



**ACADEMIC YEAR 2021-22**

**ODD SEMESTER**

<b>NAME OF THE SUBJECT</b>	<b>:</b>	Pharmaceutical Organic Chemistry III
<b>SUBJECT CODE</b>	<b>:</b>	<b>BP 401 T</b>
<b>SYLLABUS PATTERN</b>	<b>:</b>	<b>2019</b>
<b>SEMESTER</b>	<b>:</b>	<b>IV</b>
<b>NUMBER OF CREDITS</b>	<b>:</b>	<b>3</b>

### Programme Outcomes

**Pharmacy graduate will be able to:**

1. **Pharmacy Knowledge:** Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; and manufacturing practices.
2. **Planning Abilities:** Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.
3. **Problem analysis:** Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions
4. **Modern Tool Usage:** Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitation.
5. **Leadership skills:** Understand and consider the human reaction to change, motivation issues, leadership and team-building when planning changes required for fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and well-being.
6. **Professional Identity:** Understand, analyze and communicate the value of their professional roles in society.
7. **Pharmaceutical Ethics:** Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behavior that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.
8. **Communication:** Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective presentations and documentation, and give and receive clear instructions
9. **The Pharmacist and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice



- 10. Environment and sustainability:** Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 11. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self-assess and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.

### **Programme Specific Outcomes(PSOs)**

#### **Pharmacy graduate will be able to:**

**PSO 1:** To build graduate to excel in technical or professional careers in various pharmaceutical industry and/ or institute and /or Health care system through rigorous education. Also analyze and communicate the skills, values of their professional roles in society.

**PSO 2:** To learn, select, apply appropriate methods, procedures, resources and modern pharmacy-related computing tools with an understanding of the limitations.

**PSO 3:** To operate, control, analyze and evaluate chemical substances and finished products also processes within permissible limits.

**PSO 4:** To design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, sustainability social, ethical, health, safety and manufacturability for humans

#### **1. Mapping of Course outcomes with Programme outcomes**

Subject	Course outcome	Programme outcome										
		1	2	3	4	5	6	7	8	9	10	11
Pharmaceutical Organic Chemistry III												
	Understand the methods of preparation, properties, medicinal uses and other applications of organic compounds	3	2	2	2	3	2	0	2	2	1	2
	Explain the stereo chemical aspects of organic compounds and stereo chemical reaction	3	2	2	2	3	2	0	2	2	1	2
	Understand the properties of heterocyclic compounds with aromaticity and reactivity of heterocyclic compounds	3	2	2	2	3	2	0	2	2	1	2
	Understand the basic terminologies in stereochemistry and organic reactions	3	2	2	2	2	2	0	2	2	1	2
Average		3	2	2	2	2.75	2	0	2	2	1	2



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### 1. Assessment process of CO Attainment:

#### **Method of Measuring Attainment of CO:**

CO attainment is measured in terms of actual percentage of students getting set (target) percentage of marks. If targets are achieved then all the course outcomes are attained for that year. If targets are not achieved, the Programme put in place an action plan to attain the target in subsequent years.

- The attainment levels are set considering average performance levels in all examinations throughout the semester or year. Attainment level is measured in terms of student performance in internal assessments with respect to the COs of a course and the performance in the University examination.
- Attainment levels are stated in terms of percentage of students getting more than the targeted average marks.
- Assessment Tools, process, and levels for CO attainment used are given in following tables.

Assessment Tools	Assessment criteria	Process for data Collection
Continous Assessment I(CA-I)	CA-I is based on first two topic of the syllabus and questions are asked on that syllabus	Evaluation of assignment copies and marks scored by the students
Continous Assessment II(CA-II)	CA-II is based on next three topic of the syllabus and questions are asked on that syllabus	Evaluation of assignment copies and marks scored by the students
Sessional Exam	Sessional exam is conducted on course syllabus.	Evaluation of answer sheet and marks scored by student out of 20
University Examination	As per university policy	As per university policy
Students portfolios	Performance is evaluated from active participation of students in co-curricular and extracurricular activities throughout the year	Feedback from respective Faculty Incharges



**Course Attainment tool.**

Assessment tool with Weightage	Assessment tool	Class	Level			
			Level O	Level I slightly (low)	Level II Moderately (Medium)	Level III Substantial (High)
<b>Internal Assessment</b>	<b>CA and Sessional exam</b>	Final Year	less than 50% student scoring more than 60 % marks	More than 50 % but less than 60% student score more than 60%	More than 60 % but less than 70% student score more than 60%	More than 70% student score more than 60% mark
<b>University Assessment</b>	<b>University result</b>	S	less than 50% student scoring more than 60 % marks	More than 50 % but less than 60% student score more than 60%	More than 60 % but less than 70% student score more than 60%	More than 70% student score more than 60% mark



### A) Direct Method for Assessment of CO Attainment:

Direct method of computing CO attainment is based on the student performance in all assessments. Initially the attainment of each course outcome is determined using internal and external (University exam) assessment.

