



## RASHIDA IQBAL FINANCIAL AID

### ORGANIZATION

#### 1ST YEAR PHYSIOLOGY GUIDELINES FOR 1<sup>ST</sup> BLOCK

**For Guidelines regarding the part of Foundation Module for this subject, consult the following link:**

<https://drive.google.com/drive/folders/1IFqgmEuL4-uKEhgo8RUfwgxnssUgWDp> **For**

#### **MSK-1:**

*This includes Nerve physiology for which the following study material is recommended:*

*Chapter 5 from Guyton, Lecture notes, Nerve Physiology from Mushtaq.*

**Important Stuff:**

- ❖ *Nernst Potential and Equation.*
- ❖ *Values of diffusion potential for each ion. (Potassium, sodium, chlorine.)*
- ❖ *Resting Membrane potential.*
- ❖ *Action membrane potential. Its graph. States of depolarization, repolarization, after depolarization, after hyperpolarization and their physiological basis.*
- ❖ *Plateau in some action potentials and its physiological basis.*
- ❖ *Saltatory conduction. Its advantages and disadvantages.*
- ❖ *Difference between myelinated and unmyelinated fibers.*
- ❖ *Types of stimuli. Threshold, subthreshold and suprathreshold.*
- ❖ *Refractory period, difference between absolute and relative refractory periods and their physiological bases.*
- ❖ *Strength duration curve, rheobase, utilization time, chronaxie and their graph.*
- ❖ *Compound action potential, its physiological basis and its graph.*
- ❖ *Trend of increasing or decreasing diameter, conduction, myelination, resistance to flow of nerve impulse, susceptibility to fatigue and hypoxia from type A to type C nerve fibers.*
- ❖ *Synapse and its types. Difference between electrical and chemical synapses.*
- ❖ *Difference between excitatory and inhibitory postsynaptic potentials. ❖*
- ❖ *Difference between graded potential and action potential. (most important) ❖*
- ❖ *Properties of chemical synapses.*
- ❖ *Wallerian degeneration.*
- ❖ *Drugs that block sodium pump, potassium pump, sodium potassium ATPase pump.*
- ❖ *For neuromuscular junction, motor end plate, its diagram, how its potential is generated.*
- ❖ *Drugs that stimulate and inhibit NMJ.*

*Remember in your prayers.*

*All the best, Regards.*

*Aimen Sami,*

*2<sup>nd</sup> year Publications Representative.*

