



**Avinashilingam Institute for Home Science and Higher Education for Women**  
Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD (now MoE)  
Re-accredited with 'A++' Grade by NAAC. CGPA 3.65/4, Category I by UGC  
Coimbatore - 641 043, Tamil Nadu, India

**Continuous Internal Assessment -Test-II (April - 2025)**  
**V-Semester**

**Class: III UG**  
**Major: Chemistry**

**Time: 2 h**  
**Max Marks: 60**

**21BCHC25-AppliedChemistry-II**

**CourseOutcomes:**

1. Thorough knowledge of chemical principles involved in polymer technology
2. Thorough understanding about classification of dyes and the dyeing methods
3. In depth knowledge on how drugs work and identify the types of interaction between drug functional groups and receptor sites Comprehend the biochemical and physiological role of vitamins
4. In depth knowledge on mechanism of adhesion and types of adhesives
5. Familiarization of different types of adhesives and alloys with their important applications

**Part-A**

**Choose the correct Answer**

**6x1=5 marks**

- 1) Which type of drug is used to relieve pain? CO1K3  
a) Antacids    b) Antibiotics    c) Analgesics    d) Antipyretics
- 2) Which of the following is the core structural component of Pencillin? CO1K3  
a) Macrolid ring    b) Beta-lactum ring    c) Tetracyclic ring    d) fluoroquinolone
- 3) Which type of adhesives is commonly known as "Super Glue" CO2K4  
a) Epoxy resin    b) Polyurethane  
c) Cyanoacrylate    d) polyvinylacetate
- 4) What is the primary curing mechanism of hot melt adhesives (glue sticks) CO2K4  
a) Evaporation    b) Chemical reaction  
c) cooling and solidification    d) light exposure
- 5) What is the primary component of steel? CO3K5  
a) Aluminium    b) Copper    c) Iron    d) Nickel
- 6) Which of the following alloys is primarily used in aerospace industry due to its high strength to weight ratio CO3K5  
a) Stainless steel    b) Duralumin    c) Cast Iron    d) Bronze

**Part-B**

**Answer the following**

**3x6=18 marks**

**Answer should not exceed 200 words or one page**

- 7) a. Explain the synthetic route for preparation of (i) Novalgin (ii) pencillin CO1K3  
(or)
- 7) b. How to prepare methadone and pauldrin by simplest way CO1K3
- 8) a. Explain the uses of protein based adhesives and starch based adhesives CO2K4  
(or)
- 8) b. Write a note on (i) phenolic resin (ii) epoxy resin CO2K4
- 9) a. Write a note on nickel-chromium steel, preparation, properties and applications CO3K5  
(or)
- 9) b. Give a detailed account on heat resistant steel and stainless steel CO3K5

**Part-C**

**Answer the following**

**3x12=36 marks**

**Answer should not exceed 700 words or four pages**

- 10) a. Give a detailed description of classification of sulfadugs and their mechanism with minimum two examples CO1K3  
(or)
- 10) b. Write a note on various treatment strategies available for cancer CO1K3
- 11) a. Explain the preparation and uses of animal glue and hide glue CO2K4  
(or)
- 11) b. Discuss about synthetic resin adhesives with suitable examples CO2K4
- 12) a. Explain the manufacturing process of steel CO3K5  
(or)
- 12) b. Give application for any two alloys and justify it by explaining its chemistry CO1K5

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Staff in-charge : Dr. Neethu K. S.

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