



DAVANAGERE UNIVERSITY

S.J.M COLLEGE OF ARTS, SCIENCE AND COMMERCE,  
CHANDRAVALLI CHITRADURGA



**SUBJECT : BOTANY.**

**PLANT ANATOMY AND DEVELOPMENT BIOLOGY.**

**PROJECT WORK ON: "STUDY OF PLACENTATION  
IN DIFFERENT FLOWERS".**



**STUDENT NAME:**

**II B.Sc**

**Akshataha S.A**

**Bhavana R**

**Saniya Banu**

**Nikil S**

**2022-23**

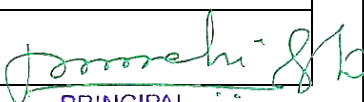
*Jyothi S*  
PRINCIPAL

Sri Jagadguru Murugarajendra College  
of Arts, Science & Commerce  
CHITRADURGA



# CONTENT:

SL No	TOPICS	PAGE No
01	INTRODUCTION.	
02	STUDY OF PLACENTATION IN DIFFERENT FLOWERS.  1. HIBISCUS. 2. VINCAROSEA. 3. TUNBERGIA ERECTA. 4. BEACH SPIDER LILY. 5. YELLOW DAYLILY. 6. APAPANTHUS {AFRICAN LILY}. 7. IPOMIA. 8. DHATURA. 9. TABASCO PEPPER. 10. PISUM SATIVUM. 11. CHICK PEA. 12. TOMATO 13. BRINJAL. 14. AZALIA. 15. SANDAL. 16. IPOMIA INDICA.	
03	CONCLUSION.	



PRINCIPAL

Sri Jagadguru Murugharajendra College  
of Arts, Science & Commerce  
CHITRADURGA



# INTRODUCTION

## PLACENTATION:

The ovules are attached on ovary walls on one or more cushion called Placenta. The arrangement of ovules within ovary wall is known as placentation. It is of following types:

-**MARGINAL:** Marginal placentation is found in unilocular ovary. The placenta forms a ridge along the ventral suture of the ovary and the ovules are borne on this ridge forming two rows. Eg: Leguminosae.

-**PARIETAL:** This type of placentation is found in unilocular syncarpous ovary. In the ovules develops on the inner wall of the ovary or on peripheral part. Ovary became bi or multicular due to formation a false septum. Eg: Cucurbita.

-**AXILE:** It is found in multicarpellary syncarpous gynoecium. The fusion margin carpels grown inward and meet in the center of the ovary. Thus an axis forms in the center of the ovary, thus ovary becomes multichambered. Eg: Potato, onion.

-**FREE CENTRAL:** This type of placentation found in syncarpous gynoecium. In it, the ovary is unilocular and the ovules are borne on the Axis in the center of the ovary. Eg: Primerose.

-**SUPERFICIAL:** This type of placentation found in multicarpellary syncarpous gynoecium. The ovules are attached on the walls of locule. Eg: Nymphaea.

-**BASAL:** The ovary is unilocular and a single ovule is borne at the base of ovary. Eg: Sunflower.

## TYPES OF PLACENTATION



Axile  
placentation



Marginal  
placentation



Parietal  
placentation



Free central  
placentation



Basal  
placentation

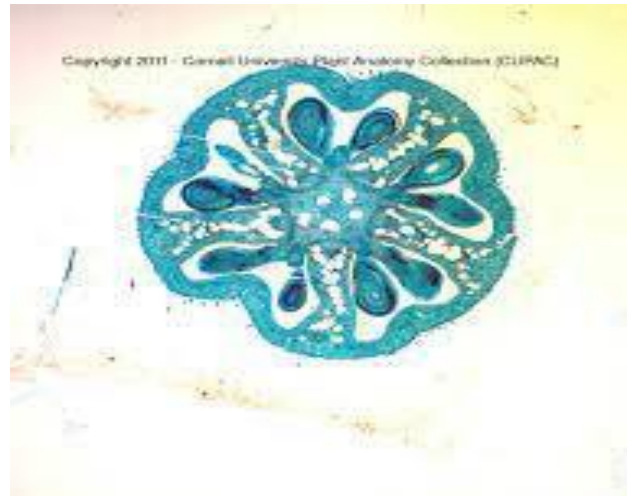
PRINCIPAL

Sri Jagadguru Murugharajendra College  
of Arts, Science & Commerce  
CHITRADURGA

