

**Table of Specification – PhD Physiology - Spring 2024**  
**NUMS Entry Test**

| <b>Sr. No</b> | <b>Topic</b>   | <b>MCQs</b> |
|---------------|--|-------------|
| 1.            | Cell Physiology and Homeostasis, Body fluid, Lymph and Blood Physiology  | 10          |
| 2.            | Cardio Vascular System   | 10          |
| 3.            | Gastrointestinal, Liver and Renal Physiology   | 10          |
| 4.            | Pulmonary Physiology (Respiration)   | 10          |
| 5.            | Physiology of Endocrines and Reproduction  | 10          |
| 6.            | Neurosciences (Sensory, Motor, Special Senses & Higher Mental Function, ANS)   | 10          |
| 7.            | Nerve, Muscle, Sports and Physiology of Unusual Environment  | 10          |
| 8.            | Molecular Biology <ul style="list-style-type: none"> <li>○ DNA: Structure and Function</li> <li>○ RNA: Structure and Function &amp; Types</li> <li>○ Protein: Structure and Function</li> <li>○ DNA regulatory sequences and regulatory protein</li> <li>○ DNA Replication, Damage and Repair</li> <li>○ Transcription/ Translation in Prokaryotes &amp; Eukaryotes</li> </ul> | 10          |
| 9.            | Techniques <ul style="list-style-type: none"> <li>○ PCR types and procedure</li> <li>○ DNA/RNA Extractions</li> <li>○ Restriction Endonucleases</li> <li>○ Recombinant DNA technology</li> <li>○ Gel Electrophoresis</li> </ul>  | 05          |
| 10.           | <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>  |