NIRMALA COLLEGE OF PHARMACY
MUVATTUPUZHA

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FIRST CYCLE NAAC ACCREDITATION 2023

CRITERION 2

TEACHING- LEARNING AND EVALUATION

2.6.2 Attainment of POs and COs are evaluated

Submitted to

THE NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

2.6.2 Attainment of Student Performance and Learning Outcome

EVALUATION OF POs AND COs

2019-2020

NIRMALA COLLEGE OF PHARMACY
Muvattupuzha
Ernakulam Dist.
Kerala

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2.6.2 Course Outcomes (COs) and Program Outcomes (POs)

1.Establish the correlation between the courses and the Program Outcomes

1.1. Course Outcomes

Note: Number of Outcomes for a Course is expected to be around 6.

On successful completion of this Course, students will be able to:

BP101T : Theory-Human Anatomy and Physiology I	
Sl.NO	DESCRIPTION
BP101T.1	Explain the gross morphology, structure and functions of various organs of the human body
BP101T.2	Describe the various homeostatic mechanisms and their imbalances
BP101T.3	Identify the various tissues and organs of different systems of human body.
BP101T.4	To explain the physiology of special senses and nervous system.
BP101T.5	Appreciate coordinated working pattern of different organs of each system

BP102T: -Theory-Pharmaceutical Analysis I	
Sl.NO	DESCRIPTION
BP102T.1	Understand the basic concept of the various volumetric analysis and will have a firm foundation in the fundamentals and application of current chemical and scientific theories of Analytical Chemistry.
BP102T.2	Gain an understanding of common laboratory techniques and gravimetric analysis for quantitative analysis of pharmaceuticals.
BP102T.3	Understand the basic principles of electrochemical analysis of drugs.
BP102T.4	Skilled in preparation and standardization of various concentrations of analytical solutions
BP102T.5	Understand the concepts of errors, accuracy precision

2.6.2: Attainment of Student Performance and Learning Outcome

BP201T: 2019-2020 – Theory-Human Anatomy and Physiology II	
Sl.NO	DESCRIPTION
BP201T.1	Explain the gross morphology, structure and functions of various organs of the human body
BP201T.2	Describe the various homeostatic mechanisms and their imbalances
BP201T.3	Identify the various tissues and organs of different systems of human body.
BP201T.4	To explain the physiology of special senses and nervous system.
BP201T.5	Appreciate coordinated working pattern of different organs of each system

BP202T: 2019-2020-Theory-Pharmaceutical Organic Chemistry-I	
SNO	DESCRIPTION
BP202T.1	Understand fundamental principles of organic chemistry.
BP202T.2	Understand the nomenclature of alkanes, alkenes, alkynes, alkyl halides, aromatic compounds, carbonyl compounds,Alcohols, ethers, phenols, amines, acids and their various derivatives using systematic (IUPAC) nomenclature
BP202T.3	Depict and explain detailed chemical mechanisms for various chemical reactions.
BP202T.4	Predict the physical properties of organic chemicals based on their structures and their hazardous nature.
BP202T.5	Understand the synthesis of various organic compounds which may be intermediates of drugs

Micro theory

SNO	DESCRIPTION
BP303.1	Understand methods of identification, cultivation and preservation of various microorganisms
BP303.2	Importance of sterilization in microbiology and pharmaceutical industry
	Learn sterility testing of pharmaceutical products.

BP303.3	
BP303.4	Microbiological standardization of Pharmaceuticals
BP303.5	Understand the cell culture technology and its applications in pharmaceutical industries.

Micro practical

SNO	DESCRIPTION
BP307.1	To understand the growth factors and physical conditions for growth of microbes
BP307.2	To understand the motility, staining and biochemical characteristics of microorganisms
BP307.3	To understand and apply the principle of aseptic transfer
BP307.4	To be able to understand and apply sterility testing I. P., microbial sensitivity testing and assay of antibiotics
BP307.5	To understand sterilization techniques

2.6.2: Attainment of Student Performance and Learning Outcome

SNO	DESCRIPTION
BP301T.1	Understand about aromaticity, resonance and reactions of aromatic compounds.
BP301T.2	Understand the reactivity of phenols and aromatic amines.
BP301T.3	Depict and explain the purity and quality of oils and fats.
BP301T.4	Describe the chemistry of polynuclear aromatic hydrocarbons in terms of molecular orbital theory, aromaticity and reactions.
BP301T.5	Understand the stability of cycloalkanes & its reactions.

BP305P, 2018-2019, PRACTICAL, PHARMACEUTICAL ORGANIC CHEMISTRY- II	
S NO	**DESCRIPTION**
BP305P.1	Able to do the purification of organic compounds & extracted products
BP305P.2	Able to analyze the purity & quality of fats & oils in manufacturing sector
BP305P.3	Students will be able to synthesise organic drugs or intermediate involving one-step reaction in conventional methods and to report their percentage yield.
BP305P.4	Students will be able to depict and explain detailed chemical mechanisms for all chemical reactions and reactions related to synthesis.
BP305P.5	Knows the proper procedures and regulations for safe handling and use of chemicals and can follow the proper procedures and regulations for safe handling when using chemicals.

BP405T : 2019-2020– Theory- Pharmacognosy & Phytochemistry I	
SL.NO	DESCRIPTION
BP 405 T.1	know the techniques in the cultivation and production of crude drugs
BP 405 T.2	know the crude drugs, their uses and chemical nature
BP 405 T.3	Know the evaluation techniques for the herbal drugs and
BP 405 T.4	carry out the microscopic and morphological evaluation of crude drugs
BP 405 T.5	Role of Pharmacognosy in allopathy and traditional systems of medicine

BP406P : 2019-2020 Practical – Medicinal Chemistry I	
SNO	DESCRIPTION
BP406P.1	Carryout the synthesis of diverse medicinal compounds along with their characterizations.
BP406P.2	To know the principle and procedure to estimate the actual amount of drug present in pharmaceutical formulations
BP406P.3	Perform various operations in the laboratory like weighing, transferring, titrations, preparation of solutions, recording and interpretation of analytical results.
BP406P.4	Clearly communicate the results of scientific work in oral, written and in electronic formats.
BP406P.5	Get familiarize with various experiments to know the various physiochemical properties of the drugs

BP505T : 2019-2020 Theory– Pharmaceutical Jurisprudence	
SL.NO	DESCRIPTION
BP505T.1	To understand the functions of pharmacy councils of India.
BP505T.2	Understand the Pharmaceutical legislations and their implications in the development and marketing.
BP505T.3	Grasp knowledge on administration of various act in India
BP505T.4	Grasp knowledge on the regulatory authorities and agencies governing the import, manufacture and sale of pharmaceuticals.
BP505T.5	Understand the code of ethics during the pharmaceutical practice and the pharmacists oath.

BP506P : 2019-2020 Practical– Formulative Pharmacy	
SL.NO	DESCRIPTION
BP506P.1P	Attain basic understanding in the area of preformulation study, manufacturing,packaging and labeling of tablets.
BP506P.2P	Understand the requirements of parenteral product preparation, packaging and labeling .

BP506P.3P	Understand processes involved in the preparation and evaluation of syrups
BP506P.4P	Develop skill in the manufacturing and packaging of creams
BP506P.5P	Learn the evaluation studies of different formulations and packaging materials.

BP606T: 2019-2020-Theory-Pharmaceutical Quality Assurance	
SNO	DESCRIPTION
BP606T.1	Demonstrate the importance of quality in pharmaceutical products and importance of Good practices and regulatory affairs such as GMP,GLP 4 ,TQM etc BP606T.2 understand the activities and responsibilities of QA & QC departments BP606T.3 understand the scope of quality certifications such as ICH, ISO and NABL BP606T.4 Explain about validation and Calibration and its importance in QA and QC BP606T.5 Various aspects of Documentation in pharmaceutical Industry
BP606T.2	understand the activities and responsibilities of QA & QC departments
BP606T.3	understand the scope of quality certifications such as ICH, ISO and NABL
BP606T.4	Explain about validation and Calibration and its importance in QA and QC
BP606T.5	Various aspects of Documentation in pharmaceutical Industry

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	BP608P: 2019-2020-Practical-Pharmacology III
SLNO	DESCRIPTION
BP608.1	Understand about the basic instruments used in experimental pharmacology and their assembling and uses
BP608.2	Know about the commonly used laboratory animals and how to maintain them. They also learn about the routes of drug administration in experimental animals as well as how to collect blood from animals used proper methods.

2.6.2: Attainment of Student Performance and Learning Outcome

BP608.3	Learn and understand the common experiments performed in laboratory rats, frogs, rabbits etc and the step by step procedures of conducting the experiments using computer softwares.
BP608.4	Integrate and utilize the knowledge gained in the theory course by applying it in the practical sessions using various experiments
BP608.5	Use basic formulas and methods in experimental pharmacology and perform dose calculation experiments.

C 405 Theory-Pharmacology –II	
SNO	**Statements**
C405.1	Understand about the basic principles of pharmacological bioassays and the entire drug discovery processes including clinical trials.
C405.2	Explain how drugs, toxins, chemicals act in our body at organ system/sub cellular/ macromolecular levels. (i.e mechanisms of action)
C405.3	Know the importance of molecular pharmacology techniques like gene therapy, stem cell therapies and how its evolution could redefine the therapeutics of various diseases.
C405.4	Explain the entire pharmacological aspects of drugs (such as classifications, mechanisms of action, adverse drug reactions, uses etc) acting on central nervous system, gastrointestinal tract, blood, chemotherapy, antimicrobials and immunopharmacology.
C405.5	Use the knowledge gained through understanding of the pharmacology of drugs and apply it in the dispensing of drugs and help in the treatment of various diseases affecting the body systems and thus improve the general health of the community. (pharmacotherapeutics)
C 411 : 2016-2017- Practical-Pharmacology –II	
SNO	**Statements**
C411.1	Perform different types of bioassays using isolated tissues (including matching, interpolation bioassay) and learn more about the screening processes involved in drug discovery
C411.2	Understand the design, principles and working of the commonly used instruments in experimental pharmacology like rotarod apparatus, eddy's hot plate, actophotometer etc.

