

SUBJECT - HUMAN ANATOMY AND PHYSIOLOGY

Branch/Discipline - Pharmacy

Minimum Number of class tests to be conducted - 3

Theory (75 hours)

Course Contents -

1. Scope of Anatomy and Physiology. Definition of various terms used in Anatomy.
2. Structure of cell, function of its components with special reference to mitochondria and microsomes.
3. Elementary tissues of the body, i.e. epithelial tissue, muscular tissue, Connective tissue and nervous tissue.
4. Structure and function of skeleton. Classification of joints and their function, joint disorders.
5. Composition of blood, functions of blood elements. Blood group and Coagulation of blood. BRIEF information regarding disorders of blood.
6. Name & functions of lymph glands.
7. Structure & functions of various parts of the heart. Arterial & venous system with special reference to the names & positions of main arteries & veins. Blood pressure & its recording. Brief information about cardiovascular disorders.
8. Various parts of respiratory system & their functions. Physiology of respiration.
9. Various parts of urinary systems & their functions, structure & functions of kidney. Physiology of Urine formation. Pathophysiology of renal diseases & oedema.
10. Structure of skeletal muscle. Physiology of muscle contraction. Names, positions, attachments & functions of various skeletal muscles. Physiology of neuromuscular junction.
11. Various parts of central nervous system, brain & parts, functions & reflex action. Anatomy & Physiology autonomic nervous system.
12. Elementary knowledge of structure & functions of organs of taste, smell, ear, eye & skin. Physiology of part.
13. Digestive system: Names of the various parts of dig system & their functions. Structure & functions of liver physiology of digestion & absorption.
14. Endocrine glands & Hormones. Location of the gland their hormones & functions.
Pituitary, THYROID, adrenal & Pancreas.
15. Reproductive system-Physiology & Anatomy of Reproductive system.

PRACTICAL (50 Hours)

1. Study of the human skeleton.
2. Study with the help of charts & models of the following systems & organs: following systems & organs:
3. Microscopic examination of epithelial tissue, cardiac muscle, smooth muscle, skeletal muscle. Connective tissue & nervous tissues.
4. Examination of blood films for TDC, DLC & malarial parasite.
5. Determination of clotting time of blood, erythrocyte sedimentation rate & Hemoglobin value.
6. Recording of body temperature, pulse, heart rate, blood pressure & ECG.