

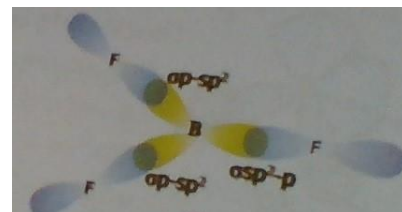
FA-2 SLIP TEST – X-CLASS(PHYSICAL SCIENCES)

ZPSS THALLAMPADU

TIME: 1hr. NAME OF THE STUDENT _____ ROLL No. _____ Max.Marks: 20

1. Observe the figure of a Molecule. Answer the Questions given below. 4 Marks

- i. Name the molecule which is formed in the figure.
- ii. Write the name of the Hybridisation in the molecule
- iii. What is the angle between two hybridised sp^2 orbitals?
- iv. Write the electronic configuration of Fluorine.



2. Write down the characteristics of the elements having atomic number 19. 4M

- | | |
|---------------------------|------------------|
| Electronic configuration: | Period number: |
| Group number : | Element family : |
| No. of valence electrons: | Valency : |
| Metal or non-metal: | |

3. If the power of a lens is +4.0 D. Then 2M

- a) Find the focal length of the lens in metres.
- b) Write the name of the lens
- c) Is it a converging lens or diverging lens? Explain with a neat diagram.

4. Write the electronic configuration of Silicon (Si) (Z=14) and also write the four quantum numbers of the differentiating electron. 2M

5. How do the following properties change in a group and period? Explain. 2M

- (a) Atomic radius (b) Ionization energy

6. The wave length of a radio wave is 1m. Then find the frequency of it. 1m

7. Name the defect that occurs when the ability of accommodation of the eye usually decreases with ageing? How can it be rectified? 1m

8. The units of power of lens () ½ m

- a) m b) cm c) Dioptre d) km

9. Which of the following is the correct order of atomic size? () ½ m

- a. $Cl < F < Br < I$ b. $F < Cl < Br < I$ c. $I < Br < Cl < F$ d. $Br < I < Cl < F$

10. The following values are not possible for n, l, m_l, m_s () ½ m

- a) 3, 0, 0, ½ b) 3, 1, -2, ½ c) 3, 2, -2, ½ d) 5, 3, 0, ½

11. Which of the given elements A, B, C, D and E with atomic numbers 2, 3, 7, 10 and 17 respectively belong to the same period? () ½ m

- a. A, B, C b. B,C,D c. A,D,E d. B,D,E

12. The number of orbitals in $4d$ is a) 5 b) 3 c) 7 d) 2 () ½ m

13. The quantum number that explains about the size and energy of the orbit is () ½ m

- a) n b) l c) m_l d) m_s

14. The molecule having Ionic Bond is () ½ m

- a) Sodium Chloride b) Chlorine c) Ammonia d) barium chloride

15. The element which is in 3rd period and 2nd group () ½ m

- a) Argon b) sodium c) calcium d) Magnesium