



CLASS: VIII  
DATE : 18/01/2024

MAX. MARKS: 20  
TIME: 40 MINUTES

**General Instructions:**

- i. This question paper consists of 10 questions in 5 sections.
- ii. All questions are compulsory. However, an internal choice is provided in some questions. Student is expected to attempt only one of these questions.
- iii. **Section A** consists of six objective type questions carrying 01 mark each.
- iv. **Section B** consists of one very short question carrying 02 marks.
- v. **Section C** consists of one short answer type question carrying 03 marks.
- vi. **Section D** consists of one question carrying 05 marks.
- vii. **Section E** consists of one case-based question carrying 04 marks with sub-parts.

**SECTION – A**

Select and write the one most appropriate option out of the four options given for each of the questions 1 to 4.

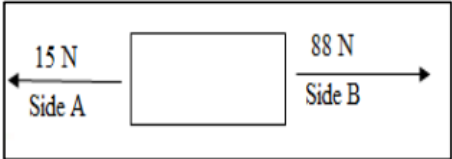

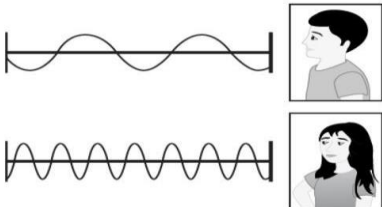
Q. No	Questions	Marks
1	Two boys A and B are applying force on a block. If the block moves towards the boy A, which one of the following statements is correct? (a) Magnitude of force applied by A is greater than that of B. (b) Magnitude of force applied by A is smaller than that of B. (c) Net force on the block is towards B. (d) Magnitude of force applied by A is equal to that of B.	1
2	A water tank has four taps fixed at points A, B, C, D as shown in the figure. The water will flow out at the same pressure from taps at (a) A and C (b) A and B (c) C and D (d) B and C	1
3	When we press the bulb of a dropper with its nozzle kept in water, the air in the dropper is seen to escape in the form of bubbles. Once we release the pressure on the bulb, water gets filled in the dropper. The rise of water in the dropper is due to (a) atmospheric pressure (b) gravity of the earth (c) shape of rubber bulb (d) pressure of water	1
4	Which of the following statements are correct? (i) Sound is produced by vibrations. (ii) Sound requires a medium for propagation. (iii) Light and sound both require a medium for propagation. (iv) Sound travels slower than light. (a) i & ii (b) i, ii & iv (c) ii, iii & iv (d) i, ii & iii	1



**Q. no 5 and 6 are Assertion - Reasoning based questions.**

**These consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:**

- (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): Water begins to flow towards the ground as soon as we open a tap. Reason (R): The force of gravity can make things/objects fall towards the Earth as it pulls them.	1
6	Assertion (A): The streamlined shape of birds and fishes does not help them move easily in fluids. Reason(R): This streamlined shape helps in overcoming drag without spending much energy.	1
<b>SECTION – B</b>		
7	In a tug of war, Side A applies 15N force and side B applies 88N force. Which side will the rope move? What will be the net force acting on the rope?	2
		
<b>SECTION – C</b>		
8	(a) When the cutting edge of a knife is put against a fast-rotating stone to sharpen it, sparks are seen to fly. Explain the reason. (b) When two thermocol balls are held close to each other, they move away. Name the force which might be responsible for this phenomenon. Explain. (c) Calculate the pressure exerted by a sail on water if the force applied by the sail is 50,000 N and the surface of the sail is 250 m <sup>2</sup> .	3
<b>SECTION – D</b>		
9	Brick is pulled by a spring balance as shown in the figure.  (a) What does the reading of the spring balance when the brick just begins to slide indicate? (b) The brick is now wrapped in a piece of polythene. How does the reading of spring balance change and why? (c) How does the reading of the spring balance change if the brick is wrapped in jute cloth? (d) Write any two ways to reduce friction.	5
<b>SECTION – E</b>		
10	<b>Answer questions on the basis of your understanding of the following paragraph and the related studied concepts:</b>  On Ramesh's 13th birthday, his father invited all his friends and their relatives. It was a big party with lots of food and DJ. Ramesh didn't like the loud sound of DJ and asked his father to play it in low volume so that their neighbours would not get disturbed and people in the party could also enjoy the music. Ramesh's father felt good for his wisdom and did as he said. (a) Write any two measures to limit noise pollution. (b) (i)The image shows the sound waves produced by a man and a woman. What can be concluded from the image?  (ii) How many times per second should vibrating body oscillate to make an audible sound for humans?  <b>OR</b> (b) We cannot hear the sound of exploding meteors in the sky, though we can see them. Why?	4