"Dissemination of Education for Knowledge, Science and Culture."
- Shikshanmaharshi Dr. Bapuji Salunkhe

SHRI SWAMI VIVEKANAND SHIKSHAN SANSTHA'S

VIVEKANAND COLLEGE, KOLHAPUR (EMPOWERED AUTONOMOUS)

2130, 'E' Ward, Tarabai Park,
Tal. Karveer, Dist. Kolhapur - 416 003.
Affiliated to Shivaji University, Kolhapur (M.S.)

NAAC Reaccredited : "A" (CGPA - 3.24 in 3rd Cycle)
College with Potential Excellence by U.G.C., New Delhi
"Star College" by D.B.T. Govt. of India
ISO 9001 : 2015

Ph. : 0231-2658612 Fax : 0231-2658840 Resi. : 0231-2653962 Website : www.vivekanandcollege.ac.in E-mail : info@vivekanandcollege.org

Unit Test on 'Study of flower'

Organized by

Department of Botany

On

19th September 2025

"Dissemination of Education for Knowledge, Science and Culture"
-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR
(AN EMPOWERED AUTONOMOUS INSTITUTE)

Department of Botany

Academic Year- 2025-2026

Unit Test on 'Study of flower'

B.Sc. I

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Head

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Principal
Vivekanand College, Kolhapur
(An Empowered Autonomous Institute)

"Dissemination of Education for Knowledge, Science and Culture"
-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur (Empowered Autonomous)

Department of Botany

2025-2026

Date: 16/09/2025

To,

The Principal,

Vivekanand College, Kolhapur

(An Empowered Autonomous Institute)

Subject: Regarding Permission to conduct 'Unit test'

Respected sir,

With reference to above subject, Department of Botany is going to organize Unit test on 'Study of flower' on 19th September 2025. This will significantly enhance the understanding and stimulate interest of students in subject matter. Kindly request you to give permission for the same.

Thanking you.

Yours faithfully,

Dr. B.T. Dangat 16.9.25

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Allowed
4-11-2025

"Dissemination of Education for Knowledge, Science and Culture"
-Shikshanmaharshi Dr Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)

Department of Botany

(2025-2026)

Date: 10/09/2025

NOTICE

Department of Botany is going to organize Unit Test on topic **'Study of flower'** for B.Sc. I students on 19/09/2025 at 1:10 to 2:00 pm. All students are requested to present for the same. Attendance is mandatory.

(Dr. A. R. Kasarkar)

Dr. B. T. Dangat 10.9.25

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Unit-Test-I :- "Study of Flowers"

* Attendance *

Vivekanand College Kolhapur (An Empowered Autonomous Institute)

Department of Botany

B.Sc. I

2025-26

Date: 19-09-2025

Sub: Botany

Teacher's Sign:

Time: 1·10 to 2·00

Roll No.	Sign	Roll No.	Sign	Roll No.	Sign	Roll No.	Sign	Roll No.	Sign
7368		7391		7414		7437		7460	
7369		7392		7415		7438		7461	
7370		7393		7416		7439		7462	
7371		7394	R.M. Pawar	7417		7440		7463	
7372		7395	S.A. Sangar	7418		7441		7464	
7373		7396		7419		7442		7465	
7374		7397		7420		7443		7466	
7375		7398		7421		7444		7467	
7376		7399		7422		7445		7468	
7377		7400		7423		7446		7469	
7378		7401		7424		7447		7470	
7379		7402		7425		7448		7471	
7380		7403		7426		7449		7472	
7381		7404		7427		7450		7473	
7382		7405		7428		7451		7474	
7383		7406		7429		7452		7475	
7384		7407		7430		7453		7476	
7385		7408		7431		7454		7477	
7386		7409		7432		7455		7478	
7387		7410		7433		7456		7479	
7388		7411		7434		7457		7480	
7389		7412		7435		7458		7481	
7390		7413		7436		7459		7482	

Roll No.	Sign	Roll No.	Sign	Roll No.	Sign	Roll No.	Sign	Roll No.
7483		7506		7533		7556		
7484		7507		7534		7557		
7485		7508		7535		7558		
7486		7509		7536		7559		
7487		7510		7537		7560		
7488		7511		7538		7561		
7489		7512		7539		7531		
7490		7513		7540		7595		
7491		7514		7541		7585		
7492		7515		7542				
7493		7516		7543				
7494		7517		7544				
7495		7518		7545				
7496		7519		7546				
7497		7520		7547				
7498		7521		7548				
7499		7522		7549				
7500		7523		7550				
7501		7524		7551				
7502		7525		7552				
7503		7526		7553				
7504		7527		7554				
7405		7528		7555				

