

# <u>TEN YEAR'S QUESTION FOR FIRST PROF. MBBS</u> <u>EXAM.- PHYSIOLOGY</u> <u>GENERAL & NERVE MUSCLE PHYSIOLOGY</u>

#### GROUP-A (12 MARKS)

1. Describe the neuromuscular junction with proper diagram and labeling. Describe how an AP in motor nerve produces an AP in muscles. What is Myasthenia gravis and Lambert Eaton Syndrome?[4+5+3][2010]

#### <u>GROUP-B ( 7 MARKS)</u>

- 1. Describe briefly the molecular mechanism of muscle contraction. What is Myasthenia Gravis? [5+2][2014]
- 2. Write the molecular basis of skeletal muscle contraction. Write a short note on neuromuscular blockers.[4+3][2012][2016]
- 3. Discuss the role of ATP in skeletal muscle contraction & relaxation. What is rigor mortis?[5+2][2011]
- 4. Define resting membrane potential. How is it generated? What is Donnan's effect?[2+3+2][2006]
- 5. Describe the neuromuscular junction and mention neuromuscular blockers. [5+2][2005]
- 6. What are the differences b/w AP curves of skeletal muscles and working myocardial cells? [7][2015]
- 7. Discuss the mechanism of action of different neuromuscular blockers. [7][2017]

# GROUP-C (3 MARKS) SHORT NOTES.

- 1. Gibbs-Donnan equilibrium. [2014]
- 2. Ion channels. [2014]
- 3. Facilitated diffusion. [2013, '09]
- 4. Gap junction. [2013]
- 5. Na+-K+ ATP ase. [2012][2016]
- 6. Rigor mortis. [2012]
- 7. GLUT. [2011]
- 8. Secondary Active Transport. [2010,'08, '07, '05][2015]
- 9. Molecular mechanism of muscle contraction. [2008]
- 10. Chronaxie and Rheobase. [2007]
- 11. Exocytosis and endocytosis. [2006]
- 12. Smooth muscle.[2005]
- 13. Isotonic and isometric contraction.[2004]
- 14. Gap-junctions.[2016]
- 15. Nernst equation. [2017]
- 16. Molecular motors. [2017]



#### GROUP-D (3 MARKS) EXPLAIN WHY

- 1. Relaxation of muscle is an active process. [2009]
- 2. Relaxation of muscle requires energy. [2007]
- 3. Digitalis increases the strength of cardiac contractions. [2017]

# **BLOOD**

#### GROUP-A (12 MARKS)

- 1. Describe the structure of platelets. Mention the contents of their granules and their functions. What are the functions of platelets?[4+5+3][2014]
- 2. Describe the role of lymphocytes in immunity. What is acquired immunodeficiency syndrome (AIDS)? [8+4][2013]
- 3. What is haemophilia? Enumerate the steps of hemostasis. Describe the intrinsic pathway of coagulation.[2+3+7][2013]
- 4. Discuss the role of neutrophils in defense. What is innate immunity?[8+4][2012]
- 5. What is haemostasis? Name the different coagulation factors required for coagulation and draw a brief outline of the events of coagulation. Write in short the role of platelets in haemostasis. Justify the role of aspirin for prevention of stroke.[1+5+3+3][2011][2016]
- 6. What is haemopoiesis? Describe the different stages of development of erythrocytes. Discuss the different factors in the regulation of erythropoiesis. What is reticulocyte crisis and when it occurs? [1+4+5+2][2008][2015]
- 7. Enumerate the plasma proteins. Describe the properties and functions of plasma proteins. How does hypoproteinemia produce edema?[2+4+4+2][2007]
- 8. Define antigen and antibody. Give a short account of humoral immunity. What is AIDS? [3+7+2][2006]

# $\underline{\text{GROUP-B}}(\underline{7} \underline{\text{MARKS}})$

- 1. What is erythroblastosis foetalis? What are the hazards of mismatched blood transfusion? [2+5][2013]
- 2. What do you mean by immunity? What are the different types of immunity? Give an account of humoral immunity.[1+2+4][2010, 2007]
- 3. Define jaundice. Compare obstructive and hemolytic jaundice.[2+5][2010]
- 4. What is the principle of blood transfusion? Describe the hazards of blood transfusion. [3+4][2009]
- 5. Fibrinolytic system. [7] [2004]
- 6. Tissue macrophage system. [7][2004]
- 7. Describe the preservation injuries in stored blood . Mention the deleterious effects of repeated blood transfusion.[4+3][2017]