C411.3	Know the technique and importance of biological screening methods like analgesic activity, anticonvulsant activity, antiulcer activty etc and how they are important in the preclinical new drug screening and drug discovery processes.
C411.4	Understand and explain the common pharmacological screenings performed in a laboratory using stimulated animal experiments.
C411.5	Solve various biostatistical problems and calculations like student's t-test and ANOVA and adopt it in the modern problem solving.
C 404 : 2016-2017 - Theory-Pharmaceutics VI (Formulative & Industrial pharmacy)	
SNO	**Statements**
C404.1	Gain knowledge about the preformulation studies, formulation and methods of manufacture of different conventional dosage form.
C404.2	Acquire the fundamentals and applications of novel drug delivery systems.
C404.3	Attain the understanding of formulation and manufacture of parenteral dosage forms .
C404.4	Learn about the packaging materials and validation techniques employed in pharmaceutical industries.
C404.5	Understand the basic principles of cosmetic science.
C 410 : 2016-2017 - Practical-Pharmaceutics VI (Formulative & Industrial pharmacy)	
SNO	**Statements**
C410.1	Attain basic understanding in the area of preformulation study, manufacturing,packaging and labeling of tablets.
C410.2	Understand the requirements of parenteral product preparation, packaging and labeling .
C410.3	Understand processes involved in the preparation and evaluation of controlled drug delivery systems.
C410.4	Develop skill in the manufacturing and packaging of cosmetics including the skin and hair care products.
C410.5	Learn the evaluation studies of different formulations and packaging materials.
C 413 : 2016-2017 **Project work**	
SNO	**Statements**
C413.1	Familiarize with Research Methods and techniques
C413.2	To get acquainted with advances in Research methods

C413.3	Collect and critically analyse the data
C413.4	Identify and analyze the Research Problems
C413.5	Compare the results and draw the conclusions

Table – 1.1

1.2. CO-PO matrices of courses selected in 1.1 (four matrices to be mentioned; one per semester from 1st to 8th semester; at least one per year)

THEORY: HUMAN ANATOMY AND PHYSIOLOGY

SNO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP101T.1	3	1	--	3	1	3	3	1	3	--	3
BP101T.2	3	1	1	3	1	2	-	3	3	1	3
BP101T.3	3	--	--	3	--	3	3	1	3	--	3
BP101T.4	3	--	--	3	--	3	3	1	3	--	3
BP101T.5	3	1	1	2	--	3	3	3	3	--	3
BP101(Average)	3	1	1	2.8	1	2.8	3	1.8	3	1	3

THEORY: PHARMACEUTICAL ANALYSIS

SNO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP102T.1	3	2	2	1	2	3	-	2	1	1	3
BP102T.2	3	2	3	-	2	3	1	3	2	-	2
BP102T.3	3	3	3	3	2	2	2	2	1	-	3
BP102T.4	3	3	2	3	1	1	2	2	-	-	1
BP102T.5	3	2	-	-	2	2	1	2	2	-	2

2.6.2: Attainment of Student Performance and Learning Outcome

BP102T (Average)	**3**	**2.4**	**2.5**	**2.3**	**1.8**	**2.2**	**1.5**	**2.2**	**1.5**	**1**	**2.2**

THEORY: HUMAN ANATOMY AND PHYSIOLOGY

SNO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP201T.1	3	1	--	3	1	3	3	1	3	--	3
BP201T.2	3	1	1	3	1	2	1	3	3	1	3
BP201T.3	3	--	--	3	--	3	3	1	3	--	3
BP201T.4	3	--	--	3	--	3	3	1	3	--	3
BP201T.5	3	1	1	2	--	3	3	3	3	--	3
BP201(Average)	3	1	1	2.8	1	2.8	2.6	1.8	3	1	3

THEORY: PATHOPHYSIOLOGY

SNO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP 204T.1	3	3	3	3	2	2	-	3	3	3	2
BP 204T.2	3	3	2	3	2	2	-	3	----	----	2
BP 204T.3	3	3	3	3	2	2	1	3	3	--	--
BP 204T.4	3	2	2	3	2	2	1	3	3	3	2
BP 204T.5	3	3	3	3	2	2	1	3	3	----	---
Average	3	2.8	2.6	3	2	2	1	3	3	3	2

2.6.2: Attainment of Student Performance and Learning Outcome

BP301T, 2018-2019, THEORY, PHARMACEUTICAL ORGANIC CHEMISTRY-II											
SNO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**
BP301T.1	**3**	**1**	**2**	**1**	**1**	**1**	**1**	**-**	**1**	**1**	**2**
BP301T.2	**3**	**1**	**2**	**1**	**-**	**-**	**-**	**1**	**1**	**1**	**2**
BP301T.3	**3**	**2**	**3**	**3**	**1**	**-**	**-**	**1**	**1**	**3**	**3**
BP301T.4	**3**	**2**	**2**	**2**	**1**	**1**	**-**	**2**	**1**	**2**	**3**
BP301T.5	**2**	**1**	**2**	**2**	**1**	**1**	**1**	**1**	**2**	**1**	**2**
BP301T (Average)	**2.8**	**1.4**	**2.2**	**1.8**	**0.8**	**0.6**	**0.4**	**1**	**1.2**	**1.6**	**2.4**

BP301T, 2018-2019, THEORY, microbiology											
SNO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**
BP303.1	**3**	**2**	**2**	**1**	**1**	**2**	**1**	**2**	**2**	**2**	**1**
BP303.2	**3**	**2**	**2**	**1**	**1**	**2**	**1**	**2**	**2**	**1**	**1**
BP303.3	**3**	**2**	**2**	**1**	**1**	**2**	**1**	**2**	**2**	**1**	**1**
BP303.4	**3**	**2**	**2**	**1**	**1**	**2**	**2**	**2**	**2**	**2**	**1**
BP303.5	**3**	**2**	**2**	**1**	**1**	**2**	**1**	**2**	**2**	**1**	**1**
BP301(Average)	**3**	**2**	**2**	**1**	**1**	**2**	**1.2**	**2**	**2**	**1.4**	**1**

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SNO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP505T.1	3	3	1	1	2	3	3	2	3	3	3
BP505T.2	3	3	1	1	2	3	3	2	3	3	3
BP505T.3	3	3	1	1	3	3	3	2	2	3	3
BP505T.4	3	3	1	1	3	3	3	2	3	3	3
BP505T.5	3	2	1	1	3	3	3	2	3	3	3
BP505T **(Average)**	3	2.8	1	1	2	3	3	2	2	3	3

SNO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP506P.1P	3	2	2	3	1	3	2	2	2	1	2
BP506P.2P	3	2	2	2	1	3	2	2	2	1	2
BP506P.3P	3	2	1	-	1	2	2	1	2	1	2
BP506P.4P	3	2	2	-	1	2	2	1	1	1	2
BP506P.5P	3	2	2	3	1	3	2	1	2	1	2
BP506P	3	2	1.7	2	1	2.6	2	1.4	1.5	1	2

COURSE: Pharmaceutical QualityAssurance											
COURSE CODE: BP606T											
SNO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP606T.1	3	3	3	1	3	3	3	3	3	3	3
BP606T.2	3	2	2	1	2	3	2	2	2	2	3
BP606T.3	3	3	3		1	2	3	1	3	2	3
BP606T.4	3	2	3	1	1	2	2	1	2	1	3
BP606T.5	3	3	3	1	2	2	2	3	1	1	2
BP606T (Average)	3	2.6	2.8	1.25	1.6	2.4	2.4	2.2	2.2	1.8	2.8

BP608 P- Pharmacology III Practical											
SLNO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP608.1	3	1	1	2	-	1	-	1	1	-	2
BP608.2	3	2	2	2	1	2	3	2	1	2	3
BP608.3	3	2	2	2	1	2	2	2	2	2	2
BP608.4	3	2	2	2	1	2	2	2	1	1	2
BP608.5	3	3	3	2	-	2	1	2	2	-	3
BP608 (Average)	3	2	2	2	1	1.8	2	1.8	1.4	1.6	2.4

Theory-Pharmacology –II											
SNO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**
C405.1	3	3	3	3	2	3	3	3	3	2	3
C405.2	3	1	2	2	-	1	1	2	1	1	3
C405.3	3	2	2	3	2	2	3	2	3	2	3
C405.4	3	2	2	2	-	2	2	2	2	-	3
C405.5	3	2	3	2	2	3	3	3	3	1	3
C405(Average)	**3.0**	**2.0**	**2.4**	**2.4**	**2.0**	**2.2**	**2.4**	**2.4**	**2.4**	**1.5**	**3.0**
Practical-Pharmacology –II											
SNO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**
C411.1	3	3	2	2	1	3	2	2	2	1	2
C411.2	3	2	2	3	-	2	2	2	2	-	2
C411.3	3	2	2	2	-	2	2	1	2	1	3
C411.4	3	2	2	2	-	3	2	2	2	-	3
C411.5	3	2	3	2	1	2	1	2	2	1	3
C411 (Average)	**3**	**2.2**	**2.2**	**2.2**	**1**	**2.4**	**1.8**	**1.8**	**2**	**1**	**2.6**
Theory-Pharmaceutics VI (Formulative & Industrial pharmacy)											
SNO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**
C404.1	**3**	**2**	**3**	**3**	**2**	**3**	**2**	**2**	**2**	**1**	**2**
C404.2	**3**	**1**	**1**	**3**	**-**	**2**	**-**	**-**	**2**	**1**	**2**
C404.3	**3**	**2**	**1**	**2**	**-**	**3**	**2**	**1**	**2**	**1**	**2**
C404.4	**3**	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**2**	**1**	**1**
C404.5	**3**	**1**	**-**	**-**	**-**	**1**	**2**	**1**	**2**	**1**	**1**
C404 (Average)	**3**	**1.6**	**1.6**	**1.8**	**2**	**2.2**	**2**	**1.8**	**2**	**1**	**1.6**
Practical-Pharmaceutics VI (Formulative & Industrial pharmacy)											
SNO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**
C410.1	**3**	**2**	**2**	**3**	**1**	**3**	**2**	**2**	**2**	**1**	**2**

C410.2	**3**	**2**	**2**	**2**	**1**	**3**	**2**	**2**	**2**	**1**	**2**
C410.3	**3**	**2**	**1**	**2**	**1**	**2**	**2**	**1**	**1**	**1**	**2**
C410.4	**3**	**2**	**2**	**-**	**1**	**2**	**2**	**1**	**2**	**1**	**2**
C410.5	**3**	**2**	**2**	**3**	**1**	**3**	**2**	**1**	**2**	**1**	**2**
C410 (Average)	**3**	**2**	**1.8**	**2**	**1**	**2.6**	**2**	**1.4**	**1.8**	**1**	**2**
Project work											
SNO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**
C413.1	**3**	**2**	**3**	**2**	**2**	**2**	**2**	**3**	**3**	**1**	**3**
C413.2	**3**	**2**	**3**	**2**	**2**	**3**	**2**	**3**	**3**	**1**	**3**
C413.3	**3**	**2**	**3**	**3**	**3**	**3**	**2**	**3**	**3**	**1**	**3**
C413.4	**3**	**2**	**3**	**2**	**2**	**2**	**2**	**3**	**3**	**1**	**3**
C413.5	**3**	**2**	**3**	**2**	**2**	**3**	**2**	**3**	**3**	**1**	**3**
C413 (Average)	**3**	**2**	**3**	**2.2**	**2.2**	**2.6**	**2**	**3**	**3**	**1**	**3**

Table 1.2

Note: *Correlation levels 1, 2 or 3 as defined below:*

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High)

It there is no correlation, put '-'

