



Brilliant Public School

Seepat Road Bahatarai, Bilaspur (C.G.)

Final-Term 2017-18

Class –XI

Subject – Biology

Time: 3:00 Hrs.
Date: 15.02.2018

M.M.: 70
Thursday

General Instructions:

- All questions are compulsory.
- The question paper consists of five sections A, B, C, D and E. Section A contains 5 questions of 1 mark each, section B has 5 questions of 2 marks each, section C is of 12 questions of 3 marks each, section-D contains one question of 4 marks and section E has 3 questions of 5 marks each.
- There is overall choice. However, an internal choice has been provided in one question of 2 marks, one question of 3 marks and all the questions of 5 marks. A student has to attempt only one of the alternatives in such questions
- Wherever necessary, the diagrams drawn should be neat and properly labeled.

SECTION-A

1. Who has proposed five kingdom classification system?
2. Give the name of a fungus which causes rust diseases.
3. A maize grain is not a seed. Explain.
4. Production of auxin in abundant amounts occurs in which region of the plant?
5. Give the location of ball and socket joint in a human body.

SECTION –B

6. Why the name given double fertilization to fertilization in angiosperms?
7. While estimating the age of a tree, what will you observe on the transverse section of its trunk?

OR

Why mitosis is called equational division?

8. How is intestinal mucosa protected from the acidic food entering from stomach?
9. State the importance of counter current systems in renal functioning.
10. Comment 'Hormones are called informational molecules.'

Section – C

11. Explain how birds adapt themselves for aerial mode of life.
12. Define the term inflorescence. Explain the basis for the different types of inflorescence in flowering plants.
13. Point out the differences in the anatomy of leaf of peepal and maize.
14. Answer the followings
 - i) Name the excretory organs of cockroach.
 - ii) Where are these located?
 - iii) What is their function?
15. Give a brief description of prokaryotic and eukaryotic ribosomes.
16. Schematically represent primary, secondary and tertiary structures of a protein.
17. Give scientific reason for the following.
 - i) Animal cells rupture when placed in distilled water.
 - ii) Plant cells get plasmolysed when placed in hypertonic solution.

18. Explain symbiotic nitrogen fixation in leguminous plants and discuss about nitrogenase and leghaemoglobin.
19. What conditions enable RuBisCO to function as an oxygenase? Explain the ensuring process.

OR

Briefly describe the structure of the brain.

20. Distinguish between glycolysis and fermentation.
21. Define the term uropoiesis. Where does it take place? Name the process involved in the formation of urine.
22. Explain the formation of a cross-bridge during muscle contraction.

Section –D

23. While walking in a garden Neha got attracted by brightly coloured flowers and their appearance. Neha was curious to know about the variation in colours and asked her biology teacher about this. Teacher told her about the plastids found in only plant cells.
- Which plastids are found in flowers and fruits?
 - Which plastids are known as kitchen of the cell?
 - Name the colour plastids.
 - What values are shown by Neha?

Section-E

24. Describe Watson and Crick model of DNA.

OR

Differentiate between DNA and RNA.

25. Explain ETS.

OR

Draw a well labeled diagrammatic representation of TCA cycle.

26. Explain the structure of pancreas and also mention the roles of the hormones secreted by it.

OR

- Draw the structure of a human heart.
- Why is the left ventricular wall thicker than the right ventricular wall in the human heart?
- Due to developmental abnormality, the wall of left ventricle of an infant's heart is as thin as that of right ventricle. What would be its specific effect on circulation of blood?

=== 0 0 0 ===