

# Remedial Assessment 2018

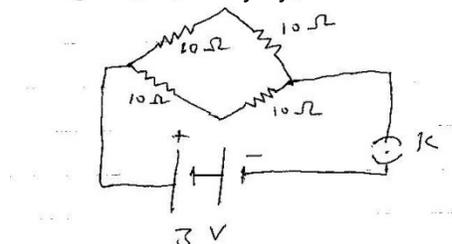
CLASS: 10

SUBJECT: SCIENCE

General Instruction: All questions are compulsory.

## SECTION – A (PHYSICS)

1. How is the direction of magnetic field at a point determined?
2. A current of 150 mA flows through a circuit for 2 minutes. Find the amount of charge that flows through the circuit?
3. A wire is pulled until its length is doubled. Compare the resistances.
4. Find the current drawn from the battery by network of four resistors shown in the figure



5. Draw a labelled diagram of bio – gas plant. Write two uses of bio – gas.
6. (i) What does it mean when we say that a circuit is short circuit.  
(ii) What is overloading of an electric circuit.
7. (a) Prove the formula of parallel combination of resistances.  
(b) A heater is rated 1000 w – 220v & It works for 4 hours and a T.V of 100 watt used for 6 hours in a day. Find the cost of electric bill @ ₹4.20 per unit.
8. (a) Show the image formation by using spherical mirror due to which it is used as shaving mirror.  
(b) An object of size 4 cm is placed 20cm. from the concave mirror of focal length 15cm. Find the position, nature and size of image.

### Practical Based Questions: (PBQ)

9. Name the device which indicate the given symbol write one function of the given symbol.



10. In the Ohm's law experiment. If ammeter read 50mA and voltmeter show 2 volte then what will be the value of resistances.

## SECTION – B (CHEMISTRY)

1. Hydrogen being a highly inflammable gas and oxygen being a supporter of combustion, yet water which is a compound made up of hydrogen and oxygen is used to extinguish fire. Why?
2. How is the concentration of hydroxide ions ( $\text{OH}^-$ ) affected when excess base is dissolved in a solution of sodium hydroxide?
3. Name a non metal which reacts neither with cold water nor with hot water, but reacts with steam to produce hydrogen gas. Write the balanced equation .
4. Select saturated hydrocarbons from the following :  
 $\text{C}_3\text{H}_8, \text{C}_4\text{H}_{10}, \text{C}_5\text{H}_{10}, \text{C}_2\text{H}_4, \text{C}_4\text{H}_6, \text{C}_6\text{H}_{10}$
5. Why do potato chips manufacturers fill the packet of chips with nitrogen gas?

6. State reasons for the following statements:
  - (a) During summer season, a milkman usually adds a very small amount of baking soda to fresh milk.
  - (b) For a dilution of acid, acid is added into water and not water into acid.
  - (c) Tap water conducts electricity where as distilled water does not.
7.
  - (a) Define an alloy. How are alloys prepared?
  - (b) Name an alloy of copper and tin? Give its one use.
  - (c) How do the properties of iron change when
    - (i) small quantity of carbon
    - (ii) nickel and chromium
 are mixed with it.
8. Draw the electron - dot structure of first member of alkane, alkene and alkyne series.
9.
  - (a) What do you mean by electrolytic refining ?
  - (b) With the help of a neat and labelled diagram describe the refining of impure copper.

**Practical Based Questions : (PBQ)**

10. Define the following chemical reactions and give one example of each:
  - (a) Displacement reaction
  - (b) Double displacement reaction
11. Hydrochloric acid is a strong acid while acetic acid is a weak acid. Why?

**SECTION – C (BIOLOGY )**

1. Why is energy required by an organism even during sleep?
2. Define the term puberty.
3. What are the importances of DNA copying in reproduction ?
4. What is a reflex arc? Draw a neat labelled diagram of the components in a reflex arc.
5.
  - (a) State the role of liver in the process of digestion inhuman being .
  - (b) Name the organ which performs the following functions in humans:
    - (i) Absorption of digested food
    - (ii) Absorption of water
6. Name and explain with the help of labelled diagram the process by which Hydra reproduces asexually.
7. Mrs.Kumar is pregnant for last three months and she goes for regular checkup to her doctor. During her last visit, the doctor asked Mrs.Kumar to get an ultrasound done .Both Mr. and Mrs.Kumar went to a radiologist and got the ultrasound done. Once the ultrasound is over, Mr.Kumar asked the doctor whether the baby in the womb is a boy or a girl .
  - (a) What should the doctor reply to the couple?
  - (b) Is it ethical to determine the sex of a child?
  - (c) What should government do to discourage sex determination?
8.
  - (a) With the help of labelled diagram describe an activity to demonstrate 'geotropism' in plants.
  - (b) How is shoot response different from root response .
9.
  - (a) Draw a neat diagram of excretory system of human beings and label the following :
    - (i) kidney
    - (ii) ureter
    - (iii) urinary bladder
    - (iv) urethra
  - (b) Name two excretory products other than  $O_2$  and  $CO_2$  in plants .

**Practical Based Questions : (PBQ)**

10. When a student observes a temporary mount of leaf peel under a microscope ,he observes two different types of cells in leaf peel .Name these two different types of cells. On what basis can a student differentiate between these two cells.
11. In the experiment ,to show that  $CO_2$  is given out during respiration ,why are germinating seeds taken in the experiment ?What would happen if germinating seeds are replaced by boiled seeds?