Foundation in Natural and Built Environment
MATHEMATICS (MATH0103)
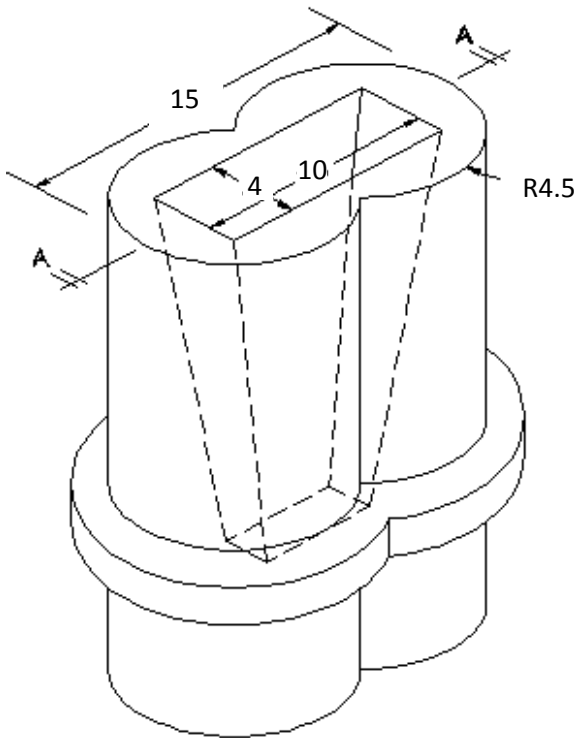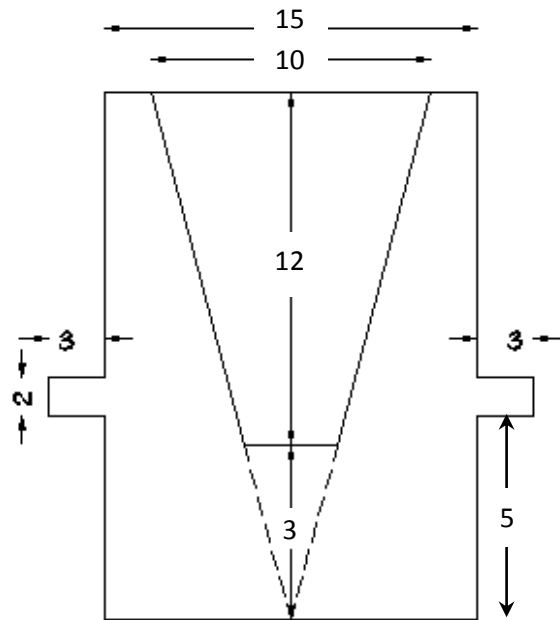**Exercise - Surface Area and Volume**

FIGURE 1   SECTION A-A

All unit in cm.

Figure 1 shows an object formed by two cylinders and a pyramidal frustum void at the center of the cylinders. Working in a group, complete all tasks as stated below.

1. Draw all **surface area** of the object to scale on A3 sized card board (thickness should be about manila card). You are required to show all dimension clearly. (Scan and save the drawings in PDF or image format).
2. Calculate total **surface area and volume** of the object. Calculation should be done on foolscap paper (not A3 papers on which you draw the surface area) and must be clear and tidy. (Scan and save the calculation in PDF or image format).
3. Construct the above object from the surface area you draw in part 1. (The workmanship of the model is important!!!)
4. Each of the members is required to upload the drawings, calculation and images of the model to their e-portfolio. Briefly explain this exercise and what you have done in this exercise. You are required to write a reflective essay on this exercise, particularly what are the TGC you have learnt.