

SHIVAJI COLLEGE, UNIVERSITY OF DELHI

DEPARTMENT OF CHEMISTRY

INTERNAL TEST (Academic Year 2023-24)

Name of the Course: Life Science Sec-B

Semester: III

Name of the Paper: Chemical Energetics and Equilibria

Faculty Name: Dr. Rangnath Ravi

Duration: 1 Hour

Maximum Marks: 24

Date of Test: 22-11-2023

Q.1. a) Difference between Bond energy and Bond Dissociation Energy. (9)

b) Discuss Gibbs Free energy at a Glance.

c) Derive Henderson equation for the pH of an acidic buffer.

Q.2. a) Define following (9)

i) Integral heat of solution ii) Solubility product

b) Derive a relation between degree of ionization and ionization constant.

c) Explain common ion effect.

Q.3. a) Derive First law of Thermodynamics. (6)

b) Explain Hess Law

c) Derive the relation between K_p and K_c .

Faculty Signature: