

# CLASS 11 GUESS PAPER BIOLOGY

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## Section A

1. Define plasmolysis.
2. Show the hierarchical arrangement of taxonomic categories in ascending order.
3. Name the pigment responsible for the colour of carrot.
  
4. Write the floral formula for the family - Fabaceae
  
5. Give another name for anaerobic respiration. How much energy is yielded from the food by this process?

## Section B

6. The cross section of a plant material, when observed under the microscope shows the following features.
7. Write down some secondary functions of leaves.
8. Patients of cardiovascular diseases are usually recommended to use vegetable oils with polyunsaturated fatty acids. Give reasons.
9. 'Photosynthesis is essential for sustaining life on earth'. Justify the statement with at least two reasons in support.  
or  
While examining the mitotic stage in a tissue, one finds some cells with 16 chromosomes and some with 32 chromosomes. What possible reasons could you assign to this difference in chromosome number?
10. List any three differences between anaphase of mitosis and anaphase-I of meiosis.
11. Give an account of type of body wall and body cavity found in sponges.  
or  
Describe some general features of cartilaginous fishes.
12. Apart from being a plant hormone having physiological role, gibberellins are also used in

agriculture to increase the yield. What role do these hormones play when applied externally in crop fields? .

13. (a) Define nerve impulse and explain the factors on which it depends.

(b) What do you understand by synergistic effect? Give example.

14. Mention two important functions of each of the given elements along with their deficiency symptoms

(a) P

(b) Fe

(c) Zn

15. With the help of a neatly labelled diagram, explain the structure of adipose tissue.

16. 'Mitochondria are the powerhouse of the cell.' Justify the statement.

17. (a) What is meant by threshold stimulus in muscle contraction?

(b) Give difference between actin and myosin.

18. Define turgor pressure. State any three advantages by which it is useful to green plants.  
or

Explain giving reasons, why the rate of transpiration is more on sunny and windy day as compared to calm and cool day, even when they are appropriately watered.

19. Explain the concept of activation energy with the help of a graph.

20. What is the role played by renin-angiotensin in the regulation of functioning of kidney?

21. Arun's grandfather while on a walk in morning collapsed in the garden. Arun spotted him and called their neighbour Dr. S Rakesh who took him to nearby clinic. After examining him, he gave him an injection and asked Arun to properly take care of his diet and exercise regime, else he would have to take these injections regularly, so as to control his increasing levels of sugar.

(a) Name the injection that doctor might have given to Arun's grandfather.

(b) What is the role of the given hormone in controlling sugar levels in blood?

(c) What precautions are advised by doctor to control the disease? .

(d) What values are reflected by Arun's behaviour?

22. Describe the C<sub>3</sub> cycle of carbon fixation in plants.

or

(a) Explain Krebs' cycle in diagrammatic representation.

(b) During which steps of Krebs' cycle, NAD and FAD are reduced?

23. Describe the various types of simple epithelial tissues in animals, with the help of a labelled diagram.

or

Draw the digestive system of cockroach. In how many parts is the alimentary canal of cockroach divided?