Unit Test- I - 'Study of Flowers'

• Marklist •

Vivekanand College Kolhapur (An Empowered Autonomous Institute)

Department of Botany

B.Sc. I

2025-26

Sub: Botany **Date:** 19-09-2025

Time: 1:10 to 2:00 **Teacher's Sign:**

Roll No.	Sign	Roll No.	Sign	Roll No.	Sign	Roll No.	Sign	Roll No.	Sign
7368		7391		7414	07	7437		7460	
7369		7392		7415	07	7438		7461	
7370		7393		7416	07	7439		7462	
7371		7394	02	7417	05	7440		7463	03
7372		7395	04	7418	08	7441		7464	
7373		7396		7419		7442		7465	
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7376		7399		7422	03	7445		7468	
7377		7400		7423	07	7446		7469	07
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7379	07	7402		7425	08	7448		7471	08
7380	07	7403		7426	09	7449		7472	
7381		7404	04	7427		7450		7473	
7382		7405	03	7428		7451		7474	09
7383		7406		7429		7452		7475	
7384		7407	09	7430		7453		7476	
7385		7408	03	7431		7454		7477	
7386		7409		7432		7455		7478	
7387	01	7410		7433		7456		7479	08
7388	07	7411	07	7434		7457	04	7480	
7389	05	7412		7435		7458		7481	
7390	06	7413	06	7436	07	7459	07	7482	

Roll No.	Sign	Roll No.	Sign	Roll No.	Sign	Roll No.	Sign	Roll No.	Sign
7483	09	7506		7533		7556			
7484		7507	09	7534		7557			
7485	09	7508	07	7535	04	7558			
7486		7509		7536	09	7559	07		
7487	08	7510		7537	06	7560			
7488	08	7511		7538	09	7561	06		
7489	07	7512		7539		7585	06		
7490		7513		7540		7596	01		
7491		7514		7541		7531	06		
7492	02	7515		7542	04				
7493	07	7516		7543	08				
7494	05	7517	06	7544	03				
7495	04	7518		7545					
7496		7519	08	7546	08				
7497		7520	09	7547					
7498	06	7521		7548	09				
7499		7522	08	7549					
7500		7523	09	7550	05				
7501		7524		7551					
7502		7525		7552					
7503	02	7526	07	7553					
7504	09	7527		7554	09				
7405		7528		7555	07				

Unit Test - I

Study of flower

Q.1 Define the term flower? Write in detail its structure

OR

Short note (Any two)

1) Insertion of flower whorls
2) Gynoecium
3) Calyx and corolla

→ Flower: "It is the highly modified, condensed shoot specially designed for sexual reproduction is called flower."

The typical flower consist four structure is called flower/ floral whorls. It has two types Essential no and non essential.

i) Non-Essential - The floral parts which not taken part in sexual reproduction instead of they protect Essential whorls

e.g calyx and corolla

1) Calyx: "It is the outermost whorl of the flower which protect Essential whorls is called Calyx."

- The membre of calyx are called Sepals.
- Generally calyx are green in colour hence they help in photosynthesis.
- In some plants Calyx is bright in colour hence it help in attract the pollinators for polination.

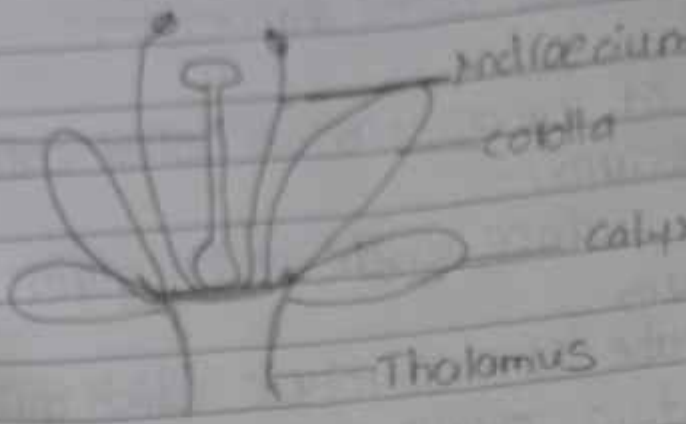
- If Calyx are free is called Polysepalous
- If calyx are fused is called Gamosepalous
- Calyx is outermost part which protect Androec and Gynoecium.
- If calyx are persistent then it help in dispers of fruit.