## STUDY OF PLACENTATION IN DIFFERENT FLOWERS:

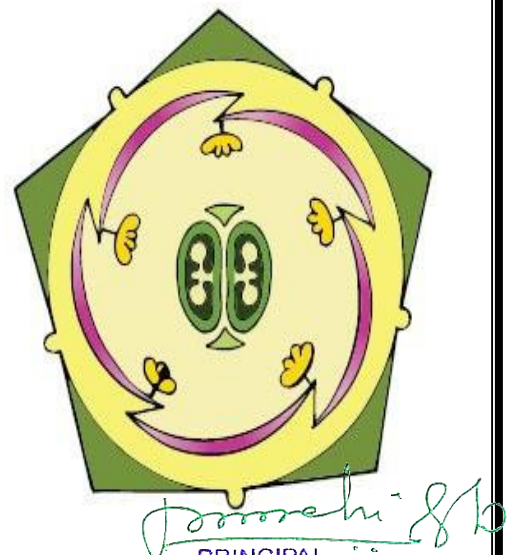
### 1. HIBISCUS:

- ❖ Family : MALVACEAE.
- ❖ Placentation : AXILE PLACENTATION [Ovary is syncarpous and multicarpellary i,e contain many chambers].



### 2. INCA ROSEA.

- ❖ Family : APOCYNACEAE.
- ❖ Placentation : AXILE PLACENTATION [Ovary is syncarpous and multicarpellary i,e contain many chambers]

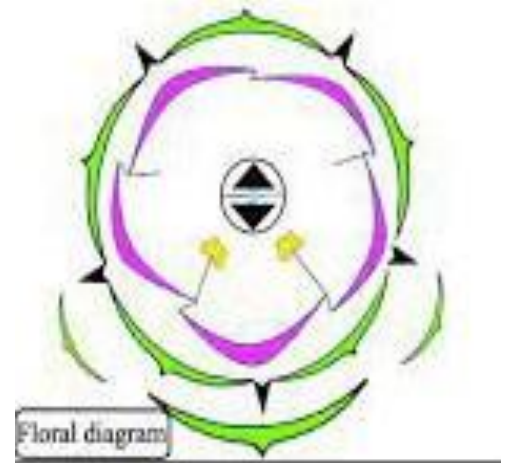


PRINCIPAL

Sri Jagadguru Murugharajendra College  
of Arts, Science & Commerce  
CHITRADURGA

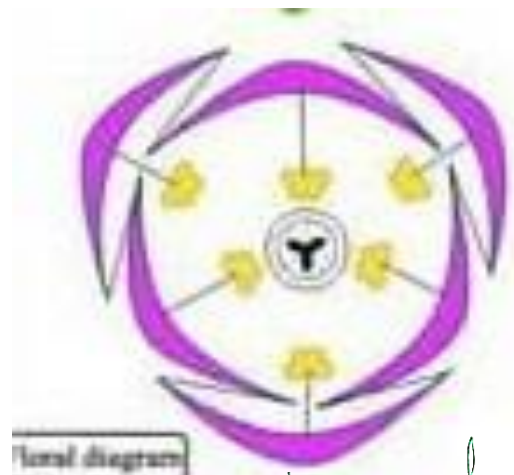
### 3. TUNBERGIA ERECTA.

- ❖ Family : ACANTHACEA.
- ❖ Placentation : AXILE PLACENTATION [Ovary is syncarpous and multicarpellary i.e. contain many chambers]



### 4. BEACH SPIDER LILY.

- ❖ Family : AMARYLLIDACEAE.
- ❖ Placentation : AXILE PLACENTATION [Ovary is syncarpous and multicarpellary i.e. contain many chambers]



*J. J. J.*  
PRINCIPAL

Sri Jagadguru Murugharajendra College  
of Arts, Science & Commerce  
CHITRADURGA

## 5. YELLOW DAYLILY.

- ❖ Family : ASPHODELACEAE.
- ❖ Placentation : AXILE PLACENTATION [Ovary is syncarpous and multicarpellary i.e contain many chambers]



