



K.P.C PUBLIC SCHOOL, KHARGHAR
ASSESSMENT-IV 2023-24

GRADE: VII
SUBJECT: SCIENCE

MARKS :100
TIME: 3 HRS

General Instructions: This question paper comprises five sections A , B , C , D and E.

All questions are compulsory.

SECTION – A

This section carries 1 mark each and comprises of:

A] Tick the correct answer

B] Fill in the blanks

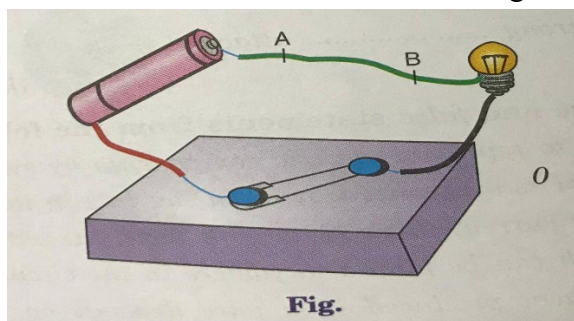
C] True or false

D] Match the following

A] Tick (✓) the correct answer:

(1 x 12=12)

1. When an electric current flows through a copper wire AB as shown in figure, the wire



- a) deflects a magnetic needle placed near it
- b) becomes red hot
- c) gives electric shock
- d) behaves like a fuse

2. Vegetative propagation refers to the formation of new plants from the following existing organs of the old plants:

- a) Stems, roots, flowers
- b) Stems, flowers, fruits
- c) Roots, stems, leaves
- d) stems, leaves, flowers

3. In a filtration plant water is filtered using layers of

- a) sand and clay
- b) clay and final gravel
- c) sand and final gravel
- d) sand, fine gravel and medium gravel

4. You are provided with a concave mirror, a convex mirror, a concave lens and a convex lens. To obtain an enlarged image of an object you can use either

- a) concave mirror or convex mirror.
- b) concave mirror or convex lens.
- c) concave mirror or concave lens.
- d) concave lens or convex lens

5. Statement 1: The heating up of a thin conducting wire on passing an electric current through it is called heating effect of current.

Statement 2: Various electrical appliances that are based on heating effect of current contain a coil of wire called element.

- a) Statement 1 is correct while Statement 2 is incorrect.
- b) Statement 2 is correct while Statement 1 is incorrect.
- c) Both statements are correct.
- d) Both statements are incorrect.

6. Assertion (A): Fuse is a safety device which prevents damage to electrical circuits and possible fires.

Reason (R): The fuse wire blows off and breaks the circuit and prevent fire and damage.

- a) Both (A) and (R) are true and (R) is the correct explanation of (A).
- b) Bothe (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.

7. Which of the following is/are product of wastewater treatment?

- a) Biogas
- b) Sludge
- c) Both Biogas and Sludge
- d) Aerator

8. The first link to all food chains are

- a) Herbivores
- b) Carnivores
- c) Green plants
- d) None of these

9. The system of a network of a pipes used for taking away wastewater from homes or public buildings to the treatment plant is known as

- a) sewers
- b) sewerage
- c) transport system
- d) treatment plant

10. Assertion(A): In the side mirror of the car , the image of all the object appear smaller than the objects.

Reason(R) : Side mirrors are convex mirrors.

- 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.

11. A fuse is fixed in a circuit in order to:

- a) Decrease the amount of current
- b) Increase the amount of current
- c) Increase the power consumed in the circuit
- d) Safeguard against excessive current

12. Which of the following statement is incorrect for a chemical reaction?

- a) Heat may be given out but never absorbed.
- b) a colour change may take place.
- c) sound may be produced.
- d) A gas may evolved

B] Fill in the blanks:

(1 x 6 = 6)

13. The inner surface of steel acts as a _____ mirror.
14. An image that cannot be obtained on a screen is called _____.
15. The small bulb like projection coming out from the yeast cell is called a _____.
16. Longer line in symbol for a cell represents its _____ terminal.
17. Cleaning of water is a process of removing _____.
18. The coil of wire in electric heater is called an _____.

C] True or False:

(1 x 6 = 6)

19. During lateral inversion, the image becomes inverted.
20. Cooking oil and fats should not be thrown down the drain because they can harden and block the pipes.
21. Plants produced by vegetative propagation take more time to grow and bear flower and fruits.
22. To make a battery of two cells, the negative terminal of one cell is connected to the negative terminal of the other cell.
23. Condensation of steam is not a chemical change.
24. The spore are asexual reproduction bodies.

