

B.Y.B.T Semester II A.T.K.T  
Subject: Life Sciences-I  
Session: Morning / Afternoon

Q. P. Code: 31313

08 OCT 2018

2 ½ Hours

Total Marks: 75

1. Attempt all questions.
2. All questions carry equal marks.
3. Draw neat labeled diagrams wherever necessary.
4. Use of log tables and non-programmable calculator is allowed.
5. For Q.2, Q.3 and Q.4 attempt A and B OR C and D.

**Q.1 Do as directed (Any fifteen)**

15

1. In Calvin cycle, carbon dioxide is first accepted by \_\_\_\_\_.
2. The efficiency of CO<sub>2</sub> absorption from low concentration is high in \_\_\_\_\_ plants.
3. The bundle sheath cells is unique characteristic of \_\_\_\_\_ plants.
4. \_\_\_\_\_ explains that water is used as a source of electrons for CO<sub>2</sub> fixation and oxygen is evolved as a by product.
5. Carbon assimilation phase is also called as \_\_\_\_\_.
6. \_\_\_\_\_ promotes growth of shoots at a relatively higher concentration.
7. Define Excretion.
8. Name any one anticoagulant.
9. Give the composition of mammalian urine.
10. Right lung has \_\_\_\_\_ lobes.
11. The Study of blood is called as \_\_\_\_\_.
12. The pH of gastric juice is \_\_\_\_\_.
13. Give the function of platelets.
14. State true or false: Lichens is an example of mutualism.
15. Give one example of Commensalism.
16. Define Ecosystem.
17. Define Chemoautotrophs.
18. *Clostridium botulism* produces \_\_\_\_\_ toxin.
19. Define Nitrification.
20. Define Primary Productivity.

- Q. 2 A Differentiate between Cyclic & Non-cyclic Photophosphorylation. 08
- Q. 2 B Discuss  $C_3$  cycle in plants. 07
- OR
- Q. 2 C Differentiate between  $C_3$  &  $C_4$  Plants. 08
- Q. 2 D Discuss the significance of Abscissic Acid. 07
- Q. 3 A Describe the structure of Kidney with a neat labelled diagram. 08
- Q. 3 B Give an account of Blood and its constituents and give its functions. 07
- OR
- Q. 3 C Describe the External Structure of Human Heart with a neat labelled diagram. 08
- Q. 3 D Give an account of Digestion in small intestine of humans. 07
- Q. 4 A What are ecological pyramids? Explain its types. 08
- Q. 4 B Explain in detail Predation. 07
- OR
- Q. 4 C Discuss Carbon Cycle. 08
- Q. 4 D Discuss Detritus food chain. 07
- Q 5 Write Short notes on any three of the following 15
- Auxins.
  - Granulocytes.
  - Nephron.
  - Kinds of Ecosystem.
  - Food web.