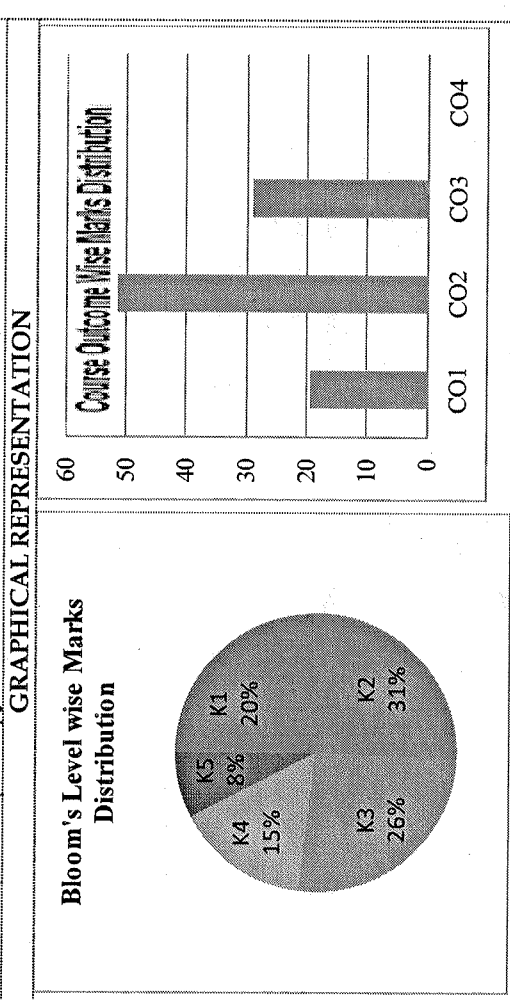
		1st INTERNAL EXAMINATION School of Pharmacy		
ARKA JAIN University Jharkhand		D. Pharmacy		Pharmacy		
Branch		Subject Name		Semester/Year		
D. Pharmacy		Hospital and Clinical Pharmacy		II		
Time: 1 Hour Max. Marks : 40		Year		October 2025		
• Answer all Questions of Section A (Compulsory) • Answer Any Three out of Four of Section B • Answer Any Five out of Six of Section C • Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or Discussing with Co-Student will come under Unfair Means and will Result in the Cancellation of the Papers.						
Knowledge Level (KL)		K1 : Remembering		K3 : Applying		
		K2 : Understanding		K4 : Analysing		
				K5 : Evaluating		
				K6 : Creating		
Section A (Each question Carry 01 Marks from Q1-i to Q1-x) – 10 Marks						
Q. N1	QUESTIONS				Marks	COs
i	The main objective of a hospital pharmacy is: a) To manufacture bulk drugs b) To provide safe and effective medication use c) To conduct community surveys d) To promote herbal medicine use अस्पताल की फार्मसी का मुख्य उद्देश्य है: क) बौक औषधियों का निर्माण ख) सुरक्षित और प्रभावी औषधि उपयोग प्रदान करना ग) सामुदायिक सर्वेक्षण करना घ) हर्बल औषधियों के उपयोग को बढ़ावा देना				1	CO1 K1, K2
ii	Floor stock system is related to: a) Manufacturing of drugs b) Drug distribution in wards c) Preparation of parenterals d) Patient counseling फ्लोर स्टॉक प्रणाली निम्न से संबंधित है: क) दवाओं का निर्माण ख) बाडों में दवा वितरण ग) पैरेन्टल तैयार करना घ) रोगी परामर्श				1	CO1 K2 PO1, PO2
iii	The main drawback of floor stock system is: a) Reduced nursing time b) Increased chances of medication errors c) Economical for hospital द) Provides better control फ्लोर स्टॉक सिस्टम का मुख्य नुकसान यह है: क) नर्सिंग समय में कमी ख) दवा संबंधी त्रुटियों की संभावना बढ़ जाती है ग) अस्पताल के लिए किफायती घ) बेहतर नियंत्रण प्रदान करता है				1	CO2 K3 PO2, PO3
iv	The system best suited for intensive care units (ICU) is: a) Floor stock system b) Unit dose system c) Satellite pharmacy system d) Combination of all गहन चिकित्सा इकाइयों (आईसीयू) के लिए सबसे उपयुक्त प्रणाली है: अ) फ्लोर स्टॉक प्रणाली ब) यूनिट डोज प्रणाली क) सैटेलाइट फार्मसी प्रणाली द) सभी का संयोजन				1	CO1 K3 PO2
v	Drug Information Centre (DIC) is a part of: a) Clinical pharmacy services b) Manufacturing unit c) Regulatory affairs d) Nursing care				1	CO2 K4 PO3

CO- Course Outcomes,	KL- Knowledge Level,	PO – Program Outcome
CO1	Explain about the basic concepts of hospital pharmacy administration	
CO2	Manage the supply chain and distribution of medicines within the hospital settings	
CO3	Assist the other healthcare providers in monitoring drug therapy and address drug related problems	
CO4	Interpret common lab investigation reports for optimizing drug therapy	

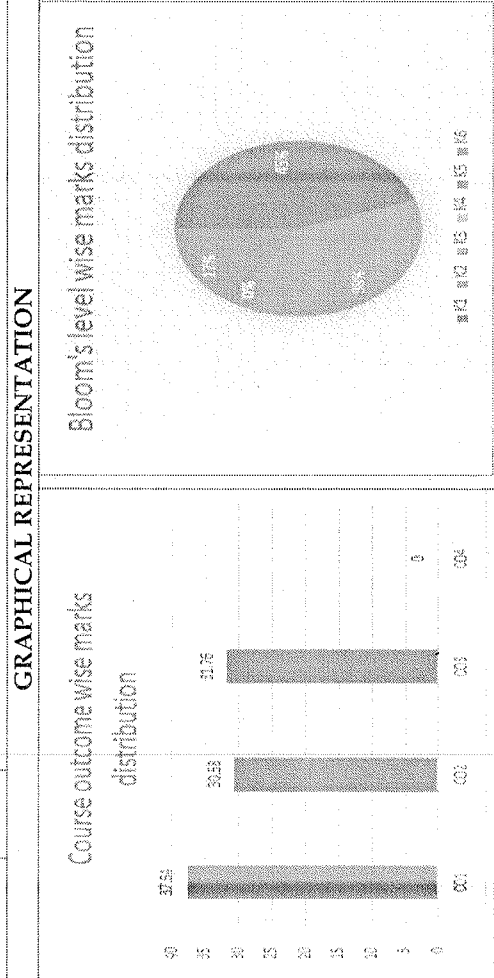


Branch	D. Pharmacy	Program	Pharmacy
Subject Name	Pharmacotherapeutics-theory	Semester/Year	II
		Year	October 2025
Time: 1 Hour Max. Marks : 40	<ul style="list-style-type: none"> • Answer all Questions of Section A (Compulsory) • Answer Any Three out of Four of Section B • Answer Any Five out of Six of Section C • Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or Discussing with Co-Student will come under <u>Unfair Means</u> and will <u>Result</u> in the <u>Cancellation of the Papers.</u> 		
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating
	K2 : Understanding	K4 : Analysing	K6 : Creating

