

**Faculty of Cosmetic Technology**  
**B.Tech. Semester—I (Cosmetics) Examination**  
**COSMETIC CHEMISTRY—I**  
**Paper—1.2**

Time : Three Hours]

[Maximum Marks : 60

**INSTRUCTIONS TO CANDIDATES**

- (1) All questions carry equal marks.
  - (2) Answer **ALL** questions.
  - (3) Diagrams and Chemical equations should be given wherever necessary.
  - (4) Discuss the reaction, mechanism wherever necessary.
  - (5) Use pen of Blue/Black ink/refill only for writing the answer book.
1. Define the term viscosity. Explain in detail about the Ostwald viscometer used for determination of viscosity. 12
  2. Define Orbit and Orbitals. Explain in detail about s,p,d,f orbital. 12
  3. Explain in detail about the postulates of kinetic theory of gases. Also discuss the causes of deviation of real gas from ideal behaviour. 12
- OR**
- Explain in detail the method of preparation, properties and uses of alkynes. 12
  4. Discuss methods of preparation, properties and uses of alkyl halide. 12
- OR**
- Explain in detail about the various types of solids. Derive Bragg's equation. 12
  5. Write short notes on (any **TWO**) :—
    - (i) Atomic size
    - (ii) Hydrogen bonding
    - (iii) Polymorphism
    - (iv) Liquification of gas. 12