#### GROUP-C (3 MARKS) SHORT NOTES

- 1. ESR. [2012, 2009]
- 2. Erythropoietin. [2010]
- 3. Erythroblastosis foetalis. [2009][2016]
- 4. Rh incompatibility. [2008]
- 5. Functions of neutrophil. [2006]
- 6. Platelet functions. [2006]
- 7. Haemolytic jaundice. [2006]
- 8. Humoral v/s cell mediated immunity. [2004]
- 9. Hemolytic jaundice v/s Obstructive jaundice.[2004]
- 10. Hemoglobinopathies.[2017]

#### GROUP-D (3 MARKS) EXPLAIN WHY

- 1. Anemia occurs after gastrectomy. [2013][2015]
- 2. Low plasma protein causes edema. [2012]
- 3. Normal plasma proteins prevent edema. [2014]
- 4. Aspirin in low dose prevents intravascular coagulation.[2012, '08][2016]
- 5. Regular low dose of aspirin prevents thrombosis.[2014]
- 6. In hemolytic jaundice, urine is not coloured. [2011]
- 7. Coagulation disorders in liver disease. [2009]
- 8. Loss of immune function occurs in AIDS. [2008]
- 9. Fetal Hb is more saturated with oxygen than adult Hb at the same pO<sub>2</sub>. [2007]
- 10. A sharp fall in capillary blood pressure will result in drawing of fluid from the tissue to the capillary. [2004]
- 11. Loss of helper T cells leads to death. [2003]
- 12. Anemia occurs in iron deficiency.[2002]
- 13. Oxyhemoglobin binds less H<sup>+</sup> than reduced Hb.[1999]
- 14. Anemia occurs in chronic renal failure. [2016]
- 15. Coagulation time is prolonged in obstructive jaundice.[2015]

# **RESPIRATORY SYSTEM**

# <u>GROUP-A (12 MARKS</u>)

- 1. Describe the transport of oxygen from atmosphere to tissue. What is  $P_{50}$  and its significance?[10+2][2010]
- 2. Define and classify hypoxia. Mention the features of hypoxic hypoxia. What do you mean by acclimatization?[4+6+2][2009, '06]
- 3. What is compliance of lungs? How do you measure compliance of lungs? Name the clinical conditions which reduce & increase compliance of lungs.[2+5+5][2004]



#### **GROUP-B** (7 MARKS)

- 1. Describe the oxygen dissociation curve and the factors influencing it. [3+4][2014]
- 2. What is Bohr's effect? How  $CO_2$  is transported from tissues to the lungs. [2+5][2013][2016]
- 3. What is hypoxia? What are the adaptations that occur when a person ascends to an altitude of 12000 feet?[2+5][2012]
- 4. What is ventilation-perfusion ratio? How is altered in health and diseases? [2+5][2007]
- 5. What is pulmonary surfactant? Explain its role in the maintenance of stability of alveoli. [2+5][2005][2015]
- 6. Artificial respiration. [2004]
- 7. Compare and contrast b/w static and specific compliance of the lungs. What is the role of surfactant in maintaining compliance of the lungs?[3+4][2017]

#### **GROUP-C (3 MARKS) SHORT NOTES**

- 1. Haldane effect.[2014]
- 2. Maximum ventilation volume. [2014]
- 3. Lung compliance. [2013]
- 4. Surfactant. [2012]
- 5. Asphyxia. [2011][2007]
- 6. Apneustic centre. [2010]
- ter.com 7. Ventilation perfusion ratio.[2008][2016]
- 8. Carotid body. [2007]
- 9. Periodic breathing. [2005]
- 10. Bohr effect v/s Haldane effect. [2004]
- 11. Timed vital capacity. [2015]
- 12. Peak expiratory flow rate. [2015]

