

TEST - 02

ULTIMATE KCET CRASH COURSE 2026 ZOOLOGY

Q1 Buoyancy in a bony fish is maintained with the help of

- (A) Streamlined body
- (B) Paired fins
- (C) Air bladder
- (D) All of the above

Q2 In closed circulatory system

- (A) The cells and tissues are directly bathed in the blood pumped out by heart
- (B) Arteries and veins are lacking
- (C) The capillaries are largest blood vessels and closed at their ends
- (D) Blood circulates through a series of vessels of varying diameters

Q3 Which one of the following pairs of animals are similar to each other for the feature stated against them?

- (A) Pteropus and Ornithorhyncus - viviparity
- (B) Garden lizard and crocodile - three chambered heart
- (C) Ascaris and Ancylostoma - metameric segmentation
- (D) Sea horse and flying fish - cold blooded (poikilothermal)

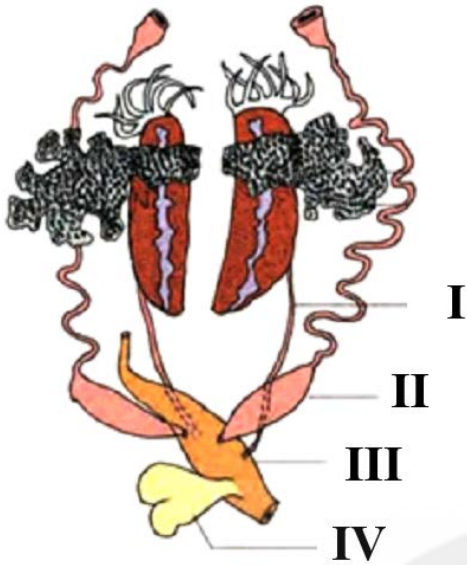
Q4 Match the following columns.

Column I (Specialised cell or part)		Column II (Animal phylum)	
A.	Choanocytes	1.	Platyhelminthes
B.	Cnidoblasts	2.	Ctenophora
C.	Flame cells	3.	Porifera
D.	Nephridia	4.	Coelenterata
E.	Comb plates	5.	Annelida

- (A) A B C D E 2 1 4 5 3
- (B) 2 4 1 5 3
- (C) 5 1 3 2 4
- (D) 3 4 1 5 2



Q5 Refer to the given below diagram of female reproductive system of frogs.



Identify the structure responsible for transporting faeces, urine and gametes.

- (A) I
- (B) II
- (C) III
- (D) IV

Q6 Male frog can be distinguished from female frog by the presence of:

- (A) vocal sacs and copulatory pad on the first digit of the forelimb.
- (B) a neck and tail is absent.
- (C) the hindlimb ends in the five digits.
- (D) eyes are bulged and covered by the nictitating membrane.

Q7 Given below are two statements:

Statement I: External ears are present in frogs

Statement II: The ear is an organ of hearing and balancing in frogs.

In the light of the above statements, choose the *most appropriate* answer from the options given below:

- (A) Statement I and Statement II both are correct
- (B) Statement I is correct but Statement II is incorrect
- (C) Statement I is incorrect but Statement II is correct
- (D) Statement I and Statement II both are incorrect

Q8 Match **List-I** with **List-II**.

	List I		List II
(A)	Drugs	(I)	Diterpenes
(B)	Terpenoid es	(II)	Abrin
(C)	Lectins	(III)	Curcumin
(D)	Toxins	(IV)	Concanavalin A

Choose the **correct** answer from the options given below:

- (A) A-III, B-II, C-IV, D-I
- (B) A-III, B-I, C-II, D-IV
- (C) A-III, B-IV, C-I, D-II
- (D) A-III, B-I, C-IV, D-II



- Q9** Sliding filament theory can be best explained as
- (A) actin and myosin filaments do not shorten but rather slide pass each other
 - (B) when myofilaments slide pass each other, myosin filaments shorten while actin filaments do not shorten
 - (C) when myofilaments slide pass each other actin filaments shorten while myosin filaments do not shorten
 - (D) actin and myosin filaments shorten and slide pass each other.
- Q10** Which hormone is responsible for the fight-or-flight response?
- (A) Insulin
 - (B) Glucagon
 - (C) Epinephrine
 - (D) Thyroxine
- Q11** Which of the following is/are effects of cortisol?
- (A) Anti-inflammatory
 - (B) Immunosuppressant
 - (C) Increases RBCs production
 - (D) All of these
- Q12** Given below are two statements:
- Statement I:** In an adult woman, hypothyroidism may cause irregular menstrual cycle.
- Statement II:** Insulin stimulates the conversion of glycogen to glucose and thus increases blood glucose levels.
- In the light of the above statements, choose the most appropriate answer from the options given below:
- (A) Statement I is correct but Statement II is incorrect.
 - (B) Statement I is incorrect but Statement II is correct.
 - (C) Both Statement I and Statement II are correct.
 - (D) Both Statement I and Statement II are incorrect
- Q13** Blood calcium level is regulated by
- (A) T_3 and T_4
 - (B) T_3 and thyrocalcitonin
 - (C) thyrocalcitonin secreted by thyroid gland
 - (D) thyrocalcitonin secreted by parathyroid gland
- Q14** The system that transmits impulse from the CNS to the involuntary organs and smooth muscles of the body
- (A) Sympathetic neural system
 - (B) Parasympathetic neural system
 - (C) Somatic neural system
 - (D) Autonomic neural system
- Q15** Assertion (A): Myelin sheath increases the speed of nerve impulse conduction.
Reason (R): Myelin sheath acts as an insulator.
- (A) Both A and R are true, and R is the correct explanation of A.
 - (B) Both A and R are true, but R is not the correct explanation of A.
 - (C) A is true, but R is false.
 - (D) A is false, but R is true.



