



INDEX

Criteria No: 2

Metric No: 2.5.1

File Name: Mechanism of Internal Assessment

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B. PHARMACY PATTERN 2019

EVALUATION GUIDELINES FOR INTERNAL ASSESSMENT (B.PHARMACY) :

Each semester will consist of a minimum of 15 weeks instructions.

*i.e. 15x6 =90 instructional days (minimum instructional days)

75% attendance for both theory and practical classes separately shall be mandatory to appear for Sessional examination and end semester examination.

In-semester assessment will be of 40 marks which includes 30 marks for theory and 40 marks practical sessional and 20 marks for continuous assessment for theory and practical.

In-semester assessment 20 marks should be continuous, procedures and marks for theory and practical examination are as follows:

For theory and practical examination- In-semester assessment for 20 marks should be continuous and at least two tests should be conducted for full course of 3 credits for theory and 2 credits for practical and the teacher must select a variety of procedures for examination such as:

- Written test and / or midterm test (not more than one or two for each course)
- Term paper
- Journal/Lecture/Library notes
- Seminar presentation
- Short quizzes
- Assignments
- Extension work
- An open book test (with the concern teacher deciding what books are to be allowed for this purpose) or
- Mini research project by individual learner or group of learners.

The concern teacher in consultation with the Principal or CEO shall decide the nature of question for unit test.

Sessional Exam	30 Marks	
Continuous Assessment	20 Marks	Any two Academic Activities consisting 10 marks more or less for each activity, but the sum of each activities should not be more or less than 20 Marks.



Number of Sessional Examination

There will be a minimum for one Sessional examination of 30 marks conducted in each semester.

Two Sessional Examination will be conducted as per the examination scheme :

Sr.No.	Head	Marks distribution
Q.1	2 marks X 5 questions (out of seven)	10 marks
Q.2	10 marks X 1 question (out of two)	10 marks
Q.3	5 marks X 2 question (out of three)	10 marks
	Total	30 marks

The student who will secure less than 40% marks in the Sessional Examination or unable to appear for the scheduled Sessional Examination may be permitted for the Sessional Examination in the same semester only if approved by institutional examination committee.

Practical Sessional examination of 20 marks will be based on internal assessment of practical (Experimental work), viva, synopsis and laboratory work. The distribution of marks for practical examination will be as follows:

Scheme for Practical Sessional Examination:

Sr.No.	Head	Marks distribution
1.	Experimental work	25 marks
2.	Synopsis	10 marks
3.	Viva	5 marks
	Total Marks	40 marks
	Duration	04 Hrs



Internal Assessment: Continuous mode

The marks allocated for Continuous mode of internal assessment shall be awarded as per the scheme given below.

THEORY		
CRITERIA	MAXIMUM MARKS	
Attendance	4	2
Academic activities(average of any three activities eg. Quiz, Assignment, Open Book Test, Field Work, Group Discussion and Seminar)	3	1.5
Student-Teacher Interaction	3	1.5
Total	10	5
PRACTICAL		
Attendance	2	
Based on practical records, regular viva-voce, etc	3	
Total	5	

Guidelines for the allotment of marks for attendance

Percentage of attendance	Theory	Practical
95-100	4	2
90-94	3	1.5
85-89	2	1
80-84	1	0.5
Less than 80	0	0

Sessional Exams

Two Sessional exams are conducted for each theory or practical course as per the schedule fixed by the college. The scheme of question paper for theory and practical Sessional examination is given below. The average marks of two Sessional exams shall be completed for internal assessment as per the requirements.



Question paper pattern for theory Sessional Examination

For subject having University examination

I. Objective Type Question (Answer 5 out of 7)	=	05 x 02 = 10
II. Long Answers (Answer 1 out of 2)	=	01 x 10 = 10
III. Short Answers(Answer 2 out of 3)	=	02 x 05 = 10
Total	=	<u>30 marks</u>

For Subjects having Non-University Examination

- I. Long Answer(Answer 1 out of 2)
- II. Short Answer(Answer 4 out of 6)

Question paper pattern for practical Sessional examination

I. Synopsis	=	10
II. Experiments	=	25
III. Viva voce	=	<u>05</u>
Total	=	<u>40 marks</u>



Tables-X: Schemes for internal assessments and end semester examinations semester wise

Course code	Name of the course	Internal Assessment			End Semester Exams		Total Marks	
		Continuous Mode	Sessional Exams		Total	Marks		Duration
			Marks	Duration				
BP101T	Human Anatomy and Physiology I– Theory	10	15	1 Hr	25	75	3 Hrs	100
BP102T	Pharmaceutical Analysis I – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP103T	Pharmaceutics I – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP104T	Pharmaceutical Inorganic Chemistry – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP105T	Communication skills – Theory *	5	10	1 Hr	15	35	1.5 Hrs	50
BP106RBT BP106RMT	Remedial Biology/ Mathematics – Theory*	5	10	1 Hr	15	35	1.5 Hrs	50
BP107P	Human Anatomy and Physiology– Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP108P	Pharmaceutical Analysis I– Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP109P	Pharmaceutics I – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP110P	Pharmaceutical Inorganic Chemistry – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP111P	Communication skills – Practical*	5	5	2 Hrs	10	15	2 Hrs	25
BP112RBP	Remedial Biology– Practical*	5	5	2 Hrs	10	15	2 Hrs	25
Total		70/75[§]/80[#]	115/125[§]/130[#]	23/24[§]/26[#] Hrs	185/200[§]/210[#]	490/525[§]/ 540[#]	31.5/33[§]/ 35[#] Hrs	675/725[§]/ 750[#]

[#]Applicable ONLY for the students studied Mathematics / Physics / Chemistry at HSC and appearing for Remedial Biology (RB)course.

[§]Applicable ONLY for the students studied Physics / Chemistry / Botany / Zoology at HSC and appearing for Remedial Mathematics (RM)course.