1.3. Course-PO matrix of courses for all four years of study

No	SNO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
1.	**BP101T**	**3**	**1**	**1**	**2.8**	**1**	**2.8**	**3**	**1.8**	**3**	**1**	**3**
2.	**BP102T**	**3**	**3**	**2.8**	**2.3**	**2.4**	**2.4**	**2.5**	**2.8**	**2.2**	**3**	**2.6**
3.	**BP103T**	**3**	**2.6**	**2**	**1.8**	**1.8**	**3**	**2**	**2**	**1**	**1**	**2.2**
4.	**BP104T**	**2.6**	**2**	**2**	**1.5**	**1.8**	**1.7**	**2**	**1.4**	**1.5**	**2.2**	**2**
5.	**BP105T**	1	2.6	2.8	2	2.6	2.2	2	3	2.8	1.7	2
6.	**BP107P**	**3**	**1.6**	**1.8**	**1.8**	**1**	**2**	**1.6**	**1.8**	**1**	**1.8**	**2**
7.	**BP108P**	**3**	**3**	**2.8**	**2.4**	**2.3**	**2.6**	**2.6**	**2.8**	**2.8**	**2.5**	**3**
8.	**BP109P**	**3**	**2.6**	**3**	**2.6**	**2.8**	**3**	**2.2**	**3**	**2.6**	**1.2**	**2.6**
9.	**BP110P**	**2**	**2.2**	**2**	**2.2**	**2**	**2.4**	**1.8**	**2**	**1.8**	**2.4**	**1.8**
10.	**BP111P**	1	2.2	2	2.6	2.4	2.8	2.2	3	3	2.2	1.8

11.	BP201T	3	1	1	2.8	1	2.8	2.6	1.8	3	1	3
12.	BP202T	3	1	2	2	1	2	1	2.4	1.8	1.8	3
13.	BP203T	3	2.5	2.8	3	3	2.4	3	-	2.4	3	3
14.	BP204T	3	2.8	2.6	3	2	2	1	3	3	3	2
15.	BP205T	2.4	2.4	2.6	3	2	3	2.5	1.6	2	-	3
16.	BP206T	3	3	3	2	3	3	3	3	3	3	3
17.	BP207P	3	3	2.5	3	1.7	2	2.8	2	2	1	3
18.	BP208P	3	2.4	2.8	2	1	1.2	1.2	1.6	2	1.8	3
19.	BP209P	2	2.2	2	2.2	2	2.4	1.8	2	1.8	2.4	1.8
20.	BP210P	2	-	-	-	-	-	2	1	-	-	1.6
21.	BP301T	2.8	1.4	2.2	1.8	0.8	0.6	0.4	1	1.2	1.6	2.4
22.	BP302T	3	2.6	2.6	2.5	2	2.4	-	2	1.6	-	2.8
23.	BP303T	3	2	2	1	1	2	1.2	2	2	1.4	1
24.	BP304T	2.4	1.2	1.2	2.6	1.2	2	0.4	1.8	0.6	0.4	1.4
25.	BP305P	3	2.6	2.8	2.4	1.2	1.8	1.6	2	2.4	2.2	3
26.	BP306P	3	3	3	1	2	3	-	3	1.4	-	3
27.	BP307P	3	2	1.8	1	1.2	1.8	1.2	2	1.6	1.8	2
28.	BP308P	3	2.4	3	3	2.2	1.8	-	1.8	0.6	1.2	3
29.	BP401T	3	2	3	2.8	1.6	1.4	1.2	1.4	1.8	2.4	3
30.	BP402T	3	2.2	2.6	2	1.2	1.8	1	2	2	1.6	2.8
31.	BP403T	3	2.6	2.6	2.5	2	2.4	3	2	1.6	-	2.8
32.	BP404T	3	1.6	1.8	1.8	1.3	1.8	1.8	1.6	2	1.2	2.8
33.	BP405T	3	2.4	2.6	1.4	1.4	2.4	1.8	1.8	2.2	2.8	2.6
34.	BP406P	2.8	3	2.4	1.4	2	2.6	1.8	2.4	2	1.3	3
35.	BP407P	3	3	3	1	2	3	2	3	1.4	-	3
36.	BP408P	3	2	2	2	1	1.8	2	1.8	1.4	1.6	2.4
37.	BP409P	2.4	2.8	2.8	1.6	2.2	2.6	2.4	2.6	2.8	2.8	2.8
38.	BP 501T	3	2	2.6	1.8	1	2.2	1	2	2	1.6	3
39.	BP 502T	2.8	1.8	2	2.5	2	2.3	2	1.25	2	1	1.6
40.	BP 503T	3	1.2	1	3	1	3	2.5	1.4	2.2	1	3

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41.	BP 504T	3	3	3	2	3	3	3	3	3	3	3
42.	BP 505T	3	2.8	1	1	2	3	3	2	2	3	3
43.	BP 506P	3	2	1.7	2	1	2.6	2	1.4	1.5	1	2
44.	BP 507P	3	2	2	2	1	1.8	2	1.8	1.4	1	2.4
45.	BP 508P	3	3	3	2	3	3	3	3	3	3	3
46.	BP 601T	3	2	2.6	1.8	1	2.2	1	2	2	1.6	3
47.	BP 602T	3	1.2	1.6	2.6	1	2.4	3	2.6	2.6	1	3
48.	BP 603T	3	3	3	2	3	3	3	3	3	3	3
49.	BP 604T	3	3	3	2.8	3	3	2	3	2.8	2.2	3
50.	BP 605T	3	2	2	2.5	1	2	1.75	2	1.75	2	2.5
51.	BP 606T	3	2.6	2.8	1.25	1.6	2.4	2.4	2.2	2.2	1.8	2.8
52.	BP 607P	2.8	3	2.4	1.4	2	2.6	1.8	2.4	2	1.3	3
53.	BP608 P	3	2	2	2	1	1.8	2	1.8	1.4	1.6	2.4
54.	BP609 P	3	3	3	2	3	3	3	3	3	3	3
55.	C401	3	2.2	2.6	2.2	1.4	1.8	1	1.8	2	1.8	2.8
56.	C402	3	2.4	2.6	2.6	1.8	2.4	1.5	1.6	1.3	1.5	2.8
57.	C403	2.6	2.4	2.2	2.4	1.8	2.4	2.6	2.4	2.4	2.4	2.6
58.	C404	3	1.6	1.6	1.8	2	2.2	2	1.8	2	1	1.6
59.	C405	3	2	2.4	2.4	2	2.2	2.4	2.4	2.4	1.5	3
60.	C406	3	2	2.6	2.6	2	2.6	2.4	2.6	2.6	1.6	2
61.	C407	2.8	2	2	2.4	1.6	1.4	1	1.6	1.8	2.2	2.8
62.	C408	3	2.6	2.2	2.8	1.6	2	1.3	1.8	1.3	1.3	2.8
63.	C409	2.4	2.8	2.8	1.6	2.2	2.6	2.4	2.6	2.8	2.8	2.8

64.	C410	3	2	1.8	2	1	2.6	2	1.4	1.8	1	2
65.	C411	3	2.2	2.2	2.2	1	2.4	1.8	1.8	2	1	2.6
66.	C412	3	2	2.6	2.8	2	2.6	2.6	2.8	2.8	1.6	2
67.	C413	3	2	3	2.2	2.2	2.6	2	3	3	1	3

Table 1.3*

Note: *Correlation levels1, 2 or 3, as defined below:*

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High)

It there is no correlation, put '-'

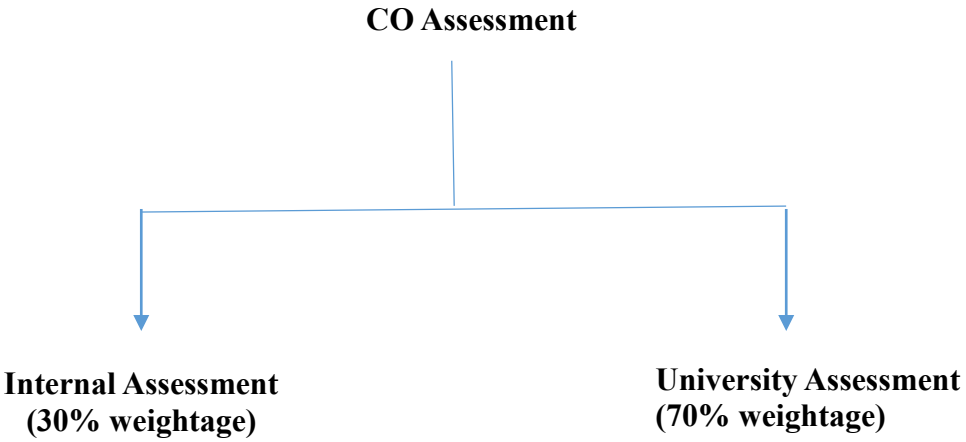
It may be noted that contents of Table 1.2 must be consistent with information available in Table 1.3 for all the courses.

2. Attainment of Course Outcomes

2.1. Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based

The assessment processes mentioned here is for the Academic Year 2017-2018.

(i)CO Assessment Rubrics:



Course Outcome is evaluated based on the performance of students in internal assessments and in university examinations of a course. Internal assessment contributes 30% and university assessment contributes 70% to the total attainment of a CO.

(ii)CO Assessment Tools:

The various assessment tools used to evaluate COs and the frequency with which the assessment processes are carried out are listed in Table 2.1.

2.6.2: Attainment of Student Performance and Learning Outcome

Table 2.1 Direct Assessment Tools

DIRECT ASSESSMENT TOOLS			
Course Type		**Assessment Tools**	**Minimum Frequency**
Theory		Continuous assessment	Continuous
		Sessional exams	Thrice per course for year system and twice per course for semester system.
		University Exam	Once per course for year system and twice per course for semester system.
Practical		Daily Performance & viva	Every lab session
		Sessional Lab exam	Once per course
		University Exam	Once per course
Project	**Phase I**	Review	Once per course
	Phase II	Presentation	Once per course
		Evaluation by Guide	Continuous evaluation

FOR YEAR SYSTEM

THEORY:

Class tests: Class tests serve to encourage students to keep up with subject matter covered in class. These are of 55 minutes duration and are evaluated for 50 marks. Minimum one class test is conducted for each course in each week.

Sessional Theory exams: Three sessional examinations (evenly placed) are conducted during the academic year. The average marks of best two examinations are computed out of a maximum of 50 marks and constitute the sessional marks in theory.

University examinations

The B.Pharm course is of four years duration, with University examinations at the end of each year. Exams are of 3hours duration and the maximum marks for theory is 100.

PRACTICAL:

Lab courses provide students with first-hand experience with course concepts and with the opportunity to explore methods used in their discipline. All the students are expected to be regular and learn the practical aspects of the subject and develop the necessary skills to become professionals. In order to facilitate interaction among the students and to develop team spirit, the students are expected to carry out few experiments in groups. Students are expected to perform the number of experiments listed in

the respective syllabus. Students maintain practical records for each of the practical subjects and produce at the time of practical examination to be certified by the external examiner.

Sessional practical exams: The maximum marks awarded for practical sessional is 50, out of which 30 marks are awarded for practical exercises and 20 marks for practical sessional examination conducted at the end of the academic year. Marks are awarded out of maximum of 10 to each of the practical exercises and an average of these are computed out of a maximum of 30 marks. Marks for practical experiments are awarded on the basis of preparedness of the candidate, manipulative skill, results, knowledge of the experiments, regularity in recording the reports and viva-voce.

University practical exams:

Exams cover entire syllabus of the course and are of 4hours duration and the maximum marks is 100.

A regular record of theory and practical sessional marks are maintained for each student in the institution.

Improvement of Sessional marks

Candidates who wish to improve the theory sessional marks can write special sessional examination before the University examination. Only those candidates who have appeared for at least two regular sessional in theory are eligible to take up the improvement examinations. Such improvement is allowed for a maximum of two times for a particular subject. The improvement of sessional marks are not permitted for practicals. A record of the improvement sessional marks are also maintained in the institution.

