

# **ATOMIC ENERGY CENTRAL SCHOOL,**

## **NARORA**

### PERIODIC TEST -3

CLASS:X I

MAX

MARKS:50

SUBJECT:BIOLOGY

TIME:

1:30 hrs

1. List two criteria for essentiality of an element for plants.  
[1]
2. What are the byproducts of anaerobic respiration.  
[1]
3. What will happen if a plant is given only green light?  
[1]
4. What is value of RQ for carbohydrates?  
[1]
5. Give the full form of (i) NAA (ii) IBA  
[1]
6. Write any four applications of Ethylene.  
[2]
7. Distinguish between dedifferentiation and redifferentiation.  
[2]
8. Write two energy yielding reactions of glycolysis.  
[2]
9. Draw a schematic diagram of non-cyclic photophosphorylation.  
[2]
10. Which light of visible spectrum is most effective in photosynthesis. Name two photosynthetic pigments belonging to carotenoids.  
[2]
11. How is nitrogenase enzyme protected in leguminous plants. Name a free living nitrogen fixing bacteria.  
[2]
12. How are nodules formed in the roots of leguminous plants. Explain along with diagram.  
[3]
13. What are pigment systems? Differentiate between PS I and PS II.  
[3]
14. When and why does photorespiration take place in plants? How does this process result in a loss to the plant?  
[3]
15. Give the schematic representation of glycolysis.  
[3]

16. Differentiate between aerobic and anaerobic respiration.  
[3]
17. Write a note about discovery of (i) Auxins (ii) Gibberellins  
[3]
18. Write an essay on PGR's. Describe their significance.  
[5]

OR

List the macro nutrients and mention their major functions.

19. Calvin cycle consists of three phases, what are they? Explain the significance of each of them along with its schematic diagram.  
[5]

OR

Why do plants such as maize and sugarcane have dimorphic chloroplasts? Explain photosynthetic carbon cycle in such plants.

20. Oxygen is critical for aerobic respiration. Explain its role with respect to ETS.  
[5]

OR

Explain chemiosmotic hypothesis for the formation of proton gradient.