

M.Sc. (Part-II) Semester-III (CBCS) Examination
ZOOLOGY
ANIMAL PHYSIOLOGY-II
Paper-XII
(Elective Paper-II)

Time : Three Hours]

[Maximum Marks : 80

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

(2) All questions carry equal marks.

(3) Illustrate your answer with suitable diagrams wherever necessary.

1. Explain the following :

- (a) Physiology of mechanoreceptors
- (b) Pathway of thermoreceptors.
- (c) Magnetoreceptors : Morphology
- (d) Physiology of equilibrium receptors.

OR

- (e) Photoreceptor
- (f) Physiology of chemoreceptors
- (g) Electoreceptors
- (h) Pathway of magnetoreceptors.

16

2. Give an account of the following :

- (i) Effect of acute exposure at high altitude.
- (j) Exercise at high altitude.
- (k) Role of humoral and local factors during exercise.
- (l) Metabolic adjustments in exercise.

OR

- (m) Respiratory changes at high altitude
- (n) Skeletal muscle blood flow during exercise.
- (o) Endocrine response in exercise
- (p) Biochemical changes in exercise.

16

3. Describe the following :

- (q) Histology of kidney of mammals
- (r) Ultrafiltration
- (s) Water and salt regulation by kidney.
- (t) Functions of *ADH* in renal physiology.

OR

- (u) Urine formation
- (v) Hyper osmotic urine
- (w) Renin/angiotensin system
- (x) Role of kidney in pH regulation.

16

4. Explain structure and mechanism of action of hypothalamic hormones.

OR

Describe control of pituitary hormones.

16

5. Give an account on pheromones in insects.

OR

Explain physiology of parental care in primates.

16