



CHE 101

Enroll No. _____

**B.TECH (BIOTECH) / CIV/ ME
END SEMESTER EXAM - I SEM
NOV / DEC 2019
APPLIED CHEMISTRY**

Time : 3 Hrs.

Maximum Marks : 70

Instructions :

- (a) Use of simple calculator only is allowed. Use of scientific calculator is not permitted.
- (b) Working Notes should form part of answer copy.
- (c) Use of pencil or pen other than blue or black is not permitted.

SECTION - A**(30 Marks)**

Attempt any 5 questions.

All questions carry equal marks.

- Q1. Write short note on functional group isomers.
- Q2. Write a short note on fission of covalent bond.
- Q3. Discuss the changes in Ionization energies in the periodic table.
- Q4. What is galvanic corrosion? Give examples.
- Q5. What is buffer solution? Explain buffer action for acidic and basic buffers.
- Q6. What is the difference scale and sludge?

SECTION - B**(20 Marks)**

Attempt any 2 questions.

All questions carry equal marks.

- Q7. Explain (any two):
 - (a) Gibbs free energy
 - (b) SN^1 reaction
 - (c) Enantiomers
 - (d) Lamberts – Beer Law
- Q8. Explain (any one):
 - (a) What is Bakelite? Give its preparation method and applications.
 - (b) The principle of NMR spectroscopy.
- Q9. Explain the following terms
 - (a) Chemical equations for Lime –Soda process.
 - (b) Lewis concept of acids and bases.
 - (c) Structure of Nylon 6,6.

**SECTION - C
(Compulsory)****(20 Marks)**

Q10. Answer the following questions:

- (a) Types of polymerization reactions.
- (b) Applications of IR spectroscopy.