	Continuous assessment 1 (10)	Continuous assessment 2 (10)	Average Sessional exam (15)	Semester examination (75)	Total Marks (100)
No of students appearing	76	76	76	76	76
No of students scoring more than 60% marks	Count No of Students scoring more than 5	Count No of Students scoring more than 5	Count No of Student scoring more than 8	Count No of Student scoring more than 36	Count No of Student scoring more than 60
	71	70	56	38	40
% age if students scoring more than 60%	93.42	92.10	73.68	51	52.63
Level of attainment	3	3	3	1	1
Average	2.2				



### Direct method for PO attainment

Subject	Course outcome	Programme outcome											
Pharmaceutical Organic Chemistry III		1	2	3	4	5	6	7	8	9	10	11	
	Understand the methods of preparation, properties, medicinal uses and other applications of organic compounds	3	2	2	2	3	2	0	2	2	1	2	
	Explain the stereo chemical aspects of organic compounds and stereo chemical reaction	3	2	2	2	3	2	0	2	2	1	2	
	Understand the properties of heterocyclic compounds with aromaticity and reactivity of heterocyclic compounds	3	2	2	2	3	2	0	2	2	1	2	
	Understand the basic terminologies in stereochemistry and organic reactions	3	2	2	2	2	2	0	2	2	1	2	
Average		3	2	2	2	2.75	2	0	2	2	1	2	
PO attained (Calculated in correlation with Direct CO attainment value – 3)		3	2	2	2	2.75	2	0	2	2	1	2	1.56

**Average Level of PO attainment (By Direct Method): 1.56**

## B) Indirect Method

Indirect Assessment is done through Graduate exit survey and Alumni survey. Both surveys are given 50% weightage.

### 1. Graduate exit Survey:

Graduate exit survey is conducted for the students who are graduated in that academic year. Relevant Questionnaires are presented in exit survey form to evaluate PO and PSO attainment.

### 2. Alumni Survey:

Relevant Questionnaires are presented to alumni in exit survey form to evaluate PO and PSO attainment.

## Evaluation Process:

The questionnaires consisting of 8 questions relevant to PO and PSO. Respondent has to answer each question by giving marks as 3 for Excellent, 2 for Good and 1 for poor. The marks are tabulated and average values corresponding to each PO and PSO are determined.

$$\text{Indirect Attainment PO} = \frac{\text{Attainment of PO (Grad. Exit Survey)} + \text{Attn of PO (Alumni survey)}}{2}$$





## **GRADUATE EXIT SURVEY- RATINGS**

**RATINGS : 1/2/3**

Roll No.	Name of Graduate	Question Rating							
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
1.	AherPrajaktaAshok	2	2	2	3	3	2	3	3
2.	AndhaleAartiPandurang	3	2	2	2	3	3	2	3
3.	AnapAvinash	3	3	2	2	3	3	3	3
4.	Anap Renuka Babasaheb	3	2	3	3	3	2	2	3
5.	AthareDikshaDilip	2	3	2	3	2	3	2	3
6.	AtreOmkarBapusaheb	3	2	3	2	2	3	2	2
7.	BadadheShubhangiBabasaheb	2	3	3	2	2	2	3	2
8.	BankarVaibhavBalasaheb	3	3	2	3	3	3	3	2
9.	BardeAkshayKanifnath	3	3	2	3	3	3	3	2
10.	Bhanage Nikita Anil	3	3	2	3	3	2	3	3
11.	BhangareSonaliMadhukar	3	3	3	3	3	2	2	3
12.	BokandKomalBalkrishna	3	2	2	2	2	2	3	3
13.	BokandMayurRajendra	3	3	2	2	2	2	3	3
14.	BombaleMayurRamhari	2	2	3	2	2	2	2	3
15.	Borhade Ajay Rajendra	2	3	2	2	2	3	2	3
16.	Dama Anjali Arvind	2	3	2	2	2	2	2	2
17.	DamaleAkshayBhausaheb	3	3	2	2	2	2	2	2
18.	DhamakRavinaBalasaheb	3	3	2	2	2	3	2	2



