ZIAUDDIN UNIVERSITY
EXAMINATION BOARD

Total Time 3 hours
Total Marks: 75

Class: X
Time Allowed: 20 minutes
Q1:

MODEL PAPER EXAMINATION 2026
SUBJECT: BIOLOGY
(SECTION "A")

Marks: 11

Note: Attempt **ALL** questions from section 'A'. Each question carries **ONE** mark.

1. The genetic constitution of a trait is called _____.
   A. Genotype B. Phenotype C. Genome D. Phenyl
2. The chemical material of a chromosome is called _____.
   A. Chromatin B. Chromeres C. Chromonema D. Chromatid
3. Stimulus is detected by _____.
   A. Nerves B. Effector C. Receptor D. All of these
4. The shortest path of reflex action consists of _____.
   A. 1 neuron B. 2 neurons C. 3 neurons D. Many neurons
5. Which of the following disorder is associated with degeneration of alveoli?
   A. Bronchitis B. Lung cancer C. Asthma D. Emphysema
6. _____ is the maintenance of body temperature within suitable limit.
   A. Homoeotherm B. Thermoregualtion C. Osmoregulation D. Heterotherm
7. The framework that gives shape to any structure is called _____.
   A. Architecture B. Bone C. Cartilage D. Skeleton
8. The female gametophyte of angiospermic plant is called _____.
   A. Ovule B. Embryo sac C. Ovary D. Carpel
9. The outer part of DNA helix made up of sugar and phosphate is _____.
   A. Nucleoprotein B. Upright C. Phosphoester D. Rungs
10. The amount of solid waste and or concentration of gases other than oxygen increase in atmosphere is called _____.
    A. Air Pollution B. Ozone depletion C. Acid rain D. Greenhouse effect
11. Drugs for treatment of rheumatoid arthritis can be obtained from _____.
    A. Animals B. Minerals C. Plants D. Microorganisms

(Practical Based Assessment) **Marks: 16**

Q2: Attempt **ALL** questions.

1. Zayan is conducting an experiment in his school biology lab using a gas sensor to measure the composition of gases in air. He records data for both inhaled (inspired) and exhaled (expired) air. Fill in the table below using approximate percentage values of the main gases in inspired and expired air: (5 marks)

   a. Complete the table

Gas	Inspired Air (%)	Expired Air (%)
Oxygen	a. _____	b. _____
Carbon Dioxide	c. _____	d. _____
Nitrogen	e. _____	f. _____

   b. State **one physiological process** responsible for this exchange.

2. Fatima comes back home after a jog and notices her skin is sweaty and warm. Her mother explains it's her body's way of cooling down. (6 marks)
   a. Describe two ways in which the skin helps regulate body temperature.
   b. Name the structures in the skin involved in this process.
   c. Explain why this process is important for homeostasis.

3. Ali accidentally touches a hot pan and quickly pulls his hand away without thinking. Later, in class, his teacher asks him to explain what happened in terms of nerve function. (5 marks)
   a. Name the three types of neurons involved in a reflex arc.
   b. State the function of each neuron type in the process.

END OF SECTION A

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Total Time 3 hours
Total Marks: 75

Class: X **MODEL PAPER EXAMINATION 2026**
Time: 2 hours 40 minutes **SUBJECT: BIOLOGY (SECTION "B" AND SECTION "C")** **Total Marks 48**

SECTION "B" (SHORT ANSWER QUESTIONS) 24 Marks

Note: Answer any **EIGHT** questions from section.

Q3. Differentiate between:
(a) Bone and Cartilage (b) Inspiration and Expiration

Q4. Explain why smoking is harmful to health and describe its link to respiratory disorders.

Q5. Illustrate an ovule with a clear, labelled diagram.

Q6. Define the following terms:
(i) Filtration (ii) Evolution (iii) Myopia

Q7. What is excretion in animals? List the excretory organs of any three animals.

Q8. Describe three key characteristics of chemical cycles in nature.

Q9. Describe how an artificial ventilator supports breathing.

Q10. Explain how a new plant can develop from a part of an existing plant.

Q11. Suggest practical steps for reducing water pollution.

Q12. Define a kidney stone.

Q13. What is nitrogen fixation, and how does it occur in an ecosystem?

Q14. Name three endangered mammals found in Pakistan.

SECTION "C" (DETAILED ANSWER QUESTIONS) 24 Marks

Note: Answer any **FOUR** questions from this section. Your answer should not exceed 20 - 30 lines.

Q15. What is biotechnology? Explain its scope and significance.

Q16. Describe how the skin helps regulate body temperature.

OR

Draw a clear, labeled diagram showing the stages of fruit formation.

Q17. Identify common bone disorders and their causes.

Q18. Explain Darwin's theory of natural selection.

Q19. Describe the process of spermatogenesis.

Q20. Why do intelligence levels vary among individuals, even though brain structures are similar?

END OF PAPER