

### 1.4.1 Tools of a Biologist

#### Part Two

##### Answer the following questions as True / False

1. A hand lens provides higher magnification than the naked eye.
2. Resolution refers to the ability of a microscope to enlarge an image.
3. A microscope is the most important tool for a biologist.
4. A compound light microscope uses a single lens to magnify objects.
5. A monocular compound microscope has one eyepiece.
6. An electron microscope uses beams of light and glass lenses.
7. Viruses can be studied with an electron microscope.
8. Glass slides are used to support specimens during microscope observation.
9. Cover slips prevent specimens from drying and protect the microscope lens.
10. An autoclave sterilizes materials using ultraviolet light.
11. An incubator is used to maintain the best temperature for microbial growth.
12. Petri dishes are flat, round containers used with agar for culturing microorganisms.

**13.** Culture tubes can only be used with solid media.

**14.** A dropper is used for measuring the weight of specimens.

**15.** Tongs are used to lift hot laboratory equipment such as beakers or flasks.

**Fill in the Blank spaces with the correct answers**

1. A ..... is used to enlarge an image of an object but is not sufficient to study cell details.
2. The main functions of a microscope are ..... And .....
3. A ..... microscope uses a beam of light to view specimens.
4. A microscope that uses a beam of electrons and electromagnets instead of glass lenses is called an ..... microscope.
5. A ..... light microscope consists of a single lens.
6. A ..... light microscope consists of two or more lenses and magnifies up to 2000x.
7. A compound microscope with one eyepiece is called ....., while with two eyepieces it is called .....
8. Glass..... are used to support specimens being examined under the microscope.
9. Small square or circular thin glass sheets used to cover specimens are

called **cover** .....

10. An ..... sterilizes materials using high temperature and pressurized steam.
11. An ..... is used to maintain the best temperature for culturing microorganisms.
12. Flat dishes used with agar for culturing microorganisms are called.....
13. ..... tubes are used to culture microorganisms in solid or liquid media.
14. A ..... has a flat bottom and narrow neck, useful for mixing and heating solutions.
15. ..... are metallic instruments shaped like scissors, used for lifting hot objects.