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**Section –A**

**I. Choose the correct answer.**

1. Which of the following is not a reversible change?
  - a. Dissolving salt in water
  - b. Melting of wax
  - c. Bending of wire
  - d. Burning of paper
  
2. A mixture of oil and water can be separated by-
  - a. Filtration and evaporation
  - b. Boiling and condensation
  - c. Sedimentation and decantation
  - d. None of the above
  
3. Type of a short bone embedded in the tendons of the human body-
  - a. Sesamoid bones.
  - b. Flat bones
  - c. Long bones
  - d. Short bones.
  
4. Batteries can become exhausted when -
  - a. The electrolyte is used up
  - b. The terminals are not connected properly
  - c. The circuit is open
  - d. All of the above

**II. Assertion and reasoning**

5. Assertion: An electric bulb has two terminals.

Reason: The two terminals of an electric bulb are fixed in such a way that they do not touch each other.

A. Both A and R are true and R is the correct explanation of A

B. Both A and R are true and R is not the correct explanation of A

C. A is true but R is false.

D. A is false but R is true.

6. Assertion: Insulators do not allow flow of current through them.

Reason: Insulators have no free charge carrier

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason both are false.

### **Section –B**

#### **III. Answer the following questions in two or three sentences**

1. Are air and water conductors or insulators? Why do you think so?
2. Why do electric cells stop working after some time?
3. What are magnets made up of? What different shapes of magnets have you seen?
4. How do hardness and softness of water affect its usability?
5. What are some uses of water at community level?

#### **IV. Answer the following questions in 3 or 4 sentences.**

6. When can we use a magnet to separate components of a mixture? Where do we use it in our daily life?
7. How do muscles co-ordinate with bones for the movement of human body?
8. Why do parts of skull do not have movable joints?
9. How are exothermic and endothermic changes different from each other?

#### **V. Answer the following questions briefly in 5 to 6 sentences.**

10. Why are expansion and contraction considered to be the changes that are reverse to each other? Explain with example.
11. What are floating ribs? How many of these ribs are present in our body?
12. Explain the different kinds of switch with examples?
13. Explain the structure of an electric bulb.
14. How do magnetic compasses assist sailors at sea? Where else are magnetic compass used?

**VI. Answer the following questions in detail.**

15. What are the different types of joints in the human body? Explain with examples
16. Describe the magnetic compass. How can we find directions using a magnet and magnetic compass?
17. How is water useful in distributing nutrients throughout our body?
18. Explain how a torch works using a electric switch.

**Section- C**

**VII. Read the following article and answer the questions based on it.**

**The Water Problem in My Village**  
*Bolivia*

I'm not good at talking in front of a group of people. I'm a farmer and spend my days in the fields. The work is often solitary, but I like it. So when Father Rodriguez asked me to speak to the congregation in a neighboring village and answer questions, I was very nervous. What if I gave the wrong answer? Or stuttered? Or said something stupid and people laughed?

He wanted me to talk about the water problem in my village. Where my wife and I live with our baby son it is high and arid like it is here; we don't have electricity either, and we share some of the same health problems, like diarrhea, scabies, and respiratory infections. But unlike my village, this one doesn't have covered wells and hand pumps. And before last year, we didn't have them either.

I heard the priest call my name. I dried my palms on my pants, and with my head down, watching my feet so they wouldn't trip over themselves, I moved to the front of the church. When I lifted my head, sixty strangers were staring at me. My knees started to shake and I almost sat down again-until I remembered Juanita.

"My name is Miguel Sanchez," I whispered. My own voice sounded strange in my ears. I cleared my throat. "I've come from the neighboring village over the mountain to talk to you about water," I began. The congregation turned to each other in confusion. I could see the question marks stamped on their faces. Water? They seemed to be asking each other. Holy water? I started over.

"Two years ago my first child, Juanita, was born. She was a beautiful baby who looked just like her mother. She was chubby and happy with dark shining eyes. I used to love to put her on my shoulders and listen to her laugh. But after my daughter was weaned she started to get sick. She frequently had diarrhea and stopped gaining weight. The last time Juanita was sick, my wife made sure that she had plenty of well water to drink so that she would not become dehydrated. But it didn't seem to make her better and then, only a week later, she died. "My wife and I were heartbroken, but we weren't the only ones who had lost loved ones. Other children in our village, and some older people with the same sickness, had died.

19. What are some of the health problems shared by Miguel's village and the one he is visiting?
20. Which of these problems might be related to the lack of safe water?
21. How is it that people die of diarrhea?
22. In Miguel's village, how did the sources of water become contaminated?
23. How did this contamination affect Miguel's family?