

The West Bengal University of Health Sciences
MBBS 1st Professional Examination (New Regulation), March 2021

Subject: Physiology
Paper : II

Full Marks : 100
Time : 3 hours

Attempt all questions. The figures in the margin indicate full marks.

1. ☒ a) Name the components of basal ganglia. With a suitable diagram outline their chief connections and functions. Briefly state the features and treatment of Parkinsonism. 2+3+3+5+2
- ☒ b) Describe the mechanism of action of growth hormone. Enumerate the factors influencing secretion of growth hormone. 10+5
2. ☒ a) Define pain. Describe pain pathways. Write briefly endogenous pain control mechanisms. 1+6+3
- ☒ b) Describe how the countercurrent mechanism in the kidney operates to produce hypertonic or hypotonic urine. Add a note on micturition reflex. 3+5
- ☒ c) What is menstrual cycle? Explain the ovarian changes taking place during menstrual cycle. 3+7
3. Write a short notes on the following: 5x2
- ☒ a) Oral contraceptive pills.
- ☒ b) Acromegaly.
4. Explain the following statements: 5 x 4
- ☒ a) Older persons show presbyopia.
- ☒ b) Cryptorchids are usually causes infertility.
- ☒ c) Lactation is a natural method of contraception.
- ☒ d) Thyroid dwarfs are usually mentally retarded.
- ☒ e) Hemi section of spinal cord affects both sides of the body.
5. Choose the correct option of each of the following: 10x1
- i) Which of the following is true of the tubular fluid that passes through the lumen of the early distal tubule in the region of the macula densa?
- ☒ a) It is usually isotonic
- ☐ b) It is usually hypotonic
- ☐ c) It is usually hypertonic
- ☐ d) It is hypertonic in antidiuresis

P.T.O.