## 6. APAPANNTHUS [AFRICAN LILY]

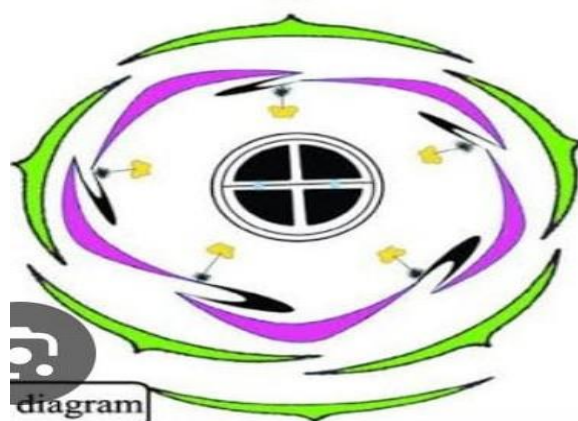
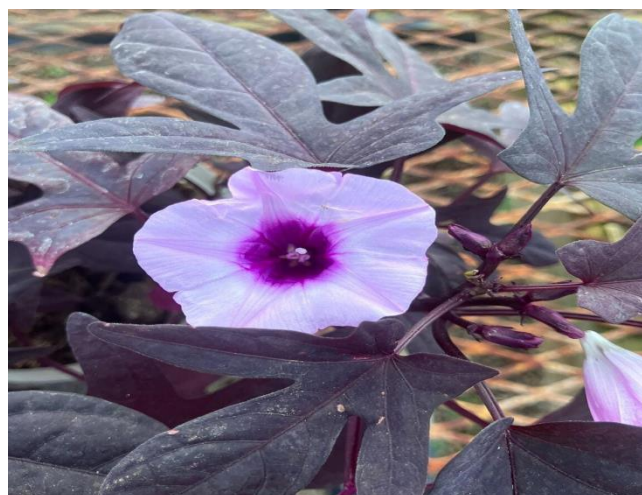
- ❖ Family : AMARYLLIDACEAE.
- ❖ Placentation : AXILE PLACENTATION [Ovary is syncarpous and multicarpellary i.e contain many chambers]



*J. J. J. J. J. J.*  
PRINCIPAL  
Sri Jagadguru Murugharajendra College  
of Arts, Science & Commerce  
CHITRADURGA

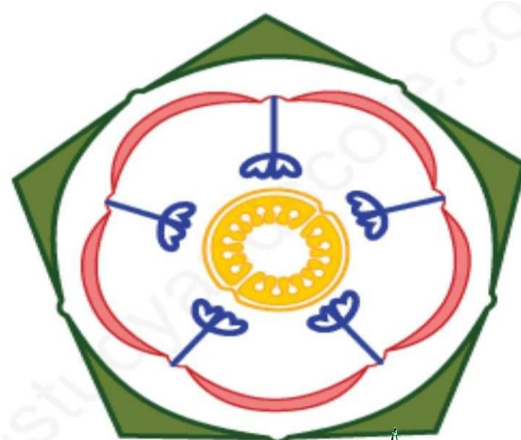
## 7. IPOMIA.

- ❖ Family : CONVOLVULACEAE.
- ❖ Placentation : AXILE PLACENTATION [Ovary is syncarpous and multicarpellary i.e contain many chambers]



## 8. DHATURA.

- ❖ Family : SOLANACEAE.
- ❖ Placentation : AXILE PLACENTATION [Ovary is syncarpous and multicarpellary i.e contain many chambers]



*J. J. J.*  
PRINCIPAL  
Sri Jagadguru Murugharajendra College  
of Arts, Science & Commerce  
CHITRADURGA

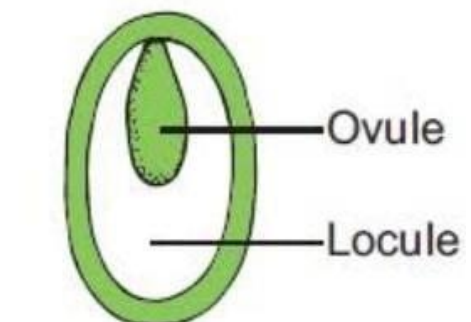
## 9. TABASCO PEPPER [CHILLI].

- ❖ Family : SOLANACEAE.
- ❖ Placentation : AXILE PLACENTATION [Ovary is syncarpous and multicarpellary i,e contain many chambers]



## 10. PISUM SATIVUM.

- ❖ Family : FABACEAE.
- ❖ Placentation : MARGINAL PLACENTATION [The placenta forms a ridge or margine a long the ventral suture of the ovary].