Section A (Each question Carry 01 Marks from Q1-i to Q1-x) – 10 Marks					
Q. N1	QUESTIONS	Marks	COs	KL	PO
i	Pharmacotherapeutics primarily deals with: a) Discovery b) Causes c) Treatment d) Manufacturing फार्माकोथेरेप्यूटिक्स मुख्य रूप से किससे संबंधित है? a) खोज b) कारण c) उपचार d) निर्माण	1	CO1, CO2	KL, K2	PO1
ii	Main objective of pharmacotherapeutics is: a) Price b) Treat c) Discover d) Regulate फार्माकोथेरेप्यूटिक्स का मुख्य उद्देश्य है: a) कीमत b) उपचार c) खोज d) नियंत्रण	1	CO1, CO2	KL, K2	PO1, PO3
iii	Essential Medicines List is prepared by: a) WHO b) UNESCO c) FDA d) WTO आवश्यक दवाओं की सूची किसके द्वारा बनाई जाती है? a) WHO b) UNESCO c) FDA d) WTO	1	CO2, CO3	KL, K2	PO2
iv	Purpose of Essential Medicines List is: a) Restrict b) Availability c) Overuse d) Promote आवश्यक दवाओं की सूची का उद्देश्य है: a) प्रतिबंध b) उपलब्धता	1	CO2, CO3	KL, K2	PO2, PO4

PO – Program Outcome

CO- Course Outcomes,	KL- Knowledge Level,	PO – Program Outcome
CO1	Help assessing the subjective and objective parameters of patients in common disease condition.	
CO2	Assist other healthcare providers to analyse drug related problems and provide therapeutic interventions.	
CO3	Participate in planning the rational medicine therapy for common diseases.	
CO4	Design and deliver discharge counselling for patients.	



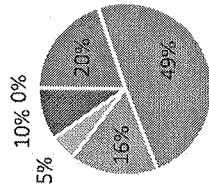
	c) अधिक उपयोग	d) प्रचार				
v	STGs are important because they: a) Irrational c) Resistance मानक उपचार दिशानिर्देश (STGs) महत्वपूर्ण हैं क्योंकि वे: a) अनुचित c) प्रतिरोध	b) Uniform d) Reduce b) एक रूप d) कमी	1	CO1, CO3	K1, K2	PO4
vi	Non-pharmacological management of Hypertension includes: a) Salt c) Weight हाइपरटेंशन का नै-औषधीय प्रबंधन है: a) नमक c) वजन	b) Exercise d) All b) व्यायाम d) सभी	1	CO1, CO2	K1, K2	PO2, PO4
vii	Primary cause of angina is: a) Mismatch c) Kidney एंजाइना का प्राथमिक कारण है: a) असंतुलन c) गुर्दा	b) Infection d) Caffeine b) संक्रमण d) कैफीन	1	CO1, CO3	K1, K2	PO1, PO2
viii	Drug of choice in angina attack: a) Atenolol c) Aspirin एंजाइना अटैक में चयनित दवा: a) एटनोलोल c) एस्पिरिन	b) NTG d) Digoxin b) NTC d) डिगॉक्सिन	1	CO1, CO3	K1, K2	PO1, PO2
ix	Major risk factors of essential Hypertension: a) Obesity, salt, stress c) Vitamin एसेन्शियल हाइपरटेंशन के मुख्य जोखिम कारक: a) मोटापा, नमक, तनाव c) विटामिन	b) Virus d) Autoimmune b) वायरस d) ऑटोइम्यून	1	CO1, CO2	K1, K2	PO2, PO3
x	Most common cause of angina is: a) Atherosclerosis c) Valve एंजाइना का सबसे सामान्य कारण है: a) एथरोस्क्लेरोसिस c) वाल्व	b) Embolism d) Pericarditis b) एम्बोलिज्म d) पेरिकार्डिटिस	1	CO2, CO3	K1, K2	PO2, PO4
Section B Answer any three out of Four [3 x 5 = 15 Marks]						
Q. No.	QUESTIONS		Marks	COs	KL	PO
2	Write a detailed note on the scope of Pharmacotherapeutics. फार्माकोथेरेप्यूटिक्स के क्षेत्र पर एक विस्तृत टिप्पणी लिखिए।		5	CO1, CO2	K2, K6	PO1

3	Write a note on the rational use of medicines. औषधियों के युक्तिमता उपयोग पर एक टिप्पणी लिखिए।	5	CO2, CO3	K1, K2	PO1, PO2	
4	What are Standard Treatment Guidelines? Write their advantages in healthcare practice. मानक उपचार दिशा-निर्देश क्या हैं? स्वास्थ्य सेवा अभ्यास में इनके क्या लाभ हैं?	5	CO3	K1, K6	PO1, PO3	
5	Write an explanatory note on the Essential Medicines List. आवश्यक औषधियों की सूची पर एक व्याख्यात्मक टिप्पणी लिखिए।	5	CO1, CO3	K1, K2	PO2	
Section C Answer any five out of six [5 x 3 = 15 Marks]						
Q. No.	QUESTIONS		Marks	COs	KL	PO
6	Give a treatment plan for angina pectoris. एनजाइना पेक्टोरिस के उपचार की योजना बताइए।	3	CO1, CO2	K1, K6	PO2, PO4	
7	What are the etiological factors of atherosclerosis? एथरोस्क्लेरोसिस के कारणत्मक कारक क्या हैं?	3	CO1	K1, K2	PO1	
8	Name a few complications of myocardial infarction. मायोकार्डियल इन्फार्क्शन की कुछ जटिलताओं के नाम बताइए।	3	CO1, CO3	K1, K2	PO1, PO2	
9	What is hypertension? Mention and explain any two lifestyle modifications useful in the management of Hypertension. हाइपरटेंशन क्या है? हाइपरटेंशन के प्रबंधन में उपयोगी किसी भी दो जीवनशैली परिवर्तन का उल्लेख करें और संक्षेप में समझाएँ।	3	CO1, CO2	K1, K6	PO1, PO2	
10	Give the signs and symptoms of angina pectoris. एनजाइना पेक्टोरिस के लक्षण और लक्षण-चिह्न बताइए।	3	CO2	K1, K2	PO1, PO2	
11	Write a detailed note on the pharmacological management of myocardial infarction. मायोकार्डियल इन्फार्क्शन के औषधीय प्रबंधन पर एक विस्तृत टिप्पणी लिखिए।	3	CO1, CO3	K1, K2	PO1, PO2	

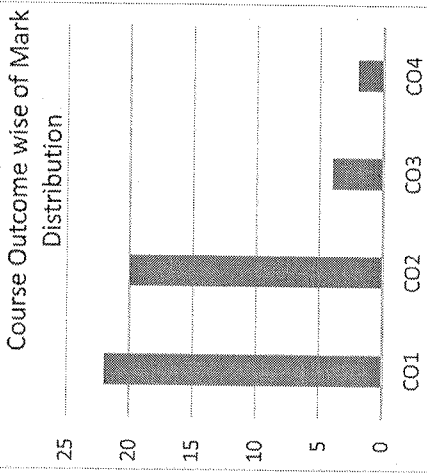
CO1	Describe the basic concepts of pharmacokinetics and pharmacodynamics.
CO2	Enlist the various classes and drugs of choices for any given disease condition
CO3	Advise the dosage regimen, route of administration and contraindications for a given drug
CO4	Describe the common adverse drug reactions.