2) Corolla - "The second most, outermost whorl of th flower is called corolla".

- Corolla is second non-Essential whorl of the flower.
- Membre of corolla is called petals.
- Petals are bright in colour.
- Petals are help in pollination because they are bright in colour and they attract the pollinators.
- In some plants Petals are green in colour and the perform photosynthesis.
- Petals are protect the Essential whorl of flow
- If Petals are free - Polypetalous.
- If Petals are fused - Gamopetalous.
- ~~Corolla~~

3) Perianth - "When Calyx and corolla unable to differentiate is called Perianth".

- Membre of Perianth is called Tepals.
- Tepals are green they perform Photosynthesis.
- When Tepals are coloured they attract pollinators for pollination.
- Tepals protect the Androecium and gynoecium.
- Tepals are free - Polyphyllas
- Tepals are fused - Gamophylla s
- Tepals like sepals - Sepalliod - (green in colour)
- Tepals like Petals - Petalliod (bright in colour)



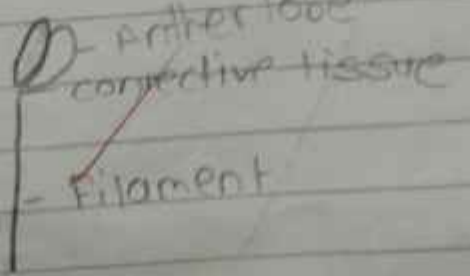
Structure of typical flower

ii) No Essential Whorls :- "The Flower Parts which take Part in sexual reproduction is called Essential whorls".

i) Androecium :- "It is the male reproductive whorl of the flower."

The member of androecium called stamen.
It consist of three parts :- 1) Anther lobe - Produce gamete
2) Connective Tissue - It connec the Anther lobe to filament.
3) Filament - Stalk like structu

It is the first Essential whorl of the flower.
It produce Male Gametes
Androecium is - Bithecous, Tetralocular
- Monothecous, Bilocular.
The no. of Androecium various species to species.



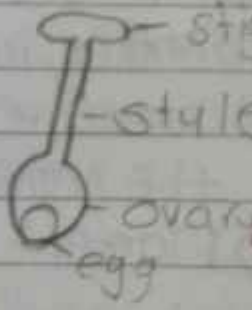
:) Gynoecium - "It is the female reproductive whorl of the flower is called Gynoecium."

The membre of Gynoecium is called carpel /pistil.

The part of Gynoecium:-

1) Stigma - sticky surface where pollen grain enter into Gynoecium.
2) Style - It is tube like structure which guide pollen g
3) Ovary - It contain ovule (egg) after fertilization ovary convert into fruit and ovule into seeds

It is second essential whorl of the flower.
It produce female egg.
The no. of Gynoecium is various from species to spec
The carpel is fused - syncarpous
The carpel is free - apocarpous.



structure of carpel /Pistil

Name : [illegible] Rajendra [illegible]

Roll No. [illegible]

Unit Test - I

Topic - study of flower

9/10

1) Define the term flower ? Write in detail it's structure
OR

2) short note (any two)
1) Insertion of floral whorls
2) Gynoecium
3) calyx & corolla

Q.1 Define the term flower write in detail it's structure.

Flower - It is the highly modified condensed shoot specialized desine for sexual reproduction.

structure of flower :-

The flower consist of two types of whorls -
1) Non - essential whorls
2) Essential whorls

1) Non - essential whorls - The whorls which is not involve in sexual reproduction It is known as non - essential whorls.

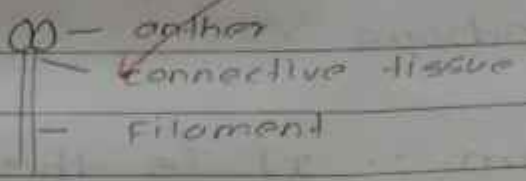
a) calyx - It is the outermost whorl of flower

- The Individual unit of calyx is known as sepal.

