

(12) Seat No : _____
Eng

No. of Printed Pages : 2

SARDAR PATEL UNIVERSITY
F Y. B.Sc. (FIRST SEMESTER) EXAMINATION (NL)

For day, 17th March, 2017

2.00 p.m. to 4.00 p.m.

US01CBIO02 PLANT CYTOLOGY AND TAXONOMY

Total Marks: 70

Q.1. Select the correct answer and write it in the answer sheet

(10)

1. Viruses are made up of _____

(a) Protein & Lipid

(c) Nucleic acid & carbohydrates

(b) Protein & Nucleic acid

(d) Protein & carbohydrates

2. The Tobacco Mosaic Virus was obtained in crystalline form by _____

(a) Mayer

(b) Avery

(c) Stanley

(d) Luria

3. The Cocci bacteria are _____ shaped bacteria

(a) Rod

(b) Square

(c) Spiral

(d) Spherical

4. _____ are also known as power house of cell

(a) Mitochondria

(b) Ribosomes

(c) Lysosomes

(d) Cytosomes

5. The chromosomes are arranged on equatorial plate during _____

(a) Telophase

(b) Metaphase

(c) Anaphase

(d) Prophase

6. Leaf with a petiole is called _____

(a) Sessile

(b) Stipulate

(c) Petiolate

(d) Exstipulate

7. Sunflower is an example of _____ inflorescence

(a) Raceme

(b) Spadix

(c) Spike

(d) Capitulum

8. The leaf of lemon is the example of _____ leaf

(a) Unifoliate

(b) Bifoliate

(c) Trifoliate

(d) Multifoliate

9. Flowers are unisexual in family _____

(a) Malvaceae

(b) Cucurbitaceae

(c) Solanaceae

(d) Rubiaceae

10. Cycas belongs to the class of _____

(a) Algae

(b) Pteridophytes

(c) Gymnosperms

(d) Angiosperms

(P.T.O.)

(1)

Q.2. Answer the following in brief (Any Ten)

(20)

1. Explain the structure of Virus
2. Draw a labeled diagram of Bacteriophage
3. Give the classification of bacteria based on morphology
4. Sketch and label the Plant cell
5. Write about the types of Ribosomes
6. Explain the function of Chloroplast
7. Define the term 'inflorescence'
8. What is phyllotaxy?
9. Explain: (i) Actinomorphic flower (ii) Pentamerous flower
10. Write the economic importance of family solanaceae
11. Explain -Monoadelphous stamens
12. State the important characters of Gymnosperms

Q3. (a) Explain the Lytic cycle of viruses

(06)

(b) Discuss the properties of virus as living and nonliving

(04)

OR

Q3. (a) Describe the ultra structure of Bacterial cell

(06)

(b) Discuss Transformation in bacteria

(04)

Q.4. (a) Explain the ultra structure of Mitochondria. Add a note on its functions

(06)

(b) Explain the ultra structure of Chloroplast

(04)

OR

Q.4.(a) State various stages of Mitotic cell division.

(06)

(b) Discuss the types of Endoplasmic Reticulum and their functions

(04)

Q5. (a) Describe the pinnate compound leaf and its types

(06)

(b) Explain Opposite phyllotaxy and its types

(04)

OR

Q5. (a) Describe the Racemose inflorescence and its types in brief

(06)

(b) Describe the four whorls of flower

(04)

Q.6. With the help of a labeled diagram, explain the internal structure of *Cycas* leaflet

(10)

OR

Q.6. Discuss the general characters of family Malvaceae alongwith floral diagrams

(10)

— X —
(2)