



INDIAN SCHOOL AL WADI AL KABIR

FINAL EXAMINATION (2023-24)

CLASS: VIII

Sub: SCIENCE

MAX.MARKS: 80

DATE: 10.03.2024

Set - II

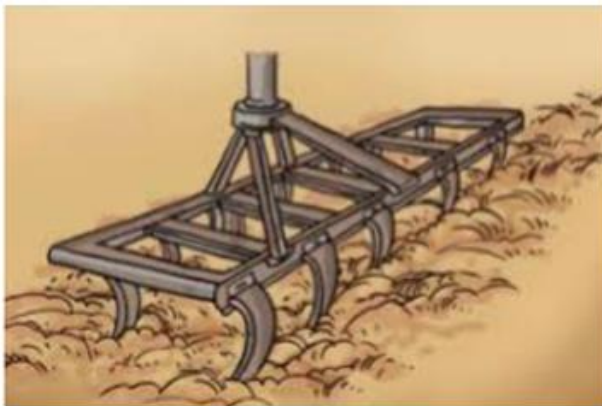
TIME: 3 HOURS

General Instructions:

- i. All questions are compulsory. Marks are indicated against each section.
- ii. The question paper comprises 10 pages and 39 questions in 5 sections A, B, C, D and E.
- iii. Q 1 to Q 16 in **section A** are MCQ and carry ONE mark each. Write the correct answer along with the option in the answer script.
- iv. Q 17 to Q 20 in **section A** -Assertion-Reason type and carry ONE mark each.
- v. Q 21 to Q 26 in **section B** are short Answer Type Questions and carry TWO marks each.
- vi. Q 27 TO Q 33 in **section C** are Short Answer Type Questions and carry THREE marks each.
- vii. Q 34 TO Q 36 in **section D** are Long Answer Type Questions and carry FIVE marks each.
- viii. Q 37 TO Q 39 in **section E** are Case study/paragraph Questions carry FOUR marks each.
- ix. Write the same question number as given in the question paper.
- x. Whitener should not be used in the answer script.
- xi. Diagrams should be drawn using a pencil.

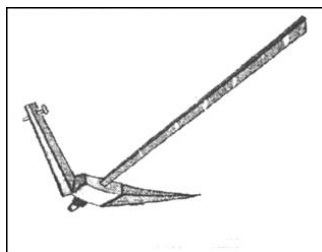
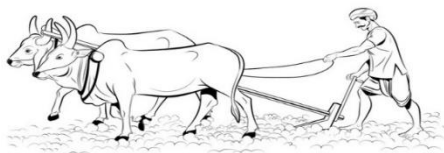
SECTION A (1×20=20)

1. Which of the following is the use of this agricultural implement?

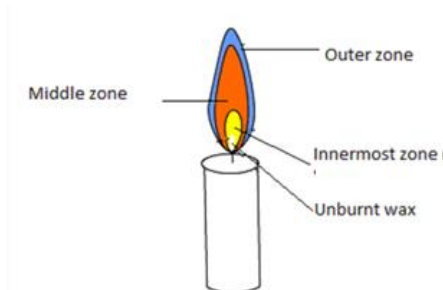


- a) It is used to put manure or fertilizer near the roots of crops
- b) It is used to sow the seeds at equal distances
- c) It is useful to remove weeds from the field
- d) Both a and b

2. The uses of the given tool include:

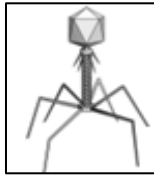


- a) Tilling and scraping the soil.
 - b) Adding fertiliser.
 - c) Removing weed.
 - d) a, b and c
3. You want to burn paper using a candle flame. How should you keep the paper over fire so that paper catches fire quickly?
- a) You should keep the paper in the middle of the flame.
 - b) You should touch the wick of the candle with the paper.
 - c) You should keep the paper just above the flame.
 - d) You should keep the paper below the flame.
4. Arrange the different regions of a flame in increasing order of temperature.

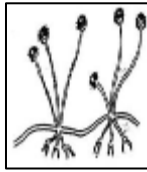


- a) Middle region < innermost region < outermost region
 - b) Outermost region < innermost region < middle region
 - c) Innermost region < outermost region < middle region
 - d) Innermost region < middle region < outermost region
5. What causes the dough to rise when yeast is added to it?
- a) An increase in temperature.
 - b) An increase in the amount of substance.
 - c) An increase in the amount of released water by yeast cells.
 - d) The release of carbon dioxide gas.