19.	DighePooja	3	3	2	3	2	3	2	2
20.	DimbarTejas Anil	3	3	2	1	2	2	2	2
21.	DubeAkshadaDashrath	3	3	2	2	2	2	1	3
22.	GabaleRohiniSantoshappa	1	3	2	3	2	2	2	3
23.	GaikwadBhagyashriBhagwan	3	3	2	2	2	2	3	3
24.	GangawaneVaibhavNavnath	3	1	2	3	2	2	2	3
25.	GhorpadeHrishikesh Anil	3	3	3	2	2	2	3	3
26.	GhorpadeSujayBabanrao	3	2	2	2	2	2	3	3
27.	GitePrajaktaSandip	3	2	2	2	2	2	3	3
28.	Gunjal Ganesh Goraksh	2	2	1	2	1	2	3	3
29.	KanawadeShubham Narayan	3	2	3	2	2	2	3	3
30.	KanawadeVinaykumarTrymbakrao	3	2	2	2	2	2	2	3
31.	KaranjekarVipul Ashok	3	2	2	2	2	1	3	3
32.	KashidShraddha Mahesh	3	2	2	2	1	2	1	2
33.	KharjuleTejashwini Ashok	2	2	3	3	2	3	2	3
34.	KolhePiyushaVasant	3	2	2	3	3	3	2	3
35.	KotadeAjitRaosaheb	3	2	3	3	3	3	2	3
36.	KotkarPallaviKashinath	2	3	3	3	3	3	2	2
37.	KudaleAkshayDnyandev	2	3	3	3	3	3	2	2
38.	LahareAditya Suresh	3	2	2	3	2	2	2	2
39.	LondheAkshayVasant	2	3	3	3	3	2	2	2
40.	Maid Kanhaiya Vijay	2	2	3	3	3	3	2	3
41.	More KartikSantosh	3	2	3	2	3	3	2	2
42.	NirmalSujataEknath	3	2	2	3	2	2	3	2
43.	PalkeSurypalGautam	3	3	3	2	2	1	3	2



44.	PatareVishwasBapusaheb	3	3	3	2	2	2	3	2
45.	PatilPooja Ganesh	3	2	2	2	2	2	3	2
46.	RahateSnehalKishor	3	3	2	2	2	2	3	3
47.	Renge Krishna Ramchandra	3	3	2	2	2	2	3	2
48.	SalunkePoojaJalindar	3	1	2	2	2	2	3	2
49.	Satpute Ajay	3	3	2	2	2	2	1	2
50.	ShaikhWasimSalim	3	3	2	2	2	2	2	2
51.	ShedgeRohitJalindar	3	3	3	1	2	2	3	2
52.	ShejulPriyaPrakash	3	3	3	2	2	1	2	2
53.	ShindeRekhaValiba	3	3	2	2	2	2	1	3
54.	Sonavane Anjali Anil	2	3	2	2	2	3	1	2
55.	SonawaneAmolRajendra	3	2	2	3	2	3	2	2
56.	SonawanePallaviAnnasaheb	3	3	3	2	2	3	1	3
57.	TambeAtishRaosaheb	3	3	2	2	2	3	2	3
58.	TambeKiranChangdeov	3	1	1	2	2	2	2	2
59.	TangadeRushikesh Sanjay	2	3	2	2	3	2	2	3
60.	ThoratAnushka Vijay	2	3	2	2	3	2	2	3
61.	ThorvePratikshaDnyandeo	2	2	2	2	3	2	2	3
62.	TodkarRiteshRudrappa	2	3	2	2	3	2	2	2
63.	UndeSnehal Vijay	2	1	2	2	2	2	3	3
64.	UpadhayeSonalBhavarlal	3	3	2	2	2	3	2	3
65.	VikheDiptiDattatray	3	1	1	2	2	2	2	2
66.	VikheSharvari	2	3	2	2	3	2	2	3
67.	WakchaureTanaysPrakash	2	3	2	2	3	2	2	3
		2.67	2.51	2.24	2.27	2.28	2.27	2.27	2.55



Average	2.38											
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**Mapping of PO with Questionnaires' (Graduate Exit survey)**

PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
Question Co- relation with PO	2	2	4	5	7	6	3	3	6	6	8

Roll No.	Name of Graduate	Question Rating										
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
1.	AherPrajaktaAshok	2	2	3	3	3	2	2	2	2	2	3
2.	AndhaleAartiPandurang	2	2	2	3	2	3	2	2	3	3	3
3.	AnapAvinash	3	3	2	3	3	3	2	2	3	3	3
4.	AnapRenukaBabasaheb	2	2	3	3	2	2	3	3	2	2	3
5.	AthareDikshaDilip	3	3	3	2	2	3	2	2	3	3	3
6.	AtreOmkarBapusaheb	2	2	2	2	2	3	3	3	3	3	2
7.	BadadheShubhangiBabasaheb	3	3	2	2	3	2	3	3	2	2	2
8.	BankarVaibhavBalasaheb	3	3	3	3	3	3	2	2	3	3	2
9.	BardeAkshayKanifnath	3	3	3	3	3	3	2	2	3	3	2
10.	Bhanage Nikita Anil	3	3	3	3	3	2	2	2	2	2	3
11.	BhangareSonaliMadhukar	3	3	3	3	2	2	3	3	2	2	3
12.	BokandKomalBalkrishna	2	2	2	2	3	2	2	2	2	2	3
13.	BokandMayurRajendra	3	3	2	2	3	2	2	2	2	2	3
14.	BombaleMayurRamhari	2	2	2	2	2	2	3	3	2	2	3
15.	Borhade Ajay Rajendra	3	3	2	2	2	3	2	2	3	3	3



