

ST. JOSEPH'S COLLEGE FOR WOMEN (AUTONOMOUS) VISAKHAPATNAM
II SEMESTER **ZOOLOGY** TIME:2Hrs/Week
Z-Ma2-2551(2) **CELL & MOLECULAR BIOLOGY** Marks:50
w.e.f. 2023-24 admitted batch (23AK)

LEARNING OBJECTIVES

- Acquainting and skill enhancement in the usage of laboratory microscope.
- Hands-on experience of different phases of cell division by experimentation.
- Develop skills on human karyotyping and identification of chromosomal disorders.
- To apply the basic concept of inheritance for applied research.
- To get familiar with phylogeny and geological history of origin & evolution of animals.

SYLLABUS:

1. Preparation of temporary slides of Mitotic divisions with onion root tips
2. Observation of various stages of Mitosis with prepared slides
3. Observation of various stages of Meiosis with prepared slides
4. Mounting of salivary gland chromosomes of Chironomus/Drosophila larva
5. Test for carbohydrate in given biological sample (Benedicts test)
6. Test for Protein in given biological sample (Nitric acid test -white ring)
7. Test for lipid in the given biological sample (Saponification test)

REFERENCE WEB LINKS:

- <https://cbi-au.vlabs.ac.in/>
- <https://www.youtube.com/watch?v=xhnUZAYNdQk>
- https://www.youtube.com/watch?v=l8LXQq5_VL0
- <https://www.labster.com/simulations>
- <https://www.sciencecourseware.org/BiologyLabsOnline/protected/TranslationLab/index.php>
- <https://virtual-labs.github.io/exp-analysis-of-carbohydrates-au/procedure.html>
- https://www.labxchange.org/library/items/lb:LabXchange:f10fd7ad:lx_simulation:1
- <http://www.zoologyresources.com/uploadfiles/books/dc64b77d8769325515d17c945e461b45.pdf>

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