

Bachelor of Science (B.Sc.) Semester—VI (C.B.S.) Examination**ZOOLOGY****(General Mammalian Physiology–II)****Paper—1**

Time : Three Hours]

[Maximum Marks : 50

N.B. :— (1) All questions are compulsory.

(2) All questions carry equal marks.

(3) Draw well labelled diagrams wherever necessary.

1. Describe the process of generation of a nerve impulse. Add a note on transmission of the impulse across a myelinated nerve fibre. 10

OR

Write notes on :

(A) Role of calcium in muscle contraction. 5

(B) Ultrastructure of striated muscle. 5

2. Describe in detail the counter-current mechanism of urine concentration. 10

OR

Write notes on :

(A) Dialysis. 5

(B) Ultrastructure of Malpighian corpuscle. 5

3. Describe the structure and functions of thyroid gland. 10

OR

Write notes on :

(A) Structure of pituitary gland (diagram only). 5

(B) Hormones of the adrenal medulla and their functions. 5

4. Describe the various male and female sex hormones. 10

OR

Write notes on :

(A) Oestrus cycle. 5

(B) In-vitro fertilization. 5

5. Write four or five lines on the following (any **ten**) :

(i) Nissl's granules.

(ii) Sarcomere.

(iii) Muscle Twitch.

(iv) Juxta glomerular nephrons.

(v) Micturition.

(vi) Active secretion.

(vii) ADH.

(viii) Cushing's disease.

(ix) Addison's disease.

(x) Loop.

(xi) Graffian follicle.

(xii) Corpus Luteum. 10