* Non University Examination (NUE)



Semester II

Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
BP201T	Human Anatomy and PhysiologyII – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP202T	Pharmaceutical Organic Chemistry I – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP203T	Biochemistry – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP204T	Pathophysiology – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP205T	Computer Applications in Pharmacy – Theory*	10	15	1 Hr	25	50	2 Hrs	75
BP206T	Environmental sciences – Theory*	10	15	1 Hr	25	50	2 Hrs	75
BP207P	Human Anatomy and PhysiologyII – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP208P	Pharmaceutical Organic Chemistry I– Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP209P	Biochemistry– Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP210P	Computer Applications in Pharmacy – Practical*	5	5	2 Hrs	10	15	2 Hrs	25
Total		80	125	20 Hrs	205	520	30 Hrs	725

* The subject experts at college level shall conduct examinations



Semester III

Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
BP301T	Pharmaceutical Organic Chemistry II – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP302T	PhysicalPharmaceuticsI –Theory	10	15	1 Hr	25	75	3 Hrs	100
BP303T	Pharmaceutical Microbiology – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP304T	Pharmaceutical Engineering – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP305P	Pharmaceutical Organic Chemistry II – Practical	5	10	4 Hr	15	35	4 Hrs	50
BP306P	Physical Pharmaceutics I – Practical	5	10	4 Hr	15	35	4 Hrs	50
BP307P	Pharmaceutical Microbiology – Practical	5	10	4 Hr	15	35	4 Hrs	50
BP308P	Pharmaceutical Engineering – Practical	5	10	4 Hr	15	35	4 Hrs	50
Total		60	100	20	160	440	28Hrs	600



Semester IV

Course code	Name of the course	Internal Assessment			End Semester Exams		Total Marks	
		Continuous Mode	Sessional Exams		Total	Marks		Duration
			Marks	Duration				
BP401T	Pharmaceutical Organic Chemistry III- Theory	10	15	1 Hr	25	75	3 Hrs	100
BP402T	Medicinal Chemistry I – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP403T	Physical Pharmaceutics II – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP404T	Pharmacology I – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP405T	Pharmacognosy I – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP406P	Medicinal Chemistry I – Practical	5	10	4 Hr	15	35	4 Hrs	50
BP407P	Physical Pharmaceutics II – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP408P	Pharmacology I – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP409P	Pharmacognosy I – Practical	5	10	4 Hrs	15	35	4 Hrs	50
Total		70	115	21 Hrs	185	515	31 Hrs	700



Semester V

Course code	Name of the course	Internal Assessment			End Semester Exams		Total Marks	
		Continuous Mode	Sessional Exams		Total	Marks		Duration
			Marks	Duration				
BP501T	Medicinal Chemistry II – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP502T	Industrial PharmacyI– Theory	10	15	1 Hr	25	75	3 Hrs	100
BP503T	Pharmacology II – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP504T	Pharmacognosy II – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP505T	Pharmaceutical Jurisprudence – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP506P	Industrial PharmacyI– Practical	5	10	4 Hr	15	35	4 Hrs	50
BP507P	Pharmacology II – Practical	5	10	4 Hr	15	35	4 Hrs	50
BP508P	Pharmacognosy II – Practical	5	10	4 Hr	15	35	4 Hrs	50
Total		65	105	17 Hr	170	480	27 Hrs	650



Semester VI

Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
BP601T	Medicinal Chemistry III – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP602T	Pharmacology III – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP603T	Herbal Drug Technology – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP604T	Biopharmaceutics and Pharmacokinetics – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP605T	Pharmaceutical Biotechnology– Theory	10	15	1 Hr	25	75	3 Hrs	100
BP606T	Quality Assurance– Theory	10	15	1 Hr	25	75	3 Hrs	100
BP607P	Medicinal chemistry III – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP608P	Pharmacology III – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP609P	Herbal Drug Technology – Practical	5	10	4 Hrs	15	35	4 Hrs	50
Total		75	120	18 Hrs	195	555	30 Hrs	750



Semester VII

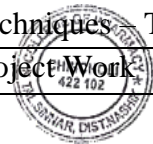
Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
BP701T	Instrumental Methods of Analysis – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP702T	Industrial Pharmacy – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP703T	Pharmacy Practice – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP704T	Novel Drug Delivery System – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP705 P	Instrumental Methods of Analysis – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP706 PS	Practice School*	25	-	-	25	125	5 Hrs	150
Total		70	70	8Hrs	140	460	21 Hrs	600

* The subject experts at college level shall conduct examinations



Semester VIII

Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
BP801T	Biostatistics and Research Methodology – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP802T	Social and Preventive Pharmacy – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP803ET	Pharmaceutical Marketing – Theory	10 + 10 = 20	15 + 15 = 30	1 + 1 = 2 Hrs	25 + 25 = 50	75 + 75 = 150	3 + 3 = 6 Hrs	100 + 100 = 200
BP804ET	Pharmaceutical Regulatory Science – Theory							
BP805ET	Pharmacovigilance – Theory							
BP806ET	Quality Control and Standardization of Herbals – Theory							
BP807ET	Computer Aided Drug Design – Theory							
BP808ET	Cell and Molecular Biology – Theory							
BP809ET	Cosmetic Science – Theory							
BP810ET	Experimental Pharmacology – Theory							
BP811ET	Advanced Instrumentation Techniques – Theory							
BP812PW	Project Work							



Total	40	60	4 Hrs	100	450	16 Hrs	550
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MASTER OF PHARMACY COURSE STRUCTURE
SPECIALIZATION : QUALITY ASSURANCE
TECHNIQUES

5

Paper

Sem. No	Paper	Scheme of Teaching Hrs/Weeks		Scheme of Credit		Scheme of Examination Theory			Practical			Total (Including 50 marks of Internal assessment)
		Theory	Practical	Theory	Practical	Hrs.	Marks		Hrs.	Marks		
						UE	UE	IE	UE	UE	IE	
I	M Advanced Analytical Techniques	4	8	4	4	3	50	50	8	50	50	200
	M-2 Research Methodology	4		4		3	50	50				100
	M-I-1 Advanced Quality Assurance Techniques (CGMP & Documentation)	4	8	4	4	3	50	50	8	50	50	200
	M-I-2 Elective-I	3		3		3	50	50				100
	Seminar				2			50				50
II	M-I-3 Pharmaceutical Validation	4	8	4	4	3	50	50	8	50	50	200
	M-3 Drug Regulatory Affairs	4		4		3	50	50				100
	M-I-4 Quality Planning and Analysis	4		4		3	50	50				100
	M-I-5 Elective-II	3		3		3	50	50				100
	Seminar		4		2			50				50
	Research work		12		6			50				50
III	Seminar on Research Envisaged for Dissertation				4		50					50
	Seminar on recent trends in Quality Assurance Techniques				4			50				50
	Research work		36		18			150				150
IV	Seminar on Dissertation				4		50					50
	Research work		36		18		150					150
	Dissertation & Defense (viva/voce)			5			100					100
			Total	30	70						Grant Total	1800
			Total Credits = 100									

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M.PHARMACY PATTERN 2019
ASSESSMENT PROCESS FOR M PHARMACY

Internal assessment: Continuous mode

The marks allocated for Continuous mode of Internal Assessment shall be awarded as per the scheme given below.

