PERIODIC TABLE-2

1. What is the atomic number of the atom that has 6 electrons in its 4^{th} energy level?
A. 32 B. 34 C. 36 D. 38 E. 40

2. Which one is **not** found in p block of the periodic table?
A. $_{12}Mg$ B. $_{13}Al$ C. $_{15}P$ D. $_{16}S$ E. $_{18}Ar$

3. X^{2+} ion has 36 electrons. What are the group and period number of X?
A. group 8A - 4^{th} period
B. group 2A - 5^{th} period
C. group 6A - 4^{th} period
D. group 4A - 5^{th} period
E. group 2A - 4^{th} period

4. What is the proton number of the element which is found in the 5^{th} period and 3A group?
A. 49 B. 50 C. 51 D. 52 E. 53

5. How many valence electrons does an element with an atomic number of 35 have?
A. 1 B. 2 C. 3 D. 5 E. 7

6. What is the number of electrons of $_{37}Rb$ atom in the fourth energy level?
A. 1 B. 2 C. 3 D. 6 E. 8

7. Which electrons are **not** found in any atom?
A. 3p electrons
B. 4s electrons
C. 4f electrons
D. 2d electrons
E. 5d electrons

8. What is the atomic number of element that has four electrons in its 4p orbital?
A. 22 B. 24 C. 28 D. 32 E. 34

9. S atom has 16 protons. What is the electron configuration of S^{2-} ion?
A) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^2$
B) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^4$
C) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6$
D) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3d^2$
E) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3d^6$

10. The electron configuration of X^{2-} ion is given as $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6$ and X atom has 16 neutrons. What is the atomic mass number of X?
A. 14 B. 16 C. 20 D. 32 E. 34

11. I. number of electrons
II. atomic number
III. mass number
Which one(s) help(s) us to determine the place of an element in the periodic table?
A. I only B. II only C. III only
D. I and II E. I, II and III

12. Electron configuration of an element is given as,
$1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 4s^2\ 3d^{10}\ 4p^3$
Which one of the following is the group number of this element?
A. 7A B. 5A C. 4A D. 3A E. 2A

13. Which one of the following has noble gas electron configuration?
A. $_8O^-$ B. $_{12}Mg^+$ C. $_{19}K^+$ D. $_{26}Fe^{2+}$ E. $_{29}Cu^+$

14. Which elements in the following pairs have similar chemical properties?
A. $_3X - _4Y$
B. $_2Z - _{12}V$
C. $_2Z - _{14}R$
D. $_4Y - _{14}R$
E. $_3X - _{19}T$

15. What is the meaning of number of valence electron?
A. Number of electrons
B. Number of electrons in the nucleus
C. Number of electrons in inner shell
D. Number of electrons in outer most shell
E. The sum of electrons

16. If an atom forms an ion by taking or giving electron, which one of the following is **always correct** for the number of valence electron?
A. Increases
B. Decreases
C. Does not change
D. Increases by taking and decreases by losing electrons
E. An ion does not have any electron

17. There are four types of orbitals; s, p, d and f. Which one may contain 10 electrons at most?
A. s B. p C. d D. f E. none

18. Na atom has 11 protons. Which of the following is the electron configuration of Na atom?
A. $1s^2\ 2s^2\ 2p^6$
B. $1s^2\ 2s^2\ 2p^6\ 3s^2$
C. $1s^2\ 2s^2\ 2p^6\ 3s^1$
D. $1s^2\ 2s^2\ 2p^5$
E. $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3d^6$

19. Mg atom has 12 protons. What is the electron configuration of Mg^{2+} ion?
A. $1s^2\ 2s^2\ 2p^6\ 3s^1$
B. $1s^2\ 2s^2\ 2p^6$
C. $1s^2\ 2s^2\ 2p^6\ 3s^2$
D. $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3d^2$
E. $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3d^2$

20. Which one of the following has a different electron configuration?
A. ${}_8O^{2-}$ B. ${}_{12}Mg^{2+}$ C. ${}_{19}K^{+}$ D. ${}_{13}Al^{3+}$ E. ${}_9F^{-}$

21. Elements placed in the same group have similar chemical properties. Which one of the following has different chemical property?
A. Ca B. Na C. K D. Li E. Rb

22. Electron configuration of an element is given as
$1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 4s^2$

Which one of the following is the group number of this element?
A. 7A B. 5A C. 4A D. 3A E. 2A

23. Ions containing 8 valence electrons have noble gas electron configuration. Which one of the following does **not** have a noble gas electron configuration?
A. ${}_8O^{2-}$ B. ${}_{12}Mg^{+}$ C. ${}_{19}K^{+}$ D. ${}_{13}Al^{3+}$ E. ${}_9F^{-}$

24. How many valence electrons does an element with an electron configuration of $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 4s^2$ have?
A. 1 B. 2 C. 3 D. 5 E. 7

25. What is the number of electrons of the following atom in its second energy level?
${}_{20}Ca$: $1s^2\ 2s^2\ 2p^6\ 3s^1$
A. 8 B. 6 C. 3 D. 2 E. 1

26. What is the group number an element with an electron configuration of $1s^2\ 2s^2\ 2p^6\ 3s^1$?
A. 7A B. 5A C. 4A D. 3A E. 1A

27. Chlorine has 17 electrons. Which of the following is **wrong** for chlorine?
A. ${}_{17}Cl$: $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^5$.
B. It is found in 7A group.
C. It is found in the third period.
D. It needs one more electron to have noble gas electron configuration.
E. It is found in d block.

