

The Assam Royal Global University, Guwahati

Royal School of Life Sciences

M.Sc Zoology , 1st Semester

Semester End Examination , December 2018

Course Title : General and Comparative Endocrinology

Course Code: ZOO144C102

Time: 3 hours

Maximum Marks: 70

Note : Attempt all questions as per instructions given
The figure in the right hand margin indicate marks.

SECTION-A

1. Answer the following : (Maximum word limit 50) 2x8
- a) What are the types of chemical messengers ?
 - b) What is the chemical nature of prostaglandin and what are its function ?
 - c) What are the types of receptors?
 - d) Are the catecholamines neurotransmitter ? What is their precursor ?
 - e) Name the four type of mechanism in terminating the hormone action ?
 - f) Give the chemical structure of insulin .
 - g) What do you mean by seasonal breeders ? Give example.
 - h) Name two hormone that has an influence on our behaviour ?

SECTION-B

2. Answer the following : (any two) 5x2
- a) What are the scopes of endocrinology ? How has it improved the medical treatment?
 - b) Discuss some of the experimental methods of hormone research .
 - c) Why hormones are messengers? How do you differentiate a hormone with an enzyme ?
3. Answer the following (any two) 6x2
- a) Write a note on phylogeny of endocrine glands .
 - b) Discuss the hormonal regulation of carbohydrate metabolism.
 - c) Write a note on c AMP.

4. Answer the following (any three)

4x3

- a) What are pre and pro hormones ? Discuss in details.
- b) Discuss the biosynthesis of steroid hormone.
- c) What are protein hormones and their receptors ?
- d) What is the biosynthetic pathway of epinephrine ?

5. Answer the following : (any two)

6x2

- a) What are the hormones responsible for reproduction ? Describe one male hormone and female hormone with function .
- b) Write a note on continuous breeders .
- c) What are the hormones that control over our growth and development.

SECTION-C

6. Answer the following :

Write a note on hormone receptor signal transduction mechanism.

SECTION-B

3x3

7. Answer the following : (any two)

- a) What are the scopes of endocrinology ? How has it improved the medical treatment?
- b) Discuss some of the experimental methods of hormone research .
- c) Why hormones are messengers? How do you differentiate a hormone with an enzyme ?

6x3

8. Answer the following (any two)

- a) Write a note on phylogeny of endocrine glands.
- b) Discuss the hormonal regulation of carbohydrate metabolism.
- c) Write a note on cAMP.