

(a) What is Reflex action? Describe with example.

(e) Classify epithelial tissue with example.

4. (a) Describe the structure of connective tissue with neat and labelled diagram. 7+3=10

Or

(b) What is nerve impulse? Describe the process of nerve impulse conduction through unmyelinated nerve fibre. 2+8=10

5. (a) What is puberty? Describe the role of hormones involved in puberty. 2+8=10

Or

(b) Describe the process of signal transduction for non-steroidal hormones. 10

6. (a) Describe the physiology of vision with neat and labelled diagram. 7+3=10

Or

(b) Describe the molecular and chemical basis of muscle contraction. 5+5=10

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2023

ZOOLOGY

(Honours Core)

Paper : ZOO-HC-3026

(Animal Physiology : Controlling and Coordinating Systems)

Full Marks : 60

Time : Three hours

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

1. Answer the following/Choose the correct answer : 1×7=7

- (a) Transitional epithelium is found on
- (i) Stomach
 - (ii) Lungs
 - (iii) Liver
 - (iv) Urinary bladder

Contd.

(b) The synaptic vesicles at neuromuscular junction discharge

- (i) Adrenaline
- (ii) Epinephrine
- (iii) Acetylcholine
- (iv) None of the above

(c) A small band of dense, white and fibrous elastic tissue is grouped as

- (i) Ligament
- (ii) Muscle junction
- (iii) Muscle filament
- (iv) Muscle cartilage

(d) The longest bone in the body is

- (i) Femur
- (ii) Radius
- (iii) Hip Bone
- (iv) Ilium

(e) Which of the following tissue envelopes the bone?

- (i) Periosteum
- (ii) Pericardium
- (iii) Myocardium
- (iv) None of the above

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(f) Spongy bones do not have a haversian system. (True or False)

(g) Ovulation generally takes place at the _____ of a menstrual cycle.

- (i) Day 12
- (ii) Day 14
- (iii) Day 16
- (iv) Day 28

2. Answer the following questions : 2×4=8

(a) Mention the posterior pituitary hormones with their functions.

(b) What is tetanus?

(c) Describe the structure of neuromuscular junction.

(d) What is bone arification?

3. Answer the following questions : (any three) 5×3=15

(a) What is bone? Describe different types of bones with example.

(b) Describe briefly the characteristics of muscle twitch.

(c) Describe the structure of thyroid gland with labelled diagram.

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Contd.