

Instructions to Students: Read all the questions thoroughly and write down the answers.

This question paper contains a total of 4 parts. They are

- I. There will be 4 questions. Each question carries 4 marks. Answer all the questions.**
- II. There will be 6 questions. Each question carries 2 marks. Answer all the questions.**
- III. There will be 7 questions. Each question carries 1 mark. Answer all the questions.**
- IV. There will be 10 multiple choice questions each question carries $\frac{1}{2}$ mark. Answer all the questions.**

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- I. Answer all the questions. Each question carries 4 Marks 4 x 4 = 16**
 1. Why does the third period in the periodic table contain eight elements and 4th period contain 18 elements. Explain?
 2. Explain the role of pH in our digestive system?
 3. Draw a circuit diagram for a circuit in which two resistors A and B are connected in series with a battery and a voltmeter is connected to measure the potential difference across the resistor A.
 4. What are the steps involved in the process of obtaining metal from its ore? And describe any one of the processes?
 - II. Answer all the questions. Each question carries 2 Marks. 6 x 2 = 12**
 5. Draw the symbols of an electric cell, a resistor, and an ammeter.
 6. Why do we use fuses in household electric circuits?
 7. Show the formation of ammonia and methane with diagrams.
 8. What are the limitations of Mendeleeff's periodic table?
 9. What is corrosion and how it is prevented?
 10. State the oxidation reactions associated with carbon compounds?
 - III. Answer all the questions. Each question carries 1 Marks. 7 x 1 = 7**
 11. A doctor has prescribed a corrective lens of power 1D. Find the focal length of this lens.
 12. What is Presbyopia?
 13. What is the relation between magnetic flux and magnetic flux density?

14. Which acid is present in vinegar?
15. To which group do the Alkali earth metal family belong?
16. On which rule does an ATM card work?
17. Write 2 examples of unsaturated hydrocarbon

IV. Answer all the questions. Each question carries 1/2 Marks. 10 x 1/2 = 5

18. Which of the following method is used to smelting?
- a. distillation b. poling c. liquation d. All
19. What is the bond angle of beryllium chloride?
- a. 120° b. 180° c. 110° d. 104.31°
20. Antacid is a
- a. strong acid b. strong base c. weak base d. weak acid
21. Formation of hydrogen chloride from hydrogen and chlorine is _____ reaction?
- a. Combination b. Decomposition c. Single Displacement d. Double displacement
22. The distance between the retina and the lens of the eye?
- a. 2 cm b. 2.5 cm c. 1.75 cm d. 7 cm
23. What is the value of 1KWH in joules?
- a. 1 KWH = 4.6×10^6 J b. 1 KWH = 6.6×10^6 J
c. 1 KWH = 3.6×10^6 J d. 1 KWH = 5.6×10^6 J
24. Product of Magnetic flux density and area is equal to
- a. magnetic pole b. magnetic force
c. magnetic flux d. none
25. Hydrogenation of vegetable oils uses _____ as a catalyst.
- a. Nickel b. Boran c. Hydrogen d. Manganese
26. What is the chemical formula of ethene?
- a. C_2H_6 b. CH_4 c. NH_3 d. C_2H_4
27. What are the examples of saturated hydrocarbons?
- a. alkanes b. alkenes c. alkanes and alkenes d. none