

# SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES

COIMBATORE



## UNIT 2 QUESTION BANK (PART II) TOPIC: MUCOADHESIVE DRUG DELIVERY SUBJECT: NOVEL DRUG DELIVERY SYSTEM

| No. | Question  | Mapping from Various Sources  | Bloom's Taxonomy Level |
|-----|---|---|------------------------|
| 1   | Define mucoadhesion and differentiate it from bioadhesion.  | Common in university exams (e.g., M.Pharm Pharmaceutics question banks); Standard definition question in pharmacy curricula           | Remembering            |
| 2   | Explain the stages of mucoadhesion process (contact stage and consolidation stage).                               | Frequently asked in university exams on buccal drug delivery systems  | Understanding          |
| 3   | Describe the various theories of mucoadhesion (wetting, diffusion, electronic, adsorption, fracture, mechanical). | Short note in M.Pharm question banks (e.g., previous university papers); Often in competitive exams like GPAT for novel drug delivery | Understanding          |
| 4   | List and explain the advantages of buccal drug delivery systems.  | Short notes section in university exams (e.g., Merits and demerits of buccal drug delivery systems)                                   | Understanding          |
| 5   | Discuss the disadvantages/limitations of buccal/mucoadhesive drug delivery systems.                               | Commonly paired with advantages in university question banks; Potential in GPAT/MRB for NDDS  | Analyzing              |
| 6   | Explain the structure of buccal   | Part of essay   | Understanding          |

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|    | mucosa and its relevance to drug delivery.   | questions: "Explain in detail about the buccal mucosa, principle of mucoadhesion..." from M.Pharm university exams |               |
| 7  | Describe the factors affecting transmucosal permeability in buccal delivery.   | Formulation considerations in university exams;<br>Related to permeability enhancers in GPAT-level questions       | Understanding |
| 8  | Enumerate the formulation considerations for buccal drug delivery systems (e.g., polymers, enhancers, backing layer).                          | Essay/short notes in M.Pharm Pharmaceutics (e.g., formulation approaches and evaluation of buccal DDS)             | Applying      |
| 9  | Discuss the evaluation parameters for mucoadhesive buccal delivery systems (e.g., mucoadhesion strength, residence time, in vitro permeation). | Evaluation of buccal drug delivery system in university question banks   | Analyzing     |
| 10 | Explain the principles of bioadhesion/mucoadhesion with suitable examples of polymers used in buccal systems.                                  | Principle of Mucoadhesion in Buccal drug delivery system (short note, repeated in previous university papers)      | Understanding |
| 11 | Compare buccal and sublingual routes for mucosal drug delivery.  | Conceptual question in NDDS; Appears in university exams on oral mucosal delivery                                  | Analyzing     |
| 12 | Describe the role of penetration enhancers in improving transmucosal permeability for buccal delivery.   | Formulation considerations;<br>Common in GPAT/NIPER for overcoming barriers in                                     | Applying      |

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|    |  | NDDS  |             |
|----|--|---|-------------|
| 13 | List common mucoadhesive polymers used in buccal formulations and classify them (natural/synthetic). | Short notes on buccal strips/tablets; Standard in pharmacy university exams                       | Remembering |
| 14 | Discuss unidirectional vs. bidirectional release in buccal patches and its significance.             | Advanced formulation question; Derived from buccal patch design in research/university contexts   | Analyzing   |
| 15 | Evaluate the suitability of peptides/proteins for buccal delivery and challenges involved.           | Application question; Relevant for NDDS in competitive exams like GPAT (biopharmaceutics aspects) | Evaluating  |