to VP. Draw its projections. (10)

PART B

Answer any three questions, each carries 10 marks

- 4 A right circular cone, 60 mm of base diameter and 80 mm altitude is resting with its base on the HP and is cut by a plane parallel to one of its generators and bisecting the axis. Draw the true shape of the section. Name the curve obtained. (10)
- 5 A horizontal cylinder 40 mm diameter and axis length 75 mm centrally penetrates a vertical cylinder 50 mm as base diameter. Draw the plan and elevation, showing curves of intersection. Assume the axis of the horizontal cylinder is parallel to VP. (10)
- 6 Draw the isometric view of a frustum of a square pyramid with its base on the ground. The base side = 70 mm. The side length at the top is 30 mm. The height = 70 mm. (10)
- 7 A square prism of base 3 cm x 3 cm and height 6 cm stands on GP with the edge of base making 45° with PP. The nearest corner is 3 cm to the right of station point and 3 cm behind the PP. The station point is 5 cm above the GP and 10 cm in front of the PP. Draw the perspective view of the square prism. (10)
- 8 Draw the development of the lower portion of a cylinder of diameter 50 mm and axis 70 mm when sectioned by a plane inclined at 40° to HP and perpendicular to VP and bisecting the axis. (10)
