

Q.P.Code :

Reg.No.:.....

First Professional MBBS Degree Examinations September 2020

Physiology paper II

Time: 3hrs

Max marks = 100

Long essay (2x15=30)

1. A 50 yrs old lady presented to medicine OPD with complaints of excessive sleep and tiredness, loss of appetite, hoarseness of voice since last six months. On examination she had non-pitting oedema, dry scaly skin and prolonged reflex time.
 - Identify the condition
 - explain the physiological basis of her symptoms
 - Discuss the actions of hormone involved
 - With a neat diagram explain the regulation of hormone involved (1+3+6+5=15)
2. What is crossed Hemiplegia. Mention the characteristic features of UMN and LMN lesions. Draw and label the pyramidal tract. Add a note on Brown Sequard syndrome. (2+4+5+4=15)

Short essay (5x8=40)

3. Describe the taste pathway. Add a note on basic taste modalities.
4. Describe the hormonal and endometrial change taking place during menstrual cycle
5. Discuss the transport mechanisms across cell membrane.
6. Explain the functions of cerebellum. Add a note on cerebellar signs.
7. Explain the mechanism of contraction in skeletal and smooth muscle.

Write briefly: (5x4=20)

8. Draw the Visual pathway and explain the physiological basis of indirect light reflex.
9. Diagrammatically represent the pain pathway. Discuss the physiological basis of referred pain.
10. Explain the physiological basis of aldosterone escape
11. Discuss the genesis of resting membrane potential. Mention the effects of alteration in ECF sodium and potassium on RMP
12. Describe the mechanism of conduction of nerve impulse. Explain the basis of Erlanger and gasser classification of nerve fibers.

One word answers (10x1=10)

13. Hormone responsible for milk ejection is.....
14. Paradoxical sleep is also known as
15. Testosterone secretion from Leydig cell is under the control of which hormone?
16. Name the condition where there is marked deficiency of melanin pigment in eyes, hair and skin
17. Photoreceptors on exposure to dark releases
18. Fertilization of ovum takes place in which part of fallopian tube?

19. Otolith organ of vestibular apparatus is stimulated by.....?
20. Magnitude of action potential in skeletal muscle is determined byions?
21. Normal length of sarcomere is
22. A band in muscle fiber is formed by