Stamen

2) Essential whorls - The whorls which is involve in sexual reproduction is known as essestial whorls of flower.

a) Androecium - It is the innermost whorl of flower.
- It is the male reproductive part of flower.
- The individual unit of androecium is known as stamen.
- The function of stamen :-
  1) They produce male gamete
- Structure of stamen



- stamen consist of three parts :- anther, connective tissue and filament
- Anther consist two lobes and it is tetraalocular.
- Anther and filament are attached due to connective tissue.
- Types of androecium :-
  1) cohesion
  2) Adhesion
- 1) cohesion - The stamens are attach to itself.

The types of cohesion -
1) Adelpy - The anthers of stames are free but the filaments are fused.

2) Syngenious :- The anthers of stamens are fused but the filaments are free.
3) Synandrous :- The anther and filaments of stamens are fused.

- 2) Adhesion - The stamens of androecium are attach to other floral whorls.
- Types of Adhesion :-
  1) Epiphyllous :- The stamens are attached to tepals.
  2) Episepalous :- The stamens are attache to sepals.
  3) Epipetalous :- The stamens are attac to petals.

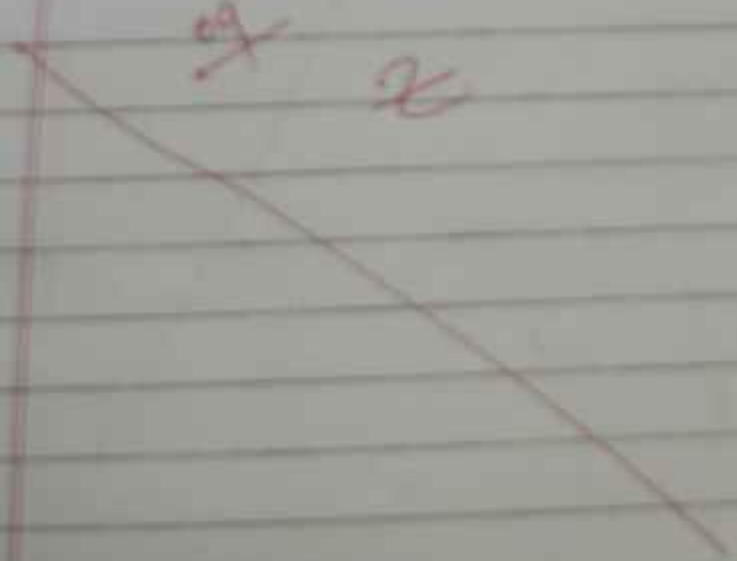
a) Gynandrous :-

b) Gynoecium :- It is the totally innermo whorl of flower.

- It is the female reproductive part o flower.
- The individual unit of gynoecium is known a carpel.
- The function of carpel is to produce female gamete.
- Structure of carpel :-

- carpell consist of three parts i.e stigma, style and ovary
- stigma - it is uppermost part of carpel
  - the stigma is rough or smooth
  - the stigma is sticky.
- style - it is the middle part of carpel
  - it connects the stigma and ovary.
  - it consist of germinating pollen grains
- ovary - it is the swollen part of carpel.
  - it consist of ovule
  - ovule produce the female gamete i.e. egg.

structure of typical flower



Unit Test - I

Name :- Samiksha Nivrutti Bamane

Roll no :- 4418

Sub :- Botany (Plant morphology)

Date :- 19-09-2025

Class :- BSc-I

08/10

Q:1) Define the term flower write indetail it's -to Structure

OR

Short Note (any two)