16.	Dama Anjali Arvind	3	3	2	2	2	2	2	2	2	2	2
17.	DamaleAkshayBhausahab	3	3	2	2	2	2	2	2	2	2	2
18.	DhamakRavinaBalasaheb	3	3	2	2	2	3	2	2	3	3	2
19.	DighePooja	3	3	3	2	2	3	2	2	3	3	2
20.	DimbarTejas Anil	3	3	1	2	2	2	2	2	2	2	2
21.	DubeAkshadaDashrath	3	3	2	2	1	2	2	2	2	2	3
22.	GabaleRohiniSantoshappa	3	3	3	2	2	2	2	2	2	2	3
23.	GaikwadBhagyashriBhagwan	3	3	2	2	3	2	2	2	2	2	3
24.	GangawaneVaibhavNavnath	1	1	3	2	2	2	2	2	2	2	3
25.	GhorpadeHrishikesh Anil	3	3	2	2	3	2	3	3	2	2	3
26.	GhorpadeSujayBabanrao	2	2	2	2	3	2	2	2	2	2	3
27.	GitePrajaktaSandip	2	2	2	2	3	2	2	2	2	2	3
28.	Gunjal Ganesh Goraksh	2	2	2	1	3	2	1	1	2	2	3
29.	KanawadeShubham Narayan	2	2	2	2	3	2	3	3	2	2	3
30.	KanawadeVinaykumarTrymbakrao	2	2	2	2	2	2	2	2	2	2	3
31.	KaranjekarVipul Ashok	2	2	2	2	3	1	2	2	1	1	3
32.	KashidShraddha Mahesh	2	2	2	1	1	2	2	2	2	2	2
33.	KharjuleTejashwini Ashok	2	2	3	2	2	3	3	3	3	3	3
34.	KolhePiyushaVasant	2	2	3	3	2	3	2	2	3	3	3
35.	KotadeAjitRaosaheb	2	2	3	3	2	3	3	3	3	3	3
36.	KotkarPallaviKashinath	3	3	3	3	2	3	3	3	3	3	2
37.	KudaleAkshayDnyandev	3	3	3	3	2	3	3	3	3	3	2
38.	LahareAditya Suresh	2	2	3	2	2	2	2	2	2	2	2
39.	LondheAkshayVasant	3	3	3	3	2	2	3	3	2	2	2
40.	Maid Kanhaiya Vijay	2	2	3	3	2	3	3	3	3	3	3



41.	More KartikSantosh	2	2	2	3	2	3	3	3	3	3	2
42.	NirmalSujataEknath	2	2	3	2	3	2	2	2	2	2	2
43.	PalkeSuryopalGautam	3	3	2	2	3	1	3	3	1	1	2
44.	PatareVishwasBapusaheb	3	3	2	2	3	2	3	3	2	2	2
45.	PatilPooja Ganesh	2	2	2	2	3	2	2	2	2	2	2
46.	RahateSnehalKishor	3	3	2	2	3	2	2	2	2	2	3
47.	Renge Krishna Ramchandra	3	3	2	2	3	2	2	2	2	2	2
48.	SalunkePoojaJalindar	1	1	2	2	3	2	2	2	2	2	2
49.	Satpute Ajay	3	3	2	2	1	2	2	2	2	2	2
50.	ShaikhWasimSalim	3	3	2	2	2	2	2	2	2	2	2
51.	ShedgeRohitJalindar	3	3	1	2	3	2	3	3	2	2	2
52.	ShejulPriyaPrakash	3	3	2	2	2	1	3	3	1	1	2
53.	ShindeRekhaValiba	3	3	2	2	1	2	2	2	2	2	3
54.	Sonavane Anjali Anil	3	3	2	2	1	3	2	2	3	3	2
55.	SonawaneAmolRajendra	2	2	3	2	2	3	2	2	3	3	2
56.	SonawanePallaviAnnasaheb	3	3	2	2	1	3	3	3	3	3	3
57.	TambeAtishRaosaheb	3	3	2	2	2	3	2	2	3	3	3
58.	TambeKiranChangdeov	1	1	2	2	2	2	1	1	2	2	2
59.	TangadeRushikesh Sanjay	3	3	2	3	2	2	2	2	2	2	3
60.	ThoratAnushka Vijay	3	3	2	3	2	2	2	2	2	2	3
61.	ThorvePratikshaDnyandeo	2	2	2	3	2	2	2	2	2	2	3
62.	TodkarRiteshRudrappa	3	3	2	3	2	2	2	2	2	2	2
63.	UndeSnehal Vijay	1	1	2	2	3	2	2	2	2	2	3
64.	UpadhayeSonalBhavarlal	3	3	2	3	2	2	2	2	2	2	3
65.	VikheDiptiDattatray	3	3	2	3	2	2	2	2	2	2	3
66.	VikheSharvari	2	2	2	3	2	2	2	2	2	2	3



