

10th Class Exam 2018 SAMPLE PAPER -8

Time Allowed: 3 hours

Subject: Science

Maximum marks: 80

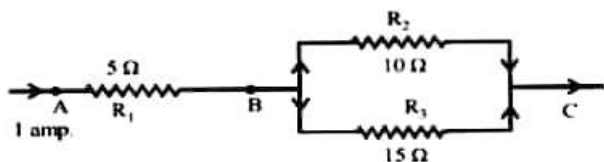
Section-A

1. What is the name the part which produces male gamete within the pollen grain?
 2. What is the organ of respiration in the Amoeba?
 3. What happens when we immerse a strip of zinc metal in a blue copper (II) sulphate.
 4. Why is it more dangerous to drive car on a rainy night?
 5. State any two steps to reduce the consumption of coal and petroleum products.
 6. Does electric charge flow across a circuit or through a circuit? Does voltage flow across a circuit or is it expressed across a circuit? Explain.
 7. How is electricity generated by a hydroelectric power plant? Explain.
 8. What are organic acids. Name some important organic acids and their source?
 9. What is atomic radius? Why does atomic radius decrease across a period?
 10. What is the importance of transpiration?
 11. What is the principle of paired factors?
 12. How can we determine the focal length and power of the convex lens required to correct hypermetropic eye?
- OR What do you mean by (a) monochromatic light and (b) polychromatic light? Give examples.
13. Explain why plaster of Paris should be stored in a moisture proof container.
 14. What is the role of nutrition in the plants?
 15. Sohail and Dimple went to a confectionery to buy a pack of potato chips. On opening the pack Dimple noticed change in shape of the packet. She asked Sohail about this. Sohail answered that the packet was filled by N₂ gas. They discussed about the use of N₂ gas in potato chips packet but even after a long discussion they did not come to any conclusion. So next day in school they discussed with their teacher about N₂ gas and its uses.

(i) Why N₂ gas is filled in potato chips pack? (ii) What is the name of the process given to the oxidation of fats and oils? (iii) Mention the value shown by Sohail and Dimple.

16. (i) With the help of circuit diagram derive the formula for the equivalent resistance for three resistances connected in series?

(ii) Three resistors are connected as shown in the following figure. Through the resistor 5 Ω a current of 1A is flowing.

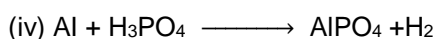
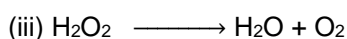
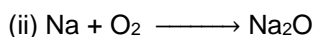
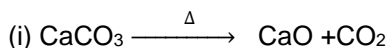


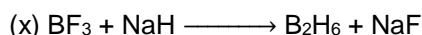
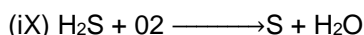
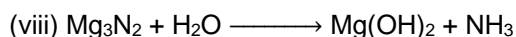
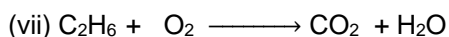
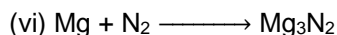
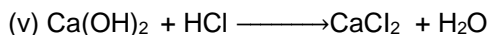
- (a) What is the total resistance?
- (b) What is the potential difference across AB and BC?
- (c) What is the current through other two resistors?

17. A solution of Na₂CO₃ is mixed with a solution of CaCl₂. Predict what happens.

OR,

Balance the following equations





18. Explain with help of diagram structure and function of human heart? What is double circulation?

19. Find the refractive index of two media with respect to each other when their refractive indices with respect to air or vacuum are known.

20. (a) The atomic numbers of Mg and Al are 12 and 13 respectively. Write the electronic configuration of each element. Which of these two has large atomic radius?

(b) Consider the following elements: Na, Cl, Ba, F, K, Br, Sr, Li, Ca. Separate these elements into three groups of similar properties. Also give the basis of your classification?

21. How is the sex of the child determined in human beings?

OR, why are traits acquired during the life of individual not inherited?

Section-B

22. In the following reaction between H_2S and SO_2

$2\text{H}_2\text{S} + \text{SO}_2 \longrightarrow 2\text{H}_2\text{O} + 3\text{S}$; Identify. (i) The substance oxidized (ii) The substance reduced (iii) Type of reaction (iv) Can we predict whether above reaction is exothermic or endothermic.

23. Explain how the following metals are obtained from their compounds by the reduction process:

(i) Metal X, which is low in reactivity series. (ii) Metal Y, which is middle of the series. (iii) Metal Z, which is high up in the reactivity series.

24. What kind of mirror—concave, convex or plain—would be best suited for use in a solar cooker? Why?

25. Why does an exposed moist piece of bread get covered with a cottony growth?

26. As more lines are opened at a fast-food restaurant, the resistance to the motion of people trying to get served is reduced. How is this similar to what happens when more branches are added to a parallel circuit?

27. In an experiment to determine the focal length of a convex lens, a student obtained a sharp inverted image of a distant tree on the screen behind the lens. She then removed the screen and looked through the lens in the direction of the object. What kind of image will she observe?