08. STRUCTURE OF ATOM

- 1. Draw the diagram that shows the order of energy of orbitals.
- 2. The electronic configuration of helium is $1s^2$. Compare this with nl^x method.
- 3. Draw the diagrams of five d-orbitals.
- 4. Explain aufbau principle with an example.
- 5. Complete the following table. This belongs to quantum numbers of three electrons present in Lithium atom.

| | n | l | m_l | m_s |
|--------------------------|---|---|-------|-------|
| 1 st electron | | | | |
| 2 nd electron | | | | |
| 3 rd electron | | | | |

6. Identify the following electronic configurations that which atoms they belongs to.

(i)
$$1s^2 2s^2 2p^3$$

(ii)
$$1s^2 2s^2 2p^6 3s^2 3p^1$$

- 7. If l = 1 find the maximum and minimum values of m_l
- 8. If n = 5 find the maximum and minimum values of l.
- 9. Suhana wrote the electronic configuration of carbon as follows.

Is it correct? Why? Adjust and rewrite the configuration if needed.

10. What can we know from the electronic configuration of an atom?