# **GROUP-D (3 MARKS) EXPLAIN WHY**

- 1. In anemic hypoxia,  $O_2$  therapy is not of much importance. [2011]
- 2. Increase in pulmonary ventilation occurs even after exercise is over. [2011][2010]
- 3. RBC in venous blood is larger than arterial blood.[2014, 2010][2005]
- 4. Approved occurs after hyperventilation. [2009]
- 5. Cyanosis does not occur in severe anemia.[2009]
- 6. Cheyne-Stokes breathing occurs in voluntary hyperventilation. [2008]
- 7. Respiration rate increases with exercise. [2007]
- 8. There is increased respiratory rate during exercise. [2004][2016]
- 9. In COPD,  $O_2$  therapy should be intermittent and of low concentration.[2017]



# CARDIOVASCULAR SYSTEM

### <u>GROUP-A (12 MARKS)</u>

- 1. Describe the different waves of ECG and segments with its neat diagram. Mention their importance. What is heart block?[6+2+4][2014]
- 2. Describe in brief the regulation of blood pressure. What is malignant hypertension? What is vasomotor reversal of Dale? [8+2+2][2012]
- 3. What is cardiac cycle? Describe with suitable diagram the pressure and volume change in left ventricle in the different phases of cardiac cycle. Enumerate the differences b/w 1<sup>st</sup> and 2<sup>nd</sup> heart sounds. [2+6+4][2011]
- 4. Define cardiac output and Fick's principle of measuring cardiac output. Describe various factors regulating cardiac output. [2+6+4][2009]
- 5. What are the functional tissues of the heart? How cardiac impulse is generated and transmitted across the heart . Describe cardiac AP and skeletal muscle AP. What is idioventricular rhythm?[2+4+4+2][2008][2016]
- 6. What do you understand by arterial blood pressure? Describe the regulation of arterial blood pressure. What is essential hypertension? [2+8+2][2007]
- Describe the sequence of events that occur in the heart during cardiac cycle. What happens to the duration of the systole and diastole in severe exercise? How the coronary blood flow maintained during exercise? [5+3+4][2005]
- 8. What is cardiac output? Discuss the effects of various factors regulating cardiac output. Write two clinical findings with explanation of aortic incompetence.[2+6+4][2004][2015]
- 9. Describe briefly the cardiovascular reflexes.[12] [2017]
- 10. Describe the physiologic anatomy of the different regions of thebsystemic circulation and mention how correlate with their functions. What is Poiseuille-Hagen formula ?[8+4][2017]

# <u>GROUP-B (7 MARKS</u>)

- 1. What is the Marey's law? What is its physiological basis? Name two conditions when it is not observed.[2+4+1]
- 2. What is cardiac output? Describe one method for estimation of cardiac output. [2+5][2011]
- 3. What is baroreceptor reflex? Describe the role of baroreceptor in maintenance of BP with proper diagram and labeling. [2+5][2010]

# GROUP-C (3 MARKS) SHORT NOTES

- 1. CVS adjustments during exercise. [2011]
- 2. Standard leads in ECG. [2011]
- 3. Augmented limb leads during ECG. [2010]
- 4. Peripheral resistance. [2008]
- 5. PR interval and its clinical importance. [2007]
- 6. Carotid body. [2007]
- 7. Heart sounds . [2006]
- 8. Normal ECG waves. [2005]

9. 2<sup>nd</sup> degree AV nodal block. [2016]

10. PR interval in ECG. [2015]

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# GROUP-D ( 3 MARKS) EXPLAIN WHY

- 1. Diastolic pressure rises on assuming standing posture from supine position. [2014]
- 2. Maximum blood flow to the left ventricle occurs during diastole.[2013]
- 3. Vasodilation occurs in the blood vessels of skeletal muscles during exercise. [2012]
- 4. Brief period of straining causes tachycardia and increase in peripheral resistance. [2011,'10][2017]
- 5. Common carotid artery occlusion causes increased blood pressure. [2008,'07]
- 6. Sino-aortic nerves are called buffer system of BP regulation. [2006]
- 7. SA node is the pacemaker of the heart. [2006]
- 8. Coronary blood flow is more in diastolic phase than the systolic phase in cardiac cycle. [2006][2016]
- 9. Left coronary artery blood flow is more during diastole. [2004]
- 10. Controlled exercise is beneficial to patients with cardiac diseases. [2005]
- 11. During prolonged inspiration, there occurs splitting of 2<sup>nd</sup> heart sound. [2005]
- 12. Heart muscle cannot be tetanized in vitro. [2003]
- 13. Bradycardia in athlete. [2002]
- 14. In cardiac disease, pulse rate can be lesser than the heart rate.[2015]