GRAPHICAL REPRESENTATION

Bloom's Level wise Marks Distribution



■ K1 ■ K2 ■ K3 ■ K4 ■ K5 ■ K6



				1st INTERNAL EXAMINATION School of Pharmacy			
Branch	D. Pharmacy	Program	Pharmacy	Semester/Year	11 th Year		
Subject Name	Pharmacology	Year			October 2025		
Time: 1 Hour Max. Marks : 30	• Answer all Questions of Section A (Compulsory) • Answer Any Three out of Four of Section B • Answer Any Five out of Six of Section C • Possession of <u>Mobile Phones</u> or any kind of <u>Written Material, Arguments with the Invigilator or Discussing with Co-Student</u> will come under <u>Unfair Means</u> and will <u>Result in the Cancellation of the Papers.</u>						
Knowledge Level (KL)	K1 : Remembering K2 : Understanding	K3 : Applying K4 : Analysing	K5 : Evaluating K6 : Creating				
Section A (Each question Carry 01 Marks from Q1-i to Q1-x) – 10 Marks							
Q. N 1	QUESTIONS			Mark s	COs	KL	PO
i	M3 receptor present in _____ a) Exocrine Glands b) CNS c) Heart दृग्ग रिसेप्टर _____ में मौजूद होता है a) एक्सीक्राइन ग्रंथियाँ b) सीएनएस c) हृदय d) स्वायत्त नाडीग्रन्थि			1	CO1	K2, K3	P0 10
ii	The term "pharmacokinetics" refers to the: a) Study of drug interactions with cellular components b) Study of the effects of drugs on the body c) Study of drug absorption, distribution, metabolism, and excretion d) Study of drug-drug interactions "फार्माकोकाइनेटिक्स" शब्द का तात्पर्य है: a) सेलुलर घटकों के साथ दवा की परस्पर क्रिया का अध्ययन b) शरीर पर दवाओं के प्रभाव का अध्ययन c) दवा के अवशोषण, वितरण, चयापचय और उत्सर्जन का अध्ययन d) दवा-दवा परस्पर क्रिया का अध्ययन			1	CO1	K2	P0 2
iii	Which of the following drugs is classified as Anti-cholinergic drug? a) Atenolol b) Atropine c) Morphine d) Diazepam निम्नलिखित में से कौन सी दवा एंटी-कोलीनर्जिक दवा के रूप में वर्गीकृत है? a) एटेनोलॉल b) एट्रोपिन c) मोर्फिन d) डायजेपाम			1	CO2	K3	P0 2
iv	Which of the following drugs is classified as a beta-blocker? a) Propranolol b) Atropine			1	CO2	K3	P0 2

Section B Answer any Three out of Four [3 x 5 = 15 Marks]					
Q. No.	QUESTIONS	Mark s	COs	KL	PO
2	Describe the Factors affecting the Drug Absorption and metabolism. दवा अवशोषण और चयापचय को प्रभावित करने वाले कारकों का वर्णन करें।	5	CO1	K1, K2	PO2
3	Describe steps involving Neurohumoral transmission. न्यूरोह्यूमोरल संचरण में शामिल चरणों का वर्णन करें।	5	CO1	K2	PO1
4	Classify the Adrenergic Drugs and write down the uses of each classes. एड्रेनेर्जिक औषधियों को वर्गीकृत करें और प्रत्येक वर्ग के उपयोग लिखें।	5	CO2	K2	PO1
5	Classify the Cholinergic Drugs and write down the uses of each classes. कोलीनर्जिक औषधियों को वर्गीकृत करें और प्रत्येक वर्ग के उपयोग लिखें।	5	CO2	K2	PO1
Section C Answer any Five out of Six [5 x 3 = 15 Marks]					
Q. No.	QUESTIONS	Mark s	COs	KL	PO
6	Give a short note On Routes of drug administration. दवा प्रशासन के मार्गों पर एक संक्षिप्त जानकारी दीजिए।	3	CO3	K3	PO1
7	Classify Cholinergic Receptors with their Locations. कोलीनर्जिक रिसेप्टर्स को उनके स्थान के अनुसार वर्गीकृत करें।	3	CO2	K3, K4	PO1
8	Describe the differences between agonists and antagonists in pharmacology. Give examples of each. औषध विज्ञान में एगोनिस्ट और एंटागोनिस्ट के बीच अंतर बताएं। प्रत्येक का उदाहरण दें।	3	CO1	K5	PO1
9	Describe the Factors affecting the Drug Excretion. दवा उत्सर्जन को प्रभावित करने वाले कारकों का वर्णन करें।	5	CO1	K1, K2	PO2
10	Classify Adrenergic Receptors with their Locations. एड्रेनेर्जिक रिसेप्टर्स को उनके स्थान के साथ वर्गीकृत करें।	3	CO2	K2	PO1
11	Define the Following terms. A. Antagonist B. Agonist C. Receptor निम्नलिखित शब्दों को परिभाषित करें। A. प्रतिपक्षी B. एगोनिस्ट C. रिसेप्टर	3	CO1	K5	PO1

v	c) Morphine निम्नलिखित में से कौन सी दवा बीटा-ब्लॉकर के रूप में वर्गीकृत है? a) प्रोप्रानोलॉल b) एट्रोपिन c) मोर्फिन d) डायजेपाम d) Diazepam	1	CO3	K1	PO10
vi	Enzyme induction results in: a) Increased metabolism of drugs b) Decreased metabolism of drugs c) No change in metabolism d) Increased drug absorption एंजाइम प्रेरण के परिणामस्वरूप: a) औषधियों का उपापचय बढ़ जाता है b) औषधियों का उपापचय कम हो जाता है c) उपापचय में कोई परिवर्तन नहीं होता d) औषधि अवशोषण में वृद्धि होती है	1	CO4	K1	PO10
vii	The main side effect of benzotropine is a) Miosis b) Confusion c) Diarrhoea d) GIT haemorrhage बेंज़ट्रोपिन का मुख्य दुष्प्रभाव है a) मिओसिस b) भ्रम c) दस्त d) जीआईटी रक्तस्राव	1	CO1	K1, K2	PO1, PO2
viii	Study of poisonous effect of drugs or Over dose of Drug is Know as ____ a) Pharmacokinetics b) Toxicology c) Pharmacology d) Pharmacodynamics दवाओं के विषैले प्रभाव या दवा की अधिक खुराक के अध्ययन को ____ के रूप में जाना जाता है। a) फार्माकोइनेटिक्स b) विष विज्ञान c) फार्माकोडायनामिक्स d) फार्माकोडायनामिक्स	1	CO2	K5	PO10
ix	In an unconscious patient which is the preferred route of drug administration- a) Oral ingestion b) Inhalation c) Enteral route d) Intravenous बेहोश मरीज में दवा देने का पसंदीदा तरीका कौन सा है- a) मुंह से लेना b) सांस द्वारा लेना c) अंतःसाजी मार्ग d) अंतःशिरा	1	CO2	K1, K2	PO2
x	Propranolol is useful for: a. Asthma b. Ventricular tachycardia c. Anaesthesia d. Atropine poison प्रोप्रानोलॉल निम्न के लिए उपयोगी है: a. अस्थमा b. वेंट्रिकुलर टैचीकार्डिया c. एनेस्थीसिया d. एट्रोपिन जहर	1	CO1	K3	PO2
	The science concerned with the study of mechanism of action of drug and pharmacological effects produced on the human body is known as: a) Pharmacokinetics b) Toxicology c) Pharmacology d) Pharmacodynamics मानव शरीर पर दवा की क्रियाविधि और औषधीय प्रभावों के अध्ययन से संबंधित विज्ञान को क्या कहते हैं? a) फार्माकोइनेटिक्स b) विष विज्ञान c) फार्माकोडायनामिक्स d) फार्माकोडायनामिक्स	1	CO1	K3	PO2

