Write short Notes on:

1. Hemolytic disease of new born, its prevention & management.
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.
4. Hormonal function of kidney. Write on the functions of various hormones secreted by kidneys.
5. Mechanism of urine concentration. What is Barter's syndrome?
6. Define pulmonary compliance. Mention the role and significance of surfactant in pulmonary compliance.
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 out put & 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^{++} regulation in body. What is Tetany
4. General Adaptation Syndrome (GAS).
5. Pathophysiology of diabetes mellitus.
6. Distribution, absorption & regulation of iron in the body.
7. Movements of GIT & Disorders.
8. Eicosanoids & their significance.
9. Fetoplacental-maternal unit & its function.
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.
3. Putative functions of cerebellum in the regulation of body movements giving clinical & experimental evidence.
4. Sleep-wake cycle correlates of EEG, HR, BP & GIT motility.
5. Cochlear microphonics.
6. Pathophysiology of Alzheimer's disease.
7. Mention the role of postural reflexes in maintenance of body posture. Describe the effect of decerebration in experimental animals.
8. Leptin
9. Visual adaptation.
10. Modulation of pain.

Write short Notes on:

1. Methods of measurement of volume of body fluids.
2. Process of Transcription & translation with the help of diagrams.
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.
9. Structure, functions & clinical significance of Na^+ K^+ ATPase pump.
10. Role of law of laplace & Bernoulli's Principle in hemodyanamics of circulation.

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.
9 Characteristic features of renal circulation.
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.
9 Dwarfism.
10 Gastrin.

Write short notes on:

1. Cochlear Microphonics and Endocochlear potential.
2. Motor Learning.
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.
10 Operant Conditioning.

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 Poiseullie-Hagen formula as applied to human circulation.
6 Shear stress.
7 Microfilaments and Microtubules.
8 Juxta glomerular apparatus.
9 Oxygen debt.
10 Paired 't' test and its significance.

Write short notes on:

1. Inflammation and wound healing.
2. Thromboxane A_2
3. Immunologic Synapse.
4. Myocardial Oxygen Consumption.
5. Blood Vessels and Law of Laplace.
6. Baroreceptors Resetting.
7. Work of breathing.
8. Isocapnic Buffering.
9. Facultative reabsorption of water.
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 C_9^{2+} level in blood.
5. Pancreatic Exocrine Function Tests.
6. Hormones Acting in Digestion.
7. Melatonin.
8. Insulin – glucagon molar ratio.
9. Oxytocin.
10. Hypothalamic releasing hormones.

Write short notes on:

1. Calcium binding proteins.
2. Functions of muscle spindles.
3. Colour Blindness.
4. Nystagmus.
5. Thalmo-cortical oscillations.
6. Hypothalmus regulation of the appetite.
7. Parkinson's Disease.
8. Cortical Plaiticity.
9. Impedance matching.
10. Hypothermia.

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 Langerhans in Pancreas.
7. Feed back control systems in Physiology.
8. Glycolysis in red blood cells.
9. Pacemaker potential.
10. Metabolism of LDL cholesterol.