ZIAUDDIN UNIVERSITY EXAMINATION BOARD

Total Time 3 hours
Total Marks: 60

Class: IX **MODEL PAPER EXAMINATION 2026**
Time Allowed: 20 minutes **SUBJECT: BIOLOGY**
Q1: **(SECTION "A")** **Marks: 11**

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

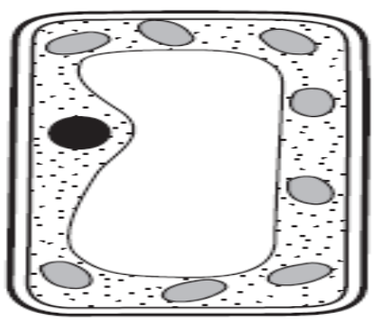
1. _____ are involved in the clotting of blood.
   A. Red blood cells B. White blood cells C. Platelets D. Hemoglobin
2. Fundamental molecule produced during photosynthesis is:
   A. Glucose B. Fatty acid C. Amino acid D. Nucleotide
3. Enzymes are _____ in nature.
   A. Lipid B. Protein C. Steroid D. Carbohydrate
4. Deficiency of vitamin K causes:
   A. Rickets B. Scurvy C. Beri Beri D. Anemia
5. A localized group of organisms that belong to the same species is called a:
   A. Biosphere B. Community C. Ecosystem D. Population
6. All are involved in classification except:
   A. Genetics B. Homologous C. Cytology D. Analogous
7. The phenomenon in which a pair of homologous chromosome fails to separate is called:
   A. Terminalization B. Non-disjunction C. Linkage D. Synapsis
8. _____ is a unicellular animal.
   A. Fish B. Bird C. Cockroach D. Euglena
9. Volvox is _____.
   A. Polyphyletic B. Individual C. Animal D. Plant
10. The study of remote past is called:
    A. Morphology B. Physiology C. Plantology D. Homology
11. In the human digestive system, trachea and esophagus, both are connected to:
    A. Large intestine B. Stomach C. Pharynx D. Larynx

(Practical Based Assessment)

Marks: 16

Note: Attempt **ALL** questions. Each question carries **TWO** marks.

12. The diagram shows a plant cell.



Which structure identifies this as a plant cell rather than an animal cell?
   A. Cell membrane B. Cell wall C. Cytoplasm D. Nucleus

13. In a practical lesson, a student makes the following observations about some organisms. 'They are spherical, unicellular organisms which are visible with the light microscope. Diameter is 0.0mm. Cytoplasm is present, and after staining, a nucleus can be seen, a vacuole is present.' What is being described?
    A. Bacterium B. Fungus C. Plant D. Virus

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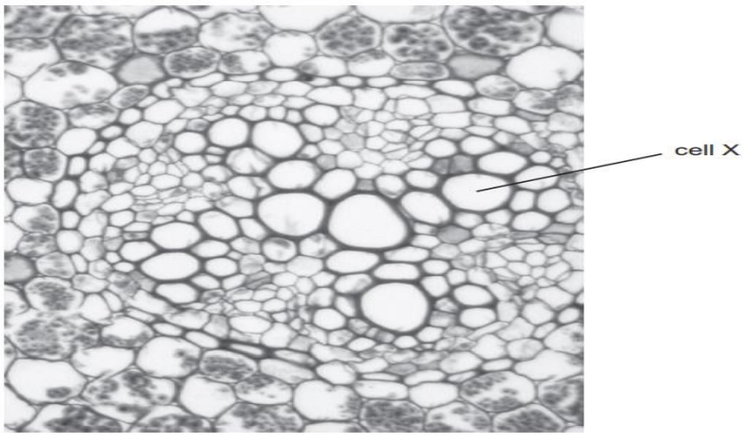
14. The photomicrograph shows part of a section of a plant.



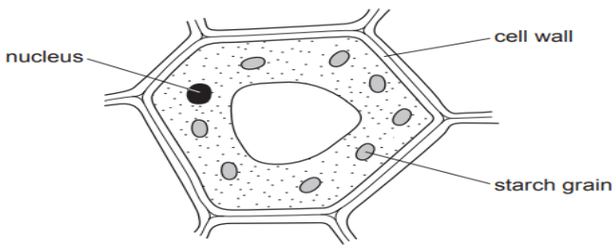
Samples of the contents of Cell X were tested. What results are expected?