UNIVERSITY EXAMINATIONS

CRITERIA FOR PASS

Candidate who has secured a minimum of 50% marks in the University examination (theory and practical separately) and 50% marks in Total (aggregate of marks in University examination and Sessional examination) for theory and practical separately in any subject or subjects is declared to have passed in that subject / subjects and exempted from appearing in subsequent examination. A subject includes both theory/practical if those subjects are having a practical examination. Candidate who fails in theory or practical examination in any subject need to appear only for the theory or the practical examination in which the candidate has failed.

PROJECT –

Project is intended to be a challenge to intellectual and innovative abilities of students.Students are expected to finalize project themes/titles with the assistance of an identified faculty member as project guide during first month of the final year. A project work based on literature survey on a current topic of relevance, consisting of about 30pages, spirally bound is submitted to the Principal/Head of the Department.

Review: In first review the concept of the proposed project is evaluated. Relevance of the topic, knowledge in selected topic and students' communication skill are assessed based on presentation and response to questions asked by the review panel.

Evaluation by Guide: Performance of individual student is continuously evaluated by the project guide. Members of a project group shall prepare and submit separate reports. The report shall record all aspects of the work and is evaluated by project guide.

Presentation: The candidate presents the work with the help of audiovisual aids, which is evaluated by a team of faculty members of the college. The project book submitted also is evaluated.The quality of the presentation and communication skill is assessed by the evaluation committee.

Viva-voce: At the end of the presentation, the assessment panel ask questions and seek clarifications on specific issues related to the project. The effectiveness of the student's response to these queries is assessed.

The criteria for evaluation:

2.6.2: Attainment of Student Performance and Learning Outcome

Relevance of the topic: 5 marks
Content: 25 marks
Scripting and editing: 20 marks
Presentation and slides: 40 marks
Discussion and defines: 10 marks

FOR SEMESTER SYSTEM

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	4	2
Academic activities (Average of any 3 activities e.g. 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 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 below. The average marks of two Sessional exams shall be computed for internal assessment. Sessional exam shall be conducted for 30 marks for theory and shall be computed for 15 marks. Similarly Sessional exam for practical shall be conducted for 40 marks and shall be computed for 10 marks.

Promotion and award of grades

A student shall be declared PASS and eligible for getting grade in a course of B.Pharm. program if he/she secures at least 50% marks in that particular course. For example, to be declared as PASS and to get grade, the student has to secure a minimum of 50 marks for the total of 100 and has to secure a minimum of 25 marks for the total 50 in end semester practical examination.

Carry forward of marks

In case a student fails to secure the minimum 50% in any Theory or Practical course, then he/she shall reappear for the end semester examination of that course. However, his/her marks of the Internal Assessment shall be carried over and he/she shall be entitled for grade obtained by him/her on passing.

Improvement of internal assessment

A student shall have the opportunity to improve his/her performance only once in the Sessional exam component of the internal assessment. The re-conduct of the Sessional exam shall be completed before the commencement of next end semester theory examinations.

End semester examination

The End Semester Examinations for each theory and practical course through semesters I to VIII shall be conducted by the university except for subjects for which examinations shall be conducted by the subject experts at college level and the marks/grades shall be awarded.

2.6.2: Attainment of Student Performance and Learning Outcome

2.6.2: Attainment of Student Performance and Learning Outcome

2.2. Record the attainment of Course Outcomes of all courses with respect to set attainment levels

Program shall have set Course Outcome attainment levels for all courses. The attainment levels shall be set considering average performance levels in the university examination or any higher value set as target for the assessment years. Attainment level is to be measured in terms of student performance in internal assessments with respect to the course outcomes of a course in addition to the performance in the University examination.

(i) <u>Attainment Levels:</u>

Table 2.2 (a) Attainment Levels of Cos

Academic year	CO ATTAINMENT		
	Level	Internal exams	University exams
2019-2020	Level 1	50% of students scoring 64% and more than 64% marks in internal assessment.	50% of students scoring 60% and more than 60% marks in university examination.

	Level 2	60% of students scoring 64% and more than 64% marks in internal assessment.	60% of students scoring 60% and more than 60% marks in university examination.
	Level 3	70% of students scoring 64% and more than 64% marks in internal assessment.	70% of students scoring 60% and more than 60% marks in university examination.

Measuring CO attainment through University examinations:

NAME	Subject code	Subject Name	%of students attained 60%	uty attainment
1.	**BP101T**	Human anatomy and physiology I	**70**	**2.1**

2.	**BP102T**	Pharmaceutical analysis I	**78**	**2.1**
3.	**BP103T**	Pharmaceutics I	**73**	**2.1**
4.	**BP104T**	Pharmaceutical inorganic chemistry	**74**	**2.1**
5.	**BP105T**	Communication skills	**95**	**2.1**
6.	**BP107P**	Human anatomy and physiology I practical	**98**	**2.1**
7.	**BP108P**	Pharmaceutical analysis I practical	**98**	**2.1**
8.	**BP109P**	Pharmaceutics I practical	**100**	**2.1**
9.	**BP110P**	Pharmaceutical inorganic chemistry practical	**98**	**2.1**

10.	**BP111P**	Communication skills practical	**97**	**2.1**
11.	**BP201T**	Human anatomy and physiology II	**58**	**0.7**
12.	**BP202T**	Pharmaceutical organic chemistry I	**66**	**1.4**
13.	**BP203T**	Biochemistry	**73**	**2.1**
14.	**BP204T**	Pathophysiology	**88**	**2.1**
15.	**BP205T**	Computer applications in pharmacy	**92**	**2.1**
16.	**BP206T**	Environmental sciences	**93**	**2.1**

17.	**BP207P**	Human anatomy and physiology II practical	**98**	**2.1**
18.	**BP208P**	Pharmaceutical organic chemistry I practical	**100**	**2.1**
19.	**BP209P**	Biochemistry practical	**83**	**2.1**
20.	**BP210P**	Computer applications in pharmacy practical	**100**	**2.1**
21.	**BP301T**	Pharmaceutical organic chemistry II	**84**	**2.1**
22.	**BP302T**	Physical Pharmaceutics I	**56**	**1**

23.	**BP303T**	Pharmaceutical microbiology	**59**	**0.7**
24.	**BP304T**	Pharmaceutical engineering	**59**	**0.7**
25.	**BP305P**	Pharmaceutical organic chemistry II practical	**100**	**2.1**
26.	**BP306P**	Physical Pharmaceutics I practical	**98**	**2.1**
27.	**BP307P**	Pharmaceutical microbiology practical	**98**	**2.1**
28.	**BP308P**	Pharmaceutical engineering practical	**70**	**2.1**

29.	**BP401T**	Pharmaceutical organic chemistry III	**68**	**1.4**
30.	**BP402T**	Medicinal chemistry I	**78**	**2.1**
31.	**BP403T**	Physical pharmaceutics II	**84**	**2.1**
32.	**BP404T**	Pharmacology I	**76**	**2.1**
33.	**BP405T**	Pharmacognosy and phytochemistry I	**68**	**1.4**
34.	**BP406P**	Medicinal chemistry I Practical	**100**	**2.1**
35.	**BP407P**	Physical pharmaceutics II Practical	**100**	**2.1**
36.	**BP408P**	Pharmacology I practical	**100**	**2.1**

37.	**BP409P**	Pharmacognosy and phytochemistry I practical	**100**	**2.1**
38.	**BP 501T**	Medicinal Chemistry II	**71**	**2.1**
39.	**BP 502T**	Formulative pharmacy	**87**	**2.1**
40.	**BP 503T**	Pharmacology	**89**	**2.1**
41.	**BP 504T**	Pharmacognosy	**89**	**2.1**
42.	**BP 505T**	Jurisprudence	**79**	**2.1**
43.	**BP 506P**	Formulative pharmacy Practicals	**100**	**2.1**
44.	**BP 507P**	Pharmacology practicals	**100**	**2.1**
45.	**BP 508P**	Pharmacognosy practicals	**100**	**2.1**

46.	**BP 601T**	Medicinal chemistry III	**92**	**2.1**
47.	**BP 602T**	Pharmacology III	**63**	**1.4**
48.	**BP 603T**	Herbal drug technology	**94**	**2.1**
49.	**BP 604T**	Biopharmaceutics	**74**	**2.1**
50.	**BP 605T**	Biotechnology	**74**	**2.1**
51.	**BP 606T**	Quality assurance	**57**	**0.7**
52.	**BP 607P**	Medicinal chemistry III	**94**	**2.1**
53.	**BP 608 P**	Pharmacology III	**100**	**2.1**
54.	**BP 609 P**	Herbal drug technology	**100**	**2.1**
55.	**C401**	Pharmaceutical chemistry –V	**46**	**-**

56.	**C402**	Pharmaceutical Analysis –II	**51**	**0.7**
57.	**C403**	Pharmacognosy-III	**58**	**0.7**
58.	**C404**	Pharmaceutics VI (Formulative & industrial pharmacy)	**48**	**-**
59.	**C405**	Pharmacology – II	**39**	**-**
60.	**C406**	Pharmacy Practice	**25**	**-**
61.	**C407**	Pharmaceutical chemistry –V	**66**	**1.4**

62.	**C408**	Pharmaceutical Analysis –II Practicals	**85**	**2.1**
63.	**C409**	Pharmacognosy-III Practicals	**98**	**2.1**
64.	**C410**	Pharmaceutics VI (Formulative &	**90**	**2.1**
65.	**C411**	Pharmacology – II Practicals	**100**	**2.1**
66.	**C412**	Pharmacy Practice Practicals	**100**	**2.1**
67.	**C413**	Project work	**100**	2.1

Measuring CO attainment through Internal Assessments:

For calculation of CO attainment from internal examinations, all sessional examinations are taken into account. The overall CO attainment from three sessional examiantions are calculated by taking the average of individual co attainment from each sessional examination.

