

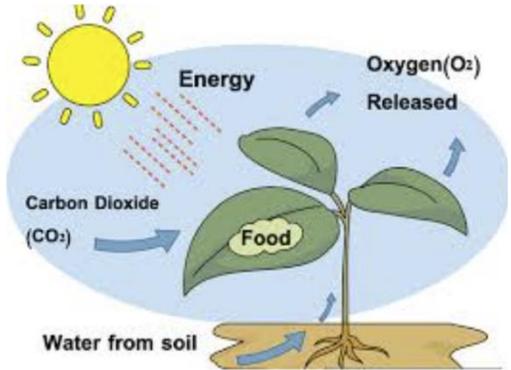
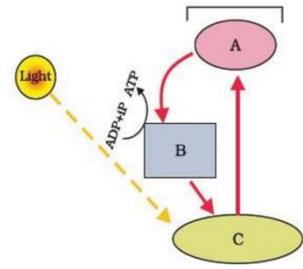
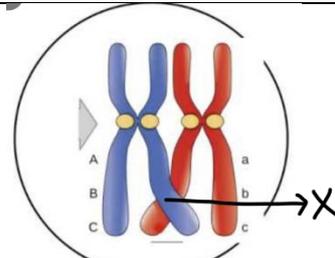
**CLASS XI
BIOLOGY (044)
TERM II (2021-22)**

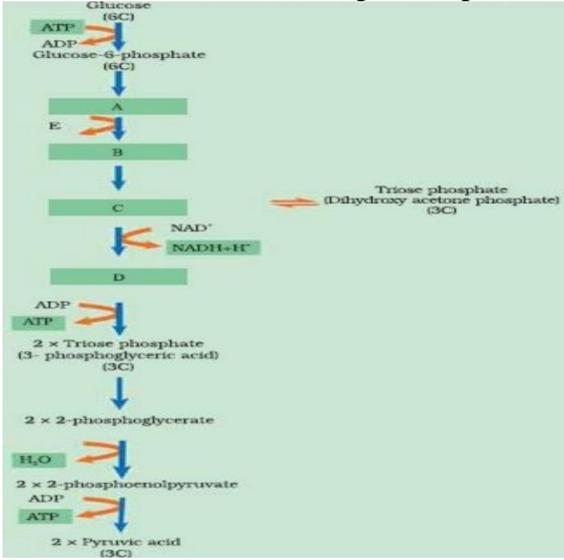
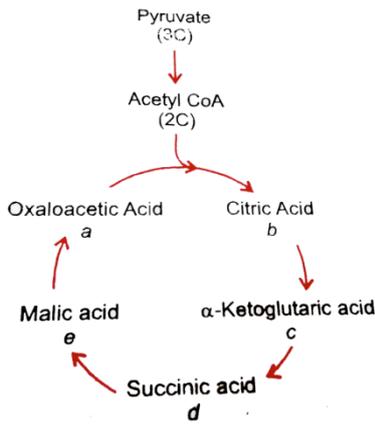
Max. Marks 35

Time allowed: 2 hours

General Instructions:

- i) All questions are compulsory.
- ii) The question paper has three sections and 13 questions. All questions are compulsory.
- iii) Section–A has 6 questions of 2 marks each; Section–B has 6 questions of 3 marks each; and Section–C has a case-based 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.

QNO.	SECTION-A	MARKS
1.	Using Table indicate what happens to the following during muscle contraction. i. A Band ii. I Band iii. H zone iv. Distance between two successive Z Line	2
2.	In the process of photosynthesis, oxygen is released.  <p>Explain the the process through which it is produced. OR In the diagram shown above label A, B and C. What type of phosphorylation is possible in this?</p> 	2
3.		2

	(i) Identify the specific sub stage of Meiosis I . (ii)Mention the phenomenon Shown at X.	
4.	What is the role of complex V in ATP production during aerobic respiration?	2
5.	Name the hormone secreted from thymus gland and its functions.	2
6.	How are gibberellins useful in agriculture to improve crop productivity? Give four points in support of your answer. OR List a hormone that: a) Is in nature, gaseous. b) Is in charge of phototropism. c) Influences femaleness in cucumber flowers. d) Is utilized to kill weeds(dicots).	2
SECTION-B		
7.	The figure given below shows the steps in glycolysis. Fill in the missing steps A,B,C,D and also indicate whether ATP is being used up or released at step E ?  OR 	3
8.	(i)If a cell has 16 chromosomes, what will be the DNA content of 2N (diploid)cell after G1 and S phase of cell cycle? (ii)Explain the significance of G0 Phase of interphase.	3
9.	You are sitting on a chair without movement and legs are in resting condition .Explain resting membrane potential of neural system.	3

10.	Describe glomerular filtration in the process of urine formation.	3
11.	Diagrammatically depict cyclic events that take place in reduction of CO ₂ to carbohydrate during biosynthetic phase of photosynthesis in C ₄ plants.	3
12.	In what different forms the CO ₂ produced in the tissues is transported by blood to the lungs? Explain the steps of release of this CO ₂ into the lungs for exhalation.	3
SECTION-C		
13.	<p>Read the following passage and answer the questions that follow: A sample of urine was diagnosed to contain high amount of glucose and ketone bodies. Based on this observation, answer the following questions.</p> <p>i) Name the endocrine gland and the hormone, related to this disorder. ii) Name the cells targeted by this hormone. iii) What term is given to this condition? iv) How can it be treated? v) Name one hyperglycaemic hormone.</p> <p style="text-align: center;">OR</p> <p>Biology teacher was discussing about the importance of knowing Human blood groups for blood transfusion purpose and Rh incompatibility. She records blood groups of her students and explains the reason for variation in blood groups. Teacher further presents a pregnant lady- Mrs Flory's case. She is Rh-ve and her husband is Rh+ve. Their first child is Rh+ve .She wants to go for second pregnancy. Doctor tells her that her blood has to be screened for certain antibodies presence and destroy them before she conceives for the second time. Other wise second baby would be deficient of RBC and anemic.</p> <p>i) What is Rh incompatibility? ii) What can be the problem faced by the female in the second pregnancy? Why? iii) Where is Rh factor found in the blood of humans? iv) What does Rh stand for?</p>	5