Branch	D. Pharmacy	Program	Pharmacy
Subject Name	Community Pharmacy and Management	Semester/Year	II
		Year	October 2025

Time: 1 Hour Max. Marks : 30

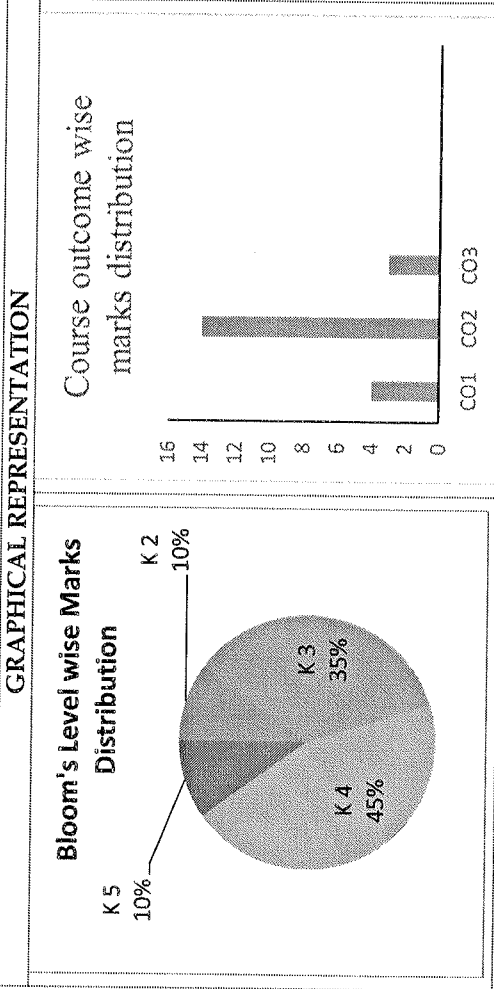
Knowledge Level (KL)

K1 : Remembering K3 : Applying K5 : Evaluating
K2 : Understanding K4 : Analysing K6 : Creating

- Answer all Questions of Section A (Compulsory)
- Answer Any Three out of Four of Section B
- Answer Any Five out of Six of Section C
- Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or Discussing with Co-Student will come under **Unfair Means** and will **Result** in the **Cancellation of the Papers.**

Q. N 1	QUESTIONS	Marks	COs	KL	PO
i	Which schedule of the Drugs and Cosmetics Act is related to prescription drugs? a. Schedule H b. Schedule X c. Schedule E1 d. Schedule M इस एंड कोस्मेटिक्स एक्ट की कौन सी अनुसूची प्रिस्क्रिप्शन दवाओं से संबंधित है? a. अनुसूची H b. अनुसूची X c. अनुसूची E1 d. अनुसूची M	1	CO1	K1	PO1
ii	The main role of a community pharmacist is: a. Manufacture of bulk drugs b. Patient counselling and dispensing medicines c. Conducting surgeries d. Drug discovery समुदाय फार्मासिस्ट की मुख्य भूमिका है: a. बल्क दवाओं का निर्माण b. रोगी परामर्श और दवाइयों का वितरण c. शल्य चिकित्सा करना d. नई दवा की खोज	1	CO2	K2	PO2
iii	Which of the following is a function of community pharmacy? a. Blood transfusion b. Patient education c. Surgical treatment d. Genetic engineering निम्नलिखित में से कौन सा सामुदायिक फार्मसी का कार्य है? a. रक्त आधान b. रोगी शिक्षा c. शल्य चिकित्सा d. जेनेटिक इंजीनियरिंग	1	CO1	K2	PO1
iv	The Latin word "Rx" in a prescription means: a. Recipe / Take thou b. Return c. Reduce d. Recheck	1	CO2	K1	PO2

CO- Course Outcomes,	KL- Knowledge Level,	PO – Program Outcome
CO1	Describe the establishment, legal requirements, and effective administration of a community pharmacy	
CO2	Professionally handles prescriptions and dispense medications	
CO3	Counsel patients about the disease, prescription and or non-prescription medicines	
CO4	Perform basic health screening on patients and interpret the reports in the community pharmacy settings	

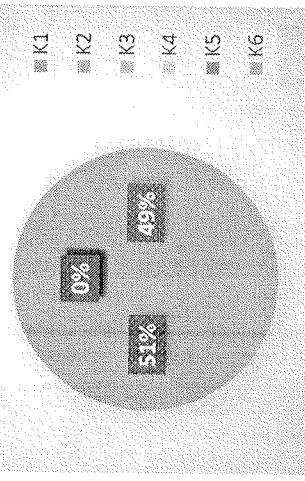


CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome

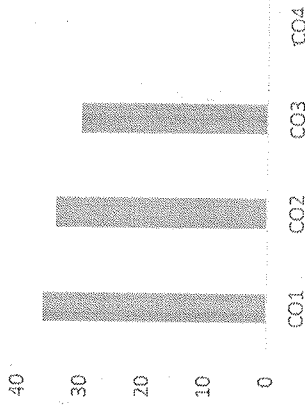
CO1	Describe the history and evolution of pharmacy law in India
CO2	Interpret the act and rules regulating the profession and practice of pharmacy in India
CO3	Discuss the various codes of ethics related to practice standards in pharmacy
CO4	Interpret the fundamentals of patent laws from the perspectives of pharmacy

GRAPHICAL REPRESENTATION

Bloom's Level Wise Mark Distribution



Course Outcome Wise Distribution




				1st INTERNAL EXAMINATION School of Pharmacy	
Branch	D. Pharmacy	Program	Pharmacy	Semester/Year	II
Subject Name	Pharmacy Law and Ethics	Year	October 2025		
Time: 1 Hour Max. Marks : 30	• Answer all Questions of Section A (Compulsory) • Answer Any Three out of Four of Section B • Answer Any Five out of Six of Section C • Possession of <u>Mobile Phones</u> or any kind of <u>Written Material, Arguments with the Investigator or Discussing with Co-Student</u> will come under <u>Unfair Means</u> and will result in the <u>Cancellation of the Papers.</u>				
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating		
	K2 : Understanding	K4 : Analysing	K6 : Creating		

