**2020**
**CLASS - VIII**
**SCIENCE**

Total marks : 80                                    Time : 3 hours

**General instructions:**
*i)*      *The question paper consists of 42 questions in 6 categories.*
*ii)*     *Internal choice has been provided in some questions. A student has to attempt*
          *only one of the alternatives in such questions.*
*iii)*    *Alternate question for the visually impaired students are provided in some*
          *questions.* ***Only the visually impaired students has to attempt such alternate***
          ***questions***.
*iv)*     *Marks allocated to every question are indicated against it.*
*N.B: Check that all pages of the question paper is complete as indicated on the top left side.*


A.  **Choose the most appropriate answer from the given alternatives:**

   1.   The most common carrier of communicable diseases is          **1**
        (i)      ant                              (ii)  housefly
        (iii)    dragonfly                        (iv)  spider

   2.   A non-metal used in water purification process is            **1**
        (i)      Oxygen                           (ii)  Nitrogen
        (iii)    Chlorine                         (iv)  Iodine

   3.   The least polluting fuel for vehicles is                     **1**
        (i)      petrol                           (ii)  diesel
        (iii)    CNG                              (iv)  kerosene

   4.   Which of the following is the living substance in the cell?  **1**
        (i)      Protoplasm                       (ii)  Vacuole
        (iii)    Nucleus                          (iv)  Ribosome

   5.   The number of nuclei present in a zygote is                  **1**
        (i)      one                              (ii)      two
        (iii)    three                            (iv)      four

6.  An apple falls to the ground when they get detached from the tree because of    **1**
    (i)   gravity                 (ii)  friction
    (iii) electricity             (iv)  magnetism

7.  Margaret runs her toy car on dry marble floor, wet marble floor, newspaper and towel spread on the floor. The force of friction acting on the car on different surfaces in increasing order will be    **1**
    (i)    wet marble floor, dry marble floor, newspaper, towel
    (ii)   newspaper, towel, dry marble floor, wet marble floor
    (iii)  towel, newspaper, dry marble floor, wet marble floor
    (iv)   wet marble floor, dry marble floor, towel, newspaper

8.  Sound can travel through    **1**
    (i)   gases only              (ii)  solids only
    (iii) liquids only            (iv)  solids, liquids and gases

9.  The device which can be used to test whether an object is carrying charge or not is called    **1**
    (i)   electroscope            (ii)  telescope
    (iii) microscope              (iv)  voltmeter

10. Which of the following gas damages the ozone layer?    **1**
    (i)   Chlorofluorocarbons     (ii)  Carbon dioxide
    (iii) Chlorine                (iv)  Carbon monooxide

**B. Fill in the blanks:**

1.  Process of separation of different constituents from petroleum is called

    _____ .    **1**

2.  _____ animals give birth to young ones.    **1**

3.  Friction depends on the _____ of surfaces.    **1**

4.  The unit of frequency is _____ .    **1**

5.  Smog is made of smoke and _____ .    **1**

**C. Answer the following questions in one word or one sentence:**

1.  Name the microbe that causes tuberculosis.    **1**

2.  What is force?    **1**

3.  Name the organ in humans which produce sound.    **1**

4.  List any two objects that are electroplated.    **1**

5. Define dispersion of light. **1**

**D. Answer the following questions in about 10-20 words:**

6. Write four points on the usefulness of microorganisms. **4×½=2**

7. Can lemon pickle be stored in an aluminium utensil? Explain. **2**

8. Give any two advantages of using CNG and LPG as fuels. **2×1=2**

9. Write one function each of:
   (i) plastids     (ii) nucleus **1+1=2**

10. What is metamorphosis? Give one example. **1+1=2**

11. Give an example each of situation in which one pushes or pulls to change the state of motion of objects. **1+1= 2**

12. Explain why sliding friction is less than static friction. **2**

13. Classify the following sounds into noise and music:
    Guitar, sound of drilling machine, loudspeaker, bursting of fire crackers, piano, violin, horns of vehicles, flute. **2**

14. Name any two substances that will conduct electricity when added to distilled water. **2×1=2**

15. What is greenhouse effect? Name any two greenhouse gases. **1+1=2**

**E. Answer the following questions in about 30-40 words:**

16. **a**. Describe any three physical properties of metals. **3×1=3**
    **Or**
    **b**. Describe the changes that occur when iron nails are placed in copper sulphate solution. Write the chemical reaction involved. (2+1=3)

17. Differentiate between inexhaustible and exhaustible natural resources giving one example each. **1½+1½=3**

18. Draw a labelled diagram of a plant cell. **3**

    **Alternate question for visually impaired students:**
    State three differences between Eukaryotes and Prokaryotes. (3×1=3)

19. **a.** Give three examples each to show that friction is both a friend and a foe.

**Or**                                                                    **1½+1½=3**

**b.** Give reason why:
   (i) People often rub their hands in winter.
   (ii) Sportsmen use shoes with spikes.

20. A pendulum oscillates 40 times in 4 seconds. Find its time period and frequency.
   **3**

21. When the free ends of a tester are dipped into a solution, the magnetic needle show deflection. Explain why.                                                    **3**

22. Differentiate between regular and diffused reflection. Does diffused reflection mean the failure of the laws of reflection?                                    **2+1=3**

23. **a**. Explain the circumstances leading to acid rain. How does acid rain affect human beings?                                                                **1½+1½=3**
   **Or**
   **b**. Write any three measures to make water safe for drinking.          (3×1=3)

**F.  Answer the following questions in about 50-60 words:**

24. **a**. What are antibiotics? Which group of microorganisms is used for making antibiotics? What precautions must be taken while taking antibiotics? **1+1+2=4**
   **Or**
   **b**. What are antibodies? Explain how vaccines work in protecting our body from diseases.                                                                (2+2=4)

25. **a**. Define asexual reproduction. Explain any two methods of asexual reproduction in animals.                                                                **1+1½+1½=4**
   **Or**
   **b**. Explain the process of fertilization in human beings.                (4)

26. In the following situation identify the agent exerting the force and the object on which it acts. State the effect of the force in each case:
   (i)  Squeezing a piece of lemon between the fingers to extract its juice.
   (ii) Taking out the paste from a toothpaste tube.
   (iii) A load suspended from a spring while its other end is on a hook fixed to a wall.
   (iv) An athlete making a high jump to clear the bar at a certain height.    **4×1=4**

27. Describe the structure of the human eye with a labelled diagram.          **2+2=4**

   **Alternate question for visually impaired students:**
   Explain giving four points how the human eye can be taken care of.          (4×1=4)

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