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| Seat No. |  |
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**B.Sc. (Semester - VI) (New) (CBCS) Examination Oct/Nov-2019  
Zoology (Special Paper – XVI)**

**ENDOCRINOLOGY, ENVIRONMENT BIOLOGY AND TOXICOLOGY**

Day & Date: Friday, 11-10-2019  
Time: 08:00 AM To 10:30 AM

Max. Marks: 70

- Instructions:** 1) All questions are compulsory.  
2) Figures to the right indicate full marks.  
3) Neat diagrams must be drawn wherever necessary.

**Q.1 Fill in the blanks by choosing correct alternatives given below.**

**14**

- 1) Parathyroid hormone acts to ensure that \_\_\_\_\_.  
a) Calcium levels in the blood never drop too low  
b) sodium levels in urine are constant  
c) potassium levels in the blood don't escalate  
d) the concentration of water in the blood is sufficient
- 2) Hyposecretion of thyroxin in adults causes \_\_\_\_\_.  
a) Diabetes insipid    b) Exophthalmia  
c) Myxoedema    d) Diabetes mellitus
- 3) Hormones produced by adrenal cortex \_\_\_\_\_.  
a) Adrenaline, noradrenaline  
b) Mineralocorticoids, glucocorticoids  
c) Nor epinephrine, Calcitonine  
d) Epinephrine, Angiotensinogen
- 4) \_\_\_\_\_ disease is caused by deficiency of parathormone.  
a) Cretinism    b) Tetany  
c) Hypercalcemia    d) Myxoedema
- 5) \_\_\_\_\_ hormone produce by Alfa cells of Islets of Langerhans.  
a) Insulin    b) Glucagon  
c) Somatostatin    d) Secretin
- 6) Conn's disease is caused by hyper secretion of \_\_\_\_\_ glands.  
a) Adrenal    b) Parathyroid  
c) Thyroid    d) Pituitary
- 7) \_\_\_\_\_ regulate metabolism, body heat production, blood pressure, and normal development of skeletal and nervous system.  
a) Insulin    b) Thyroxin  
c) MSH    d) Prolactin
- 8) Hyperglycemia or high blood sugar is due to imbalance in \_\_\_\_\_.  
a) Prolactin    b) Thyroxin  
c) LH    d) Insulin
- 9) The pineal gland is a tiny endocrine gland found in the brain produces and secretes the hormone \_\_\_\_\_ which helps to regulate biological rhythms such as sleep and wake cycles.  
a) Dopamine    b) Melatonin  
c) L TH    d) Glucagon

- 10) \_\_\_\_\_ is the neurotransmitter used at the neuromuscular junction and it is the chemical that motor neurons of the nervous system release in order to activate muscles.
  - a) Prostaglandin
  - b) Thiamine
  - c) Acetylcholine
  - d) Gamabutarine
- 11) The \_\_\_\_\_ zone is the well-lit, open surface waters in a lake away from the shore.
  - a) Limnetic
  - b) littoral
  - c) Profundal
  - d) Hyporadiation
- 12) \_\_\_\_\_ ecosystems are flowing waters that drain the landscape, and include the biotic as well as abiotic.
  - a) Lotic
  - b) Lentic
  - c) Lake
  - d) Pond
- 13) Plankton, nekton and benthos are not the components of one of the ecosystems which is \_\_\_\_\_.
  - a) Oceans
  - b) Fresh water rivers
  - c) Grassland
  - d) Pond
- 14) \_\_\_\_\_ toxicity is the development of adverse effects as the result of long term exposure to a toxicant or other stressor.
  - a) Chronic
  - b) Sub vital
  - c) Acute
  - d) Sub acute

- Q.2 A) Answer the following questions. (Any Four) 08**
- 1) Define lentic ecosystem.
  - 2) TRH.
  - 3) Define Hormone.
  - 4) Animal ethics.
  - 5) Beta cells of pancreas.
- B) Answer the following questions. (Any Two) 06**
- 1) Hormones secreted by Parathyroid.
  - 2) Faunal adaptation in sandy shore ecosystem.
  - 3) Bio-magnification.
- Q.3 A) Answer the following questions. (Any Two) 08**
- 1) Thyroid gland disorders.
  - 2) Role of melatonin in biological rhythms.
  - 3) Characteristics of desert ecosystem.
- B) Answer the following question. (Any One) 06**
- 1) Solid waste management.
  - 2) Action of the pesticides.
- Q.4 A) Answer the following questions. (Any Two) 10**
- 1) Disorders of Adrenal gland.
  - 2) Faunal adaptation rocky sea shore.
  - 3) Applications toxicology.
- B) Answer the following question. (Any One) 04**
- 1) Bioaccumulation.
  - 2) Histological structure Pancreas.
- Q.5 Answer the following questions. (Any Two) 14**
- 1) Hormones of adrenal gland.
  - 2) Faunal adaptations of Lotic ecosystem.
  - 3) Rain water harvesting.