Q. N1	QUESTIONS	Marks	COs	KL	PO
i	Central Register of Pharmacists is maintained by a. Central Government b. AICTE c. State government d. PCI फार्मासिस्टों का केंद्रीय रजिस्टर किसके द्वारा बनाए रखा जाता है? a. केंद्र सरकार b. एआईसीटीई c. राज्य सरकार d. पीसीआई	1	CO1	KL, K2	PO1
ii	Which among given is not the common member of PCI and DTAB a. Director General of Health Services b. Director of CDL, Kolkata c. Drug controller of India d. Director of CDRI, Lucknow निम्नलिखित में से कौन PCI और DTAB का उभयनिष्ठ सदस्य नहीं है? a. स्वास्थ्य सेवा महानिदेशक b. CDL, कोलकाता के निदेशक c. भारतीय औषधि नियंत्रक निदेशक d. CDRI, लखनऊ के निदेशक	1	CO1	KL, K2	PO2
iii	PCI was constituted in a. 1949 b. 1951 c. 1950 d. 1955 पीसीआई का गठन किया गया था a. 1949 b. 1951 c. 1950 d. 1955	1	CO1	K1	PO1
iv	Joint state pharmacy council are constituted for a. 1yr b. 2yr c. 5yr d. Indefinite years संयुक्त राज्य फार्मसी परिषद का गठन a. 1 वर्ष b. 2 वर्ष c. 5 वर्ष d. अनिश्चित वर्षों के लिए किया जाता है	1	CO2	KL, K2	PO2

v	Schedule D is related to a. Fees for test or analysis by the Central Drugs Laboratories or State Drugs Laboratories b. Lists of drugs exempted from the provision of import of drugs c. Standards for surgical dressings d. Good Laboratory Practice अनुसूची डी निम्नलिखित से संबंधित है: a. केंद्रीय औषधि प्रयोगशालाओं या राज्य औषधि प्रयोगशालाओं द्वारा परीक्षण या विश्लेषण के लिए शुल्क b. औषधि आयात के प्रावधान से छूट प्राप्त औषधियों की सूची c. शल्य चिकित्सा ड्रेसिंग के मानक d. उत्तम प्रयोगशाला अभ्यास	1	CO2	K1, K2	PO2
vii	Drug sample taken by drug inspector for analysis are sending to a. Drug Controller b. Government analyst c. Chemical analyst d. Testing lab औषधि निरीक्षक द्वारा विश्लेषण के लिए लिए गए औषधि के नमूने निम्नलिखित को भेजे जा रहे हैं: a. औषधि नियंत्रक b. सरकारी विश्लेषक c. रासायनिक विश्लेषक d. परीक्षण प्रयोगशाला	1	CO1	K1, K2	PO1, PO2
viii	Drugs and Magic Remedies Act was passed in a. 1954 b. 1985 c. 1991 d. 1945 औषधि एवं जादुई उपचार अधिनियम पारित किया गया था a. 1954 b. 1985 c. 1991 d. 1945	1	CO1	K1, K2	PO1, PO2
ix	Which act provides regulations for objectionable advertisement? a. Poison Act b. Drug and Magic Remedies Act c. Pharmacy Act d. Pharmacy Act कौन सा अधिनियम आपत्जनक विज्ञापनों के लिए नियम प्रदान करता है? a. विष अधिनियम b. औषधि एवं जादुई उपचार अधिनियम c. औषधीय एवं प्रसाधन सामग्री अधिनियम d. फार्मसी अधिनियम	1	CO1	K1, K2	PO2
x	Which of the following disease is not listed in the schedule of Drugs & Magic Remedies Act 1954? a. Deafness b. Goitre c. Glaucoma d. Diarrhoea निम्नलिखित में से कौन सा रोग औषधि एवं जादुई उपचार अधिनियम 1954 की अनुसूची में सूचीबद्ध नहीं है? a. बहरापन b. घेंघा c. ग्लूकोमा d. दस्त	1	CO1	K1, K2	PO1, PO2

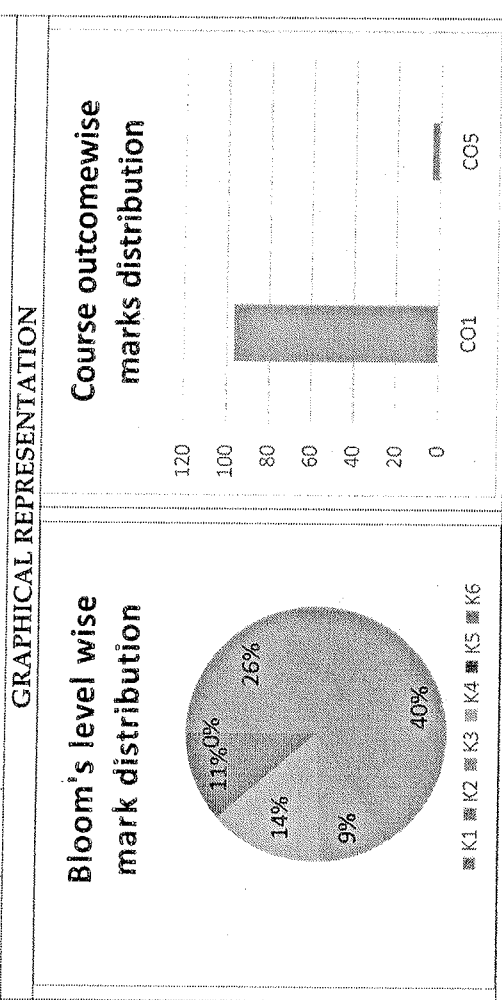
Section B Answer any Three out of Four [3 x 5 = 15 Marks]						
Q. No.	QUESTIONS	Marks	COs	KL	PO	
2	Write the functions and compositions of State Pharmacy Councils and Joint Pharmacy Councils. राज्य फार्मसी परिषद और संयुक्त फार्मसी परिषद के कार्य और संरचना बताइए।	5	CO2,CO3	K2, K3	PO1, PO10	
3	Describe the list of schedules as per Drugs and Cosmetics Act 1985. औषधि एवं प्रसाधन सामग्री अधिनियम 1985 के अनुसार अनुसूचियों की सूची का वर्णन कीजिए।	5	CO1,CO2, CO3	K1, K2	PO1, PO2	
4	Write detailed note on Offences and Penalties under Narcotic Drugs and Psychotropic substances Act, 1985. स्वापक औषधि एवं मनःप्रभावी पदार्थ अधिनियम, 1985 के अंतर्गत अपराध एवं दंड पर विस्तृत टिप्पणी लिखें।	5	CO1,CO2, CO3	K1, K2	PO1	
5	Write a note on Registration of Pharmacists. फार्मासिस्ट के पंजीकरण पर एक टिप्पणी लिखें।	5	CO1,CO2	K1, K2	PO2	
Section C Answer any Five out of Six [5 x 3 = 15 Marks]						
Q. No.	QUESTIONS	Marks	COs	KL	PO	
6	Explain the Function of Pharmacy Council of India. भारतीय फार्मसी परिषद के कार्य की व्याख्या कीजिए।	3	CO1,CO2	K1, K2	PO1, PO2	
7	Define Medical Practitioner. चिकित्सा व्यवसायी को परिभाषित करें	3	CO2,CO3	K1, K2	PO1	
8	What do you mean by Adulterated drug? मिलावटी दवा से आपका क्या तात्पर्य है	3	CO2,CO3	K1, K3	PO1, PO2	
9	What do you mean by illicit traffic, in relation to narcotic drugs and Psychotropic Substances. मादक दवाओं और मनोचिकित्सीय पदार्थों के संबंध में अवैध व्यापार से आपका क्या तात्पर्य है	3	CO1,CO3	K1, K2	PO1, PO2	
10	Write a short note on Advertisement, Drug and Magic remedy. विज्ञापन, दवा और जादुई उपचार पर एक संक्षिप्त टिप्पणी लिखें।	3	CO1,CO2	K1, K2	PO1, PO2	
11	Write the importance of Pharmacy Law and Ethics in professional practice. व्यवसायिक अभ्यास में फार्मसी कानून और नैतिकता के महत्व को लिखें।	3	CO3	K1, K3	PO1, PO2	

