



THE AMERICAN COLLEGE, MADURAI

(An Autonomous Institution Affiliated to Madurai Kamaraj University)

Re-accredited (2nd Cycle) by NAAC with Grade "A", CGPA – 3.46 on a 4-point scale

Backlog Arrear Examination, March 2021

CHE 1463/1381

CHEMISTRY FOR BOTANIST -I

Time: 3 hours

Max:75 Marks

(Answer any Five Questions)

(5x15 = 75)

1. Briefly explain the following and explain the periodicity of the same. [15]
- a) Atomic size
 - b) Ionisation Energy
 - c) Electronegativity
2. a) Define hydrogen bond. Discuss about the consequence of hydrogen bonding. [10]
- b) Define the following with example [5]
- i) London force
 - ii) Dipole-dipole interaction
3. a) Explain metallic bond using electron sea model. [7]
- b) What are the types of bonds? Give example. [8]
4. Explain the following reactions with examples [15]
- i) Oxidation
 - ii) Reduction
 - iii) Substitution
 - iv) Addition
 - v) Rearrangement
5. Discuss the hybridisation of sp , sp^2 and sp^3 with examples. [15]
6. Explain the following [15]
- i) Percentage
 - ii) Normality
 - iii) Molarity
 - iv) Molality
 - v) ppm
7. a) Discuss the classification of amino acids. [5]
- b) Discuss the primary, secondary and tertiary structure of proteins. [10]