1) Insertion of floral whorls

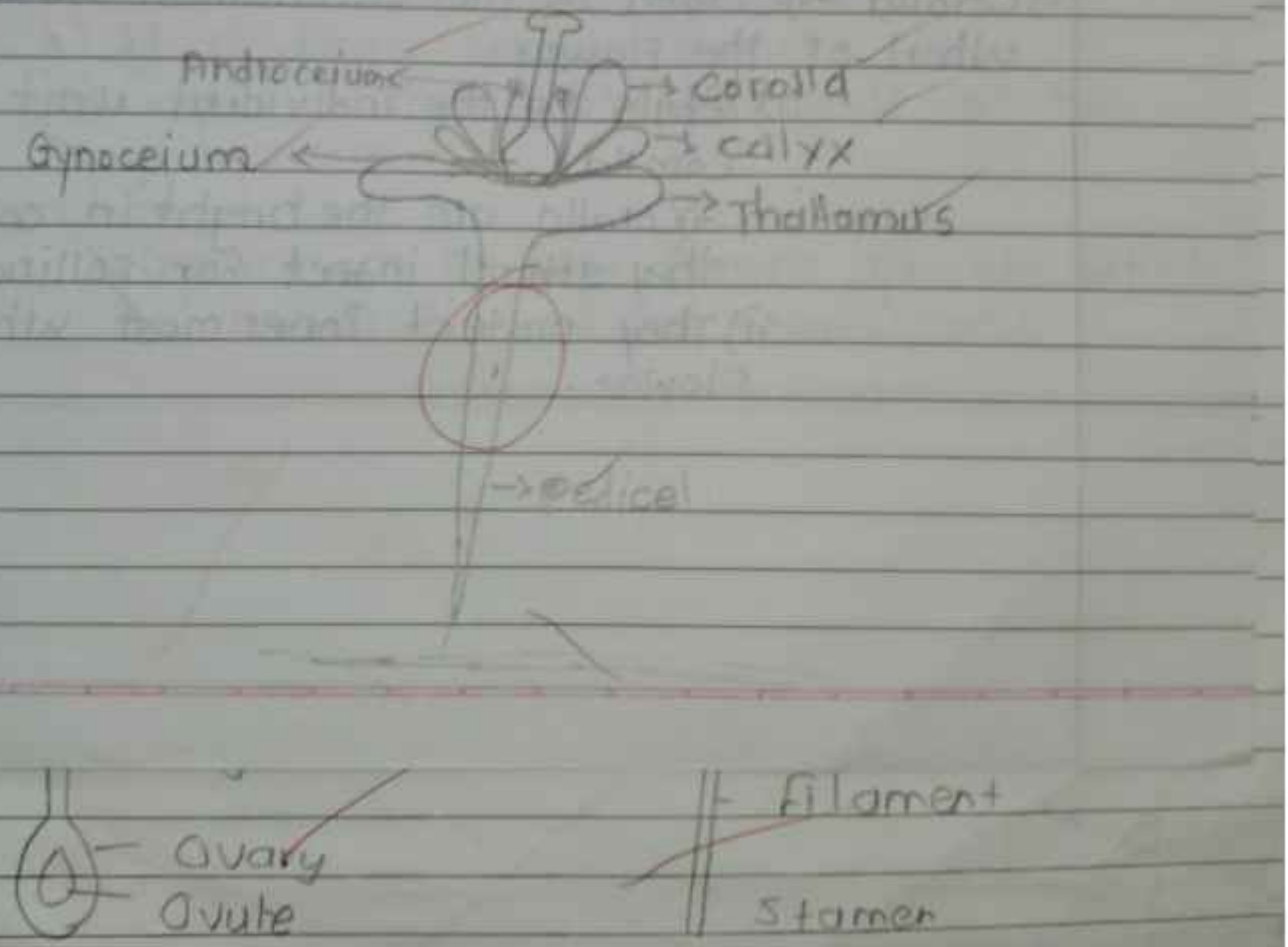
2) Gynoceium.

3) Calyx and corolla

Ans →

Defination :- It is the highly modified structure of plant which is specially made for sexual reproduction.

Structure :-



In the flower non-essential whorls are
Calyx - sepals - It helps to photosynthesis
- It helps to protect
Corolla - Petals - colourful

- It is bright in colour it is attract to insect
- Perianth - calyx and corolla unable to differentiate
- Tepals - They protect the essential whorls of flower

- Essential floral whorls
- They can be involved in sexual reproduction
- Androecium - It is the innermost whorl of the flower
- It is male reproductive whorl of flower is called androecium.

- In flower there are essential & non-essential whorls are present.
- In non-essential calyx & corolla present
- In calyx → sepals, corolla → petals
- In essential → Androecium & gynoecium
- In stamen → Filament
  Anther lobe
- In carpel → stigma
  style
  ovary

07

08

DATE / /

Name- Shravani Bharat Patil
std- BSc - FY (Microbiology)
sub - Botany
Roll No - 7550

05/10

Q.1 Define the term flower? write in details it's structure?

