Date: 06-08-2024

0824E 204

First Year MBBS Examination

I MBBS Physiology Paper 2

Time: 3 hours

Instructions: 1. Answer to the points. 2. Use separate answer books for each section. 3. Draw diagrams wherever necessary.

Section 1

Max Marks: 100

1.Write the following structured long questions (Any 1 out of 2) (1.x 10 = 10 Marks)

(10)

a. Enumerate the descending tracts in

spinal cord. Trace the pathways of Pyramidal Tracts. Explain the functions of Pyramidal tracts. (2+5+3)

b. Enumerate the components of basal ganglia. What is the role of basal Ganglia in motor activity. Describe the pathophysiology and signs and symptoms of Parkinson's Disease. (2+2+6)

2.Write the following case based scenario/applied short notes (Any 2 out of 3) (2 x 6 = 12 Marks)

(12)

a. A 24-year-old female visited medicine OPD with complaints of easy fatigability. She was Indian classical dancer and she said that she could not perform intricate eye movements due to drooping of eyelids and she was forced to take periods rest during her performance. Investigations were done

Conduction velocity in ulnar nerve 120m/sec. Chronaxie in the muscles (both sides) was normal when stimulated directly and was very high when stimulated through nerve. She was diagnosed as case of myasthenia gravis.Draw a neat labeled diagram of neuromuscular junctions. Give the cause of myasthenia gravis. (2) a. Enumerate the sequence of events occurring at neuromuscular junction. (1) B. Define rheobase and chronaxie (1) C. Name the sites where acetylcholine is released. (1) d. Give physiological basis of treatment of myasthenia gravis. (1)

b. A70 years old male was admitted in medical ward with non-healing ulcer on right leg since 15 days and with cellulitis. History of diabetes mellitus since last 30 years RBSL 285 mg/di, HbAic 9% He was diagnosed as diabetes mellitus with cellulitis A. What

is diabetes mellitus? Give differences between type | & II diabetes mellitus (2) B. Comment on HbAic and give its normal values. (1) C. Gives actions of insulin (2) D. What are the complications of diabetes mellitus (1)

c. Brown Sequard Syndrome

3.Write short notes on the following. (Any 3 out of 4) (3 x 6 = 18 Marks)

(18)

a. Composition, circulation and Functions of bile.
b. Deglutition.
c. Maternal changes during pregnancy.
d. Spermatogenesis.

4.Answer in only 2-3 sentences, (Any 5 out 6) (5 x 2 = 10 Marks)

(10)

a. Differences between Myenteric plexus

and Meissner's plexus.

b. Functions of large intestines.
c. Phantom Limb.
d. Broca's Aphasia.
e. Male contraceptives.
f. Role of Oxytocin in Parturition.

Section 2

5.Write the following structured long questions (Any 1 out of 2) (4 x 10 = 10 Marks)

(10)

a. Enumerate the hormones synthesized by Anterior Pituitary. Describe mechanism of action of Growth hormone. Give the actions of Growth hormone. (2+4+4)
b. Give the actions of Glucocorticoids. Discuss Enumerate the hormones synthesized by Adrenal cortex. Discuss Cushing's Syndrome. (2+5+3)

6.Write short notes on. (Any 2 out of 3) (2x 6 = 12 Marks)

(12)

a. Draw and describe the Action Potential of a nerve along with ionic changes occurring.
b. Describe the excitation contraction process occurring in skeletal muscle.
c. Describe Wallerian Degeneration and Regeneration.

7.Write short notes on the following. (Any 3 out of 4) (3 x 6 = 18 Marks)

(18)

a. Differences between Sympathetic and Parasympathetic Nervous systems.
b. Describe Parasympathetic nervous system acting as Anabolic nervous system.
c. Taste Pathway.

d. Errors of Refraction.

8.Write in only 2-3 sentences. (Any 5 out 6) (5 x 2 = 10 Marks)

(10)

a. Hypo calcemic Tetany.
b. Graves' Disease.
c. Functions of Middle ear.
d. Dark Adaptation.
e. Fatigue in Muscle.
f. Cholinergic Receptors in ANS