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| Name:   |  |  |            |
| Enrolment No:   |  |   |            |
| <b>UPES</b><br><b>End Semester Examination, December 2023</b><br><b>Course: B.Sc. Clinical Research</b><br><b>Semester: III</b><br><b>Program: Pharmacology -I</b> <span style="float: right;"><b>Duration: 3 Hours</b></span><br><b>Course Code: HSCR2001</b> <span style="float: right;"><b>Max. Marks: 100</b></span><br><b>Instructions: Attempt all Questions. Use flowcharts and diagrams where required.</b> |  |   |            |
| <b>S. No.</b>   | <b>Section A</b><br><b>Short answer questions/ MCQ/T&amp;F</b><br><b>(20Qx1.5M= 30 Marks)</b>  | <b>Marks</b>  | <b>COs</b> |
| Q 1   | Define pharmacology.   | 1.5   | CO1        |
| Q 2   | What is the essential drug concept?  | 1.5   | CO1        |
| Q 3   | What do you mean by route of drug administration?  | 1.5   | CO1        |
| Q 4   | Define the term myasthenia gravis?   | 1.5   | CO1        |
| Q 5   | Define- a. Agonist b. Antagonist   | 1.5   | CO1        |
| Q 6   | The nicotinic antibodies bind to the..... receptors in myasthenia gravis.                      | 1.5   | CO2        |
| Q 7   | Differentiate the terms general and local anesthetics.   | 1.5   | CO2        |
| Q 8   | Classify the antiparkinson drugs.  | 1.5   | CO2        |
| Q 9   | Write down the importance of GABA neurotransmitter.  | 1.5   | CO2        |
| Q 10  | Write the name of two local anesthetics.   | 1.5   | CO2        |
| Q 11  | How local anesthetics work inside the body.  | 1.5   | CO3        |
| Q 12  | Categories the antiparkinson drugs.  | 1.5   | CO3        |
| Q 13  | Write the mechanism of action of barbiturates.   | 1.5   | CO3        |
| Q 14  | Write the mechanism of action of Pre-anesthetic medications.                                   | 1.5   | CO3        |
| Q 15  | Differentiate competitive and noncompetitive antagonist.                                       | 1.5   | CO3        |
| Q 16  | Identify the Benzodiazepines drugs.<br>a. Diazepam b. Phenobarbitone c. Aspirin d. Paracetamol | 1.5   | CO4        |
| Q 17  | Tachyphylaxis is defined as.....   | 1.5   | CO4        |
| Q 18  | What is the role of Dopamine as a neurotransmitter.  | 1.5   | CO4        |

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| <b>Q 19</b>                                  | Differentiate sedatives and hypnotics.   | <b>1.5</b>     | <b>CO4</b> |
| <b>Q 20</b>                                  | Which route has 100% bioavailability and why?  | <b>1.5</b>     | <b>CO4</b> |
| <b>Section B</b><br><b>(4Qx5M=20 Marks)</b>  |  |                |            |
| <b>Q 1</b>                                   | Discuss the historical landmark and scope of pharmacology.   | <b>2.5+2.5</b> | <b>CO1</b> |
| <b>Q 2</b>                                   | What is the parasympathetic nervous system? Discuss the pharmacology of acetylcholine.   | <b>2+3</b>     | <b>CO2</b> |
| <b>Q 3</b>                                   | Define signal transduction, discuss in detail about G-protein coupled receptor.  | <b>2+3</b>     | <b>CO3</b> |
| <b>Q 4</b>                                   | Define Pharmacodynamics. Categorise different factors modifying drug action in detail.   | <b>2+3</b>     | <b>CO4</b> |
| <b>Section C</b><br><b>(2Qx15M=30 Marks)</b> |  |                |            |
| <b>Q 1</b>                                   | Answer the following questions.<br>1. Identify the disease is when a patient shows these symptoms- i. Masked Face ii. Hand Tremor iii. Tremors in leg iv. Back rigidity and reduced arm swing<br>2. Classify the drugs used in the treatment.<br>3. Write the mechanism of action of any 2 drugs | <b>5+5+5</b>   | <b>CO3</b> |
| <b>Q 2</b>                                   | Define metabolism. How metabolizing enzymes affect the drugs inside the body? Discuss different mechanism of absorption for drugs.   | <b>2+5+8</b>   | <b>CO3</b> |
| <b>Section D</b><br><b>(2Qx10M=20 Marks)</b> |  |                |            |
| <b>Q 1</b>                                   | Differentiate general and local anesthetics, write the name of 2 drugs, how local anesthetics work inside the body.  | <b>10</b>      | <b>CO4</b> |
| <b>Q 2</b>                                   | What is depression, classify the antidepressants, and write the mechanism of valproic acid.  | <b>2+4+4</b>   | <b>CO4</b> |

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