67.	WakchaureTanaysPrakash	3	3	2	3	2	2	2	2	2	2	2	
	<b>Average</b>	2.52	2.52	2.27	2.31	2.27	2.25	2.25	2.25	2.25	2.25	2.55	2.34

$$\text{Average PO attained (Grad. survey)} = \frac{P01+P02+P03+P04+P05+P05+P06+P07+P08+P09+P010+P011}{11}$$

**Overall PO Average (Graduate exit Survey) =2.34**

### **ALUMNI SURVEY- RATINGS**

Roll No.	Name of Graduate	Question Rating							
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
1.	Ahire Valmik Sudhakar	2	3	2	3	3	3	2	3
2.	Barhate Manoj Santoshrao	3	3	3	3	3	2	3	2
3.	Bhagwat Aniket Rajendra	3	3	3	2	3	3	3	3
4.	Bhaldand Pratiksha Dilip	3	1	3	3	3	3	2	2
5.	Chaugule Aarti	3	2	3	3	2	3	2	3
6.	Dalvi Pratiksha Changdeo	3	2	3	2	2	3	2	3
7.	Daspute Kamini Govind	3	3	3	2	3	2	3	3
8.	Dighe Jayashree Sunder	3	3	3	3	3	3	3	3
9.	Dive Prakash Bhausaheb	3	3	3	3	3	3	3	3
10.	Dudhal Ankita Anil	3	2	2	3	3	2	3	3
11.	Gadekar Dipali Pandharinath	2	2	2	2	2	2	2	3
12.	Gadhe Suraj Vishwas	3	2	2	2	2	2	2	3
13.	Gaikwad Kapil Ashok	3	3	2	2	2	2	3	2
14.	Gaikwad Shraddha Shantaram	3	3	2	2	2	2	2	3
15.	Gholap Sneha Angad	3	3	2	2	2	3	2	3



16.	Gholap Yogesh Ashok	2	3	3	2	2	2	2	2
17.	Ghorpade Hrishikesh Suryabhan	3	3	3	2	2	2	2	2
18.	Gunjal Rupali Bhima	3	3	3	2	2	2	2	2
19.	Idhate Sanket Subhash	3	3	3	3	2	2	2	3
20.	Jagdhane Nikita Sudhir	3	3	3	2	2	2	2	3
21.	Jaggi Simran Manoj	3	3	3	2	3	1	2	3
22.	Jangam Kanchan Kishor	2	3	2	3	3	1	3	3
23.	Jawale Swapnil Santosh	3	3	3	3	3	1	3	3
24.	Jedgule Shital Babaji	3	1	3	2	3	1	3	3
25.	Kakade Vaibhav Vikram	3	3	3	3	2	1	3	3
26.	Kale Chaitrali Gulabrao	3	1	2	2	2	2	3	2
27.	Kere Rutuja Bhausaheb	3	1	3	2	3	2	3	2
28.	Khairnar Nachiket Vijay	2	2	3	2	1	2	2	3
29.	Kharde Pritam Appasaheb	2	2	3	2	2	2	2	3
30.	Khemnar Chhaya Sopan	2	2	3	2	2	2	2	3
31.	Kolhe Chaitali	3	2	3	3	3	2	2	3
32.	Kulkarni Akash Ramesh	3	3	2	2	3	2	2	2
33.	Kulkarni Onkar Shamrao	3	2	3	3	3	2	2	3
34.	Madke Parmeshwar Ankush	3	3	3	3	3	3	2	3
35.	Magar Pradeep Gyaneshwar	3	3	3	3	3	3	2	3
36.	Mahajan Shubham Rajendra	3	3	2	3	3	3	3	2
37.	Nale Snehal Chandrabhan	2	3	2	3	3	3	3	2
38.	Padolkar Shraddha Sopan	2	2	2	3	2	3	3	2
39.	Padwal Vijay Bharat	2	3	3	3	2	3	3	2
40.	Pawar Ankita Rajendra	2	2	3	3	2	3	3	3
41.	Pawar Gangadhar Vitthal	3	2	3	2	2	2	2	2