C.S. of Ovary

*J. J. J.*  
PRINCIPAL



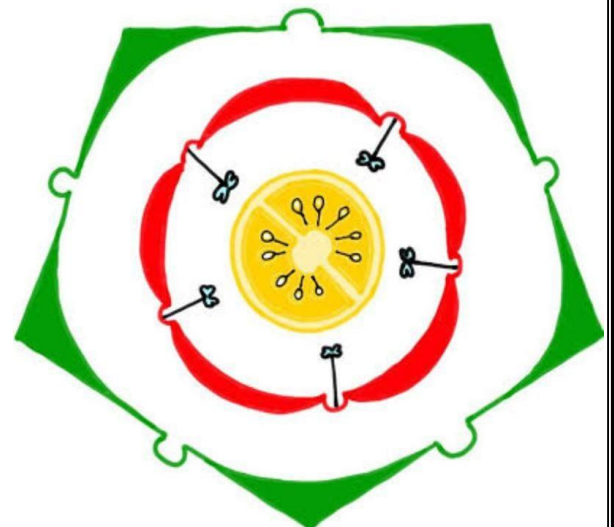
## 11. CHICKPEA.

- ❖ Family : FABACEAE.
- ❖ Placentation : MARGINAL PLACENTATION [The placenta forms a ridge or margin along the ventral suture of the ovary].



## 12. TOMATO.

- ❖ Family : SOLANACEAE.
- ❖ Placentation : AXILE PLACENTATION [Ovary is syncarpous and multicarpellary i.e contain many chambers]



*J. J. J.*  
PRINCIPAL

Sri Jagadguru Murugharajendra College  
of Arts, Science & Commerce  
CHITRADURGA

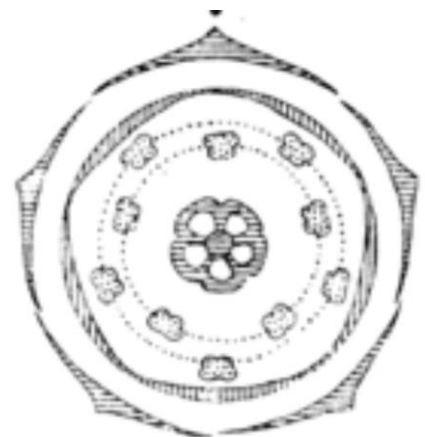
### 13. BRINJAL.

- ❖ Family : SOLANACEAE.
- ❖ Placentation : AXILE PLACENTATION [Ovary is syncarpous and multicarpellary i.e contain many chambers]



### 14. AZALEA.

- ❖ Family : ERICACEAE.
- ❖ Placentation : AXILE PLACENTATION [Ovary is syncarpous and multicarpellary i.e contain many chambers]

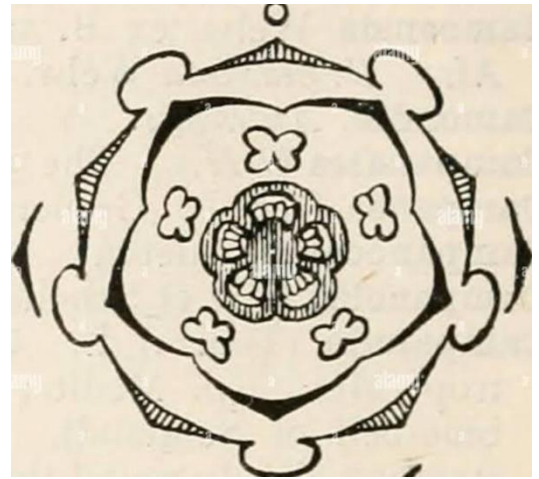


*J. S. S. S.*  
PRINCIPAL  
Sri Jagadguru Murugharajendra College  
of Arts, Science & Commerce  
CHITRADURGA

## 15. SANDAL.



- ❖ Family : SANTALACEAE.
- ❖ Placentation : AXILE PLACENTATION [Ovary is syncarpous and multicarpellary i.e. contain many chambers]



## 16. IPHOMIA INDICA.

- ❖ Family : CONVOLVULACEAE.
- ❖ Placentation : AXILE PLACENTATION [Ovary is syncarpous and multicarpellary i.e. contain many chambers]



*J. J. J. J. J.*  
PRINCIPAL  
Sri Jagadguru Murugharajendra College  
of Arts, Science & Commerce  
CHITRADURGA



# CONCLUSION

Placentation types shows strong association with ovule number. Finally,our results on ovule number and placentation types indicate that most angiosperms may falls into two categories: one with one or few ovules and basal placentation,and another with many ovules and partial and axile placentation.

PRINCIPAL

Sri Jagadguru Murugarajendra College  
of Arts, Science & Commerce  
CHITRADURGA