

23ZOO-MJ4-1B

**GOVERNMENT COLLEGE FOR WOMEN(AUTONOMOUS),SRIKAKULAM
REACCREDITED WITH NAAC 'A' GRADE**

**B.Sc (Regular)Semester-II
(w.e.f.2023 Admitted Batch)**

**PAPER : Cell & Molecular Biology
Max Marks : 60**

**TIME : 3 Hrs
Date :25-04-2024**

Section -A

Answer ALL the following. Draw labeled diagrams wherever necessary. 5x8=40

1. (a) Describe the electron microscopic structure of the animal cell.
(OR)
(b) Explain the functions of plasma membrane with examples.
2. (a) Describe the structure and functions of Golgi complex.
(OR)
(b) Write a note on Nucleus.
3. (a) Define cell division and explain the meiotic cell division.
(OR)
(b) Discuss the Krebs cycle.
4. (a) Explain the Semi-conservative mechanism of DNA replication.
(OR)
(b) Elaborate the transcription in Prokaryotes.
5. (a) Give in detail prokaryotic gene expression with the help of Lac operon.
(OR)
(b) Describe the structure and properties of Amino acid. And also add its biological importance.

Section -B

Answer any Five of the following. Draw labeled diagrams wherever necessary. 5x4=20

6. Virus- viroid
7. Fluid Mosaic model
8. Lysosome
9. Centriole
10. Regulators of cell cycle
11. Cancer
12. Central Dogma theory
13. Translation
14. Glucose
15. Lipids

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**B.Sc (Regular)Semester-II
(w.e.f.2023-24 Admitted Batch)**

**PAPER : Animal Diversity-I Biology of Non Chordates
Max Marks : 60**

**TIME : 3 Hrs
Date :24-04-2024**

Section -A

I. Answer ALL the following question.

5X8=40 M

1. (a) Describe the types and structure of locomotory organelles in protozoa
(OR)
(b) Describe different methods of asexual reproduction in protozoa
2. (a) Describe canal system in sponges -
(OR)
(b) Describe polymorphism in coelenterates with suitable examples.
3. (a) Write an essay on Parasitic adaptations in helminths.
(OR)
(b) Describe the life history of *Wuchereria bancrofti*.
4. (a) Describe the process of vermiculture. Add a note on the economic importance of vermicompost.
(OR)
(b) Write an essay on the affinities of *Peripatus*.
5. (a) Write an essay on the general characters any two classes of Mollusca with suitable examples
(OR)
(b) Describe the water vascular system in Starfish.

Section-B

II. Answer any Five of the following question.

5X4=20 M

6. Animalia
7. Nutrition in Protozoa
8. Porifera general characters
9. Coral reefs
10. Platyhelminthes - Turbellaria & Trematoda
11. Nematelminthes general characters.
12. Polychaeta and Hirudinea
13. Crustacea
14. Pearl formation
15. Balanoglossus structure