

## EXERCISE - II

## OLYMPIAD PROBLEMS

- Q.1 The best electrical conductor is,  
(A) gold (B) copper  
(C) silver (D) aluminium
- Q.2 "is malleable and ....." This statement best describes,  
(A) a metal (B) a nonmetal  
(C) a metalloid (D) a compound
- Q.3 The most reactive metal of the following is,  
(A) zinc (B) iron  
(C) magnesium (D) sodium
- Q.4 The reaction, Zinc + Copper sulphate solution  $\longrightarrow$  Zinc sulphate solution + Copper, indicates that the metal which appear lower in the reactivity series is,  
(A) Zn (B) Cu  
(C)  $\text{Zn}^{2+}$  (D)  $\text{Cu}^{2+}$
- Q.5 Where do the metals which can displace hydrogen from water at room temperature appear in the reactivity series ?  
(A) near the top  
(B) at the bottom  
(C) in the middle  
(D) next to hydrogen
- Q.6 Iron is galvanized by coating it with,  
(A) nickel (B) chromium  
(C) manganese (D) zinc
- Q.7 Metalloids share the properties of  
(A) Metals (B) Non-metals  
(C) None (D) Both
- Q.8 Which one of the following is used for making pencil lead ?  
(A) Graphite (B) Diamond  
(C) Sulphur (D) None
- Q.9 The metal that melts even when kept on the palm is  
(A) Cobalt (B) Gallium  
(C) Nickel (D) Mercury
- Q.10 Which of the following metal cannot displace hydrogen ?  
(A) Copper (B) Silver  
(C) Gold (D) All of these
- Q.11 The essential condition required for rusting of iron is the presence of  
(A) Oxygenated air  
(B) Moisture  
(C) Nitrogen  
(D) Moist oxygenated air
- Q.12 Which of the following element is a metalloid?  
(A) Carbon (B) Nitrogen  
(C) Calcium (D) Silicon
- Q.13 Which of the following is the best conductor of electricity ?  
(A) Copper (B) Aluminum  
(C) Gold (D) Mercury
- Q.14 The metal liquid at room temperature is  
(A) Copper (B) Aluminum  
(C) Sodium (D) Mercury
- Q.15 The element used as the index of the wealth of a country is –  
(A) Platinum (B) Aluminum  
(C) Gold (D) Mercury
- Q.16 The soldering wire is an alloy of  
(A) Copper and tin  
(B) Lead and tin  
(C) Aluminium and lead  
(D) Copper and aluminium
- Q.17 The stainless steel is an alloy of –  
(A) Iron and nickel  
(B) Iron and chromium  
(C) Nickel and chromium  
(D) Iron, nickel and chromium
- Q.18 Who classified the elements in metals and non-metals ?  
(a) Lavoisier (B) Priestley  
(C) Lemaitre (D) Lenoir
- Q.19 Which of the following metals occur in their pure state ?  
(A) Copper (B) Iron  
(C) Zinc (D) Gold
- Q.20 Which of the following metal is liquid at room temperature ?  
(A) Sodium (B) Mercury  
(C) Zinc (D) Aluminium

- Q.40 Corrosion is a –  
 (A) Reduction reaction  
 (B) OXidation reaction  
 (C) Replacement reaction  
 (D) Displacement reaction
- Q.41 Which of the following is magnetic metal  
 (A) Copper  
 (B) Aluminium  
 (C) Iron  
 (D) All the above
- Q.42 which of the following is highly resistant to corrosion ?  
 (A) Iron  
 (B) copper  
 (C) Aluminium  
 (D) Titanium
- Q.43 Metals generally have \_\_\_\_\_ number of electrons in their valence shell.  
 (A) 1, 2, or 3 (B) 7, 8 or 9  
 (C) 10, 11 or 12 (D) 20, 30 or 40
- Q.44 Nonmetals contain \_\_\_\_\_ number of electrons in their outmost shell.  
 (A) 1, 2, or 3  
 (B) 8, 9 or 10  
 (C) 10, 20 or 30  
 (D) 5, 6 or 7
- Q.45 Nonmetals form :  
 (A) cations  
 (B) anions  
 (C) anions and cations  
 (D) do not form ions
- Q.46 To become stable, metals :  
 (A) lose or gain electrons  
 (B) neither lose nor gain electrons  
 (C) lose electrons  
 (D) gain electrons
- Q.47 Metals tends to form :  
 (A) cations  
 (B) anions  
 (C) cations and anions  
 (D) do not form ions
- Q.48 Antimony and arsenic belong to the category of :  
 (A) metals (B) metalloids  
 (C) nonmetals (D) minerals

- Q.49 Noble gases do not react because they have \_\_\_\_\_ electrons in their valence shell.  
 (A) 3 (B) 6  
 (C) 1 (D) 8
- Q.50 The element present below hydrogen in electrochemical series is :  
 (A) Mg (B) Hg  
 (C) Pb (D) Sn

**ANSWER KEY**

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|-------|-------|-------|
| 1. C  | 2. A  | 3. D  |
| 4. B  | 5. A  | 6. D  |
| 7. D  | 8. A  | 9. D  |
| 10. D | 11. D | 12. D |
| 13. A | 14. D | 15. C |
| 16. D | 17. D | 18. A |
| 19. D | 20. B | 21. C |
| 22. A | 23. D | 24. C |
| 25. B | 26. A | 27. D |
| 28. C | 29. A | 30. B |
| 31. C | 32. B | 33. C |
| 34. C | 35. A | 36. B |
| 37. C | 38. D | 39. A |
| 40. B | 41. C | 42. D |
| 43. A | 44. D | 45. B |
| 46. C | 47. A | 48. B |
| 49. D | 50. B |       |