

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)  
BSc DEGREE EXAMINATION DECEMBER 2017  
(First Semester)

**Branch - BIOCHEMISTRY**

**GENERAL CHEMISTRY**

Time : Three Hours

Maximum : 75 Marks

**SECTION-A (20 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (10 x 2 = 20)

- 1 Define "Hybridisation".
- 2 What is Vanderwaafs force?
- 3 Define "Normality".
- 4 Define "Enthalpy".
- 5 State "Lechatlier's principle".
- 6 Define "Order of reaction".
- 7 What is free radical?
- 8 What is hemolytic fission?
- 9 Write in brief on 'D' and \*L' notations.
- 10 Define "Isomerism".

**SECTION - B (25 Marks!)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks ( 5 x 5 - 25)

- 11 a Write notes on "Dalton atomic theory".  
OR  
b Explain "Valence bond theory".
- 12 a Comment on the following terms:  
a) Hydrophobic interaction b) Molarity c) Molality.  
OR  
b Write notes on free energy and entropy.
- 13 a Explain Hess's law of constant heat summation.  
OR  
b Write a brief note (a) Reaction rate (b) Law of mass action.
- 14 a Explain the role of iron and magnesium in Bimolecules.  
OR  
b Comment on electro philic reactions with example.
- 15 a Write notes on "Stereo isomerism".  
OR  
b Explain the conformational nomenclature of 'R' and 'S' notations.

**SECTION - C (30 Marks)**

Answer any **THREE** Questions

**ALL** Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Give an account on characteristics features of various chemical bonds.
- 17 Explain the "Laws of Thermodynamics" in detail
- 18 Define collision theory. Write notes on Exo and Endothermic reactions.
- 19 Comment on classification of organic reactions.
- 20 Write a detailed note on "VSEPR theory".