Scheme for awarding internal assessment: Continuous mode

Theory	
Criteria	Maximum Marks
Attendance (Refer Table – 28)	8
Student – Teacher interaction	2
Total	10
Practical	
Attendance (Refer Table – 28)	10
Based on Practical Records, Regular viva voce, etc.	10
Total	20

Guidelines for the allotment of marks for attendance

Percentage of Attendance	Theory	Practical
95 – 100	8	10
90 – 94	6	7.5
85 – 89	4	5
80 – 84	2	2.5
Less than 80	0	0

Sessional Exams

Two sessional exams shall be conducted for each theory / practical course as per the schedule fixed by the college(s). The scheme of question paper for theory and practical sessional examinations is given in the table. The sessional exam will be conducted for 30 marks and computed for 15 marks. The average marks of two sessional exams shall be computed for internal assessment as per the requirements given in tables.

Scheme for theory Sessional examination

I. Objective Type questions (solve 5 out of 7)	5 X 2=10
II. Short answer questions (solve 2 out of 3)	2 X 5=10
III. Long answer questions (solve 1 out of 2)	1 X 10=10
Total Marks=	30

Scheme for Practical Sessional examination

I. Synopsis	05
II. Experiment(s)	20
III. Viva voce	05
Total Marks=	30



Course of study for M. Pharm. (Pharmaceutics)

Course Code	Course	Credit Hours	Credit Points	Hrs./wk	Marks
SEMESTER I					
MPAT101T	Modern Pharmaceutical Analytical Techniques	4	4	4	100
MPH102T	Drug Delivery System	4	4	4	100
MPH103T	Modern Pharmaceutics	4	4	4	100
MPH104T	Regulatory Affair	4	4	4	100
MPH105P	Pharmaceutics Practical I	12	6	12	150
-	Seminar/Assignment	7	4	7	100
Total		35	26	35	650
SEMESTER II					
MPH201T	Molecular Pharmaceutics (Nano Tech and Targeted DDS)	4	4	4	100
MPH202T	Advanced Biopharmaceutics & Pharmacokinetics	4	4	4	100
MPH203T	Computer Aided Drug Development	4	4	4	100
MPH204T	Cosmetic & Cosmeceuticals	4	4	4	100
MPH205P	Pharmaceutics Practical II	12	6	12	150
-	Seminar/Assignment	7	4	7	100
Total		35	26	35	650



Course of study for M. Pharm. (Pharmaceutical Quality Assurance)

Course Code	Course	Credit Hours	Credit Points	Hrs./wk	Marks
SEMESTER I					
MPAT101T	Modern Pharmaceutical Analytical Techniques	4	4	4	100
MQA102T	Quality Management System	4	4	4	100
MQA103T	Quality Control and Quality Assurance	4	4	4	100
MQA104T	Product Development and Technology Transfer	4	4	4	100
MQA105P	Pharmaceutical Quality Assurance Practical I	12	6	12	150
-	Seminar/Assignment	7	4	7	100
Total		35	26	35	650
SEMESTER II					
MQA201T	Hazards and Safety Management	4	4	4	100
MQA202T	Pharmaceutical Validation	4	4	4	100
MQA203T	Audits and Regulatory Compliance	4	4	4	100
MQA204T	Pharmaceutical Manufacturing Technology	4	4	4	100
MQA205P	Pharmaceutical Quality Assurance Practical II	12	6	12	150
-	Seminar/Assignment	7	4	7	100
Total		35	26	35	650



Course of study for (Pharmacology)

Course Code	Course	Credit Hours	Credit Points	Hrs./wk	Marks
SEMESTER I					
MPAT101T	Modern Pharmaceutical Analytical Techniques	4	4	4	100
MPL102T	Advanced Pharmacology - I	4	4	4	100
MPL 103T	Pharmacological and Toxicological Screening Methods-I	4	4	4	100
MPL104T	Cellular and Molecular Pharmacology	4	4	4	100
MPL105P	Pharmacology Practical I	12	6	12	150
-	Seminar/Assignment	7	4	7	100
Total		35	26	35	650
SEMESTER II					
MPL201T	Advanced Pharmacology II	4	4	4	100
MPL 202T	Pharmacological and Toxicological Screening Methods-II	4	4	4	100
MPL203T	Principles of Drug Discovery	4	4	4	100
MPL204T	Clinical Research and Pharmacovigilance	4	4	4	100
MPL205P	Pharmacology Practical II	12	6	12	150
-	Seminar/Assignment	7	4	7	100
Total		35	26	35	650



ACADEMIC CALENDAR
(July 2023 - December 2023)

Week No.	Month	Week Days						Working days	Events
		Mon	Tue	Wed	Thu	Fri	Sat		
1	July 23						1	0	
2		3	4	5	6	7	8	6	03-Subject Choice for AY 2023-24 6-Subject Allotment for AY 2023-24
3		10	11	12	13	14	15	5	12- Commencement of Sem. V, VII
4		17	18	19	20	21	22	6	21-Tree Plantation
5		24	25	26	27	28	29	5	24-28-First yr. IInd sem Sessional exam 25-28- Soft skill training
5		31						1	31-Student Council Election 31-Academic Staff & Research Meeting
6	Aug 23		1	2	3	4	5	4	1-4-M.Pharm IInd Sem sessional exam
7		7	8	9	10	11	12	6	07-GB & CDC Meeting 11-Dr. Vitthalrao Vikhe Patil Jayanti 13-Sports & Cultural Meeting
8		14	15	16	17	18	19	3	15-Independance Day 16-Parsi New Year 17-M. Pharm. Sem IV Viva-Voce
9		21	22	23	24	25	26	6	21-30-First year IInd sem semester exam 25-Mentoring Meeting Regular Lectures of V & VII sem
10		28	29	30	31			4	29- Industrial Visit of Sem. VII 30- Academic Staff & Research Meeting
11	Sep 23					1	2	1	01-Soft Skill Training for Sem. V & VII
12		4	5	6	7	8	9	6	4sept-Commencement of IInd em and Ist sem,M.Pharm Ist sem 05-Teacher's Day 9-Parent's Meet
		11	12	13	14	15	16	5	11-First Sessional Exam of Sem. V, VII sem
		18	19	20	21	22	23	5	19-Ganesh Chaturthi 20--IV of Vth sem
13		25	26	27	28	29	30	5	26-Industrial Visit of Sem. V 30- Academic Staff & Research Meeting
14	Oct 23	2	3	4	5	6	7	4	2-Mahatma Gandhi Jayanti 3-IV of VIIth sem
15		9	10	11	12	13	14	5	08- Swach Bharat Abhiyaan (NSS Activity)
16		16	17	18	19	20	21	5	16-Mid Semester Feedback (Google form) 18-Soft Skill Training for Sem. IIIrd sem 20- Alumni Overview meeting
17		23	24	25	26	27	28	6	24-Dusshera Regular Lectures of Sem.I, III, V & VII M. PharmI, III
18		30	31						2
19	Nov 23			1	2	3	4	3	03-Industrial Visit of Sem. III
20		6	7	8	9	10	11	3	9-15 Diwali vacation

