

2019 Scheme

Q.P. Code: 114001

Reg. no.:

**First Professional MBBS Degree Regular/Supplementary Examinations
February 2023
Physiology II**

Time: 3 Hours

Total Marks: 100

- 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 Essays**(2x15=30)**

1. A 69-year-old man goes to consult his physician. As he sits in the waiting room, he is observed to have tremors in his hands and fingers. His face is unexpressive and he makes few movements. When he is invited to enter the physician's office, he has difficulty in standing up. He walks slowly into the office, and his arms do not swing appreciably. When he talks to the physician, his speech is monotonous but he shows no intellectual deficit. There was no sensory loss. The stretch reflexes were normal and the muscles exhibited rigidity.
 - a) What is your diagnosis
 - b) Which part of the nervous system is involved in this disease
 - c) Explain the connections and functions of the part of the nervous system involved.
 - d) Why are the movements so few and slow
 - e) What is the treatment

(1+1+8+2+3)

2. Describe the synthesis of thyroid hormones. Explain their physiological actions and add a note on hypo secretion of thyroid hormones.

(4+7+4)**Short essays****(5x8=40)**

3. Describe the hormonal regulation of menstrual cycle. Add a note on menopause.
4. Describe the molecular basis of skeletal muscle contraction. Add a note on rigor mortis.
5. Describe the mechanism of appreciation of sound waves and explain the theories of hearing.
6. With the aid of a diagram describe the pain pathway from right lower limb.
7. Explain the stretch reflex with the aid of a diagram of the muscle spindle.

(PTO)

Write briefly

(5×4=20)

8. Compare and contrast the functions of epinephrine and nor-epinephrine. Add a note on pheochromocytoma
9. Draw, label and explain the sodium – potassium pump. What happens if it stops functioning.
10. Name the contents and describe the functions of middle ear.
11. Describe the actions of vasopressin and add a note on Diabetes Insipidus
12. Draw a neat labelled diagram of a taste bud and describe the taste pathway.

One word Answers

(10×1=10)

13. Loss of memory is called -----
14. Paralysis of both the lower limbs is called -----
15. Increased secretion of growth hormone after puberty is called -----
16. Cushing's syndrome is due to hypersecretion of -----
17. ^{Normal blood calcium level is -----} Basal part of the basilar membrane responds to ----- pitched sounds.
18. Permanent method of sterilization in females is -----
19. Milk ejection reflex is brought about by -----
20. Decrease in sperm count is called -----
21. The receptor for dim light vision is -----
22. ^{Intention tremor is seen in -----} Waddling gait is seen in -----
