

First Professional MBBS Degree Examinations - August 2016

PHYSIOLOGY- PAPER II

Time: 3 Hours

Total Marks: 50

- *Answer all questions*
- *Draw Diagrams wherever necessary*

Long essay

(10)

1. A 50 years old lady was suffering from excess of sleep and tiredness, loss of appetite, hoarseness, of voice for the last six months. On examination, she had non-pitting edema, dry scaly skin and prolonged reflex time. Answer the following questions based on your knowledge in physiology :

- What is your clinical diagnosis.
- What will be the TSH, T₃ and T₄ levels.
- What is the cause of low BMR.
- How can you treat the subject.
- What will be her resting pulse rate
- Explain the action of thyroxine on the three metabolisms and on CNS.

(1 + 1+ 1+ 1+ 1+ 5=10)

Short essays

(2x5=10)

2. Describe the formation, composition and functions of aqueous humour.
3. Draw the functional divisions of cerebellum. Explain the functions of these divisions with referring to their connections.

Answer briefly

(5x3=15)

4. Functions of middle ear.
5. Neuromuscular junction in skeletal muscle
6. Role of hypothalamus in temperature regulation.
7. Physiological basis of pregnancy tests.
8. Testosterone.

Draw and label

(2x2½=5)

9. Corticospinal tracts from it's orgin to termination
10. Sarcomere

Explain the physiological basis of the following

(5x2=10)

11. Nystagmus is observed in vestibular diseases
12. A 50 years old lady finds difficulty in reading and doing close work.
13. Contraception by oral contraceptive pills
14. Cyclic AMP acts as a second messenger
15. Abnormal plantar reflex in neurological diseases.