**PART-A ( 2 Mark Question)**

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| 1 | Define water-line corrosion? |
| 2 | Distinguish galvanizing and tinning? |
| 3 | Explain cathodic protection? |
| 4 | Write equations of electrochemical corrosion in Acidic medium? |
| 5 | Explain sacrificial anode protection? |
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| 1 | Explain MRI and its application? |
| 2 | What is lamberts-beers law? |
| 3 | What is chemical shift? |
| 4 | Define hyper chromic and hypo chromic shift? |
| 5 | Draw the diagrammatic representation of NMR spectrophotometer? |
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| 1 | Define DNA and RNA. |
| 2 | Explain peptide linkage. |
| 3 | Explain pyranose structure of glucose. |
| 4 | Explain concept of allele |
| 5 | Define homozygous and heterozygous |
|  | **PART-B ( 5 Mark Question)** |
| **Module – I** | | |
| 1 | Explain mechanism of electrochemical corrosion in neutral and acidic medium. |
| 2 | Define electro less plating of nickel? |
| 3 | Explain hot dipping and its types? |
| 4 | Explain corrosion control methods? |
| 5 | Explain factors influencing rate of corrosion? |
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| 1 | Explain UV visible spectroscopy with neat labeled diagram and applications? |
| 2 | Explain vibrations of IR spectroscopy and its applications? |
| 3 | Discuss the principles and applications of NMR spectroscopy? |
| 4 | Write a short note on MRI and applications? |
| 5 | Explain selection rules for NMR spectroscopy |
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| 1 | Explain Mendel’s Laws of inheritance |
| 2 | Explain Gene editing and Crisper technology |
| 3 | Explain carbohydrates with its classification and Its functions |
| 4 | Explain the classification of proteins and peptide linkage |
| 5 | Explain Mendel’s Law with concept of segregation and independent assortment. |