21		13	14	15	16	17	17	2	18-Mock Interview for Sem. VII	
22		20	21	22	23	24	25	6	20-24-Sessional exam of Ist ,IIRD sem,V,VIIth sem and M.PharmI, IIIRD sem	
23		27	28	29	30			3	28- Industrial Visit of Sem. I 30- Academic Staff & Research Meeting	
24	Dec 23					1	2	1	Regular Lectures of Sem. III, V & VII M. Pharm III	
25		4	5	6	7	8	9	6	7-Synopsis Submission of M. Pharm. Sem. III 08- Practice School Presentation 4-11 Semester Practical Exam for V & VII	
26		11	12	13	14	15	16	5	12- End Semester Feedback of Students (Google Form) 15- Mock Interview for Sem. VII	
27		18	19	20	21	22	23	6	19-Research Proposal Presentation of M. Pharm Sem. III 18-28 -V,VII sem and M. Pharm Sem.I, III Semester Exam	
28		25	26	27	28	29	30	5	26-30-Sessional exam of I,III and M.Pharm IIIIRD sem 30- Internal Academic Audit 31- Academic Staff & Research Meeting	
END OF SEMESTER		Total Working Days						130		
Occasional holiday		University Exams				Teaching Working Days			Holidays(saurday/sunday)	
14		25				130			40	

Gaika

Prepared By: Mr. Mayur T. Gaikar

Bhangale

Approved By: Dr. Charushila J.Bhangale



ACADEMIC CALENDAR
(January 2024 - May 2024)

Week No.	Month	Week Days						Working days	Events
		Mon	Tue	Wed	Thu	Fri	Sat		
1	Jan 24	1	2	3	4	5	6	5	03-Sem-I & III Commencement of Semester Exam begins B. Pharm
2		8	9	10	11	12	13	6	10- Sem-I Commencement of Semester Exam begins M.Pharm, Commencement of Sem-II B. Pharm
3		15	16	17	18	19	20	5	15- Sem-IV Commencement of B.Pharm 16-Mock Interview for Sem. VIII
4		22	23	24	25	26	27	5	23-NSS Camp for Sem. VI 26-Republic Day
5		29	30	31				3	31- Academic Staff & Research Meeting
4	Feb 24				1	2	3	2	1- Sem II Commencement of M.Pharm, Organization of Value addition courses
5		5	6	7	8	9	10	6	Sem. IV M.Pharm Commencement
6		12	13	14	15	16	17	5	13-First Sessional Exam Sem. VI & VIII B.Pharm Regular lecture of sem. II, IV B.Pharm & Sem.II M.Pharm
7		19	20	21	22	23	24	5	19-Chatrapati Shivaji Maharaj Jayanti 20-Sports and Cultural Days 24-Annual Social Gathering
8		26	27	28	29			4	29- Academic Staff & Research Meeting
9	Mar 24					1	2	1	01-Enterpreneurship Programme
10		4	5	6	7	8	9	5	08-Mahashivaratri 4- First Sessional Exam Sem. II, IV B.Pharm & Regular lectures of sem. VI & VIII.
11		11	12	13	14	15	16	5	11-Regular lecture sem. II,IV,VI,VIII B.Pharm 14-Mid Sem Feedback (Google Form)
12		18	19	20	21	22	23	6	18-Sem. IV M.Pharm Presentation
13		25	26	27	28	29	30	4	25-Dhulivandan 29-Good Friday 30- Academic Staff & Research Meeting
14	Apr 24	1	2	3	4	5	6	5	1-Regular lectures of sem II,IV,VI,VIII B.Pharm
15		8	9	10	11	12	13	4	9-Gudhipadwa 11-Ramjan
16		15	16	17	18	19	20	4	17-Shriram Navmi
17		22	23	24	25	26	27	6	23- Second Sessional Exam Sem. II, IV, VI & VIII B.Pharm
18		29	30					2	30- Academic Staff & Research Meeting
19	May 24			1	2	3	4	2	01-Maharashtra Day
20		6	7	8	9	10	11	6	06- Semester Exam Begins Sem. II
21		13	14	15	16	17	17	5	13-Semester Exam Begins Sem. VI & VIII 15-End Semester Feedback (Google form)
22		20	21	22	23	24	25	5	23-Budhapornima
23		27	28	29	30	31		5	27- Semester Practical Exam Sem. VI & VIII Project Work Seminar Sem. VIII 30- Internal Academic Audit 31- Academic Staff & Research Meeting
END OF SEMESTER		Total Working Days						111	

Occasional Holidays 10	University Exams 25	Teaching Working Days 111	Holidays (Saturday/Sunday) 31
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Mayur T. Gaikar

Prepared By: Mr. Mayur T. Gaikar

Charushila J. Bhargale

Approved By: Dr. Charushila J. Bhargale





EVALUATION OF INTERNAL CONTINUOUS ASSESSMENT

Year 2023-2024_Even Sem

Name of Subject: **Medicinal Chemistry-I (Theory)**

Subject Code: **BP402T**

Class: **Second Year B. Pharmacy**

Semester: **IV Semester**

Sr. No.	Date	Method of Assessment*	Maximum Marks
1.		Average of Sessional Exam	15
2.		Attendance	4
3.		Academic Activities	4
4.		Student-Teacher Interaction	2
Total Marks:			25

(*In-semester assessment will be of 25 marks which include 15 marks for Theory Sessional Exam and 10 marks for Continuous Internal Assessment for theory)

Average of any two academic activities for theory should be selected from below:

1. Assignment
2. Short Quiz/Class Test
3. An open book test
4. Field Work
5. Group Discussion
6. Seminar

Second Year B. Pharmacy-IV Semester (Rev. 2019 Pattern PCI)

BP402T-Medicinal Chemistry-I (Theory)

