

SARDAR PATEL UNIVERSITY
Programme & Subject: M.Sc (Biomedical Science)
Semester: III
Syllabus with Effect from: June - 2014

Paper Code: PT03CBMC03	Total Credit: 4
Title of Paper: Clinical and Applied Physiology	

Unit	Description in Detail	Weightage (%)
I	Physiology of nervous and muscular system: Basic principles of Neurophysiology: components of Nervous system- CNS, PNS, ANS; diseases of nervous system; Physiology of Muscular System: basic anatomy of muscular system, functions of muscular system and diseases of muscular system	25%
II	Physiology of circulation: Structure and functions of heart, Physiology of cardiac muscle, Cardiac cycle, Rhythmical excitation of heart, Regulation of heart pumping, Control of excitation and conduction in heart. Physical characteristics and basic theory of circulation, Capillary fluid exchange, interstitial fluid and lymph flow. Circulatory regulation: Local control of blood flow by tissues and humoral regulation, Nervous regulation of circulation; blood components and functions; diseases of heart and circulation	25%
III	Physiology of Urinary and Reproductive Systems: Structure and functions of kidneys, structure and function of reproductive systems, diseases of renal systems; diseases of reproductive systems	25%
IV	Physiology of Endocrine glands: An overview of human endocrine system, hormones of the endocrine system, diseases of endocrine glands	25%

Basic Text & Reference Books:-

- Hall J. E., Guyton & Hall Text Book of Medical Physiology, Publisher: Saunders; 12th edition
- Barrett K E., Barman S. M., Boitano S., Brooks H. L., Ganong's Review of Medical Physiology, McGraw-Hill Medical; 24th edition
- Tortora G. J., Derrickson B. H., Principles of Anatomy and Physiology, Wiley; 13th edition

