Part I: Answer the following multiple choice questions. (1 pt each)

1. The diagram below represents a thermometer that is inside an incubator. A student needs to incubate a bacterial culture at 43 degrees Celsius. According to the reading on the thermometer, how many degrees must the temperature in the incubator be increased in order to reach this temperature?

   a) 9
   b) 6
   c) 3
   d) 12

2. Zebra finches are small black-and-white birds that lay eggs about the size of a bean seed. Which unit of measurement is best for accurately measuring the length of these eggs?

   a) millimeters
   b) micrometers
   c) feet
   d) meters

3. A student needs 22 milliliters of water for an experiment. How much additional water must the student add to the graduated cylinder shown below to reach 22 milliliters?

   a) 7 mL
   b) 8 mL
   c) 9 mL
   d) 10 mL

4. A diagram of the actual size of a peppered moth wingspan is shown below.

   An estimated length of the wingspan could be

   A. 3 centimeters   B. 3 grams   C. 3 milliliters   D. 3 kilometers
5. Base your answer to the following question on the diagram below.

The difference between leaves A and B is closest to
a) 20 mm  
b) 20 cm  
c) 2 m  
d) 4 cm

6. The diagram below represents the measurement of a biological specimen. What is the approximate length of the specimen in millimeters?

a) 30 mm  
b) 40 mm  
c) 25 mm  
d) 35 mm

7. What is the approximate length of section “A” labeled on the earthworm below.

a) 9 cm  
b) 90 mm  
c) 4 cm  
d) 50 mm
8. Which of these pictures shows the correct way to pick up a heated test tube?

a)

b)

c)

d)

9. Approved eye protection devices, such as goggles, are worn in the laboratory

   a) to avoid eye strain
   b) to improve your vision
   c) only if you do not have glasses
   d) any time chemicals, heat, or glassware are used

10. If you do not understand a direction or part of a laboratory procedure, you should
    a) figure it out as you do the lab
    b) try several methods until something works
    c) ask the teacher before proceeding
    d) skip it and move on to the next part

**Part II: Answer the following short answer questions in the spaces provided.**

11. A student, using a metric ruler, measured a larva as represented in the diagram below.

![Diagram of a larva with a metric ruler]

What is the length of the larva, in millimeters? (1 pt)

______ mm

12. Describe two unsafe laboratory practices represented by the diagram below. (2 pts)

1. __________________________________________________

2. __________________________________________________

__________________________________________________

__________________________________________________

__________________________________________________
13. Name 3 pieces of safety equipment that are located in the classroom in case of an emergency (3 pts)

1. _______________________________________
2. _______________________________________
3. _______________________________________

Part III: Match the following functions and diagrams to the corresponding lab tool.

<table>
<thead>
<tr>
<th>Diagram/Function</th>
<th>Lab Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Beaker Diagram]</td>
<td>A) Petri Dish</td>
</tr>
<tr>
<td>![Compound Microscope Diagram]</td>
<td>B) Erlenmeyer Flask</td>
</tr>
<tr>
<td>![Graduated Cylinder Diagram]</td>
<td>C) Graduated Cylinder</td>
</tr>
<tr>
<td>![Safety Goggles Diagram]</td>
<td>D) Safety Goggles</td>
</tr>
<tr>
<td>![Dropper Diagram]</td>
<td>E) Dropper</td>
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<tr>
<td>![Beaker Diagram]</td>
<td>F) Beaker</td>
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<tr>
<td>![Cover Slip Diagram]</td>
<td>G) Cover Slip</td>
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<tr>
<td>![Forceps Diagram]</td>
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