Internal Continuous Assessment Sheet 2023-24

Roll No.	Name of Student	Average of Sessional Marks	Average of Sessional Marks	Attendance	Average of Academic Activities	Student-Teacher Interaction	Total	Signature
		30 M	15 M	4 M	4 M	2 M	25 M	
1	ADHAV SAMIKSHA BAJIRAO	14	7	3	3.6	2	16	<i>Bair</i>
2	ADKE PRATIBHA PRAVIN	19	9.5	4	3.6	2	19	<i>Adke</i>
3	AGRAWAL VAISHNAVI RAJENDRA	27	13.5	3	3.6	2	22	<i>Vaishnavi</i>
4	BALKAWADE SHWETA SANTOSH	25	12.5	3	3.6	2	21	<i>Shweta</i>
5	BAROKAR PUJA GAJANAN	16	8	3	3.6	2	17	<i>Puja</i>
6	BHANDARE TEJASWINI SATISH	26	13	4	3.6	2	23	<i>Tejasa</i>
7	BORSE NEHA DEORAM	22	11	3	3.6	2	20	<i>Neha</i>
8	CHAVAN PRANALI VIJAY	26	13	3	3.6	2	22	<i>Pranali</i>
9	CHAVAN SHRUSHTI RAOSAHEB	15	7.5	3	3.6	2	16	<i>Shrushti</i>
10	CHOTHAVE PRADNYA MACHINDRA	14	7	4	3.6	2	17	<i>Pradnya</i>
11	DANKE PALLAVI KALUSING	19	9.5	4	3.6	2	19	<i>Danke</i>
12	DEVKAR DIVYA PANDURANG	18	9	3	3.6	2	18	<i>Devkar</i>
13	DHAKAERGE ANJALI DILIP	22	11	3	3.6	2	20	<i>Dhakaerge</i>
14	DHONDADE NIKITA BAVANT	28	14	3	3.6	2	23	<i>Nikita</i>
15	DOND TANVI KISAN	16	8	3	3.6	2	17	<i>Tanvi</i>
16	DUKARE KALYANI BALNATH	17	8.5	4	3.6	2	18	<i>Kalyani</i>
17	DUMADA DAKSHATA PRAVIN	24	12	3	3.6	2	21	<i>Dumada</i>
18	GAIKWAD PRIYANAKA	26	13	4	3.6	2	23	<i>Priyanka</i>
19	GAIKWAD SAKSHI MAHESH	24	12	3	3.6	2	21	<i>Sakshi</i>
20	GAJARE PAYAL MHATARBHAI	23	11.5	3	3.6	2	20	<i>P.M. Gajare</i>
21	GANGURDE MAYURI PRAVIN	20	10	3	3.6	2	19	<i>Mayuri</i>
22	GHOLAP APEKSHA SANTOSH	25	12.5	4	3.6	2	22	<i>Apeksha</i>
23	GHORPADE SAMRUDDHI KAILAS	20	10	3	3.6	2	19	<i>Samruddhi</i>
24	GHUGE SAMIKSHA KAILAS	15	7.5	3	3.6	2	16	<i>Ghuge</i>
25	GITE ANAMIKA CHANDRAKANT	17	8.5	3	3.6	2	17	<i>Anamika</i>
26	GODGE ANUJA VISHWANATH	26	13	3	3.6	2	22	<i>Anuja</i>
27	GODSE MANSI CHANDRAKANT	28	14	3	3.6	2	23	<i>Mansi</i>
28	GONDKAR SMITAL SACHIN	27	13.5	3	3.6	2	22	<i>Smital</i>

29	GOSAVI PRANJALI UTTAMGIR								
30	JAYBHAYE NAMRATA RAVBA	6	8	3	3.6	2	17	P. J. J.	
31	JEUGHALE ANUSHKA RAJESH	28	14	3	3.6	2	23	Anushka	
32	JOSHI SHRUTI SANJAY	24	12	3	3.6	2	21	Shruti	
33	KADAM VAISHNAVI MADAN	28	14	3	3.6	2	23	Anushka	
34	KALE KALYANI PANDHARINATH	24	12	4	3.6	2	22	Kate	
35	KANKATE SHRUTI KIRAN	21	10.5	3	3.6	2	19	Shruti	
36	KAPADI SUVARNA SHIVNATH	28	14	3	3.6	2	23	Suvarna	
37	KATALE RIYA CHANDRAKANT	20	10	2	3.6	2	18	Riya	
38	KATHALE ANKITA ASHOK	29	14.5	4	3.6	2	24	Ankita	
39	KATHALE ASHWINI ASHOK	26	13	4	3.6	2	23	Ashini	
40	KHAIRNAR KOMAL RAVINDRA	28	14	4	3.6	2	24	Komal	
41	KHARE RUTUJA DIPAK	14	7	3	3.6	2	16	Rutuja	
42	KORADE PAYAL BHAGINATH	14	7	2	3.6	2	15	Payal	
43	KOTE SAYALI NILESH	26	13	3	3.6	2	22	Sayali	
44	LONARE SHRUTI SHANTARAM	29	14.5	3	3.6	2	23	Shruti	
45	MAHAJAN MANSI SANJAY	29	14.5	4	3.6	2	24	Mansi	
46	MAHAJAN MANSI SANJAY	23	11.5	3	3.6	2	20	Mansi	
47	MANDLIK KOMAL AVINASH	21	10.5	3	3.6	2	19	Komal	
48	MENDOLE SHREYA SUNIL	22	11	4	3.6	2	21	Shreya	
49	MUTHE SAKSHI SHRIKRUSHNA	26	13	3	3.6	2	22	Sakshi	
50	NAYAK SWAPNA SAUBHAGYA	23	11.5	3	3.6	2	20	Swapna	
51	NIKITA SUNIL MAHALE	22	11	4	3.6	2	21	Nikita	
52	PAGAR AKSHATA SANJAY	25	12.5	3	3.6	2	21	Akshata	
53	PAGAR ASHWINI RAMCHANDRA	25	12.5	3	3.6	2	21	Ashini	
54	PATIL ANKITA RAMESH	18	9	3	3.6	2	18	Ankita	
55	PATIL VAISHNAVI BAPUSAHEB	20	10	3	3.6	2	19	Patil	
56	PATIL VAISHNAVI DNYANESHWAR	28	14	3	3.6	2	23	Patil	
57	PATIL VISHAKHA PRASHANT	26	13	3	3.6	2	22	Vishakha	
58	RATHOD YUKTI KAILAS	24	12	3	3.6	2	21	Yukti	
59	SANAP MAYURI POPAT	27	13.5	2	3.6	2	21	Mayuri	
60	SANGALE PRIYA BABAN	21	10.5	3	3.6	2	19	Priya	
61	SANKHE LOCHANI DIPAK	24	12	3	3.6	2	21	L.D. Sankhe	
62	SARDA VAIBHAVI SHRIRANG	28	14	3	3.6	2	23	Sarda	
63	SHELKE MONALI BALASAHEB	18	9	3	3.6	2	18	Shelke	
64	SHINDE HARSHADA DATTU	23	11.5	3	3.6	2	20	Shinde	
64	SHIRSATH VAISHNVI ASHOK	17	8.5	3	3.6	2	17	Shirsath	