# **GASTRO-INTESTINAL SYSTEM**

#### GROUP-A (12 MARKS)

1. Give an account of the composition, function & control of secretion of the pancreatic juice. Describe the pancreatic exocrine function test. [3+3+3+3][2005]

# <u>GROUP-B (7 MARKS</u>)

- 1. Define jaundice. Describe the differences between hemolytic & obstructive jaundice.[2+5][2014]
- **2.** What is gastric mucosal barrier? Discuss the physiological basis of management of peptic ulcer. [2+5][2013][2008]
- **3.** Write down the different intestinal movements. What is adynamic ileus? [5+2][2012]
- 4. What are micelles? Describe the role of bile salts in fat absorption. [2+5][2009]
- **5.** List the function of bile salts. What are the results of complete biliary obstruction? [1+3+3][005]
- 6. What is the mechanism of HCL secretion in the stomach? Give the physiological basis of treatment of peptic ulcer with omeprazole. [5+2][2007]2016]
- 7. Describe the composition and functions of bile.[7][2006]



#### GROUP-C (3 MARKS) SHORT NOTES

- 1. Why is intestine not digested by enzymes? Name the GI hormones.[2014]
- **2.** MMC. [2013]
- **3.** Mucosal barrier of stomach.[2012]
- 4. Bile salt. [2011]
- 5. BER. [2010]
- 6. Gastrin. [2009][2015]
- 7. Enterohepatic circulation of bile. [2009]
- 8. Movements of small intestine.[2009]
- **9.** Dumping syndrome. [2017]

#### GROUP-D (3 MARKS) EXPLAIN WHY

- 1. Steatorrhea occurs in obstructive jaundice. [2006]
- 2. Bile salts help in fat absorption. [2004]
- 3. Urine becomes alkaline temporarily after a heavy meal. [2005]
- 4. Omeprazole is used in treatment of peptic ulcer. [2004]
- 5. Mucosal barrier protects gastric epithelium from damage. [2003]
- 6. Fatty meal delays gastric emptying. [2002][2017]
- 7. Before vomiting profuse salivation occurs. [2001]
- 8. Thought of delicious food induces salivary secretion. [2015]
- 9. Coagulation time is prolonged in Obstructive jaundice. [2015]

# EXCRETORY SYSTEM

# <u>GROUP-A (12 MARKS)</u>

1. Describe the various sites and mechanisms by which water is reabsorbed from the nephrons. Why polyuria occurs in Diabetes insipidus. [3+7+2][2009]

# <u>GROUP-B (7 MARKS)</u>

- 1. Differentiate b/w cortical & juxta-medullary nephrons. Briefly discus the countercurrent mechanism in the kidney. [2+5][2014]
- What is the site of production of Renin? Name the stimulants for Renin secretion. What is the sequence of events in the Renin-Angiotensin-Aldosteron System?[1+2+4][2013]
- **3.** What is GFR? Describe the factors influencing it. What is filtration fraction? [1+5+1][2012]
- **4.** Define polyuria. What are the causes of polyuria? Why polyuria occurs in Diabetes Insipidus? [2+2+3][2011]
- 5. What is the normal pH of urine? How the normalcy of pH is maintained in urine? [1+6][2010]& [2+5][2008]



- 6. Describe the role of Loop of Henle and vasa recta in kidney function. [7][2007]
- 7. Describe the mechanism of glucose reabsorption by kidney tubules. What is GFR and how is it regulated? [4+3][2006]
- 8. Describe the mechanism of concentration of urine. What is anuria? [5+2][2005][2017]
- **9.** State briefly how urine is acidified. How excess acidification is prevented? What are the advantages of having acidic urine?[2+3+2][2015]
- 10. What is the role of kidney in maintaining the acid-base balance of the body? [7][2016]

