**Subject: Science**                                           **Assignment No: IV**
**Allotment date: 24/01/20**                          **Submission date:  03/02/20**

| S.No | QUESTION | MARKS | LEVEL |
|------|----------|-------|-------|
| | OBJECTIVE TYPE | | |
| 1. | Define mole. | 1 | Knowledge |
| 2. | Convert 1kwh into joules. | 1 | Understanding |
| 3. | Why female Anopheles mosquito is vector of malaria and not a male Anopheles mosquito? | 1 | hot |
| | SHORT ANSWER TYPE I | | |
| 4. | Justify the statement-i) Balanced diet is necessary for maintaining healthy body. ii) Some children fall ill more frequently than others living in the same locality. | 2 | knowledge |
| 5. | The frequency of a source of sound is 100 hz. how many times it vibrates in a minute? | 2 | understanding |
| 6. | The potential energy of a freely falling objects decreases progressively. Does this violate the law of conservation of energy? why? | 2 | logic |
| 7. | Calculate number of Aluminium ions and oxide ions present in 0.051 g of Aluminium oxide. | 2 | Hot |
| | SHORT ANSWER TYPE II | | |
| 8. | i) Why are antibiotics not effective for viral disease? ii) Why is AIDS considered as Syndrome and not a disease? iii)Write a difference between Sign and Symptoms? | 3 | understanding |
| 9. | Differentiate between- i) Immediate and contributory cause of disease. ii) Healthy and Disease free. | 3 | Multi conceptual |
| 10. | A person has developed peptic ulcers.What is the cause and common symptoms of this disease? It become curable by whom and when and how? | 3 | App |
| | LONG ANSWER TYPE | | |
| 11. | i) Calculate the number of moles, number of molecules and number of atoms present in 6.2 g of phosphorous. ($P_4$). ii) Calculate the mass of $3.011 \times 10^{23}$ number of nitrogen atoms. | 5 | Logic |
| 12. | a. The kinetic energy of a body is 10 J. What will be its new kinetic energy when its speed becomes double?  b. An engine develops 10 kW of power. How much time will it take to lift a mass of 200 kg to a height of 40 m? (g=10m/s2) | 5 | Hot |