

001/20

The West Bengal University of Health Sciences
MBBS 1st Professional Examination, January 2020

Subject: Physiology
Paper : II

Full Marks : 50
Time : 2 ½ hours

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

Group A

1. a) Give an account of natural pain control mechanisms. What is referred pain? Give two examples. What are the theories of referred pain? 5+1+2+4

or

- b) Summarize the effects of insulin on various tissues. What is glucose tolerance test? What are the major differences between type I & type II diabetes mellitus? 5+3+4

Group B

2. Answer *any two* of the following: 2 x 7

- a) Outline the process involved in the secretion H⁺ into the tubules. What is the significance of these processes in the regulation of acid- base balance? 4+3
- b) Draw a diagram showing optic pathways with proper labeling. What are the effects of transaction at different locations of the optic pathways? What is macular sparing? 3+3+1
- c) Name the key hormones secreted by Leydig cells & Sertoli cells of the testes. Outline the steps involved in spermatogenesis. Testosterone FSH. 2+5

Group C

3. Write a brief account on *any four* of the following: 4 x 3

- a) Placental Hormones.
- b) Tubulo- glomerular feedback.
- c) Cretinism.
- d) Myopia.
- e) Parkinsonism.

Group D

4. Give the physiological explanation of the following: 4 x 3

- a) Low serum level of sodium increases aldosterone secretion.
- b) GFR is measured by creatinine clearance test.
- c) 'Automatic Bladder' is produced in complete transection of spinal cord.
- d) Babinski's sign is positive in infants.