No	Subject code	Subject Name	%of students attained 64%	int attainment
1.	**BP101T**	Human anatomy and physiology I	**90**	**0.9**
2.	**BP102T**	Pharmaceutical analysis I	**90**	**0.9**
3.	**BP103T**	Pharmaceutics I	**95**	**0.9**

4.	**BP104T**	Pharmaceutical inorganic chemistry	**86**	**0.9**
5.	**BP105T**	Communication skills	**94**	**0.9**
6.	**BP107P**	Human anatomy and physiology I practical	**95**	**0.9**
7.	**BP108P**	Pharmaceutical analysis I practical	**97**	**0.9**
8.	**BP109P**	Pharmaceutics I practical	**98**	**0.9**
9.	**BP110P**	Pharmaceutical inorganic chemistry practical	**89**	**0.9**
10.	**BP111P**	Communication skills practical	**95**	**0.9**

11.	**BP201T**	Human anatomy and physiology II	**100**	**0.9**
12.	**BP202T**	Pharmaceutical organic chemistry I	**95**	**0.9**
13.	**BP203T**	Biochemistry	**100**	**0.9**
14.	**BP204T**	Pathophysiology	**100**	**0.9**
15.	**BP205T**	Computer applications in pharmacy	**93**	**0.9**
16.	**BP206T**	Environmental sciences	**91**	**0.9**
17.	**BP207P**	Human anatomy and physiology II practical	**100**	**0.9**

18.	**BP208P**	Pharmaceutical organic chemistry I practical	**91**	**0.9**
19.	**BP209P**	Biochemistry practical	**96**	**0.9**
20.	**BP210P**	Computer applications in pharmacy practical		**0.9**
21.	**BP301T**	Pharmaceutical organic chemistry II	**88**	**0.9**
22.	**BP302T**	Physical Pharmaceutics I	**97**	**0.9**
23.	**BP303T**	Pharmaceutical microbiology	**94**	**0.9**
24.	**BP304T**	Pharmaceutical engineering	**77**	**0.9**

25.	**BP305P**	Pharmaceutical organic chemistry II practical	**88**	**0.9**
26.	**BP306P**	Physical Pharmaceutics I practical	**97**	**0.9**
27.	**BP307P**	Pharmaceutical microbiology practical	**94**	**0.9**
28.	**BP308P**	Pharmaceutical engineering practical	**92**	**0.9**
29.	**BP401T**	Pharmaceutical organic chemistry III	**98**	**0.9**
30.	**BP402T**	Medicinal chemistry I	**98**	**0.9**

31.	**BP403T**	Physical pharmaceutics II	**86**	**0.9**
32.	**BP404T**	Pharmacology I	**99**	**0.9**
33.	**BP405T**	Pharmacognosy and phytochemistry I	**84**	**0.9**
34.	**BP406P**	Medicinal chemistry I Practical	**98**	**0.9**
35.	**BP407P**	Physical pharmaceutics II Practical	**98**	**0.9**
36.	**BP408P**	Pharmacology I practical	**100**	**0.9**
37.	**BP409P**	Pharmacognosy and phytochemistry I practical	**97**	**0.9**
38.	**BP 501T**	Medicinal Chemistry II	**68**	**0.6**

39.	**BP 502T**	Formulative pharmacy	**87**	**0.9**
40.	**BP 503T**	Pharmacology	**97**	**0.9**
41.	**BP 504T**	Pharmacognosy	**71**	**0.9**
42.	**BP 505T**	Jurisprudence	**73**	**0.9**
43.	**BP 506P**	Formulative pharmacy Practicals	**98**	**0.9**
44.	**BP 507P**	Pharmacology practicals	**100**	**0.9**
45.	**BP 508P**	Pharmacognosy practicals	**98**	**0.9**
46.	**BP 601T**	Medicinal chemistry III	**94**	**0.9**
47.	**BP 602T**	Pharmacology III	**100**	**0.9**
48.	**BP 603T**	Herbal drug technology	**98**	**0.9**

49.	**BP 604T**	Biopharmaceutics	**68**	**0.6**
50.	**BP 605T**	Biotechnology	**79**	**0.9**
51.	**BP 606T**	Quality assurance	**100**	**0.9**
52.	**BP 607P**	Medicinal chemistry III	**100**	**0.9**
53.	**BP 608 P**	Pharmacology III	**100**	**0.9**
54.	**BP 609 P**	Herbal drug technology	**95**	**0.9**
55.	**C401**	Pharmaceutical chemistry –V	**81**	**0.9**
56.	**C402**	Pharmaceutical Analysis –II	**83**	**0.9**
57.	**C403**	Pharmacognosy-III	**75**	**0.9**

58.	**C404**	Pharmaceutics VI (Formulative & industrial pharmacy)	**74**	**0.9**
59.	**C405**	Pharmacology – II	**86**	**0.9**
60.	**C406**	Pharmacy Practice	**64**	**0.6**
61.	**C407**	Pharmaceutical chemistry –V	**100**	**0.9**
62.	**C408**	Pharmaceutical Analysis –II Practicals	**100**	**0.9**
63.	**C409**	Pharmacognosy-III Practicals	**98**	**0.9**

64.	**C410**	Pharmaceutics VI (Formulative &	**100**	**0.9**
65.	**C411**	Pharmacology – II Practicals	**100**	**0.9**
66.	**C412**	Pharmacy Practice Practicals	**100**	**0.9**
67.	**C413**	Project work	**100**	0.9

Note: * Indicates- For internal theory examinations CO attainment is measured by question wise attainment (by CO mapping of individual questions) instead of attainment based on total marks as in the case of university theory and practical examinations and internal practical examinations . As calculation is done by attainment level of each question which is mapped with a particular C.O, the percentage of students achieving the set target are not included in the table for internal theory examinations.

Course Outcome Attainment:

	Subject code	**Subject name**	**30% of internal**	**70% of External**	**SUM of 70%+30%**

1.	**BP101T**	Human anatomy and physiology I	**0.9**	**2.1**	3
2.	**BP102T**	Pharmaceutical analysis I	**0.9**	**2.1**	3
3.	**BP103T**	Pharmaceutics I	**0.9**	**2.1**	3
4.	**BP104T**	Pharmaceutical inorganic chemistry	**0.9**	**2.1**	3
5.	**BP105T**	Communication skills	**0.9**	**2.1**	3
6.	**BP107P**	Human anatomy and physiology I practical	**0.9**	**2.1**	3
7.	**BP108P**	Pharmaceutical analysis I practical	**0.9**	**2.1**	3
8.	**BP109P**	Pharmaceutics I practical	**0.9**	**2.1**	3

9.	**BP110P**	Pharmaceutical inorganic chemistry practical	**0.9**	**2.1**	3
10.	**BP111P**	Communication skills practical	**0.9**	**2.1**	3
11.	**BP201T**	Human anatomy and physiology II	**0.9**	**0.7**	1.6
12.	**BP202T**	Pharmaceutical organic chemistry I	**0.9**	**1.4**	2.3
13.	**BP203T**	Biochemistry	**0.9**	**2.1**	3
14.	**BP204T**	Pathophysiology	**0.9**	**2.1**	3
15.	**BP205T**	Computer applications in pharmacy	**0.9**	**2.1**	3

16.	**BP206T**	Environmental sciences	**0.9**	**2.1**	3
17.	**BP207P**	Human anatomy and physiology II practical	**0.9**	**2.1**	3
18.	**BP208P**	Pharmaceutical organic chemistry I practical	**0.9**	**2.1**	3
19.	**BP209P**	Biochemistry practical	**0.9**	**2.1**	3
20.	**BP210P**	Computer applications in pharmacy practical	**0.9**	**2.1**	3
21.	**BP301T**	Pharmaceutical organic chemistry II	**0.9**	**2.1**	3

22.	**BP302T**	Physical Pharmaceutics I	**0.9**	**1**	1.9
23.	**BP303T**	Pharmaceutical microbiology	**0.9**	**0.7**	1.6
24.	**BP304T**	Pharmaceutical engineering	**0.9**	**0.7**	1.6
25.	**BP305P**	Pharmaceutical organic chemistry II practical	**0.9**	**2.1**	3
26.	**BP306P**	Physical Pharmaceutics I practical	**0.9**	**2.1**	3
27.	**BP307P**	Pharmaceutical microbiology practical	**0.9**	**2.1**	3

28.	**BP308P**	Pharmaceutical engineering practical	**0.9**	**2.1**	3
29.	**BP401T**	Pharmaceutical organic chemistry III	**0.9**	**1.4**	2.3
30.	**BP402T**	Medicinal chemistry I	**0.9**	**2.1**	3
31.	**BP403T**	Physical pharmaceutics II	**0.9**	**2.1**	3
32.	**BP404T**	Pharmacology I	**0.9**	**2.1**	3
33.	**BP405T**	Pharmacognosy and phytochemistry I	**0.9**	**1.4**	2.3
34.	**BP406P**	Medicinal chemistry I Practical	**0.9**	**2.1**	3

35.	**BP407P**	Physical pharmaceutics II Practical	**0.9**	**2.1**	3
36.	**BP408P**	Pharmacology I practical	**0.9**	**2.1**	3
37.	**BP409P**	Pharmacognosy and phytochemistry I practical	**0.9**	**2.1**	3
38.	**BP 501T**	Medicinal Chemistry II	**0.6**	**2.1**	2.7
39.	**BP 502T**	Formulative pharmacy	**0.9**	**2.1**	3
40.	**BP 503T**	Pharmacology	**0.9**	**2.1**	3
41.	**BP 504T**	Pharmacognosy	**0.9**	**2.1**	3
42.	**BP 505T**	Jurisprudence	**0.9**	**2.1**	3
43.	**BP 506P**	Formulative pharmacy Practicals	**0.9**	**2.1**	3

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44.	**BP 507P**	Pharmacology practicals	**0.9**	**2.1**	3
45.	**BP 508P**	Pharmacognosy practicals	**0.9**	**2.1**	3
46.	**BP 601T**	Medicinal chemistry III	**0.9**	**2.1**	3
47.	**BP 602T**	Pharmacology III	**0.9**	**1.4**	2.3
48.	**BP 603T**	Herbal drug technology	**0.9**	**2.1**	3
49.	**BP 604T**	Biopharmaceutics	**0.6**	**2.1**	2.7
50.	**BP 605T**	Biotechnology	**0.9**	**2.1**	3
51.	**BP 606T**	Quality assurance	**0.9**	**0.7**	1.6
52.	**BP 607P**	Medicinal chemistry III	**0.9**	**2.1**	3
53.	**BP 608 P**	Pharmacology III	**0.9**	**2.1**	3

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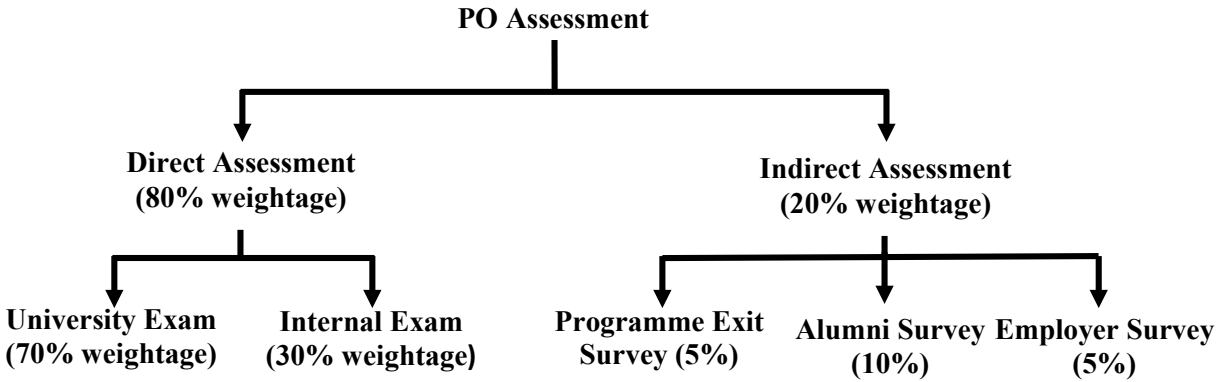
54.	**BP 609 P**	Herbal drug technology	**0.9**	**2.1**	3
55.	**C401**	Pharmaceutical chemistry –V	**0.9**	**-**	0.9
56.	**C402**	Pharmaceutical Analysis –II	**0.9**	**0.7**	1.6
57.	**C403**	Pharmacognosy-III	**0.9**	**0.7**	1.6
58.	**C404**	Pharmaceutics VI (Formulative & industrial pharmacy)	**0.9**	**-**	0.9
59.	**C405**	Pharmacology – II	**0.9**	**-**	0.9
60.	**C406**	Pharmacy Practice	**0.6**	**-**	0.6

61.	**C407**	Pharmaceutical chemistry –V	**0.9**	**1.4**	2.3
62.	**C408**	Pharmaceutical Analysis –II Practicals	**0.9**	**2.1**	3
63.	**C409**	Pharmacognosy-III Practicals	**0.9**	**2.1**	3
64.	**C410**	Pharmaceutics VI (Formulative &	**0.9**	**2.1**	3
65.	**C411**	Pharmacology – II Practicals	**0.9**	**2.1**	3
66.	**C412**	Pharmacy Practice Practicals	**0.9**	**2.1**	3

67.	**C413**	Project work	0.9	2.1	3

3. Attainment of Program Outcomes

3.1. Describe assessment tools and processes used for assessing the attainment of each PO



(I) PO Assessment Rubrics:

PO assessment is done by giving 80% weightage to direct assessment and 20% weightage to indirect assessment. Direct assessment is based on CO attainment through examinations, where 70% weightage is given to attainment through university exam and 30% weightage is given to attainment through internal examinations. Indirect assessment is done through Graduate exit survey, Alumni feedback survey and Employer feedback survey giving percentage weightage of 5%, 10% and 5% respectively.

