

Anjuman Islam Janjira Degree College of Science Murud-Janjira, Raigad-402401 Affiliated to University of Mumbai	
Class: -F.Y.B. Sc G.S	Subject: - Major Chemistry – I
Semester: - I	Course code: - M3-1
Exam Event: - (SH) Winter 2025	Marks: - 30
Date: - 06/11/2025	Duration: - 01:00 Hours

N.B:

1. All questions are compulsory.
2. **Figures** to the right indicate full marks.
3. Use of log-table/non programmable calculator is allowed.
4. Answer for the same question as far as possible should be written together.



Q1. A) Select the correct option and complete the following sentences. (any four)

04

1. The relative increase in specific viscosity per unit concentration of the polymer, is known as
a) coefficient of viscosity b) relative viscosity c) intrinsic viscosity
2. Among the following which one has highest viscosity
a) vegetable oil b) water c) ethanol
3. Smoke is an example ----- type of solution.
a) gas in gas b) liquid in liquid c) solid in gas
4. The acidity of NaOH is
a) 1 b) 2 c) 3
5. The minus sign in the rate of reaction equation indicates that concentration of the
a) reactant decreases b) product increases c) reactant increases
6. Inversion of cane sugar is an example of ----- order reaction.
a) second b) third c) first

B) Attempt any two of the following.

06

1. Describe the experimental method to determine viscosity of liquid with neat labelled diagram.
2. Define the following terms
i) molarity ii) normality iii) molality
3. Derive integrated rate equation for second order reaction.

Q2. A) Select the correct option and complete the following sentences. (any four)

04

1. The radioactive source used in alpha particle scattering experiment is
a) Radium-C b) argon c) polonium
2. Electrons are
a) positively charged b) negatively charged c) neutral
3. The horizontal rows of long form of periodic table are called
a) periods b) groups c) Column
4. In second period there are ----- elements.
a) 2 b) 8 c) 32
5. Most of the p-block elements are
a) metals b) metalloids c) non-metals
6. As the charge on the nucleus of an atom the enthalpy of ionization
a) increases b) decreases c) remains same

B) Attempt any two of the following.

06

1. Write a note on discovery of electron.
2. Explain in detail the classification of elements.
3. What is electronegativity? Give their importance in chemistry.

04

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2. What is mean by projection formula? Explain Newman projection formula with suitable example.
3. Define stereochemistry. Draw the structures of D-Erythrose and D-Threose.