TY BSC- SEM -5 INORGANIC CHEMISTRY

MOCK TEST -30 MARKS

- Q.1. In C₂v point group symmetry elements or operations present.
- a) E, C_2^{-1} , $\sigma_{v'}$, $\sigma_{v''}$
- b) $E_1C_3^2$, C_2^1 σ_h , $3\sigma_v$, S_3 , S_3^5
- c) E,C₃¹,C₂¹ σ_h ,3 σ_v ,S₃,S₃⁵
- d) $E_1C_3^2$, C_2^1 σ_h , $2\sigma_v$, S_3 , S_3^5
- Q.2. Trans dichloroethylene is an example to explain......
- a) C_{∞} point group
- $b)D_{\infty}h$
- $c)C_2h$
- $d)C_{\infty}v$
- Q.3.Improper rotation axis is represented
- a) Rotation followed by reflection in a plane perpendicular to the principal axis.
- b) axis through which all symmetry operations can be carried out.
- c) incomplete operation
- d)Horizontal axis
- Q.4.In polyatomic species, the group orbitals are called
- a) Molecular orbitals
- b)SALCs
- c) TASOs
- d)Atomic orbitals
- Q.5.NaCl is type structure.
- a)tetragonal
- b)monoclinic
- c)cubic
- d)orthorhombic
- Q.6.CuSo4 .5H2O have ...point
- a)2
- b)3

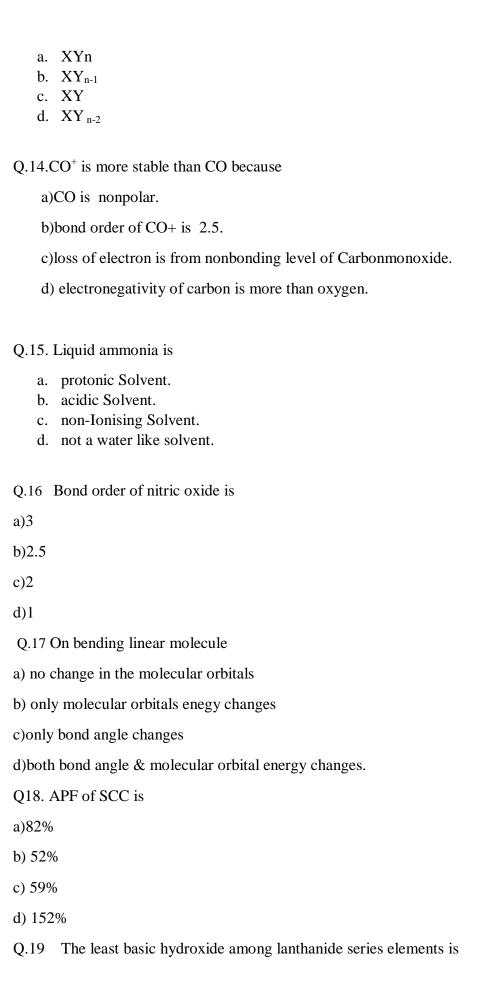
| c) | 4 |
|----|---|
| d) | 1 |

Q.7. The fraction of space occupied by atoms in a unit cell called

- a)packing efficiency
- b)thermal packing
- c)Volume
- d)lattice

Q.8.SQUID stand for

- a)Semiconducting Quantum Interference Devices
- b)Superconducting Quantum Interference Devices
- c) Semiconducting Quantum Internet Devices
- d) Superconducting Quantum Interference Defect
- Q9. The electronic configuration of lanthanum (atomic number = 57) is
 - a. [Xe] $4f^7 5d^1 6s^2$.
 - b. $[Rn] 4f^0 5d^1 6s^2$.
 - c. [Xe] $4f^0 5d^1 6s^2$.
 - d. [Ar] $4f^0 5d^0 6s^2$.
- Q10. Which elements among lanthanons is not considered as 4f block element.
 - a. Ce.
 - b. Eu.
 - c. La.
 - d. Tm
- Q.11. The elements of lanthanide series have general electronic configuration
 - a. $4f^{n+1} 5d^0 6s^2$.
 - b. $4f^{n+2} 5d^1 6s^2$.
 - c. $4f^n 5d^0 6s^2$.
 - d. $4f^{n+1} 5d^2 6s^2$
- Q12. Among intrehalogens +7 oxidation state is exhibited by
 - a. iodine.
 - b. chlorine.
 - c. bromine.
 - d. fluorine.
- Q.13. Interhalogens are represented by formula



- a. $Lu(OH)_3$.
- b. Ce(OH)_{3.}
- c. $La(OH)_{3.}$
- d. $Yb(OH)_{3}$

Q.20. The catalyst used in the manufacture of sulphuric acid is

- a. platinised asbestos.
- b. platinum rhodium.
- c. Zigler-Natta.
- d. Rollen's Catalyst.

ANSWER KEY -MOCK EXAM-TY BSc-SEM 5 ATKT

| Q.1 | A |
|---|------------------|
| Q.1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 | A C A C C D |
| Q3 | A |
| Q4 | C |
| Q5 | C |
| Q6 | |
| Q7 | A |
| Q8 | В |
| Q9 Q10 | C |
| Q10 | C |
| Q11 Q12 Q13 | C C A A |
| Q12 | A |
| Q13 | A C A |
| Q14 Q15 | C |
| Q15 | A |
| Q16 | B D |
| Q16 Q17 | |
| Q18 | В |
| Q19 | A |
| Q20 | A |
| | |