

Shree Manibhai Virani and Smt. Navalben Virani Science College (Autonomous), Rajkot
Affiliated to Saurashtra University, Rajkot

SEMESTER END EXAMINATION NOVEMBER 2018

B.Sc. Biochemistry

16UBCDC01 – PLANT BIOCHEMISTRY

Duration of Exam – 3 hrs

Semester – V

Max. Marks – 70

Part A (10x1= 10 marks)

Answer **ALL** questions

1. Define: Photosynthesis.
2. Give the importance of chemiosmosis.
3. Define symbiosis.
4. State the roll of leghemoglobin.
5. Define the two types of growth seen in plants.
6. Which fungus caused Bakane disease?
7. Name any two most common plant diseases caused by fungi.
8. Write the two most common types of plant symptoms produced by systemic virus infections.
9. Give the structure of phenol
10. What are flavonoids?

Part B (5x5= 25 marks)

Answer **ALL** questions

- 11a. What is chlorophyll? State the structure and function of organelle that generates the chlorophyll.
(With diagram)
- OR**
- 11b. Give short note on C3 pathway.
- 12a. How nitrogen can be fixed assymbiotically? Explain.
- OR**
- 12b. Explain the biochemistry and formation of enzyme Nitrogenase.
- 13a. Describe functions and applications of Gibberellins
- OR**
- 13b. List the phytohormones with their main function and write a detailed note on ethylene and abscicic acid.
- 14a. Discuss five most important genera of plant pathogenic bacteria and the kinds of symptoms.
- OR**
- 14b. With diagrams, explain in detail about leaf scald of sugarcane.
- 15a. Describe synthesis, transport and storage of alkaloids
- OR**
- 15b. Give a note on glycosides

Part C (5X7= 35 marks)

Answer **ALL** questions

16a. Explain in detail about Non cyclic electron transfer followed by chemiosmosis.

OR

16b. What is photorespiration? Explain with diagram.

17a. Explain main three ways of nitrogen fixation.

OR

17b. What is nitrogen cycle? Give detail note on it.

18a. Describe in detail about discovery, chemistry, functions and applications of auxin.

OR

18b. Explain about the discovery, chemistry, functions and applications of cytokinins.

19a. With diagrams, explain general symptoms of fungal & FLOs` diseases on the diseased plants.

OR

19b. Name any two most common plant diseases caused by virus and write an essay on different ways for transmission of plant viruses.

20a. Give formation and classification of terpenes.

OR

20b. How are phenolics formed and also give functions and classification.
