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| Name. _____   |   | Printed Pages:01                             |     |       |
| Student Admn. No.: _____  |   |  |     |       |
| <b>School of Allied Health Sciences</b><br><b>Summer Term Examination – July - August 2024</b><br>[Programme: B. Optometry] [Semester: IV ] [Batch: 2023-24 ] |   |  |     |       |
| <b>Course Title: Basic and Ocular Pharmacology</b><br><b>Course Code: BOPT4005/ L1UA404T</b>  |   | <b>Max Marks: 100</b><br><b>Time: 3 Hrs.</b> |     |       |
| <b>Instructions:</b>  | 1. All questions are compulsory.<br>2. Assume missing data suitably, if any.  |  |     |       |
|   |   | K<br>Level                                   | COs | Marks |
| <b>SECTION-A (15 Marks)</b>   |   | <b>5 Marks each</b>                          |     |       |
| 1.  | List four common routes of drug administration and provide one example for each route.  | K1   | CO1 | 5     |
| 2.  | Explain the difference between an agonist and an antagonist.  | K2   | CO2 | 5     |
| 3.  | Describe the role of the autonomic nervous system in regulating heart rate.   | K1   | CO3 | 5     |
| <b>SECTION-B (40 Marks)</b>   |   | <b>10 Marks each</b>                         |     |       |
| 4.  | Discuss the indications and contraindications of corticosteroids in ophthalmic treatments.  | K3   | CO3 | 10    |
| 5.  | Analyze the formulation requirements of an ideal ophthalmic drug. How do these requirements ensure efficacy and safety?   | K4   | CO2 | 10    |
| 6.  | Compare the effectiveness and safety of different routes of drug administration in ophthalmology (topical, intraocular, systemic).  | K3   | CO1 | 10    |
| 7.  | Explain the pharmacological actions of beta-blockers and prostaglandin analogs in the treatment of glaucoma.  | K4   | CO2 | 10    |
| <b>SECTION-C (45 Marks)</b>   |   | <b>15 Marks each</b>                         |     |       |
| 8.  | Evaluate the role of antioxidants in preventing ocular diseases. Discuss the mechanisms by which antioxidants protect ocular tissues and provide examples of commonly used antioxidants in ophthalmology.           | K5   | CO2 | 15    |
| 9.  | Analyze the pharmacological treatment options for glaucoma. Compare and contrast the mechanisms of action, efficacy, and side effects of at least three different classes of drugs used in glaucoma management.     | K5   | CO2 | 15    |
| 10  | Analyze a legal case involving malpractice in the administration of an ophthalmic drug. Discuss the legal principles applied, the outcome of the case, and the implications for clinical practice and patient care. | K5   | CO3 | 15    |