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		ARKA JAIN University Jharkhand		NAAC GRADE A ACCREDITED UNIVERSITY		1st INTERNAL EXAMINATION School of Pharmacy	
Branch	D. Pharmacy	Program	Pharmacy	Semester/Year	II	Year	October 2025
Subject Name	Biochemistry & clinical pathology	• Answer all Questions of Section A (Compulsory) • Answer Any Three out of Four of Section B • Answer Any Five out of Six of Section C • Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or Discussing with Co-Student will come under <u>Unfair Means</u> and will <u>Result</u> in the <u>Cancellation of the Papers.</u>					
Time: 1 Hour Max. Marks : 30							
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating				
	K2 : Understanding	K4 : Analysing	K6 : Creating				


Section A (Each question Carry 01 Marks from Q1-i to Q1-x) – 10 Marks							
Q. N I	QUESTIONS	Marks	COs	KL	PO		
i	"Bad cholesterol" is commonly associated with: a) HDL b) LDL c) Chylomicrons d) VLDL "खराब कोलेस्ट्रॉल" सामान्यतः किससे जुड़ा होता है? a) HDL b) LDL c) क्लोमिक्रॉन्स d) VLDL	1	CO1	K1, K2	PO1		
ii	Based on nutritional requirement, which fatty acids must be obtained from diet? a) Non-essential fatty acids b) Essential fatty acids c) Saturated fatty acids d) Trans fatty acids पोषण संबंधी आवश्यकता के आधार पर, कौन-से फैटी एसिड आहार से प्राप्त करना आवश्यक है? a) गैर-आवश्यक फैटी एसिड b) आवश्यक फैटी एसिड c) संतृप्त फैटी एसिड	1	CO1	K3	PO1, PO2		
iii	Which of the following is a disaccharide? a) Glucose b) Fructose c) Lactose d) Cellulose निम्न में से कौन-सा एक डिसैकराइड है? a) ग्लूकोज़ b) फ्रुक्टोज़ c) लैक्टोज़ d) सेल्यूलोज़	1	CO1	K1, K2	PO1		
iv	The two components of starch are: a) Amylopectin and Glycogen b) Amylopectin and Cellulose c) Amylose and Cellulose d) Amylose and Amylopectin स्टार्च के दो घटक कौन-से हैं?	1	CO1	K2, K1	PO1		

CO- Course Outcomes,	KL- Knowledge Level,	PO – Program Outcome
CO1	Describe the functions of biomolecules	
CO2	Discuss the various functions of enzymes in the human system	
CO3	Explain the metabolic pathways of biomolecules in both physiological and pathological conditions	
CO4	Describe the principles of organ function tests and their clinical significances	
CO5	Determine the biomolecules / metabolites in the given biological samples, both qualitatively and quantitatively	
CO6	Describe the clinical pathology of blood and urine	



v	<p>a) एमायलोपिक्टिन और लाइकोजिन b) एमायलोपिक्टिन और सेरुलोजिन c) एमायलोजिन और सेरुलोजिन d) एमायलोजिन और एमायलोपिक्टिन</p> <p>Glycolipids contain: a) Fatty acids + Glycerol b) Fatty acids + Carbohydrate + Alcohol c) Fatty acids + Phosphate d) Fatty acids + Sterols</p> <p>स्नाइकोलिपिड्स में पाए जाते हैं: a) फैटी एसिड + लिसेरॉल b) फैटी एसिड + कार्बोहाइड्रेट + अल्कोहल c) फैटी एसिड + फॉस्फेट d) फैटी एसिड + स्टैरॉल</p>	1	CO1	K1, K2	PO2
vi	<p>Waxes are examples of: a) Compound lipids c) Derived lipids</p> <p>वैक्स किसके उदाहरण हैं? a) यौगिक लिपिड्स (Compound lipids) b) सरल लिपिड्स (Simple lipids) c) व्युत्पन्न लिपिड्स (Derived lipids) d) स्टैरॉल (Sterols)</p>	1	CO1	K2, K1	PO1, PO2
vii	<p>Edema is a characteristic feature of: a) Marasmus c) Both</p> <p>शोफ (Edema) किसकी विशेषता है? a) मरसमस (Marasmus) c) दोनों</p>	1	CO1	K4, K5	PO2
viii	<p>Which type of bond is most important in stabilizing the primary structure of proteins? a) Hydrogen bonds c) Disulfide bonds</p> <p>प्रोटीन की प्राथमिक संरचना (Primary structure) को स्थिर बनाए रखने में सबसे महत्वपूर्ण बंध कौन सा है? a) हाइड्रोजन बंध c) डाइसल्फाइड बंध</p>	1	CO1	K4	PO1
ix	<p>Which of the following best describes a zwitterion form of an amino acid? a) Only positive charge present c) Both positive and negative charges with net zero charge</p> <p>अमीनो अम्ल का ज्विटर आयन (Zwitterion) रूप निम्न में से किसे सबसे अच्छी तरह दर्शाता है? a) केवल धनात्मक आवेश उपस्थित c) धनात्मक और ऋणात्मक दोनों आवेश उपस्थित, कुल आवेश शून्य</p>	1	CO1	K1, K2	PO2
x	<p>Proteins get denatured by a) heat c) alkali</p> <p>Proteins get denatured by a) heat b) acid c) alkali d) all of the above</p>		CO1	K4, K5	PO2

