



- iv. .... is known as water man of India .
- v. The splitting of light into its component colours is called...

**Q.3. Match the column -**

**5 Marks**

- | (A)                              | (B)               |
|----------------------------------|-------------------|
| i. Most reactive metal           | a. Darwin         |
| ii. Master gland                 | b. Ohm            |
| iii. Theory of natural selection | c. Potassium      |
| iv. Energy currency              | d. Pitutary gland |
| v. SI unit of resistance         | e. ATP            |

**Q.4. Write the Answers in one word /sentence each.**

**5 Marks**

- i. Name the sodium compound which is used for softening hard water.
- ii. Define blood pressure.
- iii. Name a mirror that can give an erect and enlarge image of an object.
- iv. Write periodic law of Mendeleev.
- v. Write full form of DNA.

**Q.5. Why Should a magnesium ribbon be cleaned before burning in air ?**

**2 Marks**

OR

Oil and fat containing food items are flushed with nitrogen why ?

**Q.6 Why noble gas are placed in a separate group in periodic table ?**

**2 Marks**

OR

An atom has electronic configuration 2,8,7

- a) What is the atomic number of this element ?
- b) To which of the following elements would it be chemically similar.

N (7) , F (9) , P (15) Ar ( 18 )

**Q.7. What are the function of testies .**

**2 Marks**

OR

What are the changes seen in girls at the time of puberty ?

**Q.8. What is heredity ?**

**2 Marks**

OR

Why are the small numbers of surviving tigers a cause of worry from the point of view of genetics ?

**Q.9. The radius of curvature of a spherical mirror is 20 cm .What is its focal length ?**

**2 Marks**

OR

Find the power of a concave lens of focal length 2 m.

Q.10. What is a balanced chemical equation ? Why should chemical equations be balanced 3 Marks

OR

Why are decomposition reactions called the opposite of combination reactions ? Write equations for these reaction

Q.11. Why does the sun appear reddish early in the morning ? 3 Marks

OR

Why does the sky appear dark instead of blue to an astronaut ?

Q.12. When does an electric short circuit occur 3 Marks

OR

What is the function of an earth wire ? why earthing necessary to electric metallic appliances.

Q.13. Write three differences between direct current and alternating current 3 Marks

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OR

State the Principle of an electric generator.

Q.14. Write three disadvantages of fossil fuel. 3 Marks

OR

Why we need alternate Source of energy.

Q.15. A milkman adds a very Small amount of baking soda to fresh milk.  
(a) Why does he shift the pH value of the fresh milk from 6 to slightly alkaline.  
(b) Why does this take a long time to set as curd ? 4 Marks

OR

(a) Why should curd and sour substances not to be kept in brass and Copper vessels?

(b) While diluting an acid, why is it recommended that the acid Should be added to Water and not water to be acid .

Q.16. Write IUPAC name and structural formula of first four hydrocarbon of alkane series . 4 Marks

OR

What is hydrogenation ? write its. industrial application.

Q.17 Write four differences between aerobic and anaerobic respiration. 4 Marks

OR

Write four differences between arteries and veins

Q.18 What is reflex action! Explain with example. 4 Marks

OR

Draw a well labeled diagram of human brain.

Q.19 On what factors does the resistance of a Conductor depend? write.  
OR  
4 Marks

Draw a schematic diagram of a circuit consisting of a battery of three cells of 2v each, a 5  $\Omega$  resistor, a 8  $\Omega$  resistor and a 12  $\Omega$  resistor, and a plug key, all connected in series.

Q.20 What are alloys ? Write names and one use of any four alloys. 5 Marks

OR

Write any five physical properties of metals

Q.21 How does the embryo get nourishment inside the mother's body ? Explain it  
OR  
5 Marks

Describe budding process in hydra with diagram

Q.22 a. Write the law's of refraction 5 Marks  
b. The refractive index of diamond is 2.42 what is the meaning of this Statement.

OR

- ( a) Why do we prefer a convex mirror as a rear view in vehicles ?  
(b) Write three differences between real and virtual image.