

CBSE MIXED TEST PAPER-03

CLASS - X GENERAL SCINENCE

[Time: 2.50 hrs.]

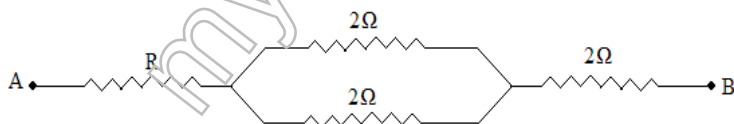
[M. M.: 60]

General Instructions:

1. The question paper comprise of two sections A and B. you are to attempt both the sections
2. All questions are compulsory
3. There is no over all choice, however, internal choice has been provided in all three questions of five marks category only one option in such question is to be attempted.
4. All questions of section A and all question of section B are to be attempted separately.
5. Question s1 to 6 in section A and 17 to 19 in section B are very short questions. They carry 1 mark each.
6. Questions 7 to 10 in section A and 20 to 24 in sections B are short type questions and carry 2 marks each.
7. Questions 11 to 114 in section A and 25 to 26 in sections B are also short answer type questions and carry 3 marks each.
8. Questions 15 and 16 in section A and questions 27 in section B are long answer type questions and carry 5 five marks each.

SECTION - A

Q1. The effective resistance between points A and B is $5\ \Omega$. Find the value of R

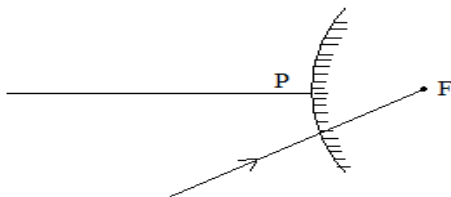


Q2. Speed of light in three transparent median is as given below:-

- a. $2.0 \times 10^8 \text{m/Sec.}$
- b. $2.25 \times 10^8 \text{m/Sec.}$
- c. $1.20 \times 10^8 \text{m/Sec.}$

Which of the medium has highest refractive index?

Q3. Complete the path of ray of light after reflective at the mirror in the given diagram.



Q4. Why does it take sometime to see objects in a cinema hall, when we just enter the hall?

Q5. Why is it not possible to prepare magnesium by heating magnesium oxide in a current of hydrogen?

Q6. Do basic solutions also have $H^+(aq)$ ions? If yes, then why are these basic?

Q7. In the following given reaction which one is oxidized which one is reduced



Q8. Draw the magnetic lines of force through and around a single loop of wire carrying electric current.

Q9. With the help of chemical equations prove that aluminum oxide is an amphoteric oxide.

Q10. Equal lengths of magnesium ribbons are taken in test tubes A and B. Hydrochloric acid (HCl) is added to test tube A, while acetic acid (CH_3COOH) is added to test tube 'B'. in which test tube will the fizzing, occur more vigorously and why?

Q11. Atomic number is considered to be a more appropriate parameter than atomic mass for classification of elements in a periodic table why?

How does atomic size of elements vary on movings from:-

- Left to right in a period.
- From top to bottom in a group.

Q12. A 10cm tall object is placed perpendicular to the principal axis of a convex lens of focal length 30cm. the distance of object from the lens is 20cm. Find the (i) position (ii) Nature (iii) Size of the image formed.

Q13. a. write the general chemical formula for Alkanes and Alkenes hydrocarbon

b. Write down the formula of functional group present in (i) Ethyl alcohol (ii) acetaldehyde (iii) Acetone (iv) Acetic Acid

Q14. How many $176\ \Omega$ resistors (in parallel combination) are required to carry 5A current on 220V line?

Q15. a. State Fleming's left hand Rule?

b. write is a electric fuse? Briefly explain its importance and functions in domestic electric circuit.

OR

Briefly explain the following:-

- Why is the tungsten used almost exclusively for filament of electric lamp.
- How do the resistance of wire vary with its area of cross section.
- Why is the series arrangement not used for domestic circuits?
- Why two magnetic lines of force do not intersect each other?
- How is power related with electric current & voltage?

Q16. An organic compound "A" is widely used as a preservative in pickles and has a molecular formula $C_2H_4O_2$. This compound reacts with ethanol to form a sweet smelling compound "B".

- Identify the compound "A".
- Write the chemical equation for its reaction with ethanol to form compound "B".
- How can we get compound "A" back from "B". Name the process and write corresponding chemical equation.
- Which gas is produced when compound "A" reacts with washing soda? Write the chemical equation.

OR

- In electrolytic refining of metal "m" what would you take as anode, the cathode, and the electrolyte?
- What types of oxides are formed when non metals combine with oxygen?
- Give reasons
 - Platinum, Gold, Silver are used to make ornaments (jewellery).
 - Aluminum is highly reactive metal, yet it is used to make utensils for cooking.

SECTION - B

- Q17. Which hormone regulate the metabolism of carbohydrate fat and proteins?
- Q18. Name the tissue which transport water and mineral in a plant?
- Q19. What is called the gap between two neurons?
- Q20. How are fats digested in our bodies? Where does this process take place?
- Q21. Name those parts of flower which serves the same function as following do in animals.
(i) Testis (ii) Ovary (iii) eggs (iv) sperms.
- Q22. List any four characteristics of biogas on account of which it is considered a ideal fuel.
- Q23. A cross between tall pea plant with round seeds and short plant with wrinkled seeds produced a progeny of tall plants with round seeds. Name the dominant and recessive traits.
- Q24. a) What are fossils?
b) Can the wings of a butterfly and the wings of a bat be considered homologous organs? Why are they not? Explain.
- Q25. a) If 5000 K.J. energy is received by producers in a food chain. Calculate the energy obtained by the consumers of trophic level IV.
b) Why should we conserve forests and wild life?
- Q26. a) What is sex chromosome?
b) How sex of a child is determined at the basis of chromosome explain in brief.
- Q27. a) Draw the diagram of heart and label its four chambers.
b) Construct a table to show the functions of these four chambers.

OR

Define the following:

- (a) Saprotrophs
- (b) Parasites
- (c) Photosynthesis
- (d) Transpiration
- (e) Gene