	Benedict's reagent	iodine
A	+	+
B	+	–
C	–	+
D	–	–

+ = positive result

- = negative result

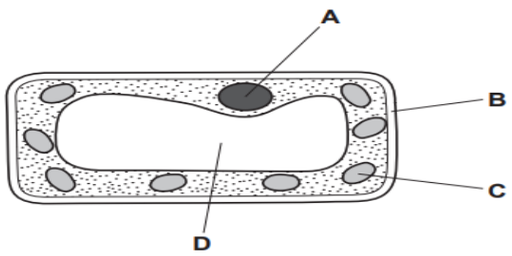
15. The diagram shows a plant cell. The cell is stained with iodine solution.



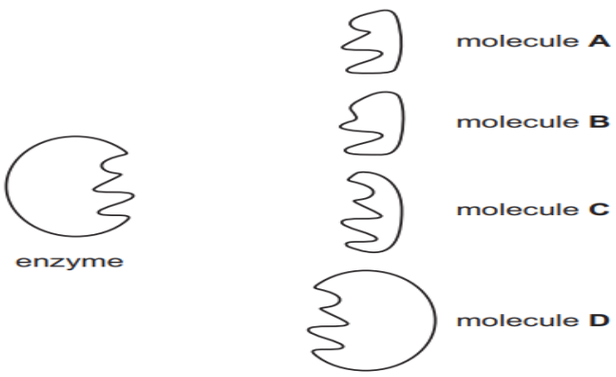
After staining with iodine solution, what are the colours of the cell wall and the starch grain?

	cell wall	starch grain
A	blue-black	blue-black
B	blue-black	orange-brown
C	orange-brown	blue-black
D	orange-brown	orange-brown

16. A plant is grown in bright sunlight. The diagram shows what is seen when a cell from this leaf is placed under a microscope. After a few hours, a leaf from this plant is stained with iodine solution. What will be stained blue/black?



17. The diagram represents an enzyme and four molecules. Which molecule is the substrate of this enzyme?



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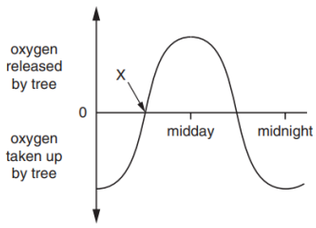
18. The diagram represents how an enzyme molecule changes in shape. What explains this change?

A. It has been cooled to 5˚C
B. It has been heated to 70˚C
C. It has been placed in a concentrated salt solution
D. It has been placed in a dilute salt solution

19. The graph shows the oxygen released and taken up by a tree during a 24-hour period. Which statement describes the situation at point X?



A. Respiration begins
B. Photosynthesis begins
C. The rate of respiration is equal to the rate of photosynthesis
D. The rate of respiration is greater than the rate of photosynthesis

END OF SECTION A

Class: IX **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 this section.

Q2. Define the following terms:
a. Parasitology b. Environmental Biology c. Biotechnology

Q3. Explain the biological method and represent it with a flowchart.

Q4. List any three characteristics of Kingdom Fungi.

Q5. What is mitosis? Describe its significance in growth and repair.

Q6. Analyze three causes of deforestation and suggest one solution for each.

Q7. Differentiate between the following (choose any one):
a. Law & theory b. Horticulture & agriculture c. Prokaryotic & eukaryotic cell

Q8. Draw and label the stages of the cell cycle.

Q9. Evaluate the importance of anaerobic respiration in energy production.

Q10. Describe the structure of a chloroplast and relate it to its function in photosynthesis.

Q11. Define enzyme and state two of its practical applications in daily life.

Q12. State any three effects of malnutrition on human health.

Q13. Define classification and identify its basic units.

SECTION "C" DETAILED ANSWER QUESTIONS **24 Marks**

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

Q14. Compare and contrast photosynthesis and respiration in plants by listing six differences between them.

Q15. Draw and label the internal structure of the human heart.

Q16. Discuss the characteristics of chronic malnutrition and identify any three social problems associated with it.

Q17. Define Leukemia, describe its symptoms and causes, and explain how it can be treated.

Q18. What is transpiration? Identify where it occurs and list five of its significances.

Q19. Explain the importance of fertilizers in agriculture and evaluate their potential environmental hazards.

END OF PAPER