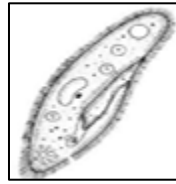
6. Identify W, X and Y?



W



X



Y

a)

W	X	Y
VIRUS	PROTOZOAN	FUNGUS

b)

W	X	Y
VIRUS	FUNGUS	PROTOZOAN

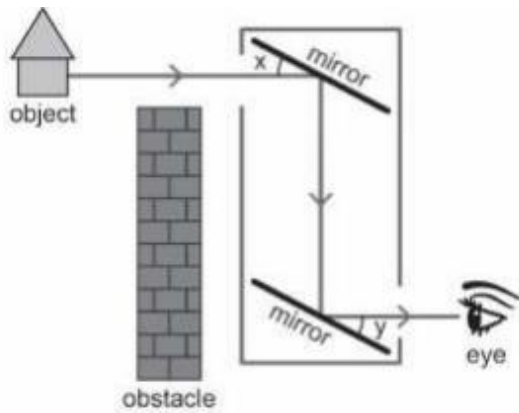
c)

W	X	Y
PROTOZOAN	VIRUS	FUNGUS

d)

W	X	Y
FUNGUS	PROTOZOAN	VIRUS

7. The diagram shows how an object is seen through a periscope. x and y are two angles in the path of the light ray. How many times is a light ray reflected in the periscope?



- a) four times
- b) Thrice
- c) Twice
- d) Once

8. The picture shows a candle in front of two plane mirrors joined at their sides.

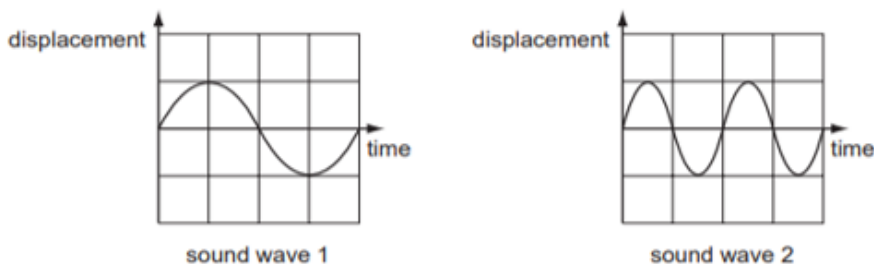


- What will increase the number of images formed on the mirrors?
- Decrease in the size of the object.
 - Increase in the size of the mirrors.
 - Decrease in the angle between the two mirrors.
 - Increase in the distance between the object and the mirrors.
9. Which of the following statements is true about asexual reproduction?
- New individuals are produced without the fusion of gametes.
 - New individuals involve the fusion of male and female gametes.
 - It is a mode of reproduction which occurs only in plants.
 - New individuals are produced by the fusion of dissimilar gametes.
10. The organisms having both the male and female sex organs present in the same body are called:
- Unisexual
 - Multisexual
 - Hermaphrodites
 - Asexual
11. Adolescents should be careful about what they eat because
- a proper diet develops their brains.
 - a proper diet is needed for the rapid growth taking place in their body.
 - adolescents feel hungry all the time.
 - taste buds are well developed.
12. A cat made a purring sound that had a frequency of 35 Hz. Which of the animals mentioned on the table can hear the purring?

Animal	Frequency range of sound waves
Elephant	15–12000 Hz
Human	20–22000 Hz
Dog	65–45000 Hz
Chicken	125–2000 Hz

- a) Only human
- b) Only elephant
- c) Dog and chicken
- d) Elephant and human

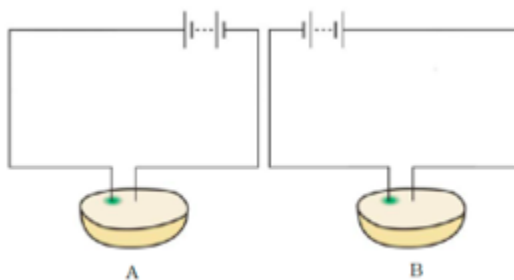
13. The diagrams represent two sound waves. The scales in the two diagrams are the same .



Which statement describes the waves?