65	SINGH DEEKSHA MANISH	22	11	2	3	2	19	Singh
66	SUBHEDAR IKARA ALTAB	24	12	3	3.6	2	21	Subhedar
67	SURWASE TEJASHREE DURYODHAN	25	12.5	3	3.6	2	21	Surwase
68	SURYAWANSHI PRATIKSHA RAJEND	25	12.5	4	3.6	2	22	Pratiksha
69	TAKATE MADHURI KHANDU	21	10.5	4	3.6	2	20	Takate
70	THORAT SAKSHI SUSHIL	9	4.5	3	3.6	2	13	Thorat
71	THORAT SNEHA ARVIND	29	14.5	4	3.6	2	24	Thorat
72	UMAVANE SHARAYU ASHOK	23	11.5	3	3.6	2	20	Umanane
73	VANJUL SAKSHI BAJIGAR	16	8	4	3.6	2	18	Vanjul
74	VARPE VAISHNAVI BALASAHEB	26	13	3	3.6	2	22	Varpe
75	WABLE NIKITA SHARAD	27	13.5	4	3.6	2	23	Wable
76	WAGHMODE DNYANESHWARI BAN	29	14.5	3	3.6	2	23	Waghmode



EVALUATION OF INTERNAL CONTINUOUS ASSESSMENT

Year 2023-2024_Even Semester

Name of Subject: **Medicinal Chemistry-I (Practical)**

Subject Code: **BP406P**

Class: **Second Year B. Pharmacy**

Semester: **IV Sem**

Sr. No.	Date	Method of Assessment *	Maximum Marks
1		Average of Sessional Exam	10
2.		Attendance	2
3.		Academic Activities	3
Total Marks:			15

(* In-semester assessment will be of 15 marks which include 10 marks for Practical Sessional Exam and 05 marks for Continuous Internal Assessment for Practical)

Academic activities for practical should be based on Practical Records or Regular viva voce.

Second Year B. Pharmacy-IV Semester (Rev. 2019 Pattern_PCI)
BP406P-Medicinal Chemistry I (Practical)

Internal Continuous Assessment Sheet 2023-24

Roll No.	Name of Student	Average of Sessional Exam	Average of Sessional Marks	Attendance	Based on Practical Records, Regular viva voce,	Total	Signature
		40 M	10 M	2 M	3 M		
1	ADHAV SAMIKSHA BAJIRAO	27	7	2	3	12	<i>[Signature]</i>
2	ADKE PRATIBHA PRAVIN	25.5	6	2	3	11	<i>[Signature]</i>
3	AGRAWAL VAISHNAVI RAJENDRA	30.5	8	2	3	13	<i>[Signature]</i>
4	BALKAWADE SHWETA SANTOSH	28.5	7	2	3	12	<i>[Signature]</i>
5	BAROKAR PUJA GAJANAN	26.5	7	2	3	12	<i>[Signature]</i>
6	BHANDARE TEJASWINI SATISH	30	8	2	3	13	<i>[Signature]</i>
7	BORSE NEHA DEORAM	27.5	7	2	3	12	<i>[Signature]</i>
8	CHAVAN PRANALI VIJAY	29	7	2	3	12	<i>[Signature]</i>
9	CHAVAN SHRUSHTI RAOSAHEB	24	6	2	3	11	<i>[Signature]</i>
10	CHOTHAVE PRADNYA MACHINDRA	28	7	2	3	12	<i>[Signature]</i>
11	DANKE PALLAVI KALUSING	27	7	2	3	12	<i>[Signature]</i>
12	DEVKAR DIVYA PANDURANG	30.5	8	2	3	13	<i>[Signature]</i>
13	DHAKAERGE ANJALI DILIP	27.5	7	2	3	12	<i>[Signature]</i>
14	DHONDADE NIKITA BAVANT	29	7	2	3	12	<i>[Signature]</i>
15	DOND TANVI KISAN	22.5	6	2	3	11	<i>[Signature]</i>
16	DUKARE KALYANI BALNATH	30	8	2	3	13	<i>[Signature]</i>
17	DUMADA DAKSHATA PRAVIN	33	8	2	3	13	<i>[Signature]</i>
18	GAIKWAD PRIYANAKA	34	9	2	3	14	<i>[Signature]</i>
19	GAIKWAD SAKSHI MAHESH	32.5	8	2	3	13	<i>[Signature]</i>
20	GAJARE PAYAL MHATARBHAI	32.5	8	2	3	13	<i>[Signature]</i>
21	GANGURDE MAYURI PRAVIN	29	7	2	3	12	<i>[Signature]</i>