Answer Key

Q1 C
Q2 D
Q3 D
Q4 D
Q5 C
Q6 A
Q7 C
Q8 D

Q9 A
Q10 C
Q11 D
Q12 A
Q13 C
Q14 D
Q15 A



Hints & Solutions

Note: scan the QR code to watch video solution

Q1 Text Solution:

- Class Osteichthyes includes both marine and fresh water fishes with bony endoskeleton. Their body is streamlined, mouth is mostly terminal.
- Air bladder is present which regulates buoyancy.

Video Solution:



Q2 Text Solution:

Blood circulates through a series of vessels of varying diameters

Video Solution:



Q3 Text Solution:

Sea horse and flying fish - cold blooded (poikilothermal)

Video Solution:



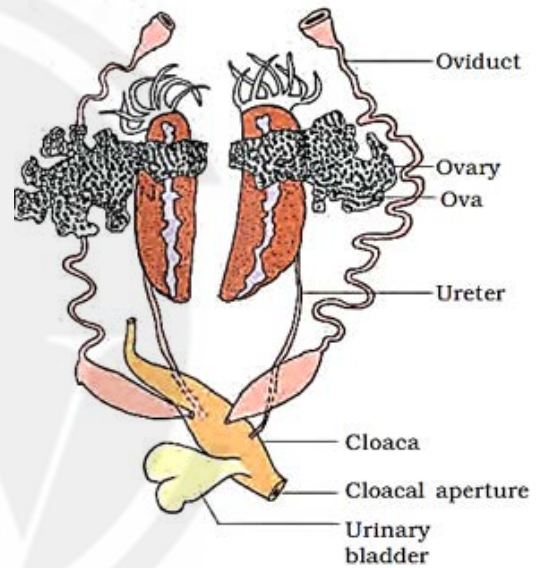
Q4 Text Solution:

- A-3 B-4 C-1 D-5 E-2

Video Solution:



Q5 Text Solution:



- The diagram depicts the female reproductive system of frogs.
- Cloaca is the common chamber responsible for transporting faeces, urine and gametes.

Video Solution:



Q6 Text Solution:

- Frog exhibits sexual dimorphism.
- Male frog can be distinguished by the presence of sound producing vocal sacs and a copulatory pad which is present on the first digit of the forelimbs.
- These two structural features are absent in female frogs.

Video Solution:



Q7 Text Solution:

External ear is absent in frogs and only tympanum can be seen externally. The ear is an organ of hearing as well as balancing (equilibrium).

Video Solution:



Q8 Text Solution:

Drugs	Curcumin
Terpenoides	Diterpenes
Lectins	Concanavalin A
Toxins	Abrin

Video Solution:



Q9 Text Solution:

During muscle contraction, the laterally projecting heads (cross bridges) of the thick myosin myofilaments come in contact with the thin actin myofilaments and rotate on them. This pulls the thin myofilaments toward the middle of the sarcomere, past the thick myofilaments. The Z lines come closer together and the sarcomere becomes shorter. Length of the A band remains constant. Myofilaments (both actin and myosin) stay the same length. Free ends of actin myofilaments move closer to the centre of the sarcomere, bringing Z lines closer together. I bands shorten and H zone narrows. A similar action in all the sarcomeres results in shortening of the entire myofibril and thereby of the whole fibre and the whole muscle.

Video Solution:



Q10 Text Solution:

Epinephrine

Video Solution:



Q11 Text Solution:

- Glucocorticoids stimulate gluconeogenesis, lipolysis and proteolysis; and inhibit cellular uptake and utilisation of amino acids.
- Cortisol is also involved in maintaining the cardiovascular system as well as the kidney functions.
- Glucocorticoids, particularly cortisol, produce anti-inflammatory reactions and suppress the immune response. Cortisol stimulates the RBCs production.

Video Solution:**Q12 Text Solution:**

Insulin stimulates the conversion of glucose to glycogen and thus decreases blood glucose levels.

Video Solution:**Q13 Text Solution:**

Thyroid gland also secretes a protein hormone called thyrocalcitonin (TCT) which regulates the blood calcium levels

Video Solution:**Q14 Text Solution:**

The autonomic neural system transmits impulses from the CNS to the involuntary organs and smooth muscles of the body. The autonomic neural system is further classified into sympathetic neural system and parasympathetic neural system.

Video Solution:**Q15 Text Solution:**

Both A and R are true, and R is the correct explanation of A.

Video Solution:

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