- a) The waves have different loudness and different pitch.
- b) The waves have different loudness but the same pitch.
- c) The waves have the same loudness and the same pitch.
- d) The waves have same loudness but different pitch.

14. Which of these two circuits A or B shows the correct observation?



- a) Diagram A
- b) Diagram B
- c) Both A and B
- d) None of the above

15. When an electric current is passed through a conducting solution, there is a change of colour of the solution. This indicates.
- the chemical effect of current.
 - the heating effect of current.
 - the magnetic effect of current.
 - the lightning effect of current.
16. A suitable term for the various components of cells is
- tissue
 - cell organelles
 - chromosomes
 - genes

For the following questions, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (i), (ii), (iii), and (iv) as given below

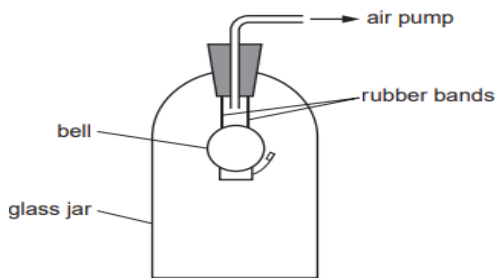
- Both A and R are true and R is the correct explanation of the assertion.***
- Both A and R are true but R is not the correct explanation of the assertion.***
- A is true but R is false.***
- A is false but R is true***

17. Assertion (A): The babies born through IVF technique are called test tube babies.
Reason (R): Fertilisation is done outside the uterus in a glass vessel by combining a female egg with a sperm.
18. Assertion (A): The pituitary gland triggers the shift of adolescence towards an adult stage by releasing hormones.
Reason (R): Hormones are the chemical substances produced and secreted by the endocrine glands.
19. Assertion (A): Trees planted along the roadside help in the reduction of noise pollution.
Reason (R): Plants absorb sound and so help in minimizing noise pollution.
20. Assertion (A): An electric bulb glows when the electric current passes through it.
Reason (R): Due to the heating effect of the current, the filament of the bulb gets heated to a high temperature and it starts glowing.

SECTION B (2×6=12)

21. a) What is meant by irrigation? Name any two sources of irrigation.
b) Write the importance of irrigating the field.

22. a) You are given a sample of wheat seeds. How will you select good healthy seeds for sowing?
 b) What are weeds? Why should they be removed?
23. What is meant by Nitrogen fixation? State two ways in which Nitrogen gas of the atmosphere can be fixed in nature to get Nitrogen compounds in the soil?
24. a) The eggs of frogs do not have shells for protection, yet they are safe in water. How?
 b) Though hen and frog are both oviparous, they have different types of fertilisation. Justify.
25. Differentiate between
 a) Viviparous and Oviparous animals.
 b) Foetus and embryo
26. a) In the experiment shown, the bell is heard ringing. The air is gradually pumped out of the jar. No change is made to the ringing bell. After a few minutes the bell can no longer be heard. Why is this change observed? Explain briefly.



- b) What is the relation between loudness and amplitude?

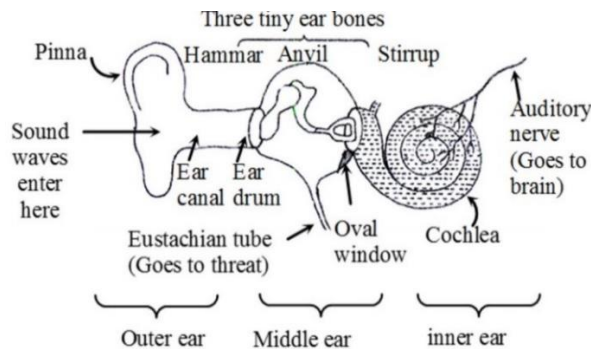
SECTION C (3×7=21)

27. a) Briefly explain any two methods of replenishing soil naturally.
 b) Why should we avoid continuous plantation of the same crop in the field?
28. Give appropriate reasons for the statements given below:
 a) Green leaves do not catch fire as easily as dry leaves.
 b) It is advised not to sleep in a room with burning coal in it.
 c) Fuels in automobiles are being replaced with CNG.
29. a) Give any two differences between typhoid and chicken pox (other than its symptoms)
 b) While returning from school Teena ate chaat from a street hawker. On reaching home she started vomiting and had to be taken to the hospital. What could be the reason? Explain briefly.

