

[161]  
Eng

PAT No. \_\_\_\_\_

No. of Pages-2

SARDAR PATEL UNIVERSITY  
B.Sc 1<sup>st</sup> SEMESTER EXAMINATION  
WEDNESDAY, 24<sup>th</sup> OCTOBER, 2018

Time - 2 : 00 pm to 5: 00 pm

Subject / Course Code : BIOLOGY ( US01CBIO21)  
(CELL BIOLOGY AND BIODIVERSITY)

Maximum Marks :70

Draw neat and labeled diagrams wherever necessary.

Q. 1 MULTIPLE CHOICE QUESTION

(10)

1. The chromosomes are arranged on equatorial plate during

- (a) Metaphase (b) Prophase (c) Anaphase (d) Telophase

2. F<sub>1</sub> particles are present in

- (a) Mitochondria (b) Chloroplast (c) Nucleus (d) Dictyosome

3. Which one is known as suicidal bag's ?

- (a) Chloroplast (b) Ribosomes (c) Mitochondria (d) Lysosomes

4. The number of double bonds present in arachidonic acid

- (a) 1 (b) 2 (c) 3 (d) 4

5. \_\_\_\_\_ is commonly known as milk sugar

- (a) Lactose (b) Glucose (c) Sucrose (d) Fructose

6. The fungus frequently growing on bread is

- (a) Agaricus (b) Rhizopus (c) Yeast (d) Penicillium

7. Bacterial cell wall is made up of

- (a) Peptidoglycan (b) Chitin (c) Lignin (d) Pectose

8. Coralloid roots are present in

- (a) Cotton (b) Cycas (c) Pinus (d) Sunflower

9. Malaria is caused by

- (a) Filarial worm (b) Female Aedes mosquito (c) Plasmodium (d) Male culex mosquito

10. \_\_\_\_\_ an example of social life in insects

- (a) Mosquito (b) Cockroach (c) Honey bee (d) None of these

(1)

(P.T.O.)

Q. 2 Answer the following questions in brief (any ten) (20)

1. Write in brief about types of Ribosomes
2. What is middle lamella ?
3. Sketch and label Mitochondria
4. Explain – Peptide bond
5. What is Essential fatty acids ?
6. Write about sugars present in nucleic acids
7. Sketch and label Fern sporangium
8. What is Volvox coenobium ?
9. Define- Conjugation in Bacteria
10. What is multiple fission ?
11. What is metamorphosis ?
12. Write prevention of Amoebiasis (amoebic dysentery)

Q. 3 Describe

- (a) Structure and functions of Chloroplast (05)
- (b) Types and functions of Endoplasmic reticulum (05)

OR

Q.3 Write notes on

- (a) Types of Lysosomes (06)
- (b) Types of chromosome based on position of centromere (04)

- Q. 4 (a) Explain Structure of DNA (05)  
(b) Write a note on monosaccharides (05)

OR

- Q. 4 (a) Explain classification of lipids (05)  
(b) Describe non- covalent bond responsible for protein structure (05)

Q. 5 Describe internal structure of Cycas leaflet with diagram (10)

OR

- Q. 5 (a) Write a note on Bacteriophage (05)  
(b) Explain classification of Bacteria based on shapes and flagella (05)

- Q. 6 (a) Describe water vascular system in echinoderms (06)  
(b) Write general characters of phylum Protozoa (04)

OR

- Q. 6 (a) Write about Beneficial molluscs (06)  
(b) Describe metamorphosis in insects (04)

— X —  
②