



ANANDALAYA
PERIODIC TEST - 2
Class: VII

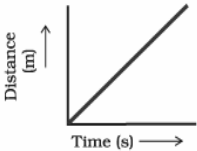
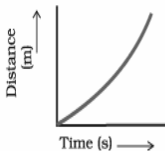
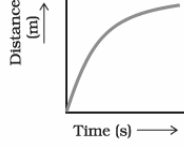
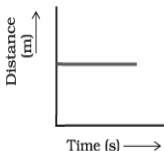
Subject: Science
Date : 22-09-2025

MM: 50
Time: 2 hours

General Instructions:

1. This question paper consists of 23 questions. All questions are compulsory.
2. The question paper has four sections: Section A, Section B, Section C and Section D.
3. Section A consists of 11 multiple-choice questions carrying 1 mark each.
4. Section B consists of 3 short answer questions carrying 2 marks each.
5. Section C consists of 6 short answer type questions carrying 3 marks each.
6. Section D consists of 3 long answer type questions carrying 5 marks each.

SECTION A

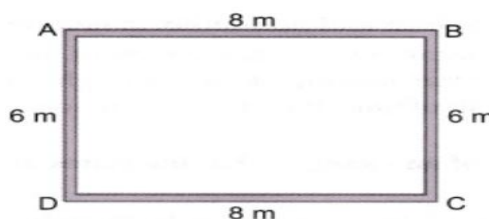
1. The time period of a simple pendulum that oscillates 120 times in two minutes is _____. (1)
(A) 10 second (B) 0.1 second (C) 1 second (D) 2 second
2. The mode of heat transfer which takes place when we stand outside under the sun and feel warm even though the surrounding air is cool is _____. (1)
(A) conduction (B) convection (C) radiation (D) evaporation
3. Which of the following graphs show the object at rest? (1)
(A)  (B)  (C)  (D) 
4. What are the products of neutralization reaction? (1)
(A) acid and base (B) acid and salt (C) salt and water (D) salt and base
5. Which among the following represents a chemical change? (1)
(A) Dissolving sugar in water (B) Formation of clouds
(C) Cooking of foods (D) Cutting of trees
6. In a desert plant, stomata open at night instead of during the day. This adaptation primarily helps to _____. (1)
(A) increase photosynthesis at night (B) prevent excessive water loss
(C) absorb more oxygen (D) store more starch
7. Which of the following correctly matches the animal with its mode of feeding? (1)
(A) Amoeba – Filter feeding (B) Mosquito – Piercing and sucking
(C) Frog – Chewing food (D) Cow – Engulfing prey
8. After intense exercise, breathing rate increases mainly to _____. (1)
(A) reduce lactic acid levels by supplying more oxygen
(B) remove carbon dioxide from the stomach
(C) cool the body
(D) pump more blood to the brain

For question numbers 9 to 11, select the correct option from the options given below.

- (A) Both A and R are true and R is the correct explanation of A.
(B) Both A and R are true but R is NOT the correct explanation of A.
(C) A is true but R is false.
(D) A is false but R is true.
9. A: We feel more comfortable when we wear dark coloured clothes during the winter season. (1)
R: Dark coloured clothes reflect most of the heat that falls on them.
10. A: Heating of the tip of the hacksaw blade on the gas stove brings chemical change. (1)
R: When we heat hacksaw blade on the gas stove, it turns red hot in colour.
11. A: Breathing supplies oxygen for cellular respiration to release energy required for the animals. (1)
R: In higher animals, the process of breathing and respiration are the same.

