

MEHR CHAND MAHAJAN DAV COLLEGE FOR WOMEN, CHANDIGARH

B.Sc. Medical (Semester-V)

Subject: Zoology

Paper-I: Developmental Biology (ZOO-501)

Teacher's name: Dr. Neetu

UNIT-II

Topic: Cleavage

LEARNING OBJECTIVES

To understand:

- *The process, laws and significance of cleavage*
- *Various planes of cleavage furrows*
- *Different cleavage patterns*

E-CONTENT

1. Introduction to cleavage, morula and blastula
<https://drive.google.com/file/d/1Msc1b1f4f5e6OcmBUltFYVGIUydNN2um/view?usp=sharing>
2. Mechanism and laws of cleavage
<https://drive.google.com/file/d/1K0y31Vw-bz2QmwklgafqnRb5TV70Q1VI/view?usp=sharing>
3. Hertwig's rules
https://drive.google.com/file/d/19S4I0UEH3VfAvvyL_NErnhSs2wIXDV7L/view?usp=sharing
4. Characteristics of cleavage
<https://drive.google.com/file/d/1M-7jFggnT9FZ94Znie1WWTKCAXxTH2uT/view?usp=sharing>
5. Planes of cleavage
<https://drive.google.com/file/d/1ahBee9gkKxbdPdY8XIXL5IR0xXjfiILY/view?usp=sharing>
6. Types of cleavage based on amount and distribution of yolk
https://drive.google.com/file/d/1xNaNMU9sZJulKHG33jIkrYXk0-fM_9cG/view?usp=sharing
7. Types of cleavage based on orientation of mitotic apparatus
https://drive.google.com/file/d/11LrWbxYJfOVzaQF1_Ro_0J0BrXixHdZa/view?usp=sharing
8. Types of cleavage based on potential of the blastomeres
<https://drive.google.com/file/d/1jxKjHNUUkRe9TNCc9PE2IcvgRGSWstHb/view?usp=sharing>

Self-assessment

https://docs.google.com/document/d/1L-WOpDjDakvPZeAJ1V4Z184FV-pyR6DuVBS_AR7j924/edit?usp=sharing

Suggested readings

1. Ballinsky, B.I. An Introduction to Embryology, 5th edition, Saunders Co., 1981.
2. Gilbert, S.F. Developmental Biology, 10th edition, Sinauer Ass., Inc. Publ., 2014.
3. Wolport, Lewis. Principles of development, Oxford University press, Oxford, 2007.