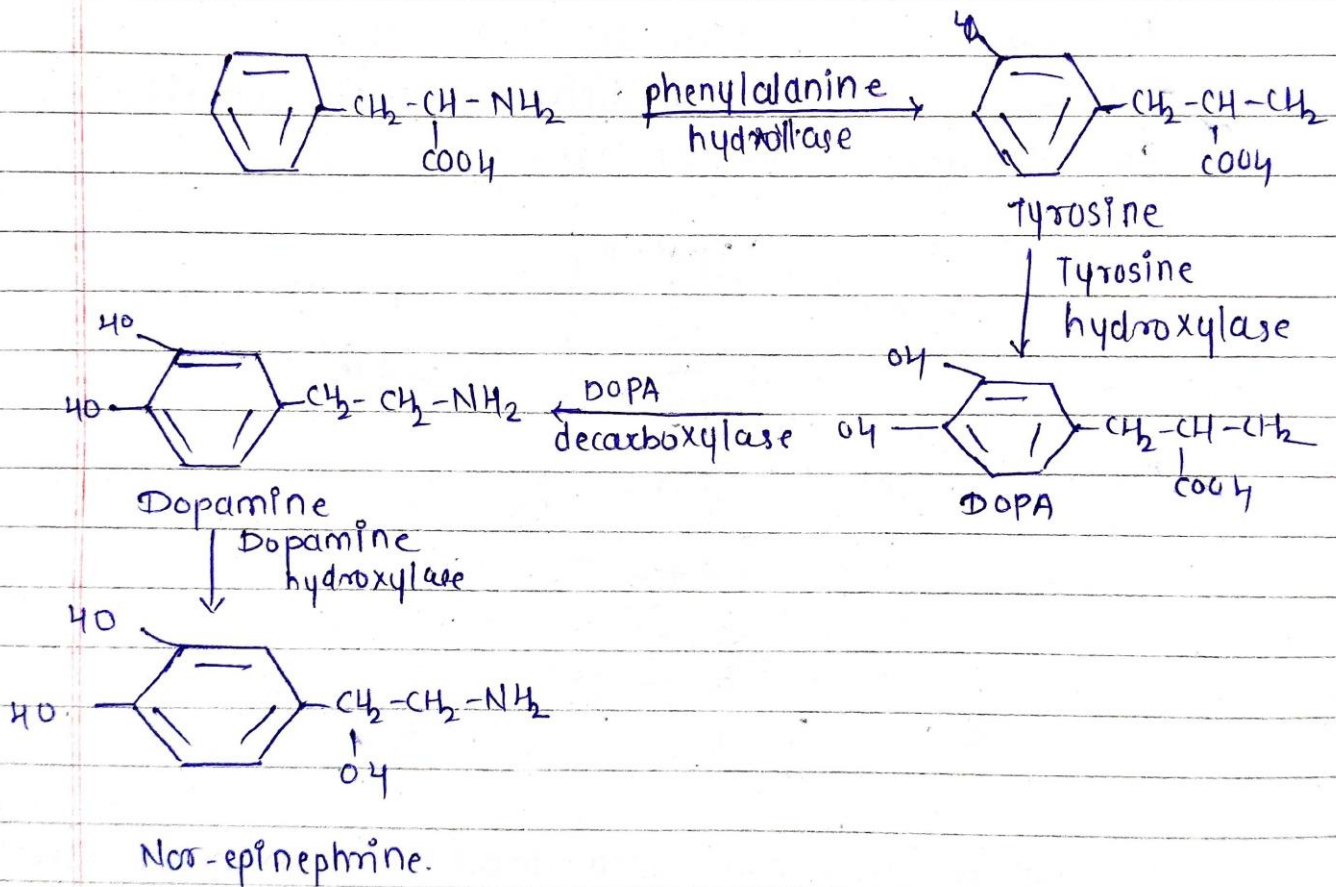
53	PATIL ANKITA RAMESH	27		7	2	3	12	Asmita
54	PATIL VAISHNAVI BAPUSAHEB	27.5		7	2	3	12	Patil
55	PATIL VAISHNAVI DNYANESHWAR	31		8	2	3	13	Patil
56	PATIL VISHAKHA PRASHANT	28		7	2	3	12	Patil
57	RATHOD YUKTI KAILAS	28.5		7	2	3	12	Patil
58	SANAP MAYURI POPAT	27.5		7	2	3	12	Patil
59	SANGALE PRIYA BABAN	30		8	2	3	13	L.O.Sankhe
60	SANKHE LOCHANI DIPAK	29.5		7	2	3	12	Sarda
61	SARDA VAIBHAVI SHRIRANG	27.5		7	2	3	11	Sarda
62	SHELKE MONALI BALASAHEB	24		6	2	3	14	Sarda
63	SHINDE HARSHADA DATTU	34		9	2	3	12	Sarda
64	SHIRSATH VAISHNAVI ASHOK	29		7	2	3	14	Sarda
65	SINGH DEEKSHA MANISH	34		9	2	3	12	Sarda
66	SUBHEDAR IKARA ALTAB	29		7	2	3	12	Sarda
67	SURWASE TEJASHREE DURYODHAN	27.5		7	2	3	12	Sarda
68	SURYAWANSHI PRATIKSHA RAJENDR	29		7	2	3	12	Sarda
69	TAKATE MADHURI KHANDU	34		9	2	3	14	Sarda
70	THORAT SAKSHI SUSHIL	26		7	2	3	12	Sarda
71	THORAT SNEHA ARVIND	34		9	2	3	14	Sarda
72	UMAVANE SHARAYU ASHOK	30.5		8	2	3	13	Sarda
73	VANJUL SAKSHI BAJIGAR	27		7	2	3	12	Sarda
74	VARPE VAISHNAVI BALASAHEB	35		9	2	3	14	Sarda
75	WABLE NIKITA SHARAD	35		9	2	3	14	Sarda
76	WAGHMODE DNYANESHWARI BANU	30.5		8	2	3	13	Sarda

Assignment No: 1.

Ques. Explain in detail biosynthesis, storage and release of Nor-epinephrine.

→ Biosynthesis of Norepinephrine.

The biosynthesis takes place in adrenergic and dopaminergic neurons in the CNS in sympathetic neurons in the ANS and in adrenal medulla.

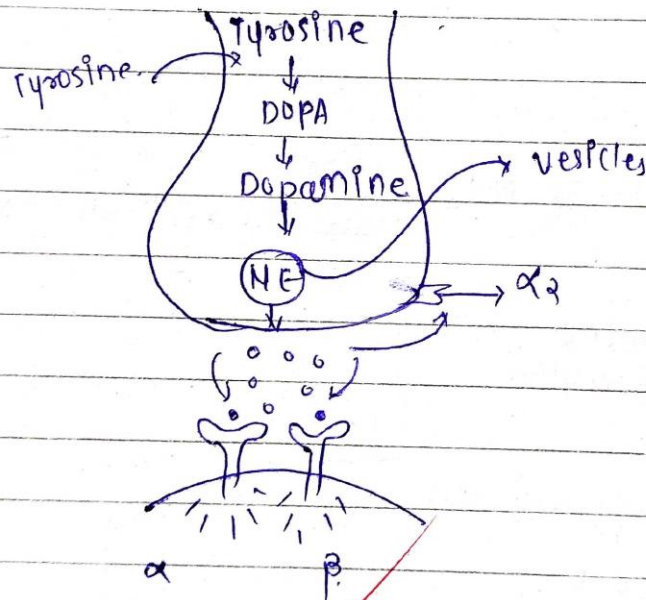


- phenylalanine get hydrolysed into tyrosine in liver.
- Tyrosine get hydrolysed into DOPA by enzyme tyrosine hydroxylase (cytoplasm)
- DOPA convert into Dopamine with the help of enzyme DOPA decarboxylase in which CO_2 removed.
- Dopamine is converted into non-adrenaline with the help of enzyme dopamine β -hydroxylase.

- Nor adrenaline get converted into adrenaline with the help of enzyme phenylethanolamine - N- methyl transferase (PNMT)

Release of Neurotransmitter (Norepinephrine)

- The noradrenaline formed in the nerve remains stored in vesicles in the form of ATP complex.
- Now, Nor-adrenaline diffuse out in cytoplasm and get methylated into adrenaline.



= Adrenaline then enters into chromaffin granules and get stored.

- Now ~~adn~~ neurotransmitter release from vesicles.
- then neurotransmitter bind with receptors and give action / response.

Mechanism of action.

- potent at α receptor.
- (Less potent than adrenaline.)