#### GROUP-C (3 MARKS) SHORT NOTES

- 1. Counter current multiplication. [2013]
- 2. Renal clearance. [2011]
- **3.** Renin. [2011]
- 4. Creatinine clearance test. [2010, '08]
- 5. Juxta Glomerular apparatus. [2010, '05]
- **6.** Renal Function Tests. [2007]
- 7. Cortical nephrons v/s Juxta medullary nephrons.[2004]
- 8. Vasa recta. [2015]

#### GROUP-D (3 MARKS) EXPLAIN WHY

- 1. Albuminuria occurs in nephritic syndrome.[2014]
- 2. Osmotic dieresis occurs in Diabetes Melitus. [2012][2007]
- 3. Chronic renal failure patients have anemia.[2012]
- 4. Inulin clearance is equal to GFR. [2006]
- 5. Vasa recta are essential for concentration of urine.[2004]
- 6. Frusemide is used as a diuretic. [2016]
- 7. Volume of urine can increase after drinking a large volume of water. [2015]

# **REPRODUCTIVE SYSTEM**

# <u>GROUP-B (7 MARKS</u>)

- 1. Describe the female sexual cycle. What is LH surge? [6+1][2013][2011][2009][2005][2015][2017]
- **2.** Describe the spermatogenesis. What is blood-testes-barrier? [5+2][2014, '12]
- 3. What is spermatogenesis? Describe the hormonal control of it.[2+5][2010, '08]
- **4.** What is corpus luteum? What is its role in menstrual cycle and pregnancy? [2+3+2][2007]
- 5. Spermatogenesis. [7][2004]



#### GROUP-C (3 MARKS) SHORT NOTES

- 1. Secretion and ejection of milk. [2013,'04]
- 2. Contraceptive pills. [2012, 2006]
- **3.** OCP.[2014]
- 4. Ovulation. [2010]
- 5. Sertoli cell. [2009]
- 6. Immunological basis of pregnancy test. [2008]
- 7. Graafian follicle. [2007]
- 8. Prolactin. [2006]
- 9. Hormonal regulation of testicular activities. [2017]
- 10. LH surge. [2016]
- 11. Safe period method for contraception.[2016]
- **12.** Evidences for ovulation.[2015]

#### GROUP-D (3 MARKS) EXPLAIN WHY

- 1. Pregnancy is associated with stoppage of menstruation.[2014][[2013]
- 2. Prolonged breast feeding is helpful in family planning. [2013, '12]
- 3. During lactation, menstrual bleeding does not occur upto six months. [2010]
- **4.** Sterility is more common in men working in heat surrounds. [2010]
- **5.** Gonadotropin level increases in serum after menopause. [2007][2017]
- **6.** Conversion of testosterone to dihydro-testosterone is essential for full sexual maturity in male. [2014]
- 7. Pregnancy usually does not occur during lactation.[2016]

# ENDOCRINE SYSTEM

# <u>GROUP-A (12 MARKS)</u>

- 1. What are the hormones secreted by adrenal cortex. Describe the principal functions of the mineralocorticoids. What is Conn's syndrome?[3+7+2][2014]
- **2.** Enumerate the functions of calcium in our body. How its homeostasis is maintained by involving different hormones? What are the sources of these hormones? Name the features of Rickets and Osteomalacia. [2+4+2+4][2013][2017]
- 3. What is blood calcium level? Name the physiological functions of Ca<sup>2+</sup> in the body. Discuss briefly how the blood calcium level is maintained? [1+3+8][2008][2005][2017]
- **4.** Describe the physiological effects of thyroid hormones. What is thyroid storm? [10+2][2012][2017]
- **5.** Name the various layers of adrenal cortex and the hormones secreted from them. What are the effects of glucocorticoids ? Describe Cushing's syndrome.[2+7+3][2011]
- 6. Enumerate the hormones secreted from thyroid gland. Describe the functions of thyroxin. Write a brief note on Cretinism. [2+7+3][2010]



