Electronic configurations, Auf-bau principle, Pauli principle, Hunds rule- Electronic configuration of an atom can be written by using method.

1. An element has 2 electrons is K shell, 8 electrons in L shell, 13 electrons in M shell and one electron in N shell. The element is (M-2004)

1) Cr 2) Fe 3) V 4) Ti

2. How many'd' electrons are present in Cr^{2+} ion? (M-2002)

1)5 2)2 3) 6 4) 3

3. Which of the following explains the sequence of filling electrons in different shells? (BHU 99)

1) Octet rule 2) Hund's rule

3) Aufbau's rule 4) All the above

4. If the nitrogen atom has electronic configuration $1s^7$, it would have energy lower than that of normal ground state configuration $1s^2 2s^2 2p^3$, because the electrons would be closer to the nucleus, Yet is not observed because it violates (M2002)

1) uncertainty principle 2) Hund's rule

3) Pauli principle 4) Bohr's stationary orbits

5. Which of the following elements has least number of electrons in its "M" shell? (E-2004)

1) K 2) Mn 3) Ni 4) Sc

6. The atomic number (Z) of an element is 25. In its ground state , how many electrons are present in "N" shell ? (M - 2001)

1) 13 2) 2 3) 15 4) 3

7. The atomic numer of an element is 35. What is the total number of electrons present in all the p-orbitals of the ground state atom of that element? (M - 2003)

1) 6 2) 11 3) 17 4) 23

8. what is the maximum number of electrons in an atom that can have n=4,m=+1 (PMT2007)

1) 6 2) 2 3) 16 4) 7

9. A metalli ion M has an electronic configuration 2,8 ,14and the ionic weight is 56amu. The number of nuetrons in its nucleus is (DPMT2009)

1) 30 2)32 3) 34 4) 42

10. Which one of the following pairs of ions have the same electronic configuration (M-2001)

1) Cr^{3+}, Fe^{3+} 2) Fe^{3+}, Mn^{2+} 3) Fe^{3+}, Co^{3+} 4) Sc^{3+}, Cr^{3+}

11. For principal quantum number n=4 the number of orbitals having l=3 is (AFMC2009)

1) 3 2)7 3) 5 4) 9

KEY

1)1 2)2 3) 3 4)3 5)1

6)2 7)3 8)1 9)2 10) 2

11)2