-also affect on β - Receptor but no effect on β_2 Receptor

Uses:

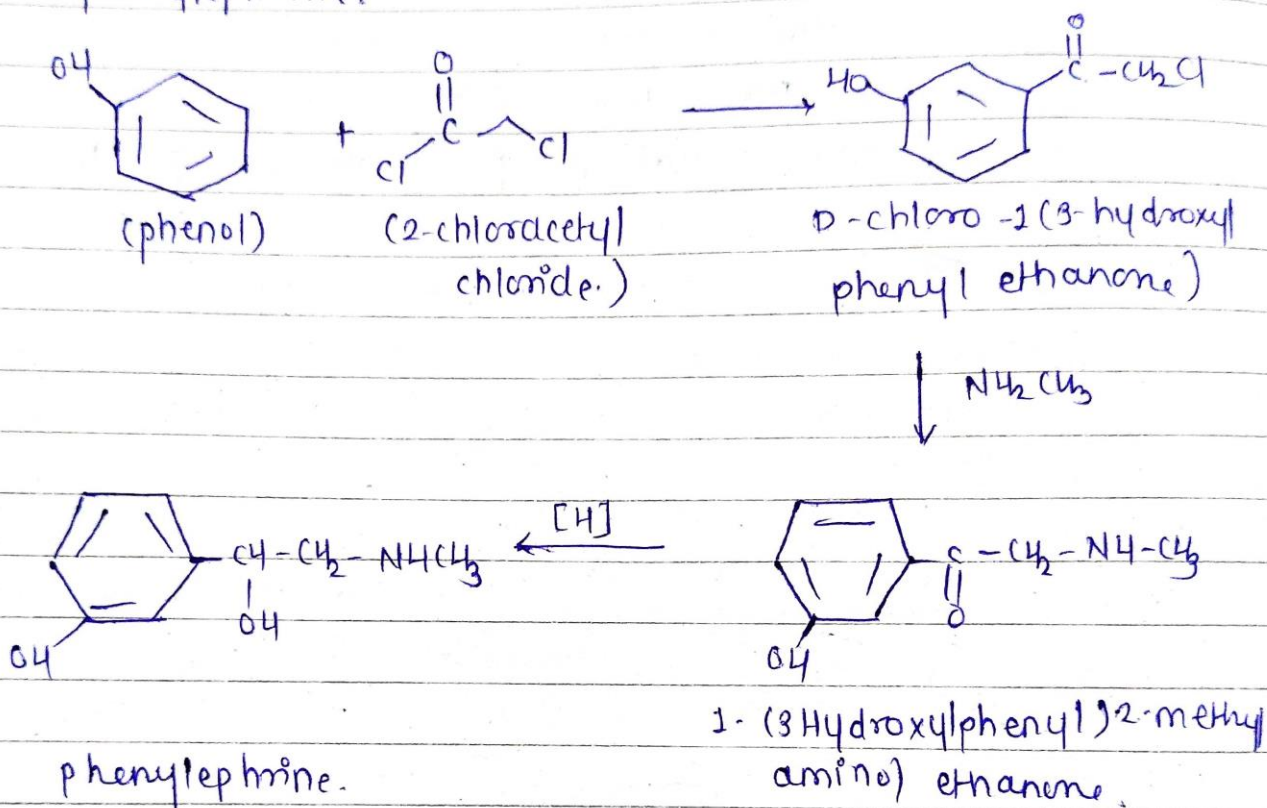
- ① Strong vasoconstriction properties
- ② Reduce absorption
- ③ Intravenous infusion for treatment of hypertension

Ques 2

Draw a synthetic scheme for phenylephrine.

→

① phenylephrine.



MAOA:

- 1] Bind out α Receptor
- 2] No-action on β Receptor

Uses:

- ① vaso constriction of arterioles, iris and contraction of uterus.
- ② ↑ Blood pressure in acute hypotension.
- ③ used as Mydriatic agent during eye surgery.

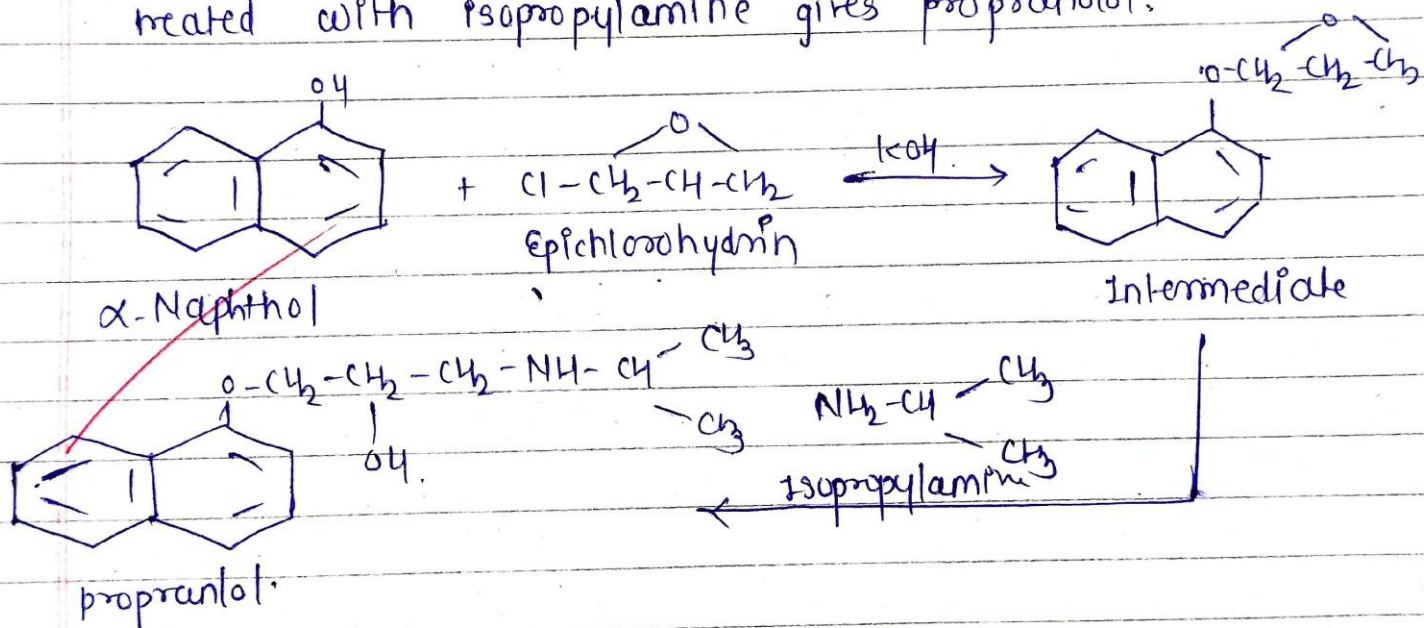
(II)

Propranolol:

- 1) It is white powder.
- 2) Non-selective β -blocker.

Synthesis:

When α -Naphthol is treated with epichlorohydrin in presence of base, the intermediate formed is then treated with isopropylamine gives propranolol.



18/20

Jagdm