30. a) The distance between an object and its image formed by a plane mirror appears to be 40cm. What is the distance between the mirror and the object?
 b) Draw a neat diagram of the human eye showing its parts and label the following parts.
 i) lens
 ii) iris
 iii) retina
31. Explain the process of budding in Hydra with a neat, labelled diagram.
32. a) Differentiate between menarche and menopause. (1 point each)
 b) What is the role of the following hormones?
 i) Testosterone
 ii) Insulin
33. a) Show with the help of a diagram that lemon juice and vinegar are good conductors of electricity.
 b) Does pure water conduct electricity? If not, what can we do to make it conduct?

SECTION D (5×3=15)

34. a) On burning 3.5kg of fuel, 70,000 kJ of energy was produced. Determine its calorific value.
 b) Define the term Ignition temperature.
 c) Distinguish between rapid and spontaneous combustion with example.
35. a) Give appropriate reason for the following:
 i) It is harmful to get exposed to loud noise for long periods.
 ii) The voices of men are different from that of women.
 b) Observe the given diagram of human ear and explain how does the eardrum help us to hear the sound?

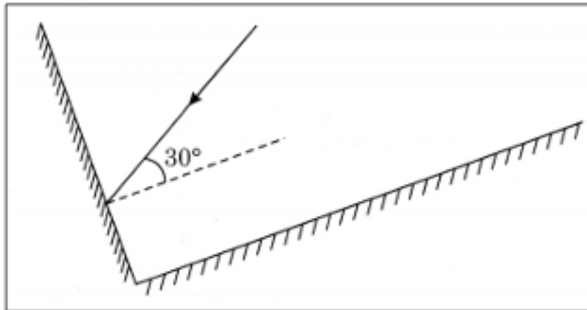


- c) A simple pendulum makes 10 oscillations in 20 s. What is the time period of its oscillations?

36. a) Draw a neat and labelled diagram of a plant cell and label the following parts:
- Cell wall
 - Plastids
 - Vacuole
- b) What is the difference between eukaryotic and prokaryotic cells?
- c) Genes are referred to as units of inheritance. Why?

SECTION E (4×3=12)

37. Light is a form of energy which induces a sensation of vision to our eyes. It becomes visible when it bounces off on surface and hits our eyes. Regular reflection takes place through a smoothed polished surface. The law of reflection states that the incident ray, the reflected ray, and the normal to the surface of the mirror all lie in the same plane. Furthermore, the angle of reflection is equal to the angle of incidence. Both angles are measured with respect to the normal to the mirror.
- What is regular reflection? State one advantage of regular reflection.
 - Two mirrors meet at right angles. A ray of light is incident on one at an angle of 30° as shown in Figure. Draw the reflected ray from the second mirror.



- What is the angle of incidence of a ray if the reflected ray is at an angle of 90° to the incident ray? (show the working)
38. The body of all organisms are made up of tiny, microscopic units called cell. All basic functions of the body like respiration and excretion are carried out by cell. The shape and size of cells are related to the specific function they perform. Each living cell has the capacity to perform certain basic functions that are characteristic of all living forms. There is a division of labour in multicellular organisms such as human beings.

This means that different parts of the human body perform different functions. Every cell has at least three features, i.e. plasma membrane, nucleus, and cytoplasm. Plasma membrane is the outermost covering of the cell that separates the contents of the cell from its external environment. It allows entry and exit of some materials in and out of the cell. The nucleus is a dense and spherical organelle. It plays a central role in cellular reproduction. It controls all the metabolic activities of the cell. The cytoplasm is a jelly-like, colourless semi-fluid substance inside a plasma membrane. It contains specialised cell organelles.

- i) What are the basic components of a cell?
- ii) What do you mean by division of labour in living cell?
- iii) Ravi observed the slides of plant and animal cell under the microscope in his laboratory. What difference he must have observed between plant and animal cell? (any two differences)

39. Mohan had an iron can. The food items that he stored in the can got spoilt. His teacher explained to him about electroplating in which we coat a desired metal on other metal by passing electricity. He decided to coat the iron can with tin, for this he constructs a circuit. After some time, he was surprised to see tin coating develop on iron can. He used the electroplated can for storing food as tin is less reactive than iron, it will prevent food from coming in contact with iron.

- i) What is electroplating?
- ii) Iron cans used for storing food are usually electroplated with tin. Why?
- iii) What are the advantages and disadvantages of electroplating? (one point each)