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M.Sc. (IIIrd Semester) Examination, 2020

ZOOLOGY

(Molecular Endocrinology and

Reproductive Biology)

Time Allowed : Three Hours

Maximum Marks : 70

SECTION - A

(Objective Type Questions)

Note : Attempt any ten questions. Each question carries
one mark. **10×1=10**

Q. 1. Objective type :

- (i) _____ is the love hormone.
- (ii) _____ is full form of ADH.
- (iii) _____ are most abundant cell type within
islets of langerhans.

(2)

- (iv) _____ stimulates glycogenesis in hepatic
cells.
- (v) Cavity of graafian follicle is known as _____ .
- (vi) Which of the following organs structures may
be classified as non-classical endocrine glands :
 - (a) Skeletal muscle
 - (b) Heart
 - (c) Kidneys
 - (d) Smooth muscle
 - (e) Skin
- (vii) What two hormones are produced by the
pancreas :

(3)

- (a) Epinephrine and norepinephrine
 - (b) Insulin and glucagon
 - (c) Parathormone and vasopressin
- (viii) Based on hormonal transport, which of the following will be transported in the plasma by being bound to a binding protein :
- (a) Oxytocin
 - (b) ADH
 - (c) Testosterone
 - (d) Epinephrine
 - (e) All of these are transported by binding protein

(4)

- (ix) For hydrophobic hormones, most of them are :
- (a) Free hormone dissolve in plasma
 - (b) Hormone bound to binding proteins
- (x) Prolactin acts on target cells by binding to this receptor type :
- (a) G protein coupled receptor (GPCR)
 - (b) Receptor tyrosine kinase (RTK)
 - (c) Cytokine receptor linked kinase
 - (d) Cytoplasmic/nuclear receptor
- (xi) Which of the following is a target tissue for oxytocin ?
- (a) Myoepithelial cells of mammary glands
 - (b) Uterine smooth muscle
 - (c) Oxytocin - producing magnocellular neurons of the hypothalamus

(5)

(xii) Cleavage starts after fertilization in :

- (a) Fallopian tube
- (b) Uterus
- (c) Vestibule
- (d) Clitoris

SECTION - B

Note : Attempt any five questions. Each question carries 2 marks. **10**

Q. 2. Very short answer type :

- (i) Define hormone.
- (ii) Name any 5 hormones.
- (iii) What are functions of hormones.
- (iv) Which is the female hormone.
- (v) Write any two ways to balance your hormones.
- (vi) Is estrogen a hormone.
- (vii) Are Bananas high in estrogen ?

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P.T.O.

(6)

SECTION - C

Note : Attempt any five questions. Each question carries 4 marks. **20**

Q. 3. Short answer type :

- (i) What are hormones made of ?
- (ii) Define endocrinology.
- (iii) What hormone is responsible for anger ?
- (iv) What hormones cause anxiety ?
- (v) What hormones does the liver metabolism ?
- (vi) How does estrogen affect metabolism.
- (vii) What hormone causes weight gain and how ?

SECTION - D

Note : Attempt any three questions. Each question carries 10 marks. **30**

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(7)

Q. 4. Essay type (1-4) :

- (i) Write an essay on nature of hormonal action.
- (ii) Explain phylogeny of thyroid gland.
- (iii) Write an essay on inhibitors of hormone biosynthesis and their use.
- (iv) Describe mechanisms of hormone action and signal attenuation.

OR

Write an essay on regulation of fertility in farm animals.

