APEEJAY SCHOOL, PANCHSHEEL PARK

Class – VIII
Subject – Science
MIDTERM EXAMINATION (2024-25)

Name of the student: **Aradhya**

Date: 17/9/2024

M.M.:60

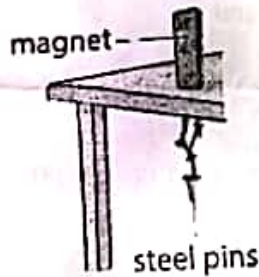Time Allowed: 2.5 hr

VIII-S

General Instructions:

Read the following instructions very carefully and strictly follow them:

(i) This question paper comprises 31 questions in 6 sections in 5 pages. All questions are compulsory.

(ii) Section A - Question No. 1 to 15 are multiple choice questions. Each question carries 1 mark. Write complete options for MCQs in your answer sheet.

(iii) Section B - Question No. 16 to 18 are Case-based questions carrying 4 marks each.

(iv) Section C- Question No. 19 is reasoning based question with five parts of 1 mark each.

(v) Section D - Question No. 20 and 21 are Diagram/labelling or skill-based questions of 2 marks each.

(vi) Section E - Question No. 22 to 27 are very short answer questions of 2 marks each.

(vii) Section F - Question No. 28 to 31 are short answer questions of 3 marks each.

(viii) Use pencil ONLY to draw diagrams wherever required.

SECTION-A

(1x15 = 15)

1. Due to which kind of force the pins are attracted to the magnet and stick to the table?

magnet—

steel pins

(a) Gravitational Force   (b) Magnetic Force

(c) Electric Force   (d) Atmospheric Pressure

2. To sharpen the blade of a knife by rubbing it against a surface, which of the following will be most suitable?

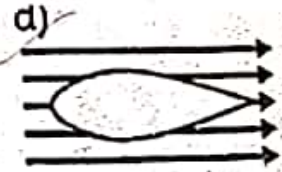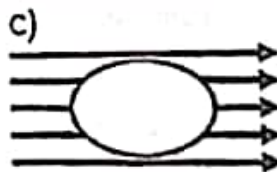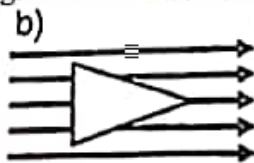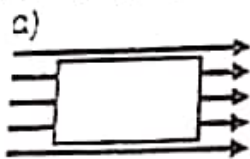(a) Stone   (b) Plastic block   (c) Wooden block   (d) Glass block

3. Large amplitude of sound vibrations will produce

(a) Loud sound   (b) Slow sound   (c) shrill sound   (d) soft sound

4. Which of the following produces noise only?

(a) Jet engine   (b) harmonium   (c) Flute   (d) Guitar

5. Four shapes are given below. Which of them is likely to move through water in the direction opposite to the flow of water with the greatest ease? (The direction of flow of the water is indicated by arrows.)

a)   b)   c)   d)

6. Why war tanks and heavy machinery, such as some bulldozers, move on caterpillar tracks (as shown in the image below), which have broad chain-like covers on wheels?
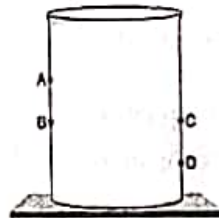
(a) To reduce pressure on the ground
(b) To increase pressure on the ground
(c) To increase friction with the ground
(d) To reduce friction with the ground

7. Sound will travel fastest in
(a) Iron rod   (b) Kerosene oil   (c) Oxygen   (d) Vacuum

8. In the figure given below, a water tank has four taps fixed at points A,B,C,D as shown. The water will flow out at the same pressure from the taps at:
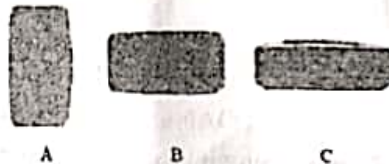
(a) B and C   (b) A and B   (c) C and D   (d) A and C

9. Examples of Multicellular Microorganism are
(a) Algae, Bacteria
(b) Bacteria and Fungi
(c) Bacteria and Viruses
(d) Algae and Fungi

10. A brick is kept in three different ways on a table as shown in Fig. The pressure exerted by the brick on the table will be

A   B   C

(a) maximum in position A
(b) maximum in position C
(c) maximum in position B
(d) equal in all cases

11. Raghu is fond of eating Golgappa a lot. One day he experienced intense stomach ache and vomiting. He took rest, drank ORS and consumed light food. After three days his health improved. Choose the option that correctly identifies the cell and the chemical produced by them that helped Raghu heal:
(a) White blood cell, antibiotic   (b) White blood cell, antibody
(c) White blood cell, vaccine   (d) Platelet, antibiotic

12. Calculate the pressure produced by a force of 800 N acting on an area of 200 m².
(a) 4 Pa   (b) 400 Pa   (c) 4000 Pa   (d) 0.25 Pa

$$P = \frac{F}{A} = \frac{800}{200}$$

13. Ruby is pushing a box towards the west direction. In which direction should her friend push the box so that it moves faster in the same direction?

