

BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, PESHAWAR

Higher Secondary School Certificate (H.S.S.C.) Examination — Annual 2023

BIOLOGY

Class: 12th (Inter Part-II)	Paper ref: PR – XII (01) (23)	Year: 2023	Medium: English
-----------------------------	-------------------------------	------------	-----------------

Time: 20 Minutes

SECTION - A

Marks: 18

Note: Four choices are given against each question; fill the circle of the correct answer only. Use a black or blue ball point / marker to fill the circle. Filling more than one circle for a question will be counted as a wrong answer.

- Select the star codon of the given.
☐ AUA ☐ AUG ☐ AUU ☐ AAA
- Endosymbiosis hypothesis explain the origin of _____.
☐ Fish ☐ Bird ☐ Prokaryotes ☐ Eukaryotes
- The rate at which the new individuals are added to a population in a unit time is _____.
☐ Density ☐ Natality ☐ Mortality ☐ Dispersion
- Multiple cloning sites in a vector give flexibility in the choice of _____.
☐ Resistant gene ☐ Desired sequence
☐ Restriction enzymes ☐ Primers
- Most common breed of buffalo in Pakistan is _____.
☐ Dajal ☐ Dhani ☐ Nili Ravi ☐ Sahiwal
- The hormone that induce labour and controls labour via a positive feedback mechanism is _____.
☐ Oxytocin ☐ Estrogen ☐ ADH ☐ Progesterone
- Dimorphin is the chemical name of _____.
☐ Alcohol ☐ Cannabis ☐ Nicotine ☐ Heroin
- Positive feedback enable _____.
☐ Child birth ☐ Bone thickening
☐ Goiter formation ☐ Dwarfism
- Thigmonastic movement occurs in response to _____.
☐ Gravity ☐ Touch ☐ Chemicals ☐ Light
- The corpus leutium is formed at the site of _____.
☐ Fertilization ☐ Ovulation
☐ Menstruation ☐ Implanation
- Genes located on the same chromosome and inheriting together are said to be _____.
☐ Crossed ☐ Dominant ☐ Recessive ☐ Linked
- Genotype R_1R_2 of 4 O'clock plant produces _____ colour flowers.
☐ Red ☐ White ☐ Pink ☐ Yellow
- Hyponutremia is _____.
☐ Low blood sodium ☐ Pus
☐ Abscess ☐ Purulent
- The left lung of human is smaller in size because of asymmetrical position of _____.
☐ Liver ☐ Trachea ☐ Heart ☐ Intestines
- Urine leave the body from bladder through a duct called _____.
☐ Ureter ☐ Urethra ☐ Vasarecta ☐ Hilus
- How many unpaired bones are found in cranium?
☐ Two ☐ Three ☐ Four ☐ Eight
- Which muscles are arranged in branching pattern?
☐ Skeletal muscles ☐ Cardiac muscles
☐ Smooth muscles ☐ Sphincter muscles
- _____ bring nerve impulse toward soma of neuron.
☐ Axon ☐ Schwan cell
☐ Dendride ☐ Axon terminals

SECTION - B

Note: Time allowed for Section-B and Section-C is 2 Hours and 40 minutes.

Q2: Answer any TEN parts. Each part carries FOUR marks.

- State the symptoms and complications related to pneumonia?
- Describe about the components of Renal Tubules?
- Enumerate about the types and role of bone cells.
- How the developments of Active membrane potential occur during nerves impulse transmission?
- Why anterior pituitary is considered as master gland?
- Write any four differences between innate and learning behavior?
- Enlist the causes of miscarriage?
- Define lactation and write the advantages of breast feeding?
- What is ABO Blood Group System?
- Compare Lamarckism with Darwinism?

11. Enlist the problems related to rapid growth in human population?
12. Discuss the steps of Gel Electrophoresis in DNA sequencing?
13. Give the importance of animal husbandry.

SECTION - C

Note: Attempt any THREE questions. All questions carry equal marks.

- Q3: Explain how Griffith and Avery proved that DNA is hereditary material?
- Q4: (a) Illustrate about the larynx and trachea?
- (b) Describe the role of hypothalamus in thermoregulation?
- Q5: (a) Note the differences between fibrous and synovial joints?
- (b) Write a note on thyroid gland?
- Q6: (a) Explain briefly about biological fixation of nitrogen?
- (b) Write the functions of spinal cord?

Notes on this transcription

- This is a **typeset transcription** of the original paper, not a photograph of it. Question wording, spelling, punctuation and numbering are reproduced exactly as printed, including the board's own errors.
- **No answer key is included.** On the source sheet the correct circles are already shaded in; every option here is reproduced unmarked so the paper can be attempted.
- Peshawar Board papers carry no group label, so this paper is filed without one.
- The objective-section instructions are printed in Urdu on the original sheet; an English rendering of them is given above.
- Board spellings and slips kept verbatim: "star codon" for start codon (Q.1), "Natality" (Q.3), "in te choice" (Q.4), "corpus leutium" and "Implanatation" (Q.10), "Hyponutremia" (Q.13), "Schwan cell" and "Dendride" (Q.18), "complicaions" (Section-B 1) and "GRiffth" for Griffith (Q3).
- Neither written section prints per-question mark figures beyond the FOUR marks stated in the Q2 rubric, so the marks column is left empty.