

M.Sc.- I (Environmental Science) (NEP Pattern) Semester-I
NEP-42 / PMENVT02 - Chemicals Aspects of Environmental Science

P. Pages : 1

Time : Three Hours



GUG/W/23/15095

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Illustrate the answers with suitable diagrams and examples.

1. Explain the terms normality, mortality, molality and molar solution. **16**
- OR**
- a) Describe Beer's and Lambert's law. **8**
b) Explain molecular weight and equivalent weight. **8**
2. Discuss acidity and alkalinity of water. **16**
- OR**
- a) Explain buffering in water system. **8**
b) Give applications of redox reactions. **8**
3. Discuss hydrological cycle. **16**
- OR**
- a) Describe structure of water. **8**
b) Explain hardness of water. **8**
4. Explain bulk density, water holding capacity and soil water as properties of soil. **16**
- OR**
- a) Describe soil profile with the help of suitable diagram. **8**
b) Explain weathering of rocks. **8**
5. a) Explain primary and secondary standards. **4**
b) Write about green chemistry for sustainable future. **4**
c) Explain hydrolysis of metal ions. **4**
d) What are biofertilizers? Give examples. **4**
