

Practicals Undergraduate

Haematology

1. Study of Microscope
2. Effect of tonicity of saline, fragility
3. Total WBC Count
4. Total RBC Count
5. Cells in Peripheral blood film
6. Differential WBC Count
7. Arneth count, Absolute count
8. Hemoglobin estimation
9. Packed cell volume, blood indices
10. Erythrocyte Sedimentation rate
11. Specific gravity, relative Viscosity of blood
12. MCD, Price-Jones curve
13. Reticulocyte count
14. Plasma Prothrombin time
15. Bleeding and Clotting time
16. Blood group determination
17. Haemin crystals

Clinical & Human Physiology

1. Introduction to Physiograph
2. Recording of body temperature
3. Examination of pulse
4. Sphgmography
5. Measurement of blood pressure effects of posture, exercise and stress.
6. Cardiac cycle, Pressure/Volume changes
7. Cardiac efficiency test,
8. Electrocardiography
9. Spirometry
10. Artificial respiration
11. Cardio-Pulmonary Resuscitation
12. Respiratory efficiency tests
13. Stethography
14. Perimetry
15. Ergography
16. Reflex time and reaction time
17. Menstrual cycle, BBT and Pregnancy test
18. Contraceptives
19. Endocrine disorders – Pituitary, Thyroid disorders
20. Endocrine disorders – Parathyroid, Adrenal
21. Excretory system - cystometrogram
22. G.T.T, G.F.T.
23. O₂ and CO₂ Dissociation curve
24. E.E.G., E.M.G.
25. History taking and general examination
26. Examination of alimentary system

27. Examination of cardiovascular system
28. Examination respiratory system
29. Examination of sensory system
30. Examination of motor system
31. Examination of reflexes – superficial, deep and other
32. Examination cranial nerves I, III, IV, V, VI
33. Examination cranial nerves II
34. Examination cranial nerves VII, IX, X, XI XII
35. Examination cranial nerves VIII
36. Examination of higher functions

Experimental Physiology-Amphibian:

Skeletal Muscle Experiments:

1. Introduction to various instruments used in laboratory, circuits for skeletal muscle study
2. Muscles nerve preparation, Simple muscle twitch
3. Effect of temperature on S.M.C.
4. Action Potential and S.D. Curve
5. Effect of Two successive stimuli
6. Genesis of Tetanus.
7. Effect of load on Simple muscle contraction
8. Phenomenon of Fatigue
9. Velocity of nerve impulse

Cardiac Muscle Experiments

10. Introduction to various instruments used in laboratory, circuits for cardiac muscle study
11. Dissection of frog's heart, Normal Cardiogram
12. Effect of temperature on Cardiogram
13. Effect of Stannius ligature and properties of cardiac muscle
14. Effects of stimulation of vagus and crescent on cardiac contraction
15. Effect of drugs on heart – Pilocarpine, Acetylcholine, Adrenaline, nicotine and atropine
16. Perfusion of amphibian heart and Effect of ions on heart
17. Decerebrate and spinal preparation

Experimental Physiology-Mammalian:

- 1) Determination of blood volume in experimental animal
- 2) Recording of movements of isolated loop of mammalian intestine and effects of drugs of physiological importance.
- 3) Recording of Blood Pressure and respiration in mammals and factors influencing them.