1. List three main elements of an FRL unit used in pneumatics

**Answer:**
- a) Air filter
- b) Air lubricator
- c) Air regulator

2. List three functions of air filter

**Answer**
- a) To prevent entrance of solid contaminants to the system
- b) To condensate and remove the water vapour that is present in the air passing through it
- c) To arrest any submicron particles that may pose a problem in system components

3. Draw characteristic curves of pressure drop versus flow for air filter.

**Answer**

![Characteristic curves of pressure drop versus flow for air filter](image)

4. List three sources of contamination

**Answer:**
- a) The quality of air being drawn into the compressor
- b) The type and operation of the air compressor:
c) Compressed air storage devices and distribution systems:

Additionally, piping and air receivers will also cool the moist compressed air forming condensate which causes damage and corrosion.

5. Draw the simplified symbol of FRL unit.

Answer: