CaYPT 2020 Problem Safety Guideline for Instructors

| Problem A. Inconspicuous Bottle | ● Instructors should ensure that the students work area is free of flammable materials.  
● The lit candle is an open flame. The soot and smoke maybe activate fire alarms  
● Instructors should ensure that the students wear proper personal protective equipment (PPE) in case a glass bottle breaks |
| Problem B. Sweet Mirage | ● Sugar water may cause unwanted microbial life to grow.  
● The instructor should check the source of the laser pointer. Red lasers are often lower powered than green or blue ones.  
● The instructor should advise the students to secure a laser beam.  
● If the laser is powerful, laser safety goggles may be required. |
| Problem C. Conducting Lines | ● Students should be warned that the tip of multimeter probes can be very sharp.  
● Incorrect wiring of the multimeter maybe result in a blown fuse |
| Problem D. Falling Tower | ● Fast moving disks may cause injuries.  
● Instructors should ensure that the students have enough space to work on this problem. Students should wear the appropriate PPE. |
| Problem E. Playing Card | ● Fast moving cards may cause injuries.  
● Instructors should ensure that the students have enough space to work on this problem. Students should wear the appropriate PPE. |
| Problem F. Swinging Sound Tube | ● Fast moving tube may cause injuries.  
● If the student is swinging the tube by hand, make sure that the tube does not fly out in case the student accidentally loses grip. A loop of wire around the hand is advised. |
<p>| Problem G. Saxon Bowl | ● The construction of the saxon bowl may require power tools. The students should wear the appropriate PPE. |
| Problem H. Magnetic Levitation | ● Many magnetic stirrers has a hot plate built in. |</p>
<table>
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| Problem I. Friction Oscillator | - Strong magnets can pinch the skin  
    - Fast rotating devices may catch loose hair  
    - Long hair should be tied back  
    - Low power motors should be used |
| Problem J. Nitinol Wire | - Hot water may cause burns  
    - Sharp metal wire can spring back fast and cause cuts |