

UBM 4115 - PHYSIOLOGY

UNIT I

General Physiology : Structure and functions of cell and its organelles – body fluid compartments and their measurements – fluid and electrolytic balance-composition and functions of blood – blood coagulation – blood grouping – blood transfusion.

UNIT II

Musculoskeletal Systems: Skeleton – muscle – tendon and ligaments – bio-medical aspects to quantify load, strength, failure and equilibrium performance of articulated skeletal structures - repair processes.

UNIT III

Fluid Systems: Cardiovascular – Respiratory – Renal – Skin and Superficial Tissues.

UNIT IV

Neurological Systems : Anatomy and Physiology of nervous system and the senses – Memory disorders – facilitatory and inhibitory neurotransmitters.

UNIT V

Special Senses: Eye – Structure of eye – functions of retina - refractory media – light and dark adaptations. Ear – external, middle and inner ear – cochlear mechanism in sound perception – deafness and its measurement.

Text Books:

1. Text book of Medical Physiology : Arthur C Guyton (W.B. Saunders)
2. Physiology : Berne and Levy (Mosby)
3. A Text Book of Practical Physiology: V.G.Ranab (Pune Vidyarthi Griha Prakashan)

References:

1. Review of Medical Physiology: W.F.Ganong (Lange Medical)
2. Understanding of Medical Physiology:R.L.Bijlani (Jaype Brothers Med.Publ.Pvt.Ltd)