(II) PO Assessment Tools:

The various direct and indirect assessment tools used to evaluate POs and the frequency with which the assessment processes are carried out are listed in Table 3.1 and 3.2

Table 3.1 Direct Assessment Tools

DIRECT ASSESSMENT TOOLS			
Course Type		**Assessment Tools**	**Minimum Frequency**
Theory		Continuous assessment	Continuous
		Sessional exams	Thrice per course
		University Exam	Once per course
Practical		Daily Performance & viva	Every lab session
		Sessional Lab exam	Once per course
		University Exam	Once per course
Project	**Phase I**	Review	Once per course
	Phase II	Presentation	Once per course
		Evaluation by Guide	Continuous evaluation

Table 3. 2 Indirect Assessment Tools:

I (B) CALCULATION OF STUDENTS EXIT SURVEY ON POs

- **PROGRAMME :B. Pharm**
- **NUMBER OF FEEDBACK FORMS COLLECTED : 42**
- **BATCH : 2016-2020**
- **ACADEMIC YEAR: 2019-2020**

Questions	Excellent (3)	Good (2)	Average (1)	Total Weightage	Percentage	Weightage Based On 3 Scale
1	10	09	03	91	72	2.17
2	05	35	02	87	69	2.07
3	07	31	04	87	69	2.07
4	05	33	04	85	67	2.02
5	04	35	03	85	67	2.02
6	12	27	03	93	74	2.21
7	18	24	00	102	81	2.43
8	07	35	00	91	72	2.17
9	08	34	00	92	73	2.19
10	09	31	02	91	72	2.17
11	10	29	03	91	72	2.17

I (C) RELATION OF POS WITH QUESTIONNAIRE AND PO ATTAINMENT SCORES

Sl.No.	Program Outcomes	Questions involved	PO attainment
1	PO1	1	2.17
2	PO2	2	2.07
3	PO3	3	2.07

4	PO4	4	2.02
5	PO5	5	2.02
6	PO6	6	2.21
7	PO7	7	2.43
8	PO8	8	2.17
9	PO9	9	2.19
10	PO10	10	2.17
11	PO11	11	2.17

II) EMPLOYER/TRAINING SURVEY:

One of the best measures whether the program outcomes are achieved is to analyse the opinion of the employer/trainer about the competency and professionalism exhibited by the graduates in their professional field. For this the employers/trainers are requested to fill up the questionnaire. The knowledge, attitude, skills, professionalism, competency, abilities and other attributes can be

evaluated by the response of employers. Moreover, the questions are related to the program outcomes. The feedback is taken after one year of their joining date. The questionnaire in employer survey form to evaluate attainment of P.O is given in **II (A)** and details of calculations are mentioned **II (B)** and relation of P.O with questionnaire and individual P.O attainments are given in section **II (C).**

II (A) QUESTIONNAIRE FORMAT

EMPLOYERS/TRAINING FEEDBACK FORM

NOTE: Please tick as appropriate for the following questions with respect to BPharm graduate program.

Sl. No	Question/Parameter for evaluation	Excellent	Very good	Good	Fair	Poor
1	How competent are graduates in the application of the basic pharmaceutical sciences and its concepts?					
2	How do you rate the graduate's fundamental pharmacy related knowledge?					
3	How do you rate the graduate's knowledge in the various subjects of pharmaceutical sciences?					
4	How do you rate the graduate's ability to apply the principles learned from various pharmaceutical sciences?					
5	How do you rate the graduate's ability to analyse problems, interpret them and make use of his/her knowledge to solve them?					

6	How good is the graduate's ability in identifying and solving pharmaceutical problems?					
7	How can you rate the graduate's oral communication and presentation skills?					
8	How effective is the graduate's written communication skills? (Ability to write effectively).					
9	How do you rate the graduate's ability to function in teams?					
10	How do you rate the graduate's understanding of his/her ethical and professional responsibilities?					
11	How do you rate the graduate's understanding of the social and global issues that have to be considered while providing solutions to various problems?					
12	How do you rate the graduate's understanding of the need for and the ability to engage in life-long learning?					
13	How do you rate the structure of the curriculum in providing in-depth education in the area of pharmaceutical sciences?					
14	How well the university curriculum has prepared the graduates for their academic/professional career?					
15	Overall rating of the Institute (academic, cocurricular, extra-curricular activities)?					

II (B) CALCULATION OF P.O ATTAINMENT FROM EMPLOYER/TRAINING FEEDBACK FORM

- **PROGRAM: BPHARM**
- **NUMBER OF EMPLOYER FEEDBACK FORMS COLLECTED: 53**
- **ACADEMIC YEAR COLLECTED: 2019-2020**

- Each question is answered by the employer on a scale where the employer can give the grades - Excellent, very good, good, fair and poor which are assigned the marks 4, 3, 2 ,1 and o respectively.
- For example; 53 employer feed backs are taken for calculation. In the feedback forms, for the first question the following was the grading obtained from among 53 employer feedback forms.

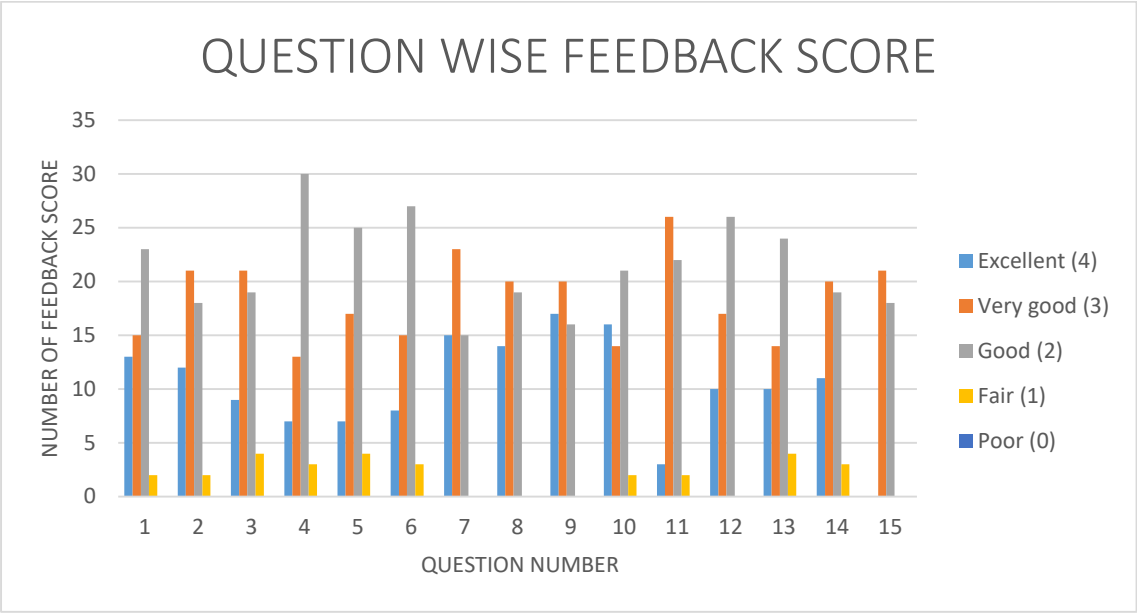
Q.NO	EXCLLENT	V.GOOD	GOOD	FAIR	POOR
1	3	5	5	0	0

So, (13x4) + (15x3) + (23x2) + (2x1) = 52+45+46+2 = 145 (Total weightage)
Number of feedback forms collected= 53
The maximum possible score will be 53 x4 = 212
The score attained for first question = (145/212) x 100 = 68%
The score is to be converted to 3 scale i.e., (68x3) / 100 = 2.1

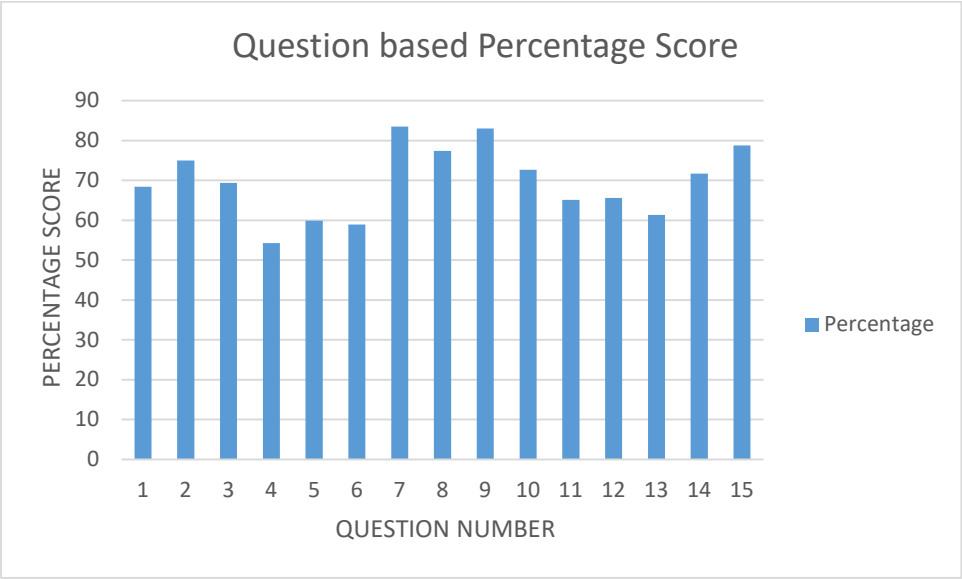
Question Number	Excellent (4)	Very good (3)	Good (2)	Fair (1)	Poor (0)	Total Weightage	Percentage	Score in 3 scale
1	13	14	23	2	0	145	68	2.1
2	12	21	16	3	0	159	75	2.3

