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| Q-1 | Write an exhaustive note on Bio-indicators. | 14 |
| OR | | |
| Q-1 | A Write in details on Environment Protection Act and Rules, 1986. | 07 |
| | B What is biosensor? Describe parts of the same. | 07 |
| Q-2 | Discuss methods used for the measurement of organic matter in wastewater. | 14 |
| OR | | |
| Q-2 | A Discuss the physical characteristics of wastewater. | 07 |
| | B Write a short note on 'trickling filters'. | 07 |
| Q-3 | Describe the process and mechanisms involved in lignin degradation, including the roles of enzymes | 14 |
| OR | | |
| Q-3 | A Write a note on degradation of pesticide giving suitable example. | 07 |
| | B Write a note on degradation of aliphatic unsaturated hydrocarbons. | 07 |
| Q-4 | Discuss the factors affecting biodeterioration | 14 |
| OR | | |
| Q-4 | A Write a note on methodology used to assess biodeterioration with examples of materials. | 07 |
| | B Compare chemical, physical, and biological methods for preventing biodeterioration. | 07 |
| Q-5 | Write the answer in brief (any seven) | 14 |
| | 1 Define biomarkers and give examples of the same. | |
| | 2 Write on methods in plant bio indication. | |
| | 3 Give in tabular form the major environmental pollutants and their biomarkers. | |
| | 4 Give the name of cyclic saturated hydrocarbon. | |
| | 5 Linear hydrocarbons with minimum of how many carbon atoms exists in liquid state? | |
| | 6 Give the significance of catechol in degradation pathways of aromatic hydrocarbons. | |
| | 7 What is COD and what is its signification? | |
| | 8 Define Hardness of water. | |
| | 9 What are Rotating drums and mention its use. | |
| | 10 Name one physical method to prevent biodeterioration. | |
| | 11 Give one example of chemical control of biodeterioration. | |
| | 12 Give examples of Fungi (genus and species) involved in biodeterioration | |