SECTION B

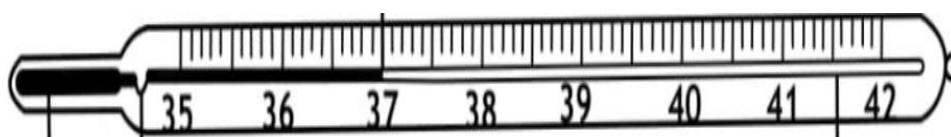
12. Starting from A, Radhika is walking along a rectangular path ABCD as shown in the figure below. She takes 2 minutes to travel each side. (2)



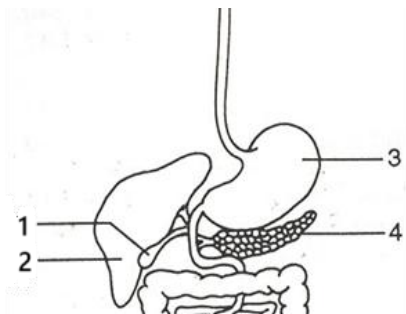
- (a) What type of motion does she show?
(b) Calculate the average speed of her motion.
13. (a) A solution gives green colour with China rose. What will be the colour of turmeric paper if it is dipped in the same solution? (2)
(b) Name one base available in your school laboratory.
14. Why do cows and buffaloes have a large sac-like structure called the rumen in their stomach, whereas humans do not? (2)

SECTION C

15. (a) In a mercury thermometer, the level of mercury rises when its bulb comes in contact with a hot object. What is the reason for this rise? (3)
(b) Find the least count of the thermometer shown below.



- (c) Rama wanted to measure the body temperature of her family members as a part of SEA activity in physics. She used digital thermometer instead of mercury thermometer and measured her family members' body temperature. Rama's grandmother asked her why she used mercury thermometer. She explained her grandmother about the safe use of digital thermometer without risk of exposure to toxic mercury if it breaks. Write any two values shown by Rama.
16. (a) Why do houses in the coastal areas have windows facing towards the sea? (3)
(b) Write any two differences between conduction and radiation.
17. (a) When a piece of iron is kept open in air for a few days, it acquires a film of brownish substance on its surface. (3)
(i) What is this layer called? and (ii) Suggest a way to prevent this change.
(b) Burning of wood and cutting it in to small pieces are considered as two different types of changes. Justify.

18. (a) Name two substances having no effect on litmus paper. (3)
 (b) Identify the acidic and basic substances from the list given below.
 Vinegar, Sugar solution, Soap solution, Water, Lemon juice, Window cleaner
19. (a) From the given diagram of human digestive system, identify and name the largest gland. (3)
 (b) The part labelled as 1 and 2 play an important role in the digestion. Explain their functions in the digestion process.
 (c) Which food component are broken down in the digestive part labelled as 3?
 (d) Into which does the part labelled as 4 release its digestive enzymes?
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20. (a) Autotrophs cannot survive without heterotrophs. Give a scientific reason. (3)
 (b) Write any two differences between autotrophic and heterotrophic nutrition.

SECTION D

21. The motion of a bus travelling is recorded as given in the table below. Plot a distance-time graph for the given data. (5)

Time in hour	Distance in km
0	0
1	40
2	80
3	120
4	160

- (a) Plot a distance-time graph for the given data.
 (b) Find the average speed of the bus. Express it in m/s.
 (c) Explain the type of motion exhibited by the bus.
22. (a) How can you obtain pure crystals of copper sulphate from its solution? (5)
 (b) A student took a solution of copper sulphate in a beaker. She dropped a clean iron nail in to it and left it for about an hour to observe the results.
 (i) List out two probable observations during this activity.
 (ii) Write a word equation for a chemical change taking place in this activity.
23. Rakshan walks up four floors slowly, while Vibha runs up the same distance quickly. On reaching the fourth floor, Vibha feels tired and develops muscle cramps, whereas Rakshan does not face any such problem. (5)
 (a) Identify the type of respiration responsible for muscle cramps. Write the word equation for this process.
 (b) What is meant by breathing rate?
 (c) Who is likely to have a higher breathing rate at the end - Rakshan or Vibha? Justify your answer scientifically.
 (d) Differentiate between the types of respiration based on their end products.