- 7. Enumerate the hormones of anterior pituitary gland. Describe the functions of thyroxin. Mention the cells from where the hormones are secreted. Describe the features of gigantism and acromegaly. What are somatomedins? [2+2+3+3+2][2007]
- 8. Outline the steps of synthesis of thyroid hormones. List the main actions of thyroid hormones. Mention the features of clinical conditions related to the hypo-functioning of the gland.[3+4+5][2006]
- **9.** Classify the hormones of adrenal cortex. State the steps of biosynthesis and functions of aldosterone. What is aldosterone escape phenomenon? [3+3+3+3][2004]
- 10. Name the hormones of islets of Langerhans. State the functions of insulin. Why polyphagia occurs in diabetes mellitus? [2+7+3][2015]

#### **GROUP-B (7 MARKS)**

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- 1. List the hormones of calcium metabolism and mention the features of tetany. [4+3][2009]
- 2. Myxedema . [7][2004]

# **GROUP-C (3 MARKS) SHORT NOTES**

- 1. ADH.[2014]
- 2. Cretinism. [2013]
- **3.** Glucocorticoids. [2013]
- **4.** Acromegaly. [2011]
- 5. Cushing's Syndrome. [2010]
- 6. Dwarfism. [2009]
- 7. Biological Clock. [2009]
- anker.com 8. Aldosterone and ANP. [2007]
- 9. Vit. D. [2006]
- 10. Hypoglycemia. [2006]
- 11. Tetany. [2005][2017]
- 12. Adission's disease. [2005][2016]
- 13. Adenohypophysis v/s Neurohypophysis. [2004]
- 14. Permissive action of hormones.[2017]

#### **GROUP-D (3 MARKS) EXPLAIN WHY**

- 1. Exercise is good for diabetes mellitus. [2013]
- 2. Metabolic acidosis may be found in diabetes mellitus. [2013]
- 3. Diabetes mellitus is characterized by polyphagia. [2010]
- 4. Food intake is increased in diabetes mellitus. [2008]
- 5. IN hyperthyroid state, beta 2 blocker are used. [2009]
- 6. Hyperglycemia after pancreatectomy is corrected by hypophysectomy in experimental animal.[2006]
- 7. Thyroid dwarfs are mentally retarded. [2005]
- **8.** Hyper pigmentation of skin in Addision's disease. [2004]



# CENTRAL NERVOUS SYSTEM

# $\underline{GROUP} - \underline{A(12 MARKS)}$

- 1. With diagram write the components of limbic system. What are the vegetative functions of the hypothalmia? What are the roles played by the hypothalamus in Reward and Punishment. [3+5+4][2014][2017]
- 2. What are the functional divisions of cerebellum. With a diagram show the to and fro connections of the cerebellum. Enumerate the functions of the cefebellum and the clinical manifestations following its lesion. [2+3+3+4][2013][2009][2007]
- **3.** Describe the nuclei , connections and functions of basal ganglia. What are the features of Parkinsonism and how can these be reduced? [7+5][2012]
- **4.** Name the different components of basal ganglia. List the pathways that interconnect them. What are the functions of basal ganglia? Write down the features of Parkinson's disease and its remedy.[2+3+3+4][2010][2008][2004][2016]
- 5. Define synapse. What is synaptic potential? Give ionic basis of development of it with proper diagram and labeling. Write about the important properties of synapse.[1+5+6][2011]
- 6. What is muscle tone? Describe with a diagram how this tone is maintained. How do you explain the Clasp Knife Rigidity in case of UMN lesion. [2+5+5][2006]
- 7. Trace the neural pathways for pain sensation. What is stress analgesia and how it is brought about? Explain the gate control theory of pain.[5+3+4][2005]
- 8. Give an account of origin, course and termination of the pyramidal tract with a diagram. What is Babinski sign? [10+2][2015]