(a) West   (b) East   (c) North   (d) South

14. Choose the option which is not the appropriate reason to get rid of weeds from agricultural fields?

(a) They compete for nutrients   (b) They compete for space

(c) They can spread very fast   (d) They are economically important

15. Foot and mouth disease of cattle is caused by

(a) Fungi   (b) Virus   (c) Algae   (d) Protozoa

SECTION-B

16. The species P and Q of wild animals are found exclusively in a particular area. The species R of wild animals is listed in red data book of India whereas species S of wild animals no longer exist anywhere on earth.

(4)

(a) What name is given to species like P and Q? Give an example.

(b) What are the species like R known as? Give an example.

(c) What is the special name of species like S? Give an example.

(d) Why is the species P and Q more likely to reduce in population in a disastrous event?

17. Ram and Shyam while returning from school saw a labour pushing hard to move a heavy box. Ram immediately ran to him and started helping him in pushing the box whereas Shyam brought two iron bars and asked the labour to put them below the box and then to push the box. (4)

(a) What are the factors that affect friction?

(b) Who will help the labour more - Ram or Shyam? How?

(c) How iron rod helped them to move the heavy box?

(d) What else can be used to move the box easily?

18. Human ear is designed in such a way that it can hear the sounds up to a certain frequency. The sound waves travelling through the ear are later transmitted to brain as electrical impulses to understand the type of sound. Sounds beyond certain frequencies can cause permanent damage to our ears. Sound below certain frequencies cannot be heard by us. (4)

a) Explain why the sound produced by every vibrating body cannot be heard by us.

b) Can a human being hear a sound which is of 18Hz? Give reason.

c) Classify the situations given below as 'noise' and 'music':

(i) Someone playing the sitar in an auditorium   (ii) Several people talking together all at once

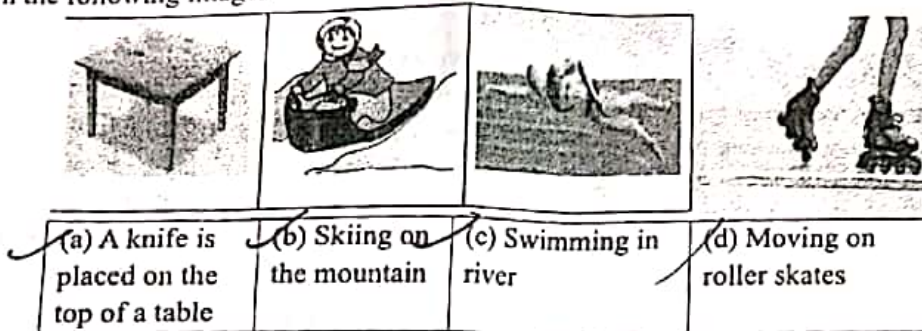d) Name at least two sources of noise pollution inside a home.

SECTION-C

19. Read the questions carefully and give appropriate reason: (1x5=5)

a) Drip irrigation is an efficient irrigation system for fruits, orchards and gardens. Why?

b) There is a huge amount of atmospheric pressure on us. But we do not experience its effect. Why?

c) Living near a busy road with high traffic and noise is dangerous to health. Why?

d) While it is difficult to grow crops in nutrient poor soils, it is not impossible. We can grow several crops with proper agricultural implements. Give reason.

e) Water on a smooth floor can make you slip. This means water is also a lubricant. Can you think of reasons why oil and grease, and not water, are used in machines as a lubricant?

3

SECTION-D

20. Preservatives are used to protect our foodstuff for a longer time. Answer the following questions: (2)
(a) Name of a preservative found in pickles
(b) Name of the preservative found in jam and jellies
(c) Example of a chemical preservative
(d) Name the process to preserve milk.

21. Different types of motion of the object gives rise to different types of friction. Generally, there are 4 types of friction. They are static friction, sliding friction, rolling friction, and fluid friction. Identify the type of friction in the following images- (2)

(a) A knife is placed on the top of a table	(b) Skiing on the mountain	(c) Swimming in river	(d) Moving on roller skates

SECTION-E

22. The following diagram shows the root of a certain plant. Look at the image carefully and answer the questions (2).

(a) Identify the spherical structures found in this root. Give specific example of a plant in which you can find such roots.
(b) Why are plants with such roots often preferred by farmers for crop rotation.

23. Answer the following questions: (2)
(a) Protected forests are also not completely safe for wild animals. Why?
(b) Some tribes depend on the forest. How?

4. Frequency is the number of occurrences of a repeating event per unit of time. In the given diagram entify the event in which frequency is more than other. Also give the reason. (2)

(a)

(b)