

**I. Answer the following:****1 X 15 = 15**

1. Name the type of friction a wheel has with the surface on which it is moving.
2. What are sounds of frequency below 20 Hz called as?
3. Name the particles in cytoplasm responsible for manufacture of proteins
4. Name the force exerted by electrically charged objects.
5. What is cell wall of a plant cell made up of?
6. Name the angle made by incident ray with the normal at the point of incidence.
7. Name a contact force.
8. State unit of loudness of sound.
9. Name the process by which new cells are formed.
10. Name a contact force.
11. Name one characteristic of vibrations.
12. What is arrangement of metals in decreasing order of their reactivity called as?
13. Name the non-metal used to fill balloons used for making meteorological observations.
14. Name the condition in which thyroid gland becomes enlarged.
15. What are materials that allow electricity to flow through them called as?

**II. Fill in the blanks:****1 X 10 = 10**

1. An iron pipe coated with \_\_\_\_\_ is called a galvanized pipe.
2. A group of similar cells that perform a particular function is a \_\_\_\_\_.
3. The unit of frequency is the \_\_\_\_\_.
4. Ball bearings reduce friction by replacing sliding friction with \_\_\_\_\_ friction.
5. The process used to purify metals is called \_\_\_\_\_.
6. The outer covering of a plant cell is called \_\_\_\_\_.
7. Reflection of light by smooth polished surface is \_\_\_\_\_ reflection.
8. Non-metals react with oxygen to produce acidic / \_\_\_\_\_ gas.
9. The kaleidoscope is based on the principle of \_\_\_\_\_ reflection.
10. Tap water conducts electricity because it has dissolved \_\_\_\_\_.

**III. Correct the following statement:****1 X 10 = 10**

1. Cations are attracted to the anode.
2. The angle of incident is greater than angle of reflection.
3. The absorption of sound waves by surfaces causes echoes.
4. Friction is greater when there are fewer irregularities on a surface.
5. Force does not have any effect on the shape of objects.
6. Menstruation takes place if egg is fertilized and implanted.
7. An organ consists of only one type of tissue

8. Testosterone is secreted by ovary.
9. Sodium and potassium are metals that can be drawn into wires.
10. Calcium is a non-metal.

**IV. Define the following terms:**

**1 X 10 = 10**

- |                   |                 |                |                    |
|-------------------|-----------------|----------------|--------------------|
| 1. Reflection     | 2. Electrolytes | 3. Time period | 4. Static friction |
| 5. Electroplating | 6. Menarche     | 7. Puberty     | 8. Target organs   |
| 9. Organelles     | 10. Corrosion   |                |                    |

**V. Short Answer Questions:**

**2 ½ X 8 = 20**

1. What is reactivity series of metals? State the rule that governs the displacement of a metal from its aqueous solution by another metal.
2. What is cell? How do cells multiply?
3. Why is pituitary gland called master gland? What are the hormones secreted by it?
4. How is pressure related to the area over which a force acts? State relation between pascal and newton.
5. State three ways of increasing friction. Explain how any two of the ways work.
6. What is an electrolytic cell? What does a typical electrolytic cell consist of?
7. How many images are formed, when 2 mirrors are placed at angles of  $90^{\circ}$  and  $60^{\circ}$ ?
8. State three characteristics of string instruments.

**VI. Long Answer Questions:**

**5 X 6 = 30**

1. State the functions of the following:  
Endoplasmic reticulum, mitochondrion, centrosome, vacuole, nuclear membrane
2. What are hormones? Why are they called ductless glands? Name two hormones produced by ovaries.
3. What is the nature of image formed by a plane mirror? With the help of diagram explain regular and irregular reflection.
4. How can you show that sound can travel through solids?
5. Describe an experiment to show the chemical effect of current
6. Define atmospheric pressure? Why is the pressure inside an aeroplane maintained at the normal ground level atmospheric pressure?

**VII. Draw the diagram of: (Any one)**

**5 X 1 = 5**

Manometer

OR

Locating an image using a ray diagram

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