**CE101 Engineering Drawing July- Nov 2019**

**Indian Institute of Technology Guwahati**

**Lab Sheet-9 Development of Surfaces Thursday Morning**

**Full Marks: 100 Date:24.10.2019**

1. Draw the development of the complete surface of a rectangular prism of base 25 mm ×50 mm and 70 mm height respectively with its FV &TV. (15 Marks)
2. A cylinder of base diameter 50 mm and axis 70 mm with its base perpendicular and axis parallel to the HP. It is cut by a section plane perpendicular to the HP, inclined at 45°to the VP. Section plane passes through the farthest end of a generator from VP and cutting all the other generators. Draw the development of lateral surface of the cylinder. (35 Marks)
3. A frustum of a cone with an 80 mm base diameter, 40 mm top diameter and 60 mm height is resting on its base on the HP. A thread is wound around the curve surface of the cone starting from the point on the base nearest to the observer. The thread after taking a turn around the cone returns to the initial point. Find out the minimum possible length of the thread and show its projection on FV and TV. (50 Marks)