

1.7 Human Anatomy, Physiology (including Pathophysiology) & Health Education:

Theory

1. Scope of Anatomy & Physiology, Definition of various terms used in anatomy.
2. Structure of cell, functions of its components.
3. Elementary tissues of human body, epithelial, connective, muscular & nervous tissue.
4. Structure & function of skeleton, joints-classification, functions & their movements.
5. Skeletal muscle- Names, position & functions of various skeletal muscle, Neuromuscular junction- Physiology of muscle contraction.
6. Blood-Composition & functions of blood elements, blood group, coagulation of blood.
7. Lymph & Lymph Glands- Their position, name & function.
8. Cardiovascular system- Heart, blood vessels, circulation, cardiac cycle, heart sounds, blood pressure & its regulation.
9. Digestive system- Gross anatomy of alimentary canal, functions, different parts including liver & pancreas, various sections (composition & function). Role of Vitamins in body.
10. Respiratory system- Anatomy of different parts. Physiology and regulation of respiration.
11. Central Nervous System- Functions of different parts of brain, reflection. Physiology of nerve impulse, neurotransmitters. Anatomy & Physiology of Autonomic nervous system.
12. Urinary system-Variou parts, structure and functions of kidney. Physiology of urine formation.
13. Reproductive system- Anatomy & Physiology of male and female reproductive system.
14. Endocrinal glands- Name, position and functions, Physiological role of their secretions.
15. Elementary knowledge of sense organs of taste, smell, vision, structure and function.
16. Health Education- First aid treatment in shock and snake bite, concept of health & disease, balanced diet, composition & importance, family planning, brief outline of common infections contagious diseases, preventive measures.
17. Pathophysiology of some common diseases including pain & inflammation, salient symptoms to understand diseases like tuberculosis hepatitis, Rheumatoid, Arthritis, Gout, Epilepsy, Cardiovascular, Disease, diabetes, peptic ulcer & hypertension.

PRACTICALS

1. Study of human skeleton.
2. Study of different systems with the help of charts and models.
3. Microscopic study of different tissues.
4. Haemoglobin estimation in blood, determination of bleeding time, clotting time, RBC count, T.L.C., D.L.C. & E.S.R.
5. Recording of body temperature, pulse, heart rate and blood pressure.
6. Physiological experiments, on muscle nerve preparation.

Books Recommended:

1. Gray's Anatomy- War Wick & Williams, Langmen.
2. Sahana's text book of Anatomy.
3. Samson Wright's- Applied physiology-Keeli & Neil.
4. C. Chaterjee- A text book of Physiology.
5. Best & Tayler- Physiological basis of medical physiology.
6. Evan's- Principles of human physiology.
7. Aguyton- A text book of medicinal Physiology.
8. V.G. Ranade- A text book of practical physiology.