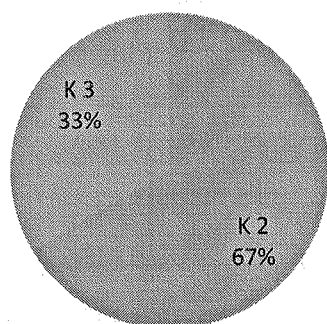
प्रोटीन का विकृतीकरण हो जाता है		b) एसिड d) उपरोक्त सभी			
Section B Answer any Three out of Four [3 x 5 = 15 Marks]					
Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Classify proteins based on their chemical composition with examples. प्रोटीन को उनकी रासायनिक संरचना (Chemical composition) के आधार पर उदाहरण सहित वर्गीकृत कीजिए।	5	CO1	K1, K2	PO1
3	Explain the different levels of protein structure. प्रोटीन की विभिन्न संरचनात्मक अवस्थाओं (levels) को समझाइए।	5	CO1	K2	PO1
4	Differentiate between Kwashiorkor and Marasmus. क्वाशिओरकर (Kwashiorkor) और मरसमस (Marasmus) के बीच अंतर बताइए।	5	CO1	K5	PO2
5	Write a short note on glucose, including its structure and importance. ग्लूकोज पर संक्षिप्त टिप्पणी लिखिए, इसकी संरचना एवं महत्व सहित।	5	CO1	K1, K2	PO1
6	Write qualitative tests of lipid. लिपिड के गुणात्मक परीक्षण लिखिए।	5	CO5	K2	PO2
Section C Answer any Five out of Six [5 x 3 = 15 Marks]					
Q. No.	QUESTIONS	Marks	COs	KL	PO
7	Give a short note on the structure and biological importance of glycogen and starch. ग्लाइकोजन और स्टार्च की संरचना एवं जैविक महत्व पर संक्षिप्त टिप्पणी लिखिए।	3	CO1	K2	PO2
8	Write any three qualitative tests used for the identification of carbohydrates. कार्बोहाइड्रेट की पहचान के लिए प्रयुक्त कोई तीन गुणात्मक परीक्षण लिखिए।	3	CO5	K3, K4, K5	PO1
9	What are the main functions of carbohydrates in the human body? मानव शरीर में कार्बोहाइड्रेट के मुख्य कार्य क्या हैं?	3	CO1	K2, K4	PO2, PO1
10	Define disaccharides and write the chemical structure of sucrose. सुक्रोज की परिभाषा लिखिए तथा इसकी रासायनिक संरचना दीजिए।	3	CO1	K1, K2	PO2
11	Write the functions of mitochondria, nucleus, and lysosome. माइटोकॉन्ड्रिया, नाभिक एवं लाइसोसोम के कार्यों पर संक्षिप्त टिप्पणी लिखिए।	3	CO1	K1, K2	PO1
12	Classify amino acids based on nutritional requirements, giving suitable examples. अमीनो अम्लों को उनकी पोषण संबंधी आवश्यकताओं के आधार पर वर्गीकृत कीजिए, उदाहरण सहित।	3	CO1	K1, K3	PO2

SCHOOL OF PHARMACY				1 ST INTERNAL EXAMINATION		
Program Name	Diploma in Pharmacy	Program Code	D.PHARM			
Course Name	Community Pharmacy and Management	Semester/Year	1 st Year (Group-A)			
Course Code		Year	November 2025			
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80			
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating			
	K2 : Understanding	K4 : Analysing	K6 : Creating			
Section A						
[10 Marks]						
Q. No.	Questions	Marks	COs	KL	PO	
I	Describe the parts of prescription	10	CO ₁	K ₁		
Section B						
[30 + 20=50 Marks]						
Q. No.	Questions	Marks	COs	KL	PO	
II	A.Handling of Prescription With Professional Standards, Reviewing Prescriptions, Checking for Legal Compliance and Completeness for a Patient Suffering From tuberculosis	30	CO ₁	K ₂		
	B.Identify the drug-drug interaction in the prescription disease (dental infection) and follow up actions.	20	CO ₂	K ₁		
Section C						
[20 Marks]						
Q. No.	Questions	Marks	COs	KL	PO	
III	Viva voce	10				
IV	Record	10				

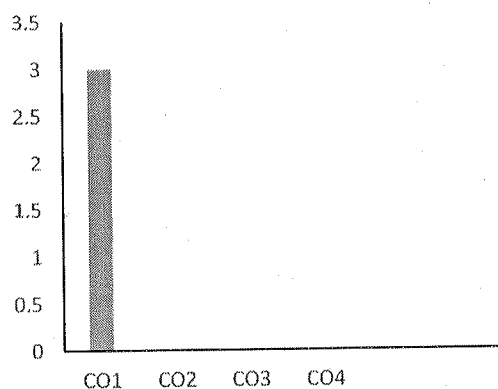
CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome


Course Outcomes	CO1	Understand the mechanism of drug action and its relevance in the treatment of different diseases
	CO2	Demonstrate isolation of different organs/tissues from the laboratory animals by simulated experiments
	CO3	Demonstrate the various receptor actions using isolated tissue preparation.
	CO4	Appreciate correlation of pharmacology with related medical sciences
	CO5	Discuss the basic concept and technique of in-vitro pharmacology.

Bloom's Level wise Marks Distribution



Course outcome wise marks distribution

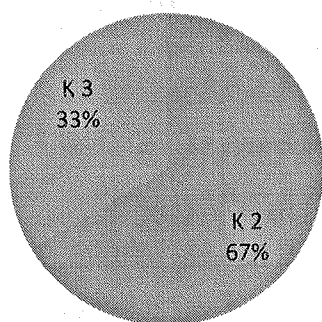


SCHOOL OF PHARMACY					1 ST INTERNAL EXAMINATION	
Program Name	Diploma in Pharmacy	Program Code	D.PHARM			
Course Name	Community Pharmacy and Management	Semester/Year	1 st Year (Group-B)			
Course Code		Year	November 2025			
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80			
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating			
	K2 : Understanding	K4 : Analysing	K6 : Creating			
Section A						
[10 Marks]						
Q. No.	Questions	Marks	COs	KL	PO	
I	Describe prescription handling	10	CO ₁	K ₁		
Section B						
[30 + 20=50 Marks]						
Q. No.	Questions	Marks	COs	KL	PO	
II	A.Handling of Prescription With Professional Standards, Reviewing Prescriptions, Checking for Legal Compliance and Completeness for a Patient Suffering From hypertension.	30	CO ₁	K ₂		
	B.Identify the drug-drug interaction in the prescription disease (high blood pressure) and follow up actions.	20	CO ₂	K ₁		
Section C						
[20 Marks]						
Q. No.	Questions	Marks	COs	KL	PO	
III	Viva voce	10				
IV	Record	10				

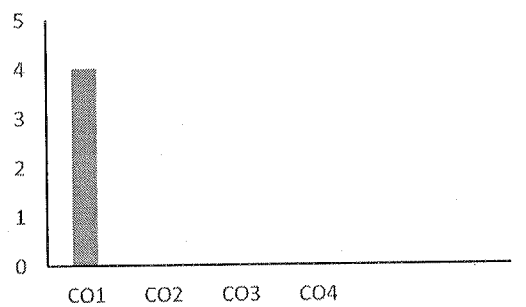
CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome


Course Outcomes	CO1	Understand the mechanism of drug action and its relevance in the treatment of different diseases
	CO2	Demonstrate isolation of different organs/tissues from the laboratory animals by simulated experiments
	CO3	Demonstrate the various receptor actions using isolated tissue preparation.
	CO4	Appreciate correlation of pharmacology with related medical sciences
	CO5	Discuss the basic concept and technique of in-vitro pharmacology.