A flower is the reproductive structure found in flowering plants. Flowers may be unisexual or bisexual.

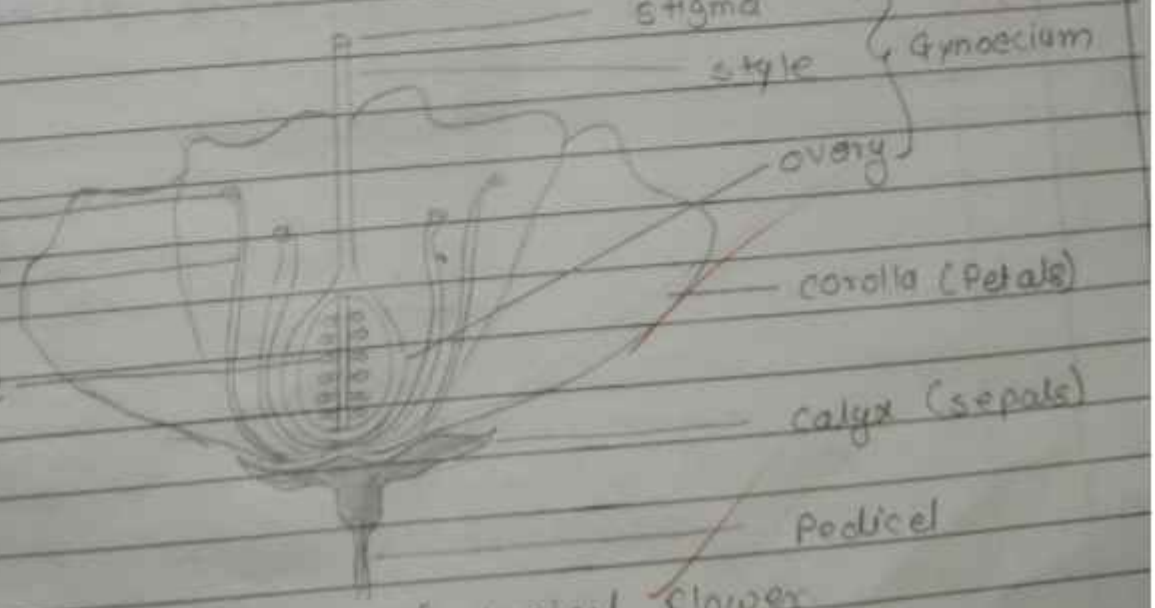
A typical flower has four main parts

a) Calyx - It is the outermost whorl of flower.

b) Corolla - It is the second whorl of flower.

c) Androecium - Is the male reproductive parts of flower.

d) Gynoecium - Gynoecium is the female reproductive parts of flower.



Structure of typical flower

05

• short Note (Any two)

Q.2 1) Calyx & Corolla.

a) Calyx -

i) Calyx is a also called as sepals.
ii) Usually green colour
iii) supports the petals when in bloom.
iv) outermost whorl of flower.

b) Corolla -

i) Corolla is also called as Petale.
ii) Usually brightly & attractive colour.
iii) second whorl of flower.

2) Gynoceium.

i) The gynoceium is the innermost & floral whorl the female reproductive part of flower.
ii) It is composed of one or more capel the female gametes provides the site for fertilizati & develop the fruit & seeds after fertilizatior

2

Roll No :- 7463.
Name :- Peiyanka Amrut Chavan.

Subject :- Botany.

Q.1 Define the term flower & write in detail in structure.

→ A flower is the reproductive part of flowering plant. flowers may be unisexual or bisexual.

A typical flower has four main parts :-
a) Calyx :- It is the outermost whorl of flower.

b) Corolla :- It is the second whorl of flower.

c) Androecium :- Is the male reproductive parts of flower.

d) Gynoecium :- Gynoecium is the female reproductive parts of flower.

Q.3

- short Note

Q.2 Calyx & Corolla.

a) Calyx
- Usually green colour.
- Supports the petals when in bloom.
- Outermost whorl of f flower.

b) Corolla
- It is second whorl of flower.
- usually brightly coloured.
- often large & attractive.

Good

2) Gynoceium

- The gynoceium is the innermost & floral whorl femal reproductive part of flower.
- It is composed of one or more carp