

**First Professional MBBS Degree Supplementary Examinations
January 2020**

Physiology – Paper II

Time: 3 Hours

Total Marks: 50

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Long essay

(10)

1. A 60 years old known hypertensive male is admitted with the complaints of sudden inability to use his right upper and lower limbs and inability to speak. On examination he has increased tone in some of the limb muscles loss of superficial reflexes and deep tendon reflexes are exaggerated. Answer the following questions based on your knowledge in physiology:

- What is this clinical condition.
- Draw the diagram of the tract involved
- Why there is an increase in the tone of the muscle.
- Why speech is lost in this condition

(2+4+2+2)

Short essays

(2x5=10)

2. Actions of growth hormone
3. Endometrial changes during menstrual cycle

Answer briefly

(5x3=15)

4. Functions of glucagon
5. Oral contraceptive pills
6. Role of middle ear in hearing
7. Functions of cerebellum
8. Neuro endocrine reflex

Draw and label

(2x2½ =5)

9. Draw the lateral view of the cerebral hemisphere and mark the speech areas
10. Olfactory mucous membrane

Explain the physiological basis of the following

(5x2=10)

11. Presence of insulin is needed for glucose entry into the skeletal muscle
12. Menstrual blood does not clot
13. Spermatogenesis is markedly reduced in undescended testis
14. Cornea survives in spite of it's avascularity
15. Sniffing helps in the act of smelling