3	9	19	19	4	0	147	69	2.1
4	7	13	30	3	0	115	54	1.6
5	14	16	25	4	0	127	60	1.8
6	8	14	27	3	0	125	59	1.8
7	15	23	13	1	0	177	83	2.5
8	13	19	20	0	0	164	77	2.3
9	16	20	15	0	0	176	83	2.5
10	16	14	20	2	0	154	73	2.2
11	3	26	21	2	0	138	65	2.0
12	10	15	27	0	0	139	66	2.0
13	10	14	13	4	0	130	61	1.8
14	11	19	19	3	0	152	72	2.2
15	13	21	18	0	0	167	79	2.4

Score attained for each feedback question:



Percentage score for each question:



Three scale score for each question:

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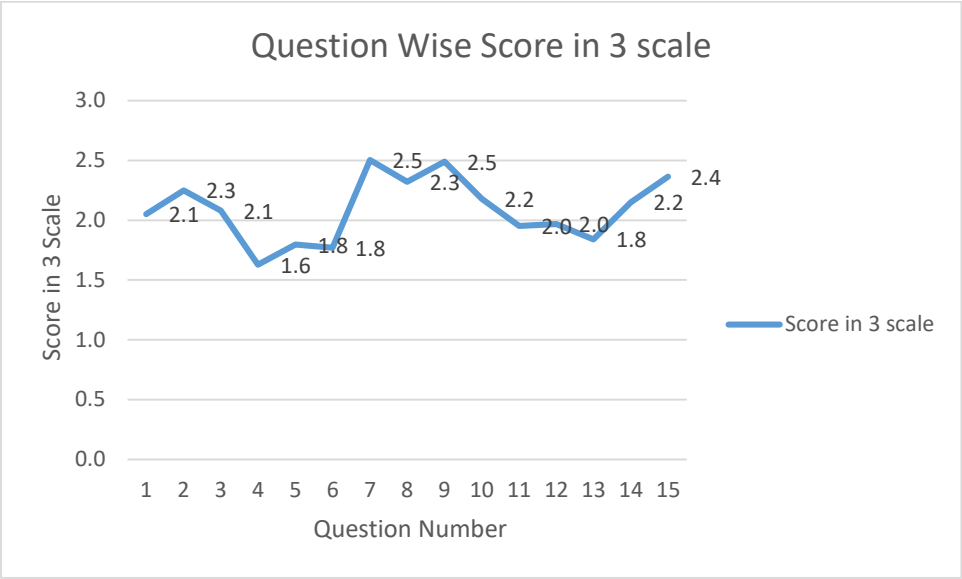

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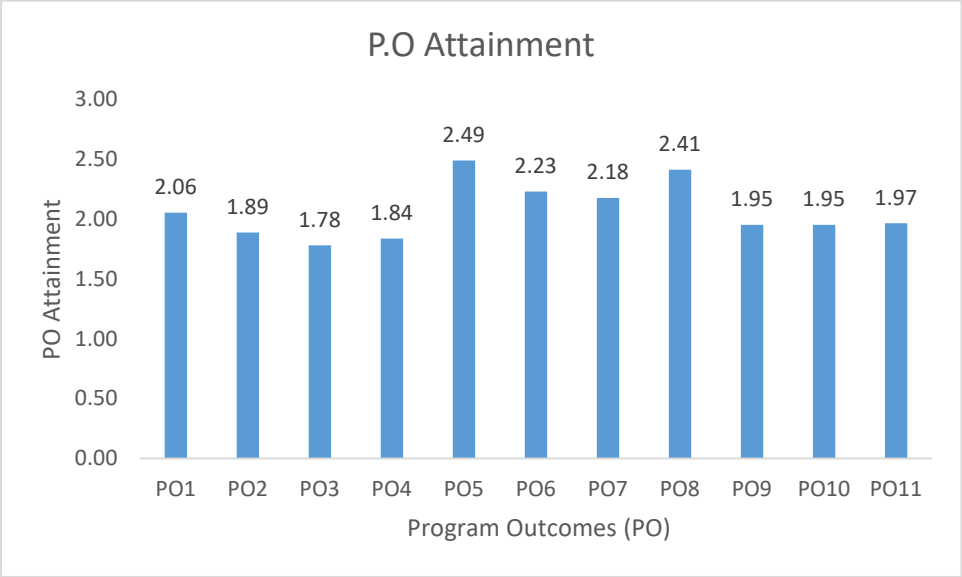
II C) RELATION OF P.O WITH QUESTIONNAIRE AND P.O ATTAINMENT SCORES

Sl. No.	Program Outcomes (P.O)	Questions involved	P.O attainment
1	PO1	1,2,3,13	2.06
2	PO2	4,14	1.89
3	PO3	5,6	1.78
4	PO4	13	1.84
5	PO5	9	2.49
6	PO6	10,14,15	2.23
7	PO7	10	2.18
8	PO8	7,8	2.41

9	PO9	11	1.95
10	PO10	11	1.95
11	PO11	12	1.97



- If one Program outcome is matching only with one question the attainment value of that question is assigned for that particular P.O
- For example, in case of P.O 5, the relevant question is Question no. 9 and hence the attainment of P.O 5 is 2.49.
- Certain POs will be related with more than one question, so the average score of those three questions will be taken

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- For example, P.O 1 is related with 4 questions 1,2,3 and 13, so the average of those four scores 2.1, 2.3, 2.1 and 1.8 is taken. So, the attainment of Program outcome, P.O-1 is 2.06.

III) ALUMNI SURVEY:

Alumni particularly those who have completed one year after graduation are able to respond whether the practiced curriculum have given orientation towards the emerging changes in the field. For calculation of Program Outcomes, feedback is taken from alumni. For that purpose relevant questionnaire in the form of alumni survey form is given during the alumni meet to evaluate attainment of P.Os. The relevant questionnaire is given in section **II (A)** and details of calculations of program outcomes are given in **II (B)** and relation of POs with questionnaire and attainment of P.Os are mentioned in **II (C).**

III (A) QUESTIONNAIRE FORMAT

ALUMNI FEEDBACK FORM

NOTE: Please tick as appropriate for the following questions with respect to B.Pharm graduate program.

Sl. No	Question/Parameter for evaluation	Excellent	Good	Fair	Poor
1	How competent are you in the application of the basic pharmaceutical sciences and its concepts?				
2	How do you rate your fundamental pharmacy-related knowledge?				

3	How do you rate your knowledge in the various subjects of pharmaceutical sciences?				
4	How do you rate your ability to apply the principles learned from various pharmaceutical sciences?				
5	How do you rate your ability to analyze problems, interpret them and make use of your knowledge to solve them?				
6	How good is your ability in identifying, formulating and solving pharmaceutical problems?				
7	How can you rate your oral communication and presentation skills?				
8	How effective is your written communication skills? (Ability to write effectively).				
9	How do you rate your ability to function in teams?				
10	How do you rate your understanding of your ethical and professional responsibilities?				
11	How do you rate your understanding of the social and global issues that have to be considered while providing solutions to various pharmaceutical problems?				
12	How do you rate your understanding of the need for and the ability to engage in life-long learning?				

13	How do you rate the structure of the curriculum in providing in-depth education in the area of pharmaceutical sciences?				
14	How well as the university curriculum prepared you for your academic/professional career?				
15	Overall rating of your college/institute (academic, co-curricular, extra-curricular activities)?				

II (B) CALCULATION OF PROGRAM OUTCOMES FROM ALUMNI FEEDBACK FORM

- PROGRAM: B.Pharm
- NUMBER OF ALUMNI FEEDBACK FORMS COLLECTED: 80
- **ACADEMIC YEAR COLLECTED: 2020-2021**

The calculation for obtaining the PO attainment is calculated is as follows. Each question is answered by the alumni on a scale where the alumni can give the grades - Excellent, Good, Fair and Poor which are assigned the marks 3, 2 ,1 and 0 respectively.

For example **168** alumni feed backs are taken for calculation. In the feed back forms, for the first question the following was the grading obtained from among 80 alumni feed back forms.

Excellent	Good	Fair	Poor
6 response	55 response	18 response	0 response

So, (22x3) + (111x2) + (33x1) = 66+222+33 = 321(Total weightage)
Number of feedback forms collected= 167

The maximum possible score will be 167 x3 = 501
The score attained for first question = (321/501) x 100 = 64.07 %
The score is to be converted to 3 scale i.e., (64.07 x3) / 100 = 1.922

Questions	**Excellent (3)**	**Good (2)**	**Fair (1)**	**Poor (0)**	**Total Weightage**	**Percentage**	**Weightage Based On 3 Scale**
1	**13.2%** **22**	**65.9** % **111**	**20.4** % **33**	**1**	321	64.07185629	1.922156
2	**13.2%** **22**	**72.5** % **122**	**13.8** % **22**	**1**	332	66.26746507	1.988024
3	10.8% **18**	76.6 **129**	12.6 20	**-**	332	66.26746507	1.988024
4	**14.4%** **24**	65.3 % 110	**18.6** % **3**	**1.2** **2**	295	58.88223553	1.766467
5	**20.4%** **34**	**59.9** % **102**	**19.8** % **33**	**-**	339	67.66467066	2.02994
6	**11.4%** **19**	**66.5** % **112**	**21.6** % **36**	**0.5** **1**	317	63.27345309	1.898204
7	**26.3%** 44	**62.9** % 106	**10.2** % 17	**0.6** **1**	361	72.05588822	2.161677

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8	**29.9%** 50	**61.7 %** 104	**8.4%** 14	**-**	372	74.25149701	2.227545
9	**36.5%** 61	**58.1 %** 98	**5.4% 9**	**-**	388	77.44510978	2.323353
10	**33.5%** 56	**60.5 %** 101	**6%** 10	**-**	380	75.84830339	2.275449
11	**13.8%** 23	**64.1 %** 108	**22.2 %** 37	**-**	322	64.27145709	1.928144
12	**22.8% 38**	**68.9 %** 116	**7.8%** 13	**0.5 1**	359	71.65668663	2.149701
13	**17.4%** 29	**56.3 %** 95	**19.8 %** 34	**7% 10**	311	62.0758483	1.862275
14	**14.5%** 24	**59%** 99	**21.1 %** 36	8	306	61.07784431	1.832335
15	**44%** 74	**46.4 %** 78	**8.9%** 14	**1**	392	78.24351297	2.347305

I II (C) RELATION OF POS WITH QUESTIONNAIRE AND PO ATTAINMENT SCORES

Sl.No.	Program Outcomes	Questions involved	PO attainment

1	PO1	1,2,3,13	1.940119
2	PO2	4,14	1.799401
3	PO3	5,6	1.964072
4	PO4	13	1.862275
5	PO5	09	2.323353
6	PO6	10,14,15	2.151696
7	PO7	10	2.275449
8	PO8	7,8	2.194611
9	PO9	11	1.928144
10	PO10	11	1.928144
11	PO11	12	2.149701

INDIRECT ASSESMENT TOOLS: ATTAINMENT OF PROGRAM OUTCOMES

FINAL RESULTS: INDIRECT ASSESSEMENT SURVEY (WEIGHTAGE WISE: 20 %)

PO'S	EMPLOYER SURVEY	5%(A)	ALUMINI SURVEY	10%(B)	PO EXIT SURVEY	5%(C)	20%(A+B+C)
PO1	2.06	0.10	1.94	0.19	2.17	0.11	0.081
PO2	1.89	0.09	1.80	0.18	2.07	0.10	0.076
PO3	1.78	0.09	1.96	0.20	2.07	0.10	0.078
PO4	1.84	0.09	1.86	0.19	2.02	0.10	0.076
PO5	2.49	0.12	2.32	0.23	2.02	0.10	0.092
PO6	2.23	0.11	2.15	0.22	2.21	0.11	0.087
PO7	2.18	0.11	2.28	0.23	2.43	0.12	0.092
PO8	2.41	0.12	2.19	0.22	2.17	0.11	0.090
PO9	1.95	0.10	1.93	0.19	2.19	0.11	0.080
PO10	1.95	0.10	1.93	0.19	2.17	0.11	0.080
PO11	1.97	0.10	2.15	0.21	2.17	0.11	0.084

NIRMALA COLLEGE OF PHARMACY Muvattupuzha Ernakulam Dist. Kerala

3.2.RESULTS OF EVALUATION OF EACH PO FOR THE ACADEMIC YEAR 2019-2020

3.2 Provide results of evaluation of each PO

PO DIRECT ASSESSMENT PROCESSES:

The CO attainment level calculation of university theory and practical examinations and internal practical examinations are mentioned in 2.2.

