FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA SCHOOL OF SCIENCE AND TECHNOLOGY EDUCATION DEPARTMENT OF INDUSTRIAL AND TECHNOLOGY EDUCATION FIRST SEMESTER EXAMINATION 2020/2021 SESSION

Course Code: ITE312 Course Title: Engineering Drawing I
Instruction: Answer question one and any other Two (2)
Time: 2 hours

- 1. The drawing in figure 1 shows a lever drawn in first angle projection with the parts fully assembled. Draw:
 - a. Sectional front view on the cutting plane D-D
 - b. The plan
 - c. End elevation
 - 2. The elevation of a truncated cylinder is shown in figure 2.
 - a. Draw full size of a given view
 - b. Produce the pattern development of the cylinder
 - 3. The front and end elevations of a cylinder are shown in figure 3.
 - a. Draw the given views
 - b. Draw an auxiliary plan looking in the direction of the arrow
 - 4. A plate cam rotating clockwise is to give an in-line point follower, the following motion 0^{0} 120^{0} lift 32mm with uniform velocity

 $120^{0} - 180^{0}$ dwell

180° - 360° fall 32mm with simple harmonic motion.

Draw the Cam profile if the minimum Cam radius is 38mm and the Camshaft diameter of 24mm

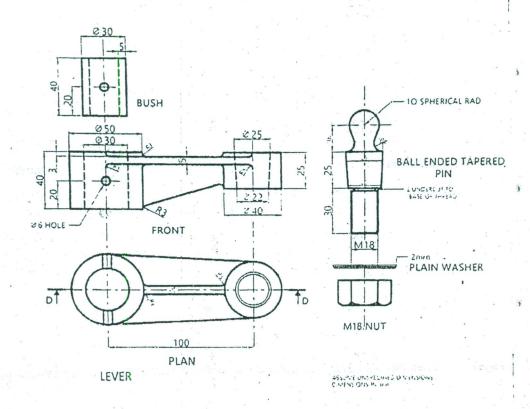


Figure 1