

[61]

SEAT No. \_\_\_\_\_

No. of Printed Pages: 02

SARDAR PATEL UNIVERSITY

M. Sc. ZOOLOGY (SEMESTER IV) EXAMINATIONS

Day and Date: Wednesday, 20<sup>th</sup> March, 2019

Time: 10:00 am to 1:00 pm

PS04CZOO22: MOLECULAR AND APPLIED ENDOCRINOLOGY

MAXIMUM MARKS: 70

Q.1. Select the most appropriate answer.

8x1 = 8 M

1. \_\_\_\_\_ acts trans-synaptically.  
(a) Neuropeptide            (b) Neuroregulator            (c) Neurotransmitter            (d) Neuromodulator
2. Spare receptors are present in hormone \_\_\_\_\_ cells.  
(a) Responsive            (b) Inhibitory            (c) Nonreactive            (d) Insulator
3. POMC refers to \_\_\_\_\_.  
(a) Preopiomelanocortin    (b) Proopiomelanocortin    (c) Proopiomyocytes            (d) Preopiomyoclasts
4. Following are the endocrine assay methods, except \_\_\_\_\_.  
(a) RIA            (b) ELISA            (c) EEG            (d) Immunoblot
5. Receptor \_\_\_\_\_ is the final step for hormone action termination.  
(a) Uncoupling            (b) Exocytosis            (c) Endocytosis            (d) Down regulation
6. Zollinger-Ellison syndrome indicates \_\_\_\_\_ gastrin levels.  
(a) Accelerated            (b) Diminished            (c) Non-receptive            (d) Unaltered
7. \_\_\_\_\_ is an antagonist for growth hormone.  
(a) Glucocorticoid            (b) Somatomedin            (c) IGF            (d) Somatostatin
8. \_\_\_\_\_ is a precursor for steroid hormone synthesis.  
(a) G-Protein            (b) Cholesterol            (c) Calcium            (d) ATP

Q.2 Briefly answer the following questions. (Seven out of Nine)

7x 2=14 M

1. What are hypothalamic nuclei?
2. Renin- Angiotensin-Aldosterone system
3. Comment on hormonal abuse in animals and humans.
4. Differentiate hypo- and hyper- glycemia.
5. Classify the hormones based on structure and function.
6. Placental hormones
7. Hormones of non-endocrine organs/cells
8. List out the endocrine methods. Give details about any two.
9. How does hormone replacement therapy work?

Q.3 (a) Give an overview on different types of pituitary gland cells. Add a detailed note on the hormones secreted from these cells. 6 M

(b) Provide comprehensive explanation of hypothalamo-pituitary disorders. 6 M

OR

(b) Explain the biosynthesis of adrenal hormones. Mention the difference between Cushing's disease and Cushing's syndrome. 6 M

Q.4 (a) Elucidate the role of parathyroid gland in bone development and metabolism using appropriate illustrations. 6 M

(b) Describe the mechanism of thyroid hormones and their disorders. 6 M

OR

(b) Write short notes on : 6 M

(i) Ghrelin

(ii) Pancreatic polypeptides

Q.5 (a) Demonstrate the significance of feedback system/s in endocrine disturbance. 6 M

(b) Give details about: 6 M

(i) Similarities and dissimilarities between plasma membrane and nuclear receptors

(ii) Disorders of pineal gland

OR

(b) Citing appropriate examples narrate the influence of ions in endocrine physiology. 6 M

Q.6 (a) Write detailed account on the hormones of pregnancy, parturition and lactation. 6 M

(b) Answer the following: 6 M

(i) What are the Exogenous and endogenous factors that affect endocrine glands?

(ii) Differentiate Spermatogenesis and spermiogenesis

OR

(b) Discuss female reproductive cycles with suitable diagrams. 6 M

← X →  
②