## Science

General Instructions:

1. There are 36 questions in this paper.
2. Marks are indicated against each question.
3. Q24 to Q36 are based on practical skills.
4. All questions are compulsory.

1 From which part of the plant cotton is obtained? Also name the type of soil suitable for 1 growing cotton.

2 Give the SI unit of the following:
(a) Length
(b) Time

3 Sohan loves to eat pizza, chips, burgers, etc. Doctor has advised him to stop eating junk food. Give one reason for his suggestion.

4 Beera, a farmer would clear his field every day and burn dry leaves fallen on the ground. 2 After sometime he found that those living in huts near his field were suffering from cough and breathing problem. Explain why?
Also suggest another way to dispose the leaves.
5 While travelling in a train, it appears that the trees are moving whereas co passengers appears to be stationary. Explain the reason.

6 Why does a child have 300 bones whereas an adult has only 206 bones?
7 (a)Give any two reasons of classifying materials into different groups.
(b)How is density of an object related to its floating or sinking?

8 The pie chart shown in figure below are based on waste segregation method adopted by two families X and Y respectively.


Y


Which of the two families X or Y do you think is more environmentally conscious and why?

9 Identify the following methods of separation shown in fig A, B and C. Also write the principle behind these methods.


A


B


C

10 (a) Distinguish between pure substance and mixture.
(b) Lemonade is prepared by mixing lemon juice, sugar and water. You wish to add ice to cool it. Should you add ice to the lemonade before or after dissolving sugar? In which case it would be possible to add more sugar. Explain.

11 Identify the type of motion exhibited in each case:
(a) Movement of the drawer of a table.
(b) A car moving along a curved road.
(c) Motion of moon around the earth.
(d) A potter's wheel
(e) Motion of a swing.
(f) Motion of a striker on a carrom board.

12 (a)Mehak wants to perform a shadow show in her classroom. What are the requirements for her show?
(b)Three identical towels of red, blue and green colour are hanging on a clothes line in the sun. What would be the colour of the shadow of these towels? Give reason for your answer.

13 (a)Define measurement.
(b) Why is it necessary to have a standard unit of measurement?

14 (a)Convert the following:
(i) 3954 km into m
(ii) 71.5 m into cm .
(b)Moon is a non-luminous object ,then how does it shine at night?

15 Look at the flowchart given below and answer the questions that follow:
Wheat $\rightarrow$ Rat $\rightarrow$ Snake $\rightarrow$ Eagle
(a)What does this flowchart depict?
(b)The farmer uses pesticides in the field. How is that useful to the farmer?
(c)What will happen if all the snakes in the field are removed?

16 Write an activity to check the presence of protein in milk.
17 Write one word for the following:
(a)Joint which allows movement in all directions
(b)Joint present in the human skeleton which does not move.
(c)Hard structure that forms the skeleton.
(d) Other name of brain box.
(e)Bones that join with the chest bone at one end and to the back bone at the other end.
(f)Joint where our neck joins with our head.

A

## B

a)In the given figure, there are two snakes of the same size slithering on sand. Can you identify which of them would move faster and why?
(b) What is the role of a shell in snail?
(c) How the skeleton of a bird is well suited for flying? (Any two)

19 (a)What are 3 R's? Give an example of each to explain the reduction of generation of waste.
(b)Give two reasons why plastics are harmful to environment.

20 (a)Differentiate between transparent, translucent and opaque materials, giving an example of each.
(b) Give reasons for the following:
(i) Copper is used to make electric wires.
(ii)Gold is used to make jewellery.

21 (a)The photograph given, shows section of a grille made up of straight and

(b)Write in brief about any three ancient units of measurement. curve iron bars. How would you measure the length of the bars of the sections so that the payment could be made to the contractor? Explain.
(a)Distinguish between image and shadow. (Any three)
(b)What happens to the shadow formed on a screen when:
(i) The distance between the source of light and the object increases
(ii) The distance between the object and the screen decreases.

23 (i)Ram was having difficulty in seeing in dim light. His friend Rita advises him to include a few food items like green leafy vegetables in his diet as he might be suffering from a deficiency disease.
(a) What are deficiency diseases?
(b) Which deficiency disease he might be suffering from?
(c)What values of Rita are shown here?
(ii) Write any two method of cooking that can lead to loss of nutrients in food items.

24 (a)Given below is the picture of skeleton. Label the parts marked as A, B, C, D, E, and F.
(b)Write any four functions of human skeleton.


25 The left-right reversal of an object is called
(a) lateral inversion
(b) lateral reflection
(c)parallel inversion
(d) parallel reflection

26 The distance between Delhi and Mumbai is usually expressed in units of:
(a) Deca meter
(b)Meter
(c)centimeter
(d)kilometer

27 Which of the following can never form a circular shadow?
(a) A ball
(b) A flat disc
(c) A shoe box
(d) An ice cream cone.

28 The correct sequence to get cloth is
(a) Fiber-fabric-yarn
(b)Fiber-yarn-fabric
(c)Fabric-yarn-fiber
(d)yarn-fiber-fabric

29 During summer, Rani carries water in a transparent plastic bottle to her school. One day she 1 left her bottle in a school. The bottle still had some water left in it. The following day, she observed some water droplets on the inner surface of the empty portion of the bottle. These droplets of water were formed due to
(a) Boiling and condensation
(b)Evaporation and saturation
(c)Evaporation and condensation
(d)Condensation and saturation

30 A mixture of saw dust and wheat can be separated by
(a) Sublimation
(b)Separating funnel
(c)Winnowing
(d)Evaporation

31 Muscles are attached to the bones by means of.
(a) Tendons
(b) ligaments
(c)biceps
(d) triceps

32 Movement is brought about by the contraction and relaxation of
(a) Bones
(b) muscles
(c) joints
(d) both (b) and (c)

33 The part of the plant that can be eaten is called.
(a) edible
(b)non-edible
(c) stem
(d) leaves

34 Two students A and B looked through pipes of different shapes to see a candle flame as 2 shown in figure given below:


A


B

Who will be able to see the candle flame clearly and why?
35 Radhika on a very cold day, took two blankets to keep her warm whereas her brother Raghav 2 took only one thick blanket with the thickness equal to two blankets. Who will get more warmth and why?

36 Rita is confused that water does not provide nutrients, yet it is an important component of 2 food. Justify to avoid her confusion.