28. What is the atomic number of the atom that has 6 electrons in its 4^{th} energy level?
A. 32 B. 34 C. 36 D. 38 E. 40

29. Which one is **not** found in p block of the periodic table?
A. ${}_{12}Mg$ B. ${}_{13}Al$ C. ${}_{15}P$ D. ${}_{16}S$ E. ${}_{18}Ar$

30. X^{3+} ion has 35 electrons. What are the group and period number of X?
A. group 8A - 4^{th} period
B. group 2A - 4^{th} period
C. group 6A - 4^{th} period
D. group 4A - 5^{th} period
E. group 2A - 5^{th} period

31. What is the proton number of the element which is found in the 5^{th} period and 3A group?
A. 49 B. 50 C. 51 D. 52 E. 53

32. How many valence electrons does an element with an atomic number of 35 have?
A. 1 B. 2 C. 3 D. 5 E. 7

33. What is the number of electrons of ${}_{38}Sr$ atom in the last energy level?
A. 8 B. 6 C. 3 D. 2 E. 1

34. Which electrons are **not** found in any atom?
A. 3p electrons

B. 4s electrons
C. 4f electrons
D. 2d electrons
E. 5d electrons

35. What is the atomic number of element that has four electrons in its 4p orbital?
A. 22 B. 24 C. 28 D. 32 E. 34

36. S atom has 16 protons. What is the electron configuration of S^{2-} ion?
A. $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^2$
B. $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^4$
C. $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6$
D. $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3d^2$
E. $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3d^6$

37. The electron configuration of X^{2-} ion is given as
$1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6$
and X atom has 16 neutrons. What is the atomic mass number of X?
A. 14 B. 16 C. 20 D. 32 E. 34

38. I. number of electrons
II. atomic number
III. mass number
Which one(s) help(s) us to determine the place of an element in the periodic table?
A. I only B. II only C. III only
D. I and II E. I, II and III

39. The place of X element is known in the Periodic Table. Which one of the following cannot be determined?
A) number of electrons of X atom
B) number of valence electrons
C) proton number of X atoms
D) atomic number of X atom
E) mass number of X atom

40. Electron configuration of an element is given as,
$1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 4s^2\ 3d^{10}\ 4p^3$
Which one of the following is the group number of this element?
A. 7A B. 5A C. 4A D. 3A E. 2A

41. Which one of the following has noble gas electron configuration?
A. ${}_8O^-$ B. ${}_{12}Mg^+$ C. ${}_{19}K^+$ D. ${}_{26}Fe^{2+}$ E. ${}_{29}Cu^+$

44. X^{+3} has 28 electrons, what is the place of neutral X atom in periodic table?

45. A^{-2} ion has 8 electrons in its 3rd energy level. What are the group and period number of neutral A?

46. What is the atomic number of the element, which is found in the 5th period and group IIIA?

47. A^{-3} and B^{-1} have the same number of electrons. If B is in the 2nd period and group VIIA, what is the place of A in the table?

48. What is the atomic number (p^+) of the element in which filling of the 4d orbitals by electrons is completed?
A. 44 B. 45 C. 46 D. 47 E. 48

49. What is the atomic number of the atom that has 6 electrons in its 4th energy level?
A. 32 B. 34 C. 36 D. 38 E. 40

50. An atom has a configuration ending with $4p^3$. If it has nine less protons than its number of neutrons, what is its mass number?
A. 70 B. 75 C. 80 D. 81 E. 82

51. X has 14 neutrons and has 1 e^- in 3p orbital. What is the MW of X_2S_3? (S: 32 g)
A. 125 B. 150 C. 175 D. 200 E. 225

52. A^{2-} has 8 electrons in its 3rd energy level. Find the group and period number of A?

	Period	Grup
A.	3	5A
B.	3	6A
C.	2	6A
D.	2	5A
E.	3	7A

53. What is the proton number (Z) of the element which is in the 5th period and 3A group?
A. 49 B. 50 C. 51 D. 52 E. 53

54. What is the atomic number of the 4th period and 3A group?

A. 30 B. 31 C. 32 D. 33 E. 34

55. Oxygen (Z: 8) is the first member of the 6A group. What is the atomic number of the third element in the same group?
A. 32 B. 34 C. 36 D. 38 E. 40

56. Fluorine has 9 electrons is the first member of the 7A group. What is the atomic number of the fourth element in the same group?
A. 50 B. 53 C. 56 D. 57 E. 58

57. A^{3-} and B^{1-} have the same number of electrons. If B is in the 2^{nd} period and 7A group; what is the place of A in the table?

	Period	Grup
A.	2	4A
B.	3	5A
C.	2	5A
D.	2	6A
E.	3	2A

58. 0.1 mole of CaX_2 weighs 20 grams. If X has 45 neutrons; what is the place of it in periodic table?

	Period	Grup
A.	3	7A
B.	4	7A
C.	4	6A
D.	5	7A
E.	2	4A

59. Which of the following cannot be used to determine the place of an element in the periodic table?
A. Number of protons
B. Atomic number
C. Mass number
D. Nuclear charge
E. Number of electrons when it it is neutral

60. A^{3-} and B^{1+} have the same number of electrons. If B is in the 3^{rd} period and 1A group; which are the period and group numbers of the element A?

	Peryot	Grup
A.	2^{nd}	8A
B.	2^{nd}	5A
C.	2^{nd}	7A
D.	3^{rd}	3A
E.	3^{rd}	4A

61. An ion XO_4^{a} has 50 electrons totally. If X is located in 3^{rd} period and 5A group; what is a?
A. 3+ B. 3- C. 2+ D. 2- E. 0

62. What is the atomic number of second element which is in the 4^{th} period?
A. 12 B. 20 C. 26 D. 30 E. 38

63. X: $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^2$
Y: $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 4s^2\ 3d^{10}\ 4p^4$
What is the chemical formula of the compound that will form between X and Y?
A. XY B. X_2Y C. XY_2 D. X_2Y_3 E. X_3Y_2