42.	Pilgar Jayshree Madhukar	3	2	2	3	3	2	3	2
43.	Pithe Vikas	3	3	3	2	3	2	3	2
44.	Raccha Mrunali Laxmikant	3	3	3	2	3	2	3	2
45.	Ranjwan Sakshi Sanjay	3	2	3	2	3	3	3	2
46.	Rathod Sneha Ramrao	3	3	2	2	3	3	3	3
47.	Rongate Saylee Chandrabhan	3	3	2	2	3	3	3	2
48.	Sabale Shubham Babasaheb	3	1	2	2	2	3	3	2
49.	Sasare Suvarna Lukas	3	3	2	2	2	1	1	2
50.	Shaikh Sahil Bashir	3	3	2	2	3	3	2	2
51.	Shengal Kavita Pandurang	3	3	3	1	3	1	3	2
52.	Shinde Shubham Ramnath	3	3	3	2	3	3	2	2
53.	Shingare Kiran	3	3	2	2	3	3	1	3
54.	Tawate Rushikesh Santosh	2	3	2	2	2	3	1	2
55.	Thakre Shital Balasaheb	3	2	2	3	2	3	2	2
56.	Thorat Nikita Vilas	3	3	3	2	2	2	1	3
57.	Tipole Saurabh Dattatraya	3	3	2	2	2	2	2	3
58.	Vyavahare Dnyaneshwar Sanjay	3	1	3	2	2	2	2	2
59.	Wagh Shubham Uttamrao	2	3	3	2	3	2	1	3
60.	Wagh Vaishnavi Sahebrao	2	3	3	2	3	2	1	3
61.	Waghchaure Akshada Govind	2	1	3	2	3	2	2	3
62.	Waghule Ganesh	2	3	2	2	3	2	2	2
63.	Wasnik Shubham Lalit	2	1	2	2	2	2	3	3
		2.73	2.49	2.60	2.33	2.52	2.27	2.33	2.56
Average		2.48							



**Alumni survey**  
**Mapping of PO with Questionaries'**

PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
<b>Question Co-relation with PO</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>4</b>	<b>5</b>	<b>3</b>	<b>8</b>	<b>5</b>	<b>1</b>	<b>8</b>	<b>6</b>

Roll No.	Name of alumni	Question rating										
		PO 1	PO2	PO3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	Po11
<b>1</b>	Ahire Valmik Sudhakar	3	3	2	3	3	2	3	3	2	3	3
<b>2</b>	Barhate Manoj Santoshrao	3	3	3	3	3	3	2	3	3	2	2
<b>3</b>	Bhagwat Aniket Rajendra	3	3	3	2	3	3	3	3	3	3	3
<b>4</b>	Bhaldand Pratiksha Dilip	1	1	2	3	3	3	2	3	3	2	3
<b>5</b>	Chaugule Aarti	2	2	2	3	2	3	3	2	3	3	3
<b>6</b>	Dalvi Pratiksha Changdeo	2	2	2	2	2	3	3	2	3	3	3
<b>7</b>	Daspute Kamini Govind	3	3	3	2	3	3	3	3	3	3	2
<b>8</b>	Dighe Jayashree Sunder	3	3	3	3	3	3	3	3	3	3	3
<b>9</b>	Dive Prakash Bhausaheb	3	3	3	3	3	3	3	3	3	3	3
<b>10</b>	Dudhal Ankita Anil	2	2	3	3	3	2	3	3	3	3	2
<b>11</b>	Gadekar Dipali Pandharinath	2	2	2	2	2	2	3	2	2	3	2
<b>12</b>	Gadhe Suraj Vishwas	2	2	2	2	2	2	3	2	3	3	2
<b>13</b>	Gaikwad Kapil Ashok	3	3	3	2	2	2	2	2	3	2	2



