



INDIAN SCHOOL AL WADI AL KABIR

Unit Test 2022-23

SUB: Biology (044)

Date: 30 /01/2023

Time Allowed: One hour

Class: XI

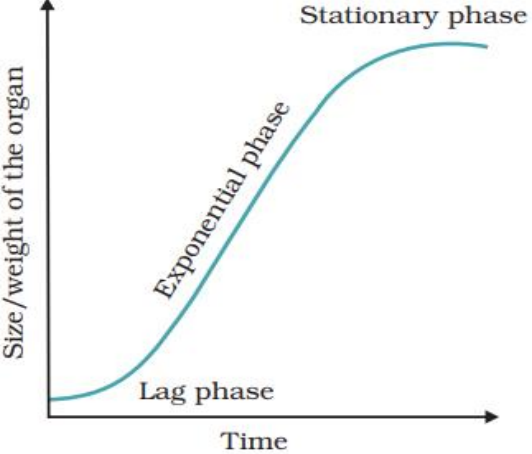
SET 1

Maximum Marks: 30

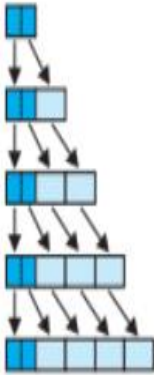
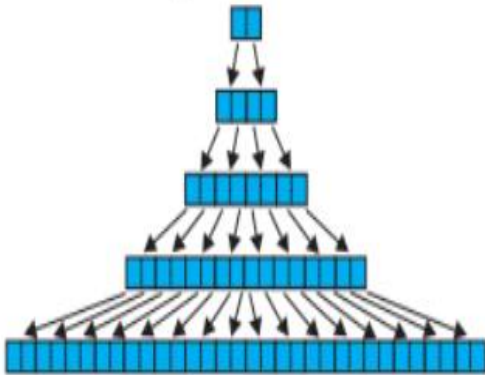
General Instructions:

- i) All questions are compulsory.
- ii) The question paper has five sections and 16 questions. All questions are compulsory.
- iii) Section–A has 9 questions of 1 mark each; Section–B has 3 questions of 2 marks each; Section– C has 2 questions of 3 marks each; Section– D has 1 case-based question of 4 marks; and Section–E has 1 question of 5 marks.
- iv) There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.
- v) Wherever necessary, neat and properly labeled diagrams should be drawn.

SECTION A		
Sl. No.	QUESTION	MARKS
1	Select the correct statement about glycolysis A. It takes place in the inner mitochondrial membrane B. It takes place only in anaerobic respiration C. The net gain of energy is 8ATP D. It results in the production of two molecules of citric acid	1
2	Protons accumulate on the ----- in mitochondria A. Inner mitochondrial membrane B. Mitochondrial matrix C. Intermembrane space D. Outer membrane	1

3	<p>Acetyl CoA forms a 6C compound after combining with</p> <p>A. OAA B. Citric acid C. PEP D. ATP</p>	1
4	<p>Heterophylly in coriander is an example for</p> <p>A. Development B. Plasticity C. Differentiation D. De-differentiation</p>	1
5	<p>Observe the graph and identify the correct equation to represent the growth condition represented</p>  <p>A. $W_1 = W_0 e^{rt}$ B. $L_t = L_0 + rt$ C. $W_0 = W_1 e^{rt}$ D. $L_0 = L_t + rt$</p>	1
6	<p>Formation of intercalary meristem is an example for</p> <p>A. Differentiation B. Dedifferentiation C. Redifferentiation D. Development</p>	1
7	<p>Which one of the following growth regulators is chemically similar to zeatin?</p> <p>A. Ethylene B. Auxin C. GA D. Cytokinin</p>	1
	<p>Question No. 8 to 9 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:</p> <p>A. Both A and R are true and R is the correct explanation of A. B. Both A and R are true and R is not the correct explanation of A. C. A is true but R is false. D. A is False but R is true.</p>	

8	<p>Assertion: The effect of light duration on flowering is called photoperiodism</p> <p>Reason: Based on photoperiodism the plants can be categorized into SDP, LDP and DNP</p>	1
9	<p>Assertion: The R.Q. of carbohydrates is 1.</p> <p>Reason: If the respiratory substrate is carbohydrate, the volume of CO₂ released out is equal to the volume of O₂ utilized</p>	1
SECTION B		
10	<p>(a) What do you mean by amphibolic pathway?</p> <p>(b) Explain with the help of example</p>	2
11	<p>Observe the schematic representation of anaerobic respiration and label the products marked as A, B, C and D</p>	2
12	Distinguish between aerobic respiration and anaerobic respiration	2
SECTION C		
13	<p>(a) What is substrate level phosphorylation?</p> <p>(b) Name the final hydrogen acceptor in ETS of aerobic respiration.</p> <p>(c) Identify the final product of aerobic respiration which is formed at the end of terminal oxidation</p> <p>(d) Give the diagrammatic representation of ATP synthesis in respiration</p> <p style="text-align: center;">OR</p> <p>(a) What is oxidative phosphorylation? Explain with the help of diagram</p> <p>(b) Define terminal oxidation in aerobic respiration</p>	3
14	<p>(a) Name the plant growth regulator which is known as stress hormone. Why it is known so?</p> <p>(b) Write any two functional roles of auxin</p> <p>(c) Give any two special features of ethylene</p>	3

SECTION D		
	Q.no 15 is case based questions and has subparts with internal choice in one subpart	4
15	<p>(a) Arithmetic</p>  <p>(b) Geometric</p>  <p>Observe the given growth models and answer the questions</p> <p>(a) Arithmetic growth can be represented by using the formula.....</p> <p>(b) Graphical representation of arithmetic growth will give graph</p> <p>(c) Distinguish between these two growth models</p> <p style="text-align: center;">OR</p> <p>(c) Give example for these growth models</p>	
SECTION E		
16	<p>What is glycolysis? Where does glycolysis takes place in a cell? Give schematic representation of glycolysis</p> <p style="text-align: center;">OR</p> <p>Identify the pathway which is known as TCA cycle. Why it is known so? Represent the cycle.</p>	5