

**MBBS I (First) Professional Examination 2018-19****Course Code:** MBS102**Paper ID:** 03219137**Physiology -II****Time:** 2 Hours 40 Minutes**Max Marks:** 40

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

**Part 'B'**

1. Define lactation. Describe the hormones concerned with development of breast during pregnancy and lactation. (7)
2. Write short notes on the following: (4+4)
  - a) Muscle Spindle
  - b) Transport across neuromuscular junction
3. Name the receptors for pain. Describe fast and slow pain pathways. (7)
4. Write short notes on: (4+4)
  - a) Errors of refraction
  - b) Describe the Ionic basis of action potential
5. What is the normal serum calcium level? Describe the hormonal regulation of serum calcium. What are the clinical features of tetany? (10)

**MBBS I (First) Professional Examination 2018-19****Roll No.**

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**Student's Signature**

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**Course Code:** MBS102**Student's Name**

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**Invigilator's Signature**

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**Paper ID:** 03219137**Physiology - II****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 Physiologically, the site of origin in motor neurons of conducted impulses is the:
- Dendritic zone
  - Axon hillock
  - Node of Ranvier.
  - Terminal button
- Q.3 The muscle spindle is not innervated by:
- A $\alpha$  fibers
  - A $\gamma$  fibers
  - Ia fibers
  - II fibers
- Q.4 Insulin is secreted from:
- $\alpha$  cell
  - $\beta$  cell
  - $\delta$  cell
  - None
- Q.5 Which of the following inhibits lactation:
- Prolactin
  - Chorionic somatomammotropin
  - Estrogen and progesterone
  - Growth hormone
- Q.6 Which one is not a feature of Diabetes mellitus?
- Polyuria
  - Hypertension
  - Polyphagia
  - Polydypsia
- Q.7 Weber's test is applied to test:
- Sense of smell
  - Sense of hearing
  - Visual acuity
  - Sense of equilibrium
- Q.8 Axons of ganglion cells in the retina terminate in:
- lateral geniculate nucleus
  - pretectal nucleus
  - suprachiasmatic nucleus
  - all of the above
- Q.9 Can be corrected by using cylindrical lenses
- Q.17 Sertoli cells produce:
- Estrogen
  - DHEA
  - Mullerian inhibiting polypeptide
  - TSH
- Q.18 Middle ear contains:
- Endolymph
  - Perilymph
  - Organ of corti
  - Ossicles
- Q.19 Hypothalamus does not play a prominent role in the regulation of:
- Food and water intake
  - Temperature
  - Respiration
  - Osmolality
- Q.20 Most of the circulating T4 is bound to:
- Prealbumin
  - Albumin
  - Thyroxine-binding globulin
  - None of the above

d) Spatiotemporal relations

- Q.10 Which of the following is the best example of a polysynaptic reflex:
- Stretch reflex
  - Axon reflex
  - Inverse stretch reflex
  - Withdrawal reflex

P.T.O.

- Q.11 Rhodopsin has peak sensitivity to light at a Wave length of:
- 405 nm
  - 505 nm
  - 605 nm
  - 705 nm
- Q.12 The gate theory of pain was proposed by:
- Cannon and Bard
  - Charles Sherrington
  - Wall and Melzack
  - Weber and Fechner
- Q.13 JAK-STAT pathways mediate the effects of:
- transducin
  - aquaporins
  - gusducins
  - growth hormone
- Q.14 Normally, the thyroid gland secretes:
- CGRP
  - PTH related peptide
  - TSH
  - Calcitonin
- Q.15 Inner hair cells in the organ of Corti are depolarized by:
- K<sup>+</sup> influx
  - Na<sup>+</sup> influx
  - Ca<sup>2+</sup> influx
  - Closure of K<sup>+</sup> channels
- Q.16 Colour blindness:
- Is a Genetic disorder involving X chromosomes
  - Is a Genetic disorder involving Y chromosomes
  - Affects females only