14	Gaikwad Shraddha Shantaram	3	3	2	2	2	2	3	2	3	3	2
15	Gholap Sneha Angad	3	3	2	2	2	2	3	2	3	3	3
16	Gholap Yogesh Ashok	3	3	2	2	2	3	2	2	2	2	2
17	Ghorpade Hrishikesh Suryabhan	3	3	2	2	2	3	2	2	3	2	2
18	Gunjal Rupali Bhima	3	3	2	2	2	3	2	2	3	2	2
19	Idhate Sanket Subhash	3	3	2	3	2	3	3	2	3	3	2
20	Jagdhane Nikita Sudhir	3	3	2	2	2	3	3	2	3	3	2
21	Jaggi Simran Manoj	3	3	2	2	3	3	3	3	3	3	1
22	Jangam Kanchan Kishor	3	3	3	3	3	2	3	3	2	3	1
23	Jawale Swapnil Santosh	3	3	3	3	3	3	3	3	3	3	1
24	Jedgule Shital Babaji	1	1	3	2	3	3	3	3	3	3	1
25	Kakade Vaibhav Vikram	3	3	3	3	2	3	3	2	3	3	1
26	Kale Chaitrali Gulabrao	1	1	3	2	2	2	2	2	3	2	2
27	Kere Rutuja Bhausaheb	1	1	3	2	3	3	2	3	3	2	2
28	Khairnar Nachiket Vijay	2	2	2	2	1	3	3	1	2	3	2
29	Kharde Pritam Appasaheb	2	2	2	2	2	3	3	2	2	3	2
30	Khemnar Chhaya Sopan	2	2	2	2	2	3	3	2	2	3	2
31	Kolhe Chaitali	2	2	2	3	3	3	3	3	3	3	2
32	Kulkarni Akash Ramesh	3	3	2	2	3	2	2	3	3	2	2
33	Kulkarni Onkar Shamrao	2	2	2	3	3	3	3	3	3	3	2
34	Madke Parmeshwar Ankush	3	3	2	3	3	3	3	3	3	3	3
35	Magar Pradeep Gyaneshwar	3	3	2	3	3	3	3	3	3	3	3
36	Mahajan Shubham Rajendra	3	3	3	3	3	2	2	3	3	2	3
37	Nale Snehal Chandrabhan	3	3	3	3	3	2	2	3	2	2	3
38	Padolkar Shraddha Sopan	2	2	3	3	2	2	2	2	2	2	3



39	Padwal Vijay Bharat	3	3	3	3	2	3	2	2	2	2	3
40	Pawar Ankita Rajendra	2	2	3	3	2	3	3	2	2	3	3
41	Pawar Gangadhar Vitthal	2	2	2	2	2	3	2	2	3	2	2
42	Pilgar Jayshree Madhukar	2	2	3	3	3	2	2	3	3	2	2
43	Pithe Vikas	3	3	3	2	3	3	2	3	3	2	2
44	Raccha Mrunali Laxmikant	3	3	3	2	3	3	2	3	3	2	2
45	Ranjwan Sakshi Sanjay	2	2	3	2	3	3	2	3	3	2	3
46	Rathod Sneha Ramrao	3	3	3	2	3	2	3	3	3	3	3
47	Rongate Saylee Chandrabhan	3	3	3	2	3	2	2	3	3	2	3
48	Sabale Shubham Babasaheb	1	1	3	2	2	2	2	2	3	2	3
49	Sasare Suvarna Lukas	3	3	1	2	2	2	2	2	3	2	1
50	Shaikh Sahil Bashir	3	3	2	2	3	2	2	3	3	2	3
51	Shengal Kavita Pandurang	3	3	3	1	3	3	2	3	3	2	1
52	Shinde Shubham Ramnath	3	3	2	2	3	3	2	3	3	2	3
53	Shingare Kiran	3	3	1	2	3	2	3	3	3	3	3
54	Tawate Rushikesh Santosh	3	3	1	2	2	2	2	2	2	2	3
55	Thakre Shital Balasaheb	2	2	2	3	2	2	2	2	3	2	3
56	Thorat Nikita Vilas	3	3	1	2	2	3	3	2	3	3	2
57	Tipole Saurabh Dattatraya	3	3	2	2	2	2	3	2	3	3	2
58	Vyavahare Dnyaneshwar Sanjay	1	1	2	2	2	3	2	2	3	2	2
59	Wagh Shubham Uttamrao	3	3	1	2	3	3	3	3	2	3	2
60	Wagh Vaishnavi Sahebrao	3	3	1	2	3	3	3	3	2	3	2
61	Waghchaure Akshada Govind	1	1	2	2	3	3	3	3	2	3	2
62	Waghule Ganesh	3	3	2	2	3	2	2	3	2	2	2
63	Wasnik Shubham Lalit	1	1	3	2	2	2	3	2	2	3	2



	<b>Average of Attainment</b>	2.49	2.49	2.33	2.33	2.52	2.60	2.56	2.52	2.73	2.56	2.27
<b>Average</b>		2.49										

$$\text{Average PO attained (Alumni survey)} = \frac{P01+P02+P03+P04+P05+P05+P06+P07+P08+P09+P010+P011}{11}$$