D] Match the following:

(1 x 6 = 6)

COLUMN 'A'	COLUMN 'B'
25. MCBs	a. Maple
26. White light composed	b. Blows off, if the current exceeds safe limit
27. Anaerobic bacteria	c. Turn OFF, if the current exceeds safe limit
28. bar screens	d. Decompose sludge
29. Wings	e. Remove large objects from wastewater
30. Fuse	f. Seven colors

SECTION - B*(This section comprises of Short Answer Type Question carrying 2 marks each.)*

(2x 10 =20)

31. What is an open circuit with respect to on-off switch? Explain with circuit diagram 1+1
32. State two differences between a convex and a concave lens. 2
33. What is Vermi-composting toilet? 2
34. What is vegetative propagation? 2
35. State uses of concave mirror.(any 2) 2
36. What are converging and diverging lens? 1+1
37. Do you think an electromagnet can be used for separating plastic bags from a garbage heap? Explain.
38. What is sewage and sewerage? 1+1
39. What are decomposers? Name any two of them. 1+1
40. How would you show the setting of curd is a chemical change? 2

SECTION - C*(This section comprises of Short Answer Type Question carrying 3 marks each.)*

(3 X 6 =18)

41. When the current is switched on through the wire, a compass needle kept nearby gets deflected from its north-south position. Explain. 3
42. What is reflection? Why do we need a shiny surface for reflection? 1+2
43. What is sludge? Explain how it is treated. 3
44. (A) What is an electric fuse? What is its importance? 1+2

OR

- 44.(B) Explain the uses of: (one for each) 1+1+1
i) Concave mirror ii) Convex mirror iii) Convex lens
45. What are the advantages of vegetative propagation.? 3
46. Untreated human excreta is a health hazard .Explain. 3

SECTION – D

- (This section comprises of Long Answer Type Question carrying 5 marks each.) (4 x 5 = 20)*
47. What is an electromagnet? Give any 4 applications of electromagnets. 1+4
48. State the characteristics of the image formed by plane mirror. 5
49. (A) . Describe the steps involved in getting clarified water from wastewater 5

OR

- 49.(B): Mention five uses of water. 5
50. Explain how forest helps in controlling floods and maintains steady supply of water? 5

SECTION – E

(This section comprises of case study based / data based questions carrying 1 marks each.) (1x12= 12)

51. Read the following passage and answer the questions:

Incandescent electric bulbs are often used for lighting but they also give heat. It means that a part of electricity consumed is used in producing heat. This is not desirable as it results in the wastage of electricity. The Fluorescent tube lights and Compact Fluorescent Lamps(CFLs) are better electricity efficient lighting sources. Nowadays, the use of Light Emitting Diode (LED) bulbs is increasing. For producing a given intensity of light, LED bulbs consume less electricity as compared to incandescent bulbs or fluorescent tubes or CFLs. Thus LED bulbs are much electricity efficient and therefore being preferred.

Fluorescent tubes and CFLs contain mercury vapour, toxic in nature. Therefore damaged fluorescent tubes or CFLs need to be disposed off safely.

- i) Which of these statements explains the benefit of CFL over incandescent bulbs? 1
a) It produces electricity from heat.
b) It gives heat along with the light.
c) It consume a lesser amount of electricity.
d) It does not require electricity to produce light.
ii) Why should we dispose off fluorescent tube lights or CFLs safely? 1
iii) What alternative can be used now in place of CFL? 1
iv) Why are incandescent bulbs not used much nowadays? 1

52. One day, Amars friends was performing their respective experiments given by their teacher. While sitting in the practical lab instead of performing the experiment, Amar was playing with his meter scale. All of a sudden, he held the scale in his hand and started moving in front of the tube light, then he observed the seven colours of light.

- i). The coloured band of light obtained by dispersion of light is called 1
a) image
b) spectrum
c) convergence
d) shadow
ii). Name the device which is used to split white light into seven colours. 1
iii) The white light of Sun consist seven colours, True/False. 1
iv) Why does Newtons disc appear white when rotated? 1

53. An electric bell consist of a coil of wire wound on an iron piece. The coil acts as an electromagnet. An iron strip with a hammer at one end is kept close to the electromagnet. There is a contact screw near the iron strip. When the iron strip is in contact with the screw, the current flows through the coil which becomes an

electromagnet. It ,then pulls the iron strip. In the process, the hammer at the end of a strip strikes the gong of a bell to produce a sound. However, when the electromagnet pulls the iron strip, it also breaks the circuit. The current stops flowing through the coil.

- i) The strength of the electromagnet can be increased by 1
 - a) decreasing the number of coil.
 - b) Increasing the number of coil.
 - c) decreasing the strength of current.
 - d) All of these
- ii) In an electric bell, which of these gets attracted to the electromagnet? 1
 - a) Hammer
 - b) soft iron strip
 - c) Screw
 - d) None of these
- iii) When electric current passes through a wire, it behaves like a magnet. This is the: 1
 - a) magnetic effect of current.
 - b) electrical effect of current.
 - c) heating effect of current.
 - d) optical effect of current.
- iv) Electrical bell works on the principle 1
 - a) electrical energy is converted into mechanical energy.
 - b) electrical energy converted into sound energy.
 - c) mechanical energy converted into sound energy.
 - d) sound energy converted into electrical energy.