

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**PHARM.D YEAR-1 EXAMINATION – SUMMER-2019**

**Subject Code: 818806****Date: 06/06/2019****Subject Name: Biology****Time: 10:30 AM TO 01:30 PM****Total Marks: 70****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Define and classify plant tissue. Discuss any one in detail. **06**  
(b) How will you differentiate leaf and leaflets? **04**  
(c) Explain about poisonous animals with suitable examples. **04**
- Q.2** (a) Define plant taxonomy. Discuss the morphological characters of umbelliferous fruits in brief. **06**  
(b) Define following terms: (i) Stem (ii) Chloroplast (iii) Active diffusion (iv) Cell **04**  
(c) What are the various modifications of roots? Describe each with examples. **04**
- Q.3** (a) Draw neat and clean labelled diagram of plant cell. Differentiate plant and animal cells. **06**  
(b) Discuss functions of xylem and phloem. **04**  
(c) Write the functions of the following organelles of a plant cell: (a) Mitochondria **04**  
(b) Nucleus
- Q.4** (a) Draw a neat labeled diagram of external features of Frog. Differentiate between male and female frog. **06**  
(b) Write a brief note on fungi. **04**  
(c) Describe in detail about plant cell inclusion **04**
- Q.5** (a) Define fruit. Discuss various types of fruits. **06**  
(b) Write a short note on gram positive and negative bacteria. **04**  
(c) Discuss circulatory system of mammals. **04**
- Q.6** (a) Discuss about photosynthesis of plants. **06**  
(b) Write a note on reptiles. **04**  
(c) Define: (i) Pollination (ii) Seeds (iii) Root (iv) Flower **04**
- Q.7** (a) Classify plant kingdom with suitable examples. **06**  
(b) Write a note on nervous tissues. **04**  
(c) Discuss osmosis in plants. **04**

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