T.Y.B.SC. SEMESTER- IV
CHEMISTRY PAPER – II CH – 342 (INORGANIC CHEMISTRY)

MULTIPLE CHOICE QUESTIONS

CHAPTER 1. F BLOCK ELEMENTS

Q1) Choose the correct option from following and write in right side box 1 Mark

1) Write general electronic configuration of f - block elements.
   a) [Xe], (n-2) f^{0-14}, (n-1)d^{0,1}, ns^2       b) [Xe] 4f^{0-14}, 5d^{0 or 1}, 6s^2
   c) [Xe] 4f^0, 5d^{0 or 1}, 6s^2                d) all the three

2) What is general electronic configuration of Actinides.
   a) [Rn], 5f^{0-14}, 6d^{0 or 1}, 7s^2       b) [Rn], 5f^{l-14}, 6d^{0 or 1}, 7s^2
   c) [Rn], 4f^0, 5d^{0 or 1}, 6s^2              d) all the three

3) Complete the reaction: 93\text{U}^{238} + 1D^2 \rightarrow ? + \text{0n}^1
   a) 93\text{Np}^{239}       b) 93\text{Np}^{240}       c) 94\text{Pu}^{240}       d) 92\text{Pu}^{239}

4) What is general electronic configuration of lanthanides.
   a) [Xe], 4 f^{0-14}, (n-1)d^{0 or 1}, ns^2     b) [Xe] (n-2) f^{0-14}, (n-1)d^{0 or 1}, ns^2
   c) [Xe] 4f^0, 5d^{0 or 1}, 6s^2                d) all the three
5) What is the symbol of an element having atomic number Z = 109?
   a) Unn   b) Une   c) Uns   d) Unp

6) What is the symbol of an element having atomic number 107
   a) Unn   b) Une   c) Uns   d) Unp

7) What is the common oxidation state of lanthanides.
   a) +3   b) +2   c) +4   d) both +2 & +3

8) What is general oxidation states of actinides?
   a) +3   b) +2   c) +4   d) both +2 & +3

9) What is the IUPAC symbol of element having atomic number 134?
   a) Unn   b) Utq   c) Utp   d) Unp

10) What is the IUPAC symbol of element having atomic number 967?
    a) Ehp   b) Enh   c) Ehs   d) Unp

11) Which is neutron bombardment reaction? Out of following reactions.
    a) \( {_{92}^{{238}} U + _{0}^{1} n} \rightarrow {_{92}^{{239}} U + _{0}^{1} n + \gamma} \)  
    b) \( {_{92}^{{238}} U + _{2}^{4} He} \rightarrow {_{94}^{{239}} Pu + _{0}^{1} n} \)  
    c) \( {_{92}^{{238}} U + _{6}^{12} C} \rightarrow {_{98}^{{246}} Cf + _{4}^{0} n} \)  
    d) All the above three

12) Complete the following reactions \( {_{92}^{{235}} U, 7n} \rightarrow ? \)
    a) \( {_{92}^{{239}} U + _{5}^{0} n} \)  
    b) \( {_{94}^{{232}} Pu + _{7}^{0} n} \)  
    c) \( {_{98}^{{246}} Cf + _{4}^{0} n} \)  
    d) All the above three

13) Complete the following reactions \( {_{92}^{{238}} C, 4n} \rightarrow ? \)
    a) \( {_{98}^{{239}} U + \gamma} \)  
    b) \( {_{94}^{{241}} Pu + _{0}^{1} n} \)  
    c) \( {_{98}^{{246}} Cf + _{4}^{0} n} \)  
    d) All the above three

14) What is the atomic number of the element – Une
    a) 109   b) 102   c) 191   d) 107
15) What is the atomic number of the element - Enn
   a) 900    b) 901    c) 911    d) 100

16) Which is the most stable oxidation states of Uranium?
   a) +3    b) +4    c) +5    d) +6

17) Which is the most stable oxidation states of Thorium?
   a) +3    b) +4    c) +5    d) +2

18) What is the average percentage of Ce in misch metal?
   a) 50-70  b) 1-5   c) 5-10  d) 75-80