

MBBS I (First) Professional Examination 2014-15

Course Code: MBS102

Paper ID: 0322137

Physiology -II

Time: 2 Hours 40 Minutes

Max Marks: 40

Note: Attempt all questions. Draw proper diagrams to support your answer.

Part 'B'

1. Enumerate the ascending tracts in the spinal cord. Describe the pathways for pain in detail. Add a note on referred pain (10)
2. Describe in brief: (5x3=15)
 - a) Physiological actions of glucocorticoids
 - b) Physiology of parturition
 - c) Pupillary reflexes
3. Write short notes on: (3x5=15)
 - a) Myasthenia gravis
 - b) Myxoedema
 - c) Upper motor neuron lesion
 - d) Tympanic reflex
 - e) Role of hypothalamus in temperature regulation

MBBS I (First) Professional Examination 2014-15

Roll No.

Student's Signature

Student's Name

Invigilator's Signature

Course Code: MBS102

Physiology - II

Paper ID: 0322137

Part 'A'

Time: 20 Minutes

Max Marks: 10

- Note:**
1. Attempt all questions and return this part of the question paper to the invigilator after 20 Minutes.
 2. Please tick (✓) correct one only. Cutting, overwriting or any other marking are not allowed.
 3. For answering please use Ball- pen only.

Q.2 Thick filaments in skeletal muscle are composed of:
a. Actin
b. Myosin
c. Troponin.
d. Tropomyosin

Q.3 Actin-myosin interaction in resting state is inhibited by:
a) ATP
b) calcium ions
c) troponin
d) troponin-tropomyosin complex

Q.4. Receptor potential:
a. is a graded response
b. occurs due to change in permeability of membrane of receptor to ions
c. can initiate an action potential in the nerve fiber attached to the receptor.
d. all of the above

Q.5 Weber's Fechner law deals with:
a) Frequency discrimination
b) Receptive field organization

c) Intensity discrimination
d) Two point discrimination

Q.6 Stretch reflex is:
a) an important reflex that helps in maintaining upright posture
b) lost in upper motor neuron lesion
c) exaggerated in lower motor neuron lesion
d) All of the above

Q.7 Giant Betz cells in brain are found in:
a) Motor cortex
b) Thalamus
c) Hypothalamus
d) Sensory cortex

Q.8 The sympathetic system:

d) 32D

Q.15 The pitch (frequency) of a sound is identified in the cochlea by:
a) amount of vibration of the basilar membrane
b) number of hair cells that are stimulated
c) amount of vibration in the tectorial membrane
d) region of stimulation of the basilar membrane

Q.16 Growth hormone:
a) enhances utilization of glucose by cells
b) favors utilization of amino acids for energy
c) favors utilization of fatty acids for energy
d) promotes deposition of fat in adipose tissue

Q.17 The target organ of TRH is:
a) thyroid gland
b) pituitary gland
c) adrenal gland
d) pancreas

Q.18 Insulin increases entry of glucose into:
a) renal tubule
b) the mucosa of the small intestine
c) neurons of motor cortex
d) skeletal muscle cells

Q.19 Which of the following hormone level is raised in post-menopausal women:
a) oestrogen
b) FSH
c) progesterone

Q.9 Which division of the nervous system the spinal cord is known as:
a) sympathetic nervous system
b) parasympathetic nervous system
c) somatic nervous system
d) sensory nervous system

P.T.O.

Q.10 Cerebrospinal fluid:
a) is formed in the arachnoid granulations
b) provides the brain with most of its nutrition
c) protects the brain from injury when the head is moved
d) has a lower pressure than that in the cerebral venous sinuses

Q.11 All of the following are the features of cerebellar dysfunction, **EXCEPT**:
a) ataxia
b) adiadokinesia
c) pendular knee jerk
d) hypertonia

Q.12 Lesions of which of the following hypothalamic nuclei cause loss of circadian rhythm:
a) ventromedial
b) dorsomedial
c) suprachiasmatic
d) supraoptic

Q.13 Which one of the following cranial nerves is carrying the nerve fibers originating from the Edinger-Westphal nucleus:
a) oculomotor
b) trochlear
c) abducens
d) vagus

Q.14 After removal of lens, the dioptric power of the eye is reduced by:
a) 4D
b) 8D
c) 16D

d) none of the above

Q.20 HCG is structurally and functionally similar to:
a) FSH
b) inhibin
c) growth hormone
d) LH