



INDIAN SCHOOL SOHAR  
PERIODIC TEST II (2022-23)

SCIENCE

CLASS – VIII

SET – 1

MAX. MARKS: 20

DATE : 18/01/2023

TIME : 45 MINUTES

**GENERAL INSTRUCTIONS:**

- There are total 11 questions in the question paper.
- Q. No.1 to Q. No. 5 carries one mark each.
- Q. No. 6 to Q. No. 8 carries two marks each.
- Q. No. 9 is case based question carries three marks.
- Q. No. 10 and Q. No. 11 carry 3 marks each.

**Choose the most appropriate answer from the following options:**

1. Meena always eats only *dal* and rice in every meal. She often falls ill and has become prone to diseases. Which one of the following changes can make her healthy and free from disease? (1)
  - a. She should include fruits and vegetables in her diet
  - b. She should include more carbohydrate rich diet in her meal
  - c. She should include more protein rich diet in her meal
  - d. She should not change her diet at all
2. The relation between force F, pressure P and area A is given by (1)
  - a.  $F = P/A$
  - b.  $F = P \times A$
  - c.  $A = F \times P$
  - d.  $F^2 = P \times A$
3. Identify the option that best completes the statement. Rolling friction is \_\_\_\_\_ (1)
  - a. Usually less than sliding friction
  - b. Usually greater than sliding friction
  - c. Same as fluid friction
  - d. Not depend on the amount of pressure on wheel

**Assertion and Reason:**

Question No. 4 & 5 consists of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

4. **Assertion (A):** The voice box of adolescent boys is visible.  
**Reason (R):** At puberty, the larynx begins to grow and boys develop larger voice boxes. (1)
  - 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
5. **Assertion (A):** If the magnitude of the applied force changes, its effect does not change. (1)  
**Reason (R):** The magnitude represents the strength of a force.
- 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

**Answer the following questions in short:**

6. Name the type of force acting on (2)
- a. An object hanging on a spring
  - b. Pieces of paper attracted by a charged comb
7. Trisha was pushing a heavy box along its length on the floor. Finding it difficult, she turned the box to place it vertically on its smaller surface. Would she need to apply less force now? Explain. (2)
8. Mrs. Sheth does not use iodized salt in the food she cooks at home. Can this lead to any disorder? Explain. (2)

**9. Case study:**

The Pre-Conception and Pre-Natal Diagnostic techniques (Prohibition of Sex Selection) Act, 2003, commonly called PC-PNDT Act, makes it illegal to determine the sex of the unborn child or even use sex-selection technologies. The law first came into force in 1996 as the Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, 1994, in response to the falling sex ratio and fears that ultrasound technologies were being used to determine the sex of the foetus. Answer the following questions based on your understanding.

- a) What is chromosome? How many chromosomes are present in human? (1)
- b) When a sperm containing Y chromosome fertilizes an egg with X chromosome then what will be the sex of baby? (1)
- c) Male or female gamete has how many chromosomes at the time of fertilization? (1)

**Answer the following questions in detail:**

10. "Friction is necessary evil". Justify the statement. (3 Points) (3)
11. Calculate the pressure exerted by a sail on water if the force applied by the sail is 50,000 N and the surface area of the sail is 250 m<sup>2</sup>. (3)



INDIAN SCHOOL SOHAR  
PERIODIC TEST II (2022-23)

SCIENCE

CLASS – VIII

SET – 2

MAX. MARKS: 20

DATE : 18/01/2023

TIME : 45 MINUTES

**GENERAL INSTRUCTIONS:**

- There are total 11 questions in the question paper.
- Q. No.1 to Q. No. 5 carries one mark each.
- Q. No. 6 to Q. No. 8 carries two marks each.
- Q. No. 9 is case based question carries three marks.
- Q. No. 10 and Q. No. 11 carry 3 marks each.

**Choose the most appropriate answer from the following options:**

1. For the metamorphosis of tadpoles which of the following elements must be available in water? (1)
  - a. Chlorine
  - b. Carbon
  - c. Sulphur
  - d. Iodine
2. Select the correct statement(s) from the following about pressure. (1)
  - a. Pressure is directly proportional to force.
  - b. Pressure is inversely proportional to the area of contact.
  - c. Pressure is inversely proportional to force.
  - d. Both (a) and (b) are correct.
3. The maximum friction that balances the force applied on a body resting on a solid surface so that the body does not move is called (1)
  - a. Limiting friction
  - b. Fluid friction
  - c. Sliding friction
  - d. Rolling friction

**Assertion and Reason:**

Question No. 4 & 5 consists of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

4. **Assertion (A):** Friction can occur only between two solid surfaces. (1)  
**Reason (R):** Rough surfaces offer more friction than smooth surfaces
  - 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
5. **Assertion (A):** Increased area of contact reduces the pressure.  
**Reason (R):** It is easier to carry a bag with broad handles as compared to a bag with thin handles. (1)
- 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

**Answer the following questions in short:**

6. Ayushman is a good singer. He is thirteen years old. Of late, he has started to sound different and more matured when he sings. Explain this change with reason. (2)
7. Ram and Jay are riding their bicycles on the same concrete floor. Jay has new tires on his bicycle while Ram has old and used tires. Who between of them is more likely to skid while moving through a patch of road, which has lubricating oil spilled over it and why? (2)
8. Explain how pressure helps in drinking juice with the help of a straw. (2)

**9. Case study:**

Rajat was celebrating the festival of Makarsankranti with his family and relatives. While he went to the kitchen to drink water he found his mother was finding it difficult to cut the vegetables with blunt knife. Rajat searched the kitchen for another knife with sharp edges, found it and gave it to his mother which made her task of cutting vegetables easy and smooth. When he went back to kite flying, his elder brother was pulling the kite thread with great force & speed to stop letting it fall down. On the other side, his uncle was showing magic trick to his sister by rubbing the comb on a cloth, keeping it at a distance from her long hair which were attracted towards that rubbed comb. His sister was amazed by this magic trick.

Answer the following questions based on your understanding.

- a) Why was Rajat's mother finding it difficult to cut the vegetables with the blunt knife? (1)
- b) Which force do you think Rajat's brother applied to stop the kite from falling down? (1)
- c) What is the scientific reason behind the magic trick Rajat's uncle showed to his sister? (1)

**Answer the following questions in detail:**

10. Explain the ways to reduce frictional force with examples. (3 Points) (3)
11. A gland 'X' is located just below the stomach in the human body. The gland 'X' secretes a hormone 'Y'. The deficiency of hormone 'Y' in the body causes a disease 'Z' in which blood sugar level of a person rises too much. What are 'X', 'Y' and 'Z'? (3)