**Overall POAverage (Alumni Survey) =2.49**



### Indirect CO Attainment

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	Sum of CO attained value	Sum of CO value- Maximum		CO Attainment		
Average of PO attained (Direct +Indirect method )	2.46	2.30	2.23	2.12	2.03	2.09	2.43	2.19	2.21	2.26	1.94				Value	Percentage	
CO1	32.46	21.5	21.5	21.4	32	21.4	00	21.46	21.47	10.75	2	1.29	15.3	18.29	0.84	2.51	83.62
CO2	32.46	21.5	21.5	21.4	32	21.4	00	21.46	21.47	10.75	2	1.29	15.3	18.29	0.84	2.51	83.62
CO3	32.46	21.5	21.5	21.4	32	21.4	00	21.46	21.47	10.75	2	1.29	15.3	18.29	0.84	2.51	83.62
CO4	32.46	21.5	21.5	21.4	21.4	21.4	00	21.46	21.47	10.75	2	1.29	14.62	18.29	0.80	2.40	79.92
CO attained Indirect method																248	82.69
CO attained Direct Method																229	76.33
Co attained- Direct + Indirect method																248	79.51



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Column A-CO-PO mapping Correlation

Column B- CO values corresponding to Direct CO attainment Value(2.8)



### **Calculation of CO-PO attainment:**

- 1. Direct CO Attainment : 2.29**
- 2. Indirect overall CO attainment : 2.9**
- 3. Over all CO Attainment : 2.59**

<b>Over all CO Attainment of Medicinal Chemistry-I = 2.59</b>
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- 4. Direct PO Attainment : 1.99**
- 5. Indirect PO Attainment: Graduate exit survey + alumni survey**  
**:  $2.34 + 2.48 / 2$**   
**: 2.41**

<b>Over all PO Attainment = 2.2</b>
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### **CO-PO attainment Matrix**

At the end of each programme PO/PSO assessment is done from CO attainment of all curriculum components. Program Outcomes are defined by National Board of Accreditation, New Delhi while the Program Specific Outcomes (PSOs) are defined by individual programs. COs are mapped with Program outcomes and Program Specific Outcomes (PSOs).

#### **CO Attainment:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	Average Value	%
CO1	2.46	1.5	1.5	1.4	2	1.4	0	1.46	1.47	0.75	1.29	2.51	83.62
CO2	2.46	1.5	1.5	1.4	2	1.4	0	1.46	1.47	0.75	1.29	2.51	83.62
CO3	2.46	1.5	1.5	1.4	2	1.4	0	1.46	1.47	0.75	1.29	2.51	83.62
CO4	2.46	1.5	1.5	1.4	1.4	1.4	0	1.46	1.47	0.75	1.29	2.40	79.92
CO attained Indirect method												2.48	82.69
CO attained Direct Method												2.29	76.33
Co attained- Direct + Indirect method												2.39	79.51



**PO Attainment:**

	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8		PO9		PO10		PO11		Sum of CO attained value	Sum of CO value-Maximum		CO Attainment	
Average of PO attained (Direct +Indirect method)	2.75		2.25		2.15		2.16		2.03		2.21		2.43		2.19		2.24		2.26		2.2					Value	Percentage
CO1	3	2.75	2	1.5	2	1.4	2	1.4	3	2	2	1.4733333	0	0	2	1.46	2	1.49	1	0.75	2	1.46	11.55	17	0.67	2.038	67.94
CO2	3	2.75	2	1.5	2	1.4	2	1.4	3	2	2	1.4733333	0	0	2	1.46	2	1.49	1	0.75	2	1.46	11.55	17	0.67	2.038	67.94
CO3	3	2.75	2	1.5	2	1.4	2	1.4	3	2	2	1.4733333	0	0	2	1.46	2	1.49	1	0.75	2	1.46	11.55	17	0.67	2.038	67.94
CO4	3	2.75	2	1.5	2	1.4	2	1.4	2	1.4	2	1.4733333	0	0	2	1.46	2	1.49	1	0.75	2	1.46	11.55	17	0.67	2.038	67.94
CO attained Indirect method																									1.63	54.35	
CO attained Direct Method																									2.2	73.33	
Co attained- Direct + Indirect method																									1.91	63.84	



**Overall Attainment:**

POs	PO1	2	3	4	5	6	7	8	9	10	11	Avg
<b>Direct Attainment</b>	3	2	2	2	2.75	2	0	2	2	1	2	2.2
<b>Indirect Attainment(I)</b>												
<b>Graduate Exit Survey</b>	2.52	2.52	2.27	2.31	2.27	2.25	2.25	2.25	2.25	2.25	2.55	
<b>Alumni Survey</b>	2.49	2.49	2.33	2.33	2.52	2.60	2.56	2.52	2.73	2.56	2.27	
<b>Average of Indirect PO attainment</b>	2.505	2.505	2.3	2.32	2.395	2.425	2.405	2.385	2.49	2.405	2.41	2.41
<b>Overall PO Attainment</b>	2.7525	2.2525	2.15	2.16	2.03	2.2125	2.43	2.1925	2.245	2.26	2.205	2.5