

## Table of Specification –PhD Pharmacology - Spring 2024

### NUMS Entry Test

S. No	Topic	No. of MCQs
<b>Level of difficulty</b>		
1.	<b>General pharmacology</b> <ul style="list-style-type: none"> <li>• Interpret the different pharmacokinetic patterns, their clinical significance and factors affecting these parameters.</li> <li>• Correlate the concept of molecular mechanistic to the therapeutics.</li> <li>• Identify the genetic principles in drug disposition</li> </ul>	8
2.	<b>Autonomic Nervous System (ANS)</b> <ul style="list-style-type: none"> <li>• Correlate the physiology of autonomic receptors with the therapeutic application</li> </ul>	8
3.	<b>Central Nervous System (CNS)</b> <ul style="list-style-type: none"> <li>• Correlate the patho-physiology of psychiatric illnesses to their management</li> <li>• Differentiate between different pharmacological agents (LA, GA, opioids, NSAIDs) used in the pain management</li> <li>• Justify the use of antiparkinsonian drugs correlating it to the underlying pathophysiology of the disease</li> <li>• Analyze the effects of anti-epileptic drugs in relation to neuro-excitatory illnesses</li> <li>• Strategize the management of migraine in accordance with the underlying disease mechanism</li> <li>• Correlate the effects of substances of abuse (alcohol, opioids, heroin) on body to its plan for aversion therapy</li> <li>• Critique on the pharmacological Effects of sedative/Hypnotics</li> </ul>	13
4.	<b>Cardiovascular System (CVS)/Diuretics</b> <ul style="list-style-type: none"> <li>• Relate the pathophysiology of heart and vessels to its treatment modalities</li> <li>• Recollect the anatomical physiological basis of renal system. Differentiate therapeutic application of different diuretics</li> </ul>	18
5.	<b>Chemotherapy</b> <ul style="list-style-type: none"> <li>• Justify the treatment modalities for various microbes (bacteria, viruses, helminths, parasites) according to mode of action, resistance patterns and regional current practices</li> <li>• Appraise the principles of cancer chemotherapy in relation to its current therapeutic modalities</li> </ul>	13
6.	<b>Endocrinology</b> <ul style="list-style-type: none"> <li>• Correlate the pathophysiological basis of pituitary, thyroid and adrenal hormones with their therapeutics.</li> <li>• Correlate types of diabetes mellitus to their different treatment modalities</li> <li>• Justify the clinical use of sex hormones in relation to reproductive physiology</li> <li>• Correlate the patho-physiological basis of osteoporosis to its pharmacological management.</li> </ul>	7
7.	<b>Blood</b> Justify the management plan of anemia, coagulation disorders and dyslipidemias by correlating it to the patho-physiological basis of disease	6
8.	<b>Respiration</b> Justify the management plan of obstructive pulmonary disorders (Asthma, COPD).	5

9.	<b>Gastrointestinal System (GIT)</b> Justify the management plan of common disorders of gastrointestinal tract (peptic ulcer, vomiting, constipation, gastropathies, diarrhea).	6
10.	<b>Misc topics</b> Outline the essential pharmacological principles of toxicology.	1
11.	<ul style="list-style-type: none"> <li>• Research Methodology</li> <li>• Biostatistics/Analytical</li> <li>• Medical Writing/ Bioethics</li> </ul>	15
<b>Total</b>		<b>100</b>