

tal No. of Printed Pages—4

**5 SEM TDC ZOO M 7**

**2 0 1 6**

( November )

**ZOOLOGY**

( Major )

Course : 507

( **Endocrinology** )

Full Marks : 48

Pass Marks : 19 (Backlog)/14 (2014 onwards)

Time : 2 hours

*The figures in the margin indicate full marks  
for the questions*

Answer Question No. 1 and *any three* from the rest

1. (a) Fill in the blanks : 1×5=5

(i) The growth hormone is chemically a globular protein secreted by \_\_\_\_\_ cells of the adenohypophysis.

(ii) In pigeons and dove, the secretion of crop milk is stimulated by \_\_\_\_\_ hormone.



( 2 )

(iii) The hormones of parathyroid glands are mainly responsible for metabolism of phosphate and \_\_\_\_.

(iv) The two polypeptide chains of active insulin are actually derived from a single polypeptide molecule called \_\_\_\_.

(v) Epinephrine and norepinephrine are also called catecholamine secreted by adrenal \_\_\_\_.

(b) Rewrite the following sentences with correct option :  $1 \times 4 =$

(i) The thickening and puffiness of skin in adult human being is due to hyperthyroid/hypothyroid/hypoadrenal activity.

(ii) Cushing's disease is due to hyper-secretion of thyroid hormones/glucocorticoids/mineralocorticoids.

(iii) Prothoracic or thoracic gland of arthropods secretes a hormone, popularly known as juvenile hormone / moulting-hormone / pheromone.

( 3 )

(iv) All the hormones secreted by adrenal cortex are chemically protein/steroid/amino acid derivatives in nature.

(c) Write short notes on any three of the following :  $3 \times 3 = 9$

(i) Corpora allata

(ii) Oral contraceptive

(iii) Corpus luteum

(iv) Neurosecretory cell

(v) Islets of Langerhans

2. What do you mean by trophic hormone? Why is growth hormone also called as somatotrophic hormone? Discuss in brief the states of hypo- and hyper-secretion of growth hormone in man.  $2+2+6=10$

3. What is hypothalamohypophyseal portal system? Discuss the mechanism of regulation of adenohypophyseal hormone secretion with suitable diagram.  $2+6+2=10$

4. Name the hormones concerned with maintenance of pregnancy, parturition and lactation with their chemical nature. Describe briefly the mechanism of hormone concerned with pregnancy and parturition.  $6+4=10$

( Turn Over )



5. What is amniocentesis? Describe its method or protocol. Mention the merits of amniocentesis.  $2+4+4=10$
6. Write an account of comparative anatomy of pituitary/thyroid gland in fishes, Amphibia and mammals with suitable diagram.  $8+2=10$

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