

BIOLOGY Part-II Swat 2025 Time: 20 Minutes Marks: 18 Multiple Choice Questions 01 Mark for each	Paper Code ① ● ②	Roll No. of the Student					
		Serial No. Of the Answer Book _____					

SECTION-A

Note:

- 1) Attempting all MCQs is compulsory. This paper along with the OMR sheet must be returned to the superintendent after due time.
- 2) Fill the circle (A) (B) (C) (D) which one is correct with blue or black ball point in separate OMR Sheet like ●
- 3) If more than one circle in the OMR sheet is filled then no credit will be given to such answer.

- I. i. Down syndrome is expressed as:
- $n+1$ (B) $n-1$ ● $2n+1$ (D) $2n-1$
- ii. Shoulder joint is an example of:
- (A) Hinge joint (B) Cartilagenous joint ● Ball & Socket joint (D) None
- iii. Breathing center is located in:
- (A) Pons ● Medula (C) Blamgata (D) Amygdala
- iv. Which sequence of nucleotides would bond with the DNA sequence TAGGCT.
- (A) ATCGTG (B) ATTCTA ● ATCCGA (D) TGGCAT
- v. Birds excrete:
- (A) Ammonia (B) Urea (C) Ammonium ● Uric Acid
- vi. DNA replication occurs in which phase of cell division:
- (A) Metaphase ● Interphase (C) Anaphase (D) Prophase
- vii. Receptors Sensitive to light are
- (A) Chemical (B) Mechanical ● Photo (D) Bono receptors
- viii. Which of the following hormones helps in stretching of uterus and cervix during child birth.
- (A) ADH ● Oxitocin (C) Adrenalin (D) Thyroxin
- ix. The inner spongy lining of uterine cavity is called:
- (A) Myometrium (B) Mesometrium (C) Perimetrium ● Endometrium
- x. Insulin is produced by:
- β cell (B) Alpha cell (C) Liver (D) Spleen
- xi. The immediate Nitrogenous waste product of protein metabolism is:
- (A) Urea (B) Uric Acid (C) Amino Acid ● Ammonia
- xii. The random loss of alleles in a population is called
- (A) Mutation (B) Gene Flow (C) Genetic change ● None of these
- xiii. In vitro Fertilization takes place in:
- (A) Uterus (B) Oviduct (C) Cervix ● Laboratory
- xiv. The largest portion of brain is:
- Cerebrum (B) Cereblum (C) Medula (D) Hypothalamus
- xv. Which of the following is used in PCR?
- (A) DNA polymerase (B) RNA polymerase ● Taq polymerase (D) All of them
- xvi. Which of the following is a sex linked inheritance:
- Eye color (B) Hair color (C) Skin color (D) Baldness
- xvii. Genome of HIV consists of:
- Two RNAs (B) Single DNA (C) Single RNA (D) Both DNA & RNA
- xviii. The largest source of atmospheric nitrogen fixation is:
- (A) Industrial (B) Atmospheric ● Biological (D) Volcanic

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BILOGY Part-II

Swat 2025

Note: Time allowed for section B and C is 2 hours and 40 minutes.

SECTION "B"

Marks: 40

II. Attempt any Ten Parts out of the following. Each Part carries equal marks.

- i. Differentiate between simple and compound fracture.
- ii. Write short note on peritoneal dialysis.
- iii. Differentiate between sensory and motor neuron.
- iv. Write down function of hormones secreted by thyroid gland.
- v. What is the nature of innate behavior?
- vi. Write down how can AIDS be prevented?
- vii. Differentiate between Dominance and Epistasis.
- viii. Discuss the genetic source of color blindness.
- ix. What are the types and role of histone protein in chromosome?
- x. Describe parapatric speciation.
- xi. What is population density and population size?
- xii. What are the major causes of ozone layer depletion?
- xiii. What are the applications of PCR?

SECTION "C"

Marks: 27

Note: Attempt any Three questions of the following. Each question carries equal Marks.

- III. Describe Morgan's work on sex linkage in *Drosophila*.
- IV. Write down in detail the process of DNA replication.
- V. What is bone fracture? How does repair of bone fracture take place?
- VI. Write note on:
 - a) Development of active membrane potential
 - b) Kidney Stones