# <u>GROUP-B (7\_MARKS</u>)

- 1. What is muscle tone? How is it regulated? [2+5][2011]
- 2. Describe the central pain inhibiting mechanism. [7][2010]
- **3.** What is stretch reflex? With the help of a diagram describe the reflex arc. Give the differences b/w static and dynamic stretch reflex. [1+4+2][2007]
- 4. Synaptic inhibition. [7][2004]
- **5.** Name the main ascending tracts of spinal cord and enumerate their functions. What is phantom limb phenomenon and describe the law governing it. [5+2][2017]

# GROUP-C (3 MARKS) SHORT NOTES

- 1. Fluent aphasia. [2014]
- **2.** EPSP. [2012]
- 3. Brown-Sequard syndrome. [2012]
- 4. Paradoxical sleep. [2011]
- 5. B wave in ECG. [2011]
- 6. Decerebrate rigidity. [2010, '08, '06][2017]
- 7. Alpha block. [2009]
- **8.** EEG waves. [2014, '08]

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- **9.** Synaptic inhibition. [2007][2015]
- 10. UMN v/s LMN lesion. [2004]
- 11. Normal waves of EEG. [2016]
- 12. REM sleep. [2015]

#### GROUP-D (3 MARKS) EXPLAIN WHY

- 1. Babinski's sign is a defining feature of UMN paralysis.[2014][2005][2008]
- 2. Finger nose test becomes abnormal in cerebellar disorder. [2013][2017]
- 3. Speech becomes meaningless if arcuate fasciculus is damaged. [2012, '08]
- 4. Dissociated anesthesia is seen in syringomylia. [2011][2016]
- 5. Touching and shaking of an injured part can reduce pain sensation. [2009]
- 6. Intercollicular transaction in cat produces rigidity. [2007]
- 7. Purely pyramidal tract lesion is associated with hypotonia. [2007]
- **8.** Sympathetic nervous system is a nerve of emergency whereas parasympathetic nervous system is a nerve of constancy. [2006]
- 9. L-Dopa is a drug of choice for the treatment of Parkinsonism. [2005][2015][2017]
- 10. Decerebrate rigidity is an example of release phenomenon. [2004]
- 11. Visceral pain is often referred to a somatic structure. [2004]
- 12. REM sleep is also called paradoxical sleep. [2017]



# SPECIAL SENSES

#### <u>GROUP-B (7 MARKS</u>)

- 1. Describe the photochemical changes that occur in the retina. What is night blindness? [5+2][2013]
- **2.** Name the photosensitive pigments of retina. Describe the sequence of events involved in photo-transduction in rods and cones.[4+3][2006]
- **3.** Describe the auditory pathway with suitable diagram. How will you differentiate b/w conduction deafness and sensonural deafness? [5+2][2012,'08]
- **4.** Trace the neural pathways that transmit visual information from photoreceptors to the visual cortex. Enumerate the visual field defects produced by lesions at various levels of the visual pathway. [3+4][2014]
- 5. Trace the visual pathway upto the occipital cortex. [7][2009]
- **6.** Trace the course of visual pathway with a diagram. What are the effects of lesions at various sites of the path? [4+3][2005]
- **7.** Name the common errors of refraction. Explain the use of corrective lenses in each of them. [[2+5][2015]
- **8.** With a suitable diagram, explain the effects of lesion in the visual pathway at various levels. What is Argyll-Robertson pupil?[5+2][2016]

#### GROUP-C (3 MARKS) SHORT NOTES

- 1. Organ of Corti. [2013, '05][2017]
- 2. Accommodation reflex. [2012]
- **3.** Colour blindness. [2008]
- **4.** Colour vision. [2007]
- **5.** Taste buds. [2014, '05]
- 6. Lateralisation in Weber's test. [2016]

# GROUP-D (3 MARKS) EXPLAIN WHY

- 1. Near point recedes with ageing. [2013,'09]
- 2. In Argyll-Robertson pupil, light reflex is lost. [2011]
- 3. In retina, the fovea centralis is the point of greatest visual acuity. [2010]
- 4. Optic tract lesion leads to homonymous hemianopia. [2008]
- 5. Pituitary tumor can cause bitemporal hemianopia. [2006]
- **6.** In conductive deafness Weber test is lateralized to the diseased ear. [2005]
- 7. When a person is exposed to some odour for sometime, the perception of that odour decreases. [2016]