

BOARD OF INTERMEDIATE EDUCATION, KARACHI

INTERMEDIATE EXAMINATION
MODEL PAPER 2026

BIOLOGY PAPER – II
ZOOLOGY (THEORY)
(Science Pre-Medical Group)

Max. Marks: 36

Time: 1 hour 40 minutes

According to New Book

SECTION ‘B’
(SHORT-ANSWER QUESTIONS) **Marks: 18**

Note: Attempt any **Nine** part questions in all. Select five **Reasoning Questions** and four **Non-Reasoning Questions**. All part questions carry equal marks.

2. a) **Reasoning Questions:**

- i) Why do impulses travel faster in myelinated neurons?
- ii) Why do cardiac muscles not fatigue?
- iii) Why do starfish and jellyfish not require osmoregulation?
- iv) Why do animals excrete different types of excretory waste?
- v) How are biological rhythms important to humans?
- vi) Why is cleavage in birds and reptiles called meroblastic?
- vii) Pancreas classified as both an exocrine and endocrine gland. Why?
- viii) Why female hormonal system considered more efficient than the male?

b) **Non-Reasoning Questions:**

- ix) Write note on threshold potential.
- x) Differentiate between bone and cartilage.
- xi) Mention the problems associated with kidney transplants.
- xii) Define taxis. Mention positive and negative taxis with examples.
- xiii) Differentiate between blastula and gastrula.
- xiv) List the hormones of the anterior pituitary.
- xv) List the causes of male **OR** female infertility.

SECTION ‘C’
(DETAILED-ANSWER QUESTIONS) **Marks: 18**

Note: Answer any **Two** questions from this section. All questions carry equal marks.

- 3. Explain the resting membrane potential, depolarization and action potential. Draw a neat and labelled diagram of Resting potential
- 4. Explain blastula (blastocyst) with emphasis on the segmentation cavity.
- 5. Explain the function of the kidney with a diagram.

OR

Explain the sliding filament model of muscle contraction also mention the cross-bridge cycle with the help of a diagram.

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INTERMEDIATE EXAMINATION MODEL PAPER 2026

BIOLOGY PAPER – II ZOOLOGY (THEORY) (Science Pre-Medical Group)

Max. Marks: 09

Time: 20 minutes

According to New Book

SECTION 'A'

(MULTIPLE CHOICE QUESTIONS) – (M.C.Qs.)

Marks : 09

NOTE:

- i) This section consists of 18 part questions and all are to be answered. Each part question carries ½ mark.
ii) Do not copy the part questions in your answerbook. Write only the answer in full against the proper number of the question and its part.

1. Choose the correct answer for each from the given options:

- i) The major inhibitory neurotransmitter of the brain is:
* Acetylcholine * Epinephrine * GABA * Endorphin
- ii) The inflammation in kidneys due to stones is called:
* Lithonephritis * Edema * Sarcoma * Encephalitis
- iii) These joints hold bones by dense connective tissue containing:
* Fibrous joint * Syndesmosis * Gomphosis * Synovial joints
- iv) Long term memory associated with this part of brain:
* Amygdala * Hypocampus
* Medulla Oblongata * Hypothalamus
- v) The inner cell mass of a blastocyst gives rise to:
* The placenta * The embryo
* The umbilical cord * The amniotic fluid
- vi) Mild to severe grade of stretching or tearing of a ligament is called:
* Spasm * Tetany * Sprain * Cramp
- vii) Agonistic behaviour is the type of:
* Innate behavior * Learning behavior
* Social behavior * Instinctive behavior
- viii) A common physical change associated with aging is:
* Increased muscle mass * Decreased bone density
* Improved memory * Increased metabolism
- ix) Key hormones in the female reproductive system that regulate the menstrual cycle:
* Estrogen * Progesterone * LH * FSH
- x) The decrease in response to repeated or continuous stimulation is called:
* Insight * Habituation * Imprinting * Instinct
- xi) The hormones secreted by the adrenal gland in response to stress and promote(s) the synthesis of glucose from non-carbohydrate substrates is:
* Glucagon * Glucocorticoids * Epinephrine * Thyroxine
- xii) Workers (honey bee) are:
* Fertile females * Fertile males * Sterile females * Sterile males
- xiii) To maintain stability according to changing condition of an environment is called:
* Homeostasis * Osmoregulation * Excretion * Biological rhythms
- xiv) The process of fertilization occurs in the:
* Uterus * Fallopian tube * Cervix * Vagina
- xv) Animal excrete Ammonia are called:
* Amniote * Chorion * Ammonotelic * Uricotelic
- xvi) In males, FSH promotes the development and maturation of:
* Testosterone * Sperm cells * Egg cells * Polar cells
- xvii) The process of fertilization occurs in the:
* Uterus * Fallopian tube * Cervix * Vagina
- xviii) The surface of a neuron that discharges vesicles is the:
* Dendrite * Axon hillock
* Presynaptic membrane * Postsynaptic membrane

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