# VIVEKANANDA COLLEGE, ALIPURDUAR

B.Sc, 2<sup>nd</sup> Semester Exam ( D.Sc. )

**Question type- Assignment** 

Internal evaluation

Subject - Chemistry

Marks - 10

- Students are to write any two questions of the four questions given below, taking only one question from each part.
- Each question carries 5 marks each.
- Answers to be written in A4 sized papers with proper academic specification, name, Roll no, Reg no, Semester etc. Scanned and emailed to <u>annweshadas92@gmail.com</u> and <u>sciencevcapd@gmail.com</u>

## PHYSICAL PART

- 1. State first Law of Thermodynamics. Give its mathematical equation.
- 2. What is La- Chateliers principle? How does it predicts the rate of the exothermic and endothermic reactions for the:
  - (a) Addition of heat to the system.
  - (b) Removal of heat from the system.

## **ORGANIC PART**

- 3. What are carbocations? Give some reactions where they are formed as intermediates.
- 4. What is Oppeneaur Oxidation .

# VIVEKANANDA COLLEGE, ALIPURDUAR

B.Sc, 6th Semester Exam ( D.Sc. )

Question type- Assignment

Internal evaluation

Subject - Chemistry

Marks - 10

- Students are to write any two questions of the four questions given below.
- Each question carries 5 marks each.
- Answers to be written in A4 sized papers with proper academic specification, name, Roll no, Reg no, Semester etc. Scanned and emailed to <u>annweshadas92@gmail.com</u> and <u>sciencevcapd@gmail.com</u>

# **INORGANIC MATERIALS OF INDUSTRIAL IMPORTANCE**

- 1. What is glass? State its properties.
- 2. Give the classification of cement. What is its role?
- 3. Write a short note on fertilizers.
- 4. What are the applications of ceramics.

VIVEKANANDA COLLEGE
INTERNAL ASSESSMENT
4th SEMESTER
SUBJECT-CHEMISTRY

Answer the following questions.

Full Marks: 10

- 1. Compare the properties of lanthanoids and actinoids. 3
- 2. What are d-block elements? Give their electronic 1.5+1.5 configuration.
- 3. Derive the van der waal's equation for "n" mole of (3+1) gases. What are the SI units of van dur waal's constant.