PO CALCULATION TEMPLATE

Model for Calculation of Final PO Attainment level eg:C105

Set or target CO-PO matrix average level (by teacher)

Subject code	Subject Name	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
BP102T (Average)	PHARMACEUTICAL ANALYSIS	3	2.4	2.5	2.3	1.8	2.2	1.5	2.2	1.5	1	2.2

CO Level Attained from Examination Result

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Subject code	Subject Name	30% of internal	70% of External	SUM of 70%+30%
BP102T (Average)	PHARMACEUTICAL ANALYSIS	0.59	2.1	2.7

For calculating the attainment of individual POs the following equation is used

(Set PO level x CO level attained in result)/Maximum score level

For example, for calculation of PO6

- Set PO level for PO6 is 2.2
- CO level attained in exams result is 2.7
- Maximum score level which can be attained is 3

So the attainment of PO6= (2.2x2.7)/3= 1.98

- Attainment of that PO in terms of % is (1.98x100)/3= 66
- Gap for that PO is 100-66 ie, 34

NIRMALA COLLEGE OF PHARMACY Muvattupuzha Ernakulam Dist. Kerala

P.O. ATTAINMENT FOR THE ACADEMIC YEAR THROUGH DIRECT AND INDIRECT ASSESSMENT TOOLS

Sl No.	Subject code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
1	**BP101T**	3	1	1	2.8	1	2.8	3	1.8	3	1	3
2	**BP102T**	3	2.4	2.5	2.3	1.8	2.2	1.5	2.2	1.5	1	2.2
3	**BP103T**	3	2.6	2	1.8	1.8	3	2	2	0.4	0.2	2.2
4	**BP104T**	2.25	1.73	1.73	1.30	1.56	1.47	1.73	1.21	1.30	1.91	1.73
5	**BP105T**	0.33	0.87	0.93	0.67	0.87	0.73	0.67	1.00	0.93	0.57	0.67
6	**BP107P**	3.00	1.60	1.80	1.80	1.00	2.00	1.60	1.80	1.00	1.80	2.00
7	**BP108P**	3.00	3.00	2.80	2.40	2.25	2.60	2.60	2.80	2.75	2.50	3.00
8	**BP109P**	3.00	2.60	3.00	2.60	2.80	3.00	2.20	3.00	2.60	1.20	2.60
9	**BP110P**	1.33	1.47	1.33	1.47	1.33	1.60	1.20	1.33	1.20	1.60	1.20
10	**BP111P**	0.33	0.73	0.67	0.87	0.80	0.93	0.73	1.00	1.00	0.73	0.60
11	**BP201T**	3.00	1.00	1.00	2.80	1.00	2.80	2.60	1.80	3.00	1.00	3.00
12	**BP202T**	3.00	1.00	2.00	2.00	1.00	2.00	1.00	2.40	1.80	1.80	3.00
13	**BP203T**	3.00	2.50	2.80	3.00	3.00	2.40	3.00	0.00	2.40	3.00	3.00
14	**BP204T**	3.00	2.80	2.60	3.00	2.00	2.00	1.00	3.00	3.00	3.00	2.00
15	**BP205T**	1.92	1.92	2.08	2.40	1.60	2.40	2.00	1.28	1.60	0.00	2.40
16	**BP206T**	3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

17	**BP207P**	3.00	3.00	2.50	3.00	1.70	2.00	2.80	2.00	2.00	1.00	3.00
18	**BP208P**	3.00	2.40	2.80	2.00	1.00	1.20	1.20	1.60	2.00	1.80	3.00
19	**BP209P**	1.33	1.47	1.33	1.47	1.33	1.60	1.20	1.33	1.20	1.60	1.20
20	**BP210P**	1.33	0.00	0.00	0.00	0.00	0.00	1.33	0.67	0.00	0.00	1.07
21	**BP301T**	2.61	1.31	2.05	1.68	0.75	0.56	0.37	0.93	1.12	1.49	2.24
22	**BP302T**	3.00	2.60	2.60	2.50	2.00	2.40	0.00	2.00	1.60	0.00	2.80
23	**BP303T**	3.00	2.00	2.00	1.00	1.00	2.00	1.20	2.00	2.00	1.40	1.00
24	**BP304T**	1.92	0.96	0.96	2.08	0.96	1.60	0.32	1.44	0.48	0.32	1.12
25	**BP305P**	3.00	2.60	2.80	2.40	1.20	1.80	1.60	2.00	2.40	2.20	3.00
26	**BP306P**	3.00	3.00	3.00	1.00	2.00	3.00	0.00	3.00	1.40	0.00	3.00
27	**BP307P**	3.00	2.00	1.80	1.00	1.20	1.80	1.20	2.00	1.60	1.80	2.00
28	**BP308P**	3.00	2.40	3.00	3.00	2.20	1.80	0.00	1.80	0.60	1.20	3.00
29	**BP401T**	3.00	2.00	3.00	2.80	1.60	1.40	1.20	1.40	1.80	2.40	3.00
30	**BP402T**	3.00	2.20	2.60	2.00	1.20	1.80	1.00	2.00	2.00	1.60	2.80
31	**BP403T**	3.00	2.60	2.60	2.50	2.00	2.40	3.00	2.00	1.60	0.00	2.80
32	**BP404T**	3.00	1.60	1.80	1.80	1.30	1.80	1.80	1.60	2.00	1.20	2.80
33	**BP405T**	3.00	2.40	2.60	1.40	1.40	2.40	1.80	1.80	2.20	2.80	2.60

34	**BP406P**	2.61	2.80	2.24	1.31	1.87	2.43	1.68	2.24	1.87	1.21	2.80
35	**BP407P**	3.00	3.00	3.00	1.00	2.00	3.00	2.00	3.00	1.40	0.00	3.00
36	**BP408P**	3.00	2.00	2.00	2.00	1.00	1.80	2.00	1.80	1.40	1.60	2.40
37	**BP409P**	1.92	2.24	2.24	1.28	1.76	2.08	1.92	2.08	2.24	2.24	2.24
38	**BP 501T**	3.00	2.00	2.60	1.80	1.00	2.20	1.00	2.00	2.00	1.60	3.00
39	**BP 502T**	2.61	1.68	1.87	2.33	1.87	2.15	1.87	1.17	1.87	0.93	1.49
40	**BP 503T**	3.00	1.20	1.00	3.00	1.00	3.00	2.50	1.40	2.20	1.00	3.00
41	**BP 504T**	3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
42	**BP 505T**	3.00	2.80	1.00	1.00	2.00	3.00	3.00	2.00	2.00	3.00	3.00
43	**BP 506P**	3.00	2.00	1.70	2.00	1.00	2.60	2.00	1.40	1.50	1.00	2.00
44	**BP 507P**	3.00	2.00	2.00	2.00	1.00	1.80	2.00	1.80	1.40	1.00	2.40
45	**BP 508P**	3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
46	**BP 601T**	3.00	2.00	2.60	1.80	1.00	2.20	1.00	2.00	2.00	1.60	3.00
47	**BP 602T**	3.00	1.20	1.60	2.60	1.00	2.40	3.00	2.60	2.60	1.00	3.00
48	**BP 603T**	3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
49	**BP 604T**	3.00	3.00	3.00	2.80	3.00	3.00	2.00	3.00	2.80	2.20	3.00
50	**BP 605T**	3.00	2.00	2.00	2.50	1.00	2.00	1.75	2.00	1.75	2.00	2.50

51	**BP 606T**	3.00	2.60	2.80	1.25	1.60	2.40	2.40	2.20	2.20	1.80	2.80
52	**BP 607P**	2.61	2.80	2.24	1.31	1.87	2.43	1.68	2.24	1.87	1.21	2.80
53	**BP 608 P**	3.00	2.00	2.00	2.00	1.00	1.80	2.00	1.80	1.40	1.60	2.40
54	**BP 609 P**	3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
55	**C401**	3.00	2.20	2.60	2.20	1.40	1.80	1.00	1.80	2.00	1.80	2.80
56	**C402**	3.00	2.40	2.60	2.60	1.80	2.40	1.50	1.60	1.30	1.50	2.80
57	**C403**	2.25	2.08	1.91	2.08	1.56	2.08	2.25	2.08	2.08	2.08	2.25
58	**C404**	3.00	1.60	1.60	1.80	2.00	2.20	2.00	1.80	2.00	1.00	1.60
59	**C405**	3.00	2.00	2.40	2.40	2.00	2.20	2.40	2.40	2.40	1.50	3.00
60	**C406**	3.00	2.00	2.60	2.60	2.00	2.60	2.40	2.60	2.60	1.60	2.00
61	**C407**	2.61	1.87	1.87	2.24	1.49	1.31	0.93	1.49	1.68	2.05	2.61
62	**C408**	3.00	2.60	2.20	2.80	1.60	2.00	1.30	1.80	1.30	1.30	2.80
63	**C409**	1.92	2.24	2.24	1.28	1.76	2.08	1.92	2.08	2.24	2.24	2.24
64	**C410**	3.00	2.00	1.80	2.00	1.00	2.60	2.00	1.40	1.80	1.00	2.00
65	**C411**	3.00	2.20	2.20	2.20	1.00	2.40	1.80	1.80	2.00	1.00	2.60
66	**C412**	3.00	2.00	2.60	2.80	2.00	2.60	2.60	2.80	2.80	1.60	2.00
67	**C413**	3.00	2.00	3.00	2.20	2.20	2.60	2.00	3.00	3.00	1.00	3.00
	DA	2.73	2.11	2.18	2.00	1.62	2.17	1.79	1.98	1.91	1.52	2.46

	80%OF DA	2.18	1.69	1.75	1.60	1.29	1.74	1.43	1.58	1.53	1.22	1.96
	IA											
	20% OF IA	0.4	0.37	0.39	0.38	0.45	0.44	0.46	0.45	0.4	0.4	0.42
	TOTAL PO ATTAINMENT	2.58	2.06	2.14	1.98	1.74	2.18	1.89	2.03	1.93	1.62	2.38

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