Roll No. _____ [Total No. of Pages : 2

PGIVS-063 B-21

M.Sc. IV Semester Degree Examination

ZOOLOGY

Biodiversity

Paper - HCT - 4.1

Time : 3 Hours **Maximum Marks : 80**

Instructions to Candidates:

1. All the questions carry **equal** marks.
2. Illustrate your answer wherever necessary.

Answer the following in brief. **(8×2=16)**

1. a. Beta diversity.

b. Ethical values.

c. Rare species.

d. WWF

e. Endemic species.

f. Biopiracy.

g. Exotic species.

h. UNEP.

2. a. India as a mega biodiversity. Substantiate it. **(16)**

(OR)

b. Explain in detail on ecosystem diversity of India.

3. a. Describe role of Educational Institutions and NGO's in biodiversity awareness programme. **(16)**

(OR)

b. Elucide Intellectual property rights.

4. Write explanatory notes on any **Two** of the following. **(2×8=16)**

a. Species diversity.

b. Hot spots of Biodiversity.

c. Threats to biodiversity.

5. Write short notes on any **four** of the following. **(4×4=16)**

i. In - situ conservation.

ii. Endemism.

iii. CBD.

iv. Bio resources.

v. Bio prospecting.

vi. Vulnerable species.

Roll No. _____ [Total No. of Pages : 2

PGIVS-064 B-21

M.Sc. IV Semester Degree Examination

ZOOLOGY

Animal Behaviour

Paper - HCT - 4.2

Time : 3 Hours **Maximum Marks : 80**

Instructions to Candidates:

1. All the questions carry **equal** marks.
2. Illustrate your answer wherever necessary.

Answer the following in brief. **(8×2=16)**

1. a. Klinotaxis.
   b. Firefly femmes.
   c. Drive.
   d. Sensitive period.
   e. Territoriality.
   f. Internal clock.
   g. Foraging.
   h. Mate selection.
2. a. Write a detail account on associate learning with suitable examples. **(16)**

(OR)

   b. Explain in detail on application of phonemes and their biological actions in vertebrates.
3. a. Describe in detail on ecological aspects of behaviour with suitable examples. **(16)**

(OR)

   b. Describe role of hormones in insect and crustacean metamorphosis.
4. Write explanatory notes on any **Two** of the following. **(2×8=16)**
   a. Ritual behaviour.
   b. Conflict behaviour.
   c. Motivation.

5. Write short notes on any **four** of the following. **(4×4=16)**

i. Fixed Action plan.

ii. Homeo static models.

iii. Isolating mechanisms.

iv. Polygynandry.

v. Winner loose effect.

vi. Signelling pheromones

Roll No. _____ [Total No. of Pages : 2

PGIVS-065 B-21

M.Sc. IV Semester Degree Examination

ZOOLOGY

General Endocrinology

Paper - SCT - 4.1

Time : 3 Hours **Maximum Marks : 80**

Instructions to Candidates:

1. All the questions carry **equal** marks.
2. Illustrate your answer wherever necessary.

Answer the following in brief. **(8×2=16)**

1. a. Nuclear receptors.

b. Ecdysone.

c. Goiter.

d. Signal transduction.

e. Addison's disease.

f. Autocrine secretions.

g. Calnodulin.

h. Cushing's syndrome.

2. a. Describe structure and functions of endocrine glands of Arthropoda. **(16)**

(OR)

b. Explain mechanism of action of peptide hormones.

3. a. Explain pathophysiology of pituitary hormones. **(16)**

(OR)

b. Describe structure and function of thyroid gland.

4. Write explanatory notes on any **Two** of the following. **(2×8=16)**

a. Adrenal medullary hormones.

b. Neuro hypophysis.

c. Amphibian metamorphosis.

5. Write short notes on any **four** of the following. **(4×4=16)**

i. Gigantism.

ii. Pinealocytes.

iii. Pars intermedia.

iv. Hypophysical portal circulation.

v. Thyrotrophs.

vi. Glucogon.
