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No. of Printed Pages. 2

**SARDAR PATEL UNIVERSITY**  
**FIRST YEAR B.SC (1 SEMESTER) EXAMINATION**  
**Friday 15<sup>th</sup> NOVEMBER 2013**  
**2:30 PM - 4.30 PM**  
**US01CBIO 02 (PLANT CYTOLOGY AND TAXONOMY)**

**Total Marks: 70**

**Q-1 Multiple choice Questions**

**(10)**

1. Bacterial cell with one flagella is called  
(a) Acentric (b) Amphicentric (c) Monocentric (d) pericentric
2. Mesosomes are the extension of  
(a) Cell wall (b) Capsule (c) Plasma membrane (d) Cytoplasm
3. The Stage in which Chromosomes are arranged on equatorial plate is called  
(a) Prophase (b) Metaphase (c) Telophase (d) Anaphase
4. Which of the following are known as Suicidal bag's  
(a) Chloroplast (b) Lysosomes (c) Ribosomes (d) Mitochondria
5. The function of photosynthesis is carried by  
(a) Nucleus (b) Mitochondria (c) Chloroplast (d) Ribosomes
6. When all the floral parts arise from above the ovary, flower is known as  
(a) Hypogynous (b) Epigynous (c) Perigynous (d) None of these
7. When single leaf arises from each node, phyllotaxy is known as  
(a) Opposite (b) Whorled (c) Alternate (d) None of these
8. Segments of compound leaf are known as  
(a) Bract (b) Leaflet (c) Stipule (d) Bracteole
9. Corolloid roots are present in  
(a) Cycas (b) Pinus (c) Sunflower (d) Cotton
10. Placentation is ----- in family cucurbitaceae  
(a) Axile (b) Basal (c) Marginal (d) Parietal

*Continue...*

**Q-2 Short Questions (Attempt any ten) (20)**

1. Write a note on Binary fission in Bacteria
2. Sketch and label Bacteriophage
3. Bacteria is prokaryotic organism give reason.
4. Give two functions of chloroplast
5. Give the types of Ribosomes
6. Explain prophase of Mitosis.
7. Sketch and label Typical leaf
8. What is Inflorescence?
9. What is phyllotaxy ?
10. Write a economic importance of Karela
11. Write vegetative reproduction in cycas
12. Define the term Monadelphous stamen.

- Q.-3** (a) Describe the ultra structure of bacterial cell (06)  
(b) Describe different types of bacteria based on flagella (04)

**OR**

**Q.-3 Explain**

- (a) Properties and structure of virus (05)  
(b) Conjugation in Bacteria (05)

- Q.-4** Describe the structure and functions of Mitochondria (10)  
**OR**

- Q.-4** (a) Describe the structure of Endoplasmic Reticulum (06)  
(b) Sketch and label plant cell. (04)

- Q.-5** (a) Describe the different types of racemose inflorescence (06)  
(b) What is Aestivation? describe its types (04)

**OR**

- (a) Explain the types of palmate compound leaf (06)  
(b) Explain types of flower based on position of ovary (04)

- Q.-6** Write general characters of solanaceae family with economic importance (10)

**OR**

**Q.-6 Describe**

- (a) Cycas male cone (05)  
(b) Floral characters of cucurbitaceae family (05)