Write short Notes on:

2. What is sinus arrhythmia? Give its basis. What is sick sinus syndrome?
3. Describe briefly about ionotropic state of heart and factors affecting it.
5. Mechanism of urine concentration. What is Barter’s syndrome?
7. Differentiate between pulmonary & systemic circulation. What is pulmonary edema?
8. Indications & complications of administration of 100% Oxygen at increased pressure.
9. Differentiate cellular & humoral immunity. Add a note on AIDS.
10. Regulation of cardiac output & its measurement.
Write short Notes on:

1. Intestinal bacteria & its Role. Add a note on Blind loop syndrome.
2. Second messenger system & mechanism of action of hormone through it.
3. Ca^{2+} regulation in body. What is Tetany
5. Pathophysiology of diabetes mellitus.
6. Distribution, absorption & regulation of iron in the body
7. Movements of GIT & Disorders.
8. Eicosanoids & their significance.
10. HCG (Human Chorionic Gonadotropins), its secretion function & clinical importance.
Write short Notes on:

1. Draw a labeled diagram to show various phases of action potential in a nerve fibers and what is the ionic basis and what is the state of membrane excitability during various phases of action potential.
2. Structure & functions of neuroglia in peripheral & central nervous system.
4. Sleep-wake cycle correlates of EEG, HR, BP & GI motility.
5. Cochlear microphonics.
7. Mention the role of postural reflexes in maintenance of body posture.
   Describe the effect of decerebration in experimental animals.
8. Leptin
Write short Notes on:

1. Methods of measurement of volume of body fluids.
3. Homeostatic mechanisms to maintain the constancy in the internal environment.
4. Describe the structure of cytoskeleton of a cell and what is the role of molecular motors.
5. BMR & its methods of measurements & its clinical significance.
6. Define Poiseuille’s Law and describe the relationship of peripheral resistance and blood flow.
7. Application of various gas Laws in Respiratory Physiology.
8. Intercellular connections & their importance in electro physiological processes.
Write short notes on:

1. Relation of diet to plasma proteins.
2. Methaemoglobinemia
3. Fibrinolytic System.
4. Cardiac arrhythmias.
5. Innervation of cardio vascular system.
6. Goldblatt hypertension
7. Significance of $P_{50}$
8. Hyperbaric Oxygen therapy.
10. Anion gap.
Write short notes on:

1. Mechanisms of actions of thyroid hormones.
2. Glucose Tolerance Test.
3. Consequences of Insulin deficiency.
4. Actions of ACTH.
5. Dietary Fibers.
6. Addison’s Disease.
7. Intestinal Motility.
8. Regulation of gastric secretion.
10. Gastrin.
Write short notes on:

1. Cochlear Microphonics and Endocochlear potential.
3. Taste sensation & its pathway.
4. Neural Plasticity.
5. Endogenous Analgesia System.
6. Supraspinal regulations of stretch reflexes.
7. Responses to rotational acceleration.
8. Ionic basis of photoreceptor potential.
9. Long Term Memory.
Write short notes on:

1. Active transport across cell membrane.
2. Mechanism of exocytosis and effect of tetanus toxin and botulinum toxin on exocytosis.
3. Equilibrium potential.
4. Recent concepts of ageing.
5. Poiseuille-Hagen formula as applied to human circulation.
7. Microfilaments and Microtubules.
Write short notes on:

1. Inflammation and wound healing.
2. Thromboxane A₂.
3. Immunologic Synapse.
7. Work of breathing.
8. Isocapnic Buffering.
10. Siggard - Andersen Curve Nomogram.
Write short notes on:

1. Control of Salivary Secretion and its applied aspects.
2. Absorption of water and electrolytes.
3. Naturally occurring goitrogens.
4. Hormonal regulation of Ca^{2+} level in blood.
6. Hormones Acting in Digestion.
7. Melatonin.
8. Insulin – glucagon molar ratio.
Write short notes on:

1. Calcium binding proteins.
2. Functions of muscle spindles.
3. Colour Blindness.
5. Thalamo-cortical oscillations.
6. Hypothalamus regulation of the appetite.
7. Parkinson's Disease.
8. Cortical Pasticity.
9. Impedance matching.
Write short notes on:

1. Apoptosis
2. Radio-isotopes in Medical science
3. Physiology of ageing
4. Na⁺ - K⁺ pump
5. Glycogen storage diseases
6. Islet cells of Langhans in Pancreas
7. Feedback control systems in Physiology
8. Glycolysis in red blood cells
9. Pacemaker potential
10. Metabolism of LDL cholesterol