Bloom's Level wise Marks Distribution



Course outcome wise marks distribution

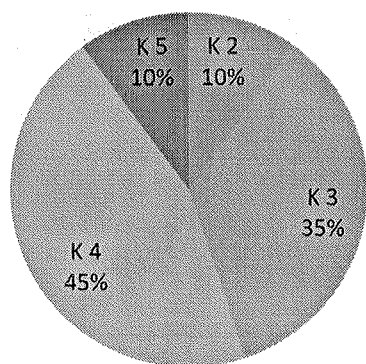


SCHOOL OF PHARMACY				1 ST INTERNAL EXAMINATION		
Program Name	Diploma in Pharmacy	Program Code	D.PHARM			
Course Name	Community Pharmacy and Management	Semester/Year	2 nd Year (Group-C)			
Course Code		Year	November 2025			
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80			
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating			
	K2 : Understanding	K4 : Analysing	K6 : Creating			
Section A						[10 Marks]
Q. No.	Questions	Marks	COs	KL	PO	
I	Strategies for reducing and preventing medication errors.	10	CO ₁	K ₃		
Section B						[30 + 20=50 Marks]
Q. No.	Questions	Marks	COs	KL	PO	
II	A.Handling of Prescription With Professional Standards, Reviewing Prescriptions, Checking for Legal Compliance and Completeness for a patient suffering from dental infection.	30	CO ₁	K ₂		
	B.Identify the drug-drug interaction in the prescription disease (high blood pressure) and follow up actions.	20	CO ₁	K ₂		
Section C						[20 Marks]
Q. No.	Questions	Marks	COs	KL	PO	
III	Viva voce	10				
IV	Record	10				

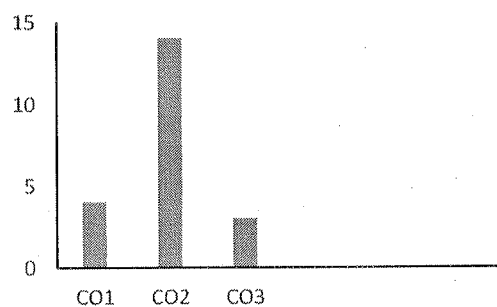
CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome


Course Outcomes	CO1	Understand the mechanism of drug action and its relevance in the treatment of different diseases
	CO2	Demonstrate isolation of different organs/tissues from the laboratory animals by simulated experiments
	CO3	Demonstrate the various receptor actions using isolated tissue preparation.
	CO4	Appreciate correlation of pharmacology with related medical sciences
	CO5	Discuss the basic concept and technique of in-vitro pharmacology.

Bloom's Level wise Marks Distributor



Course outcome wise marks distribution

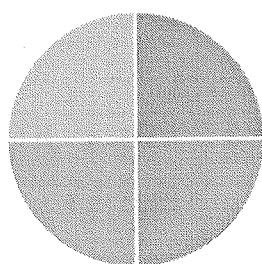


SCHOOL OF PHARMACY				1 ST INTERNAL EXAMINATION	
Program Name	Diploma in Pharmacy	Program Code	D.PHARM		
Course Name	Pharmacology (Practical)	Semester/Year	2 nd Year (Group-A)		
Course Code	DPHM12036	Year	October 2025		
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80		
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating		
	K2 : Understanding	K4 : Analysing	K6 : Creating		
Section A					
[10 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
I	Synopsis Write a Synopsis on Cholinergic drugs. कोलीनर्जिक दवाओं पर एक सारांश लिखें	10	CO2	K1, K2	P01
Section B					
[30 + 20=50 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
II	a. Major To Perform the Study of analgesic effect of Morphine Tail Flick Apparatus. मॉर्फिन टेल फ्लिक उपकरण के एनाल्जेसिक प्रभाव का अध्ययन करना।	30	CO1, CO4	K3, K4	PO9
	b. Minor To perform the Commonly used Instrument in Experimental pharmacology. प्रायोगिक औषध विज्ञान में सामान्यतः प्रयुक्त उपकरण का प्रदर्शन करना।	20	CO2	K1, K2	PO10
Section C					
[20 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
III	Viva voce	10			
IV	Record	10			

CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome

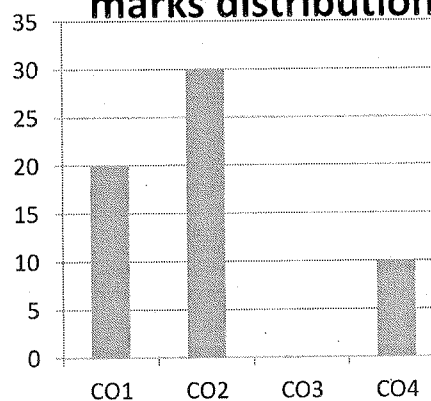
Course Outcomes	CO1	Study and report the local anaesthetic, mydriatic and mitotic effects of the given drug on the rabbit eye
	CO2	Choose appropriate animal experiment model to study the effects of the given drugs acting on the central nervous system and submit the report
	CO3	Perform the effects of given tissues (simulated) on isolated organs / tissues and interpret the results
	CO4	Interpret the dose dependent responses of drugs in various animal experiment models


Bloom's level wise marks distribution



■ K1 ■ K2 ■ K3 ■ K4 ■ K5 ■ K6

Course outcome wise marks distribution

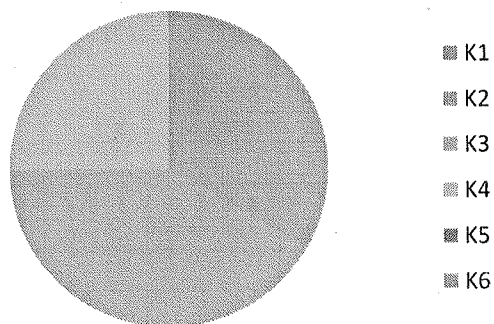


SCHOOL OF PHARMACY				1 ST INTERNAL EXAMINATION		
Program Name	Diploma in Pharmacy	Program Code	D.PHARM			
Course Name	Pharmacology (Practical)	Semester/Year	2 nd Year (Group-B)			
Course Code	DPHM12036	Year	October 2025			
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80			
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating			
	K2 : Understanding	K4 : Analysing	K6 : Creating			
Section A						[10 Marks]
Q. No.	Questions	Marks	COs	KL	PO	
I	Synopsis Write a Short note On Adrenergic Drugs. एड्रेनर्जिक दवाओं पर एक संक्षिप्त टिप्पणी लिखें।	10	CO2	K1, K2	P01	
Section B						[30 + 20=50 Marks]
Q. No.	Questions	Marks	COs	KL	PO	
II	a. Major To perform the Study of analgesic effect of Morphine using Eddy's Hot Plate. एडीज़ हॉट प्लेट का उपयोग करके मॉर्फिन के एनाल्जेसिक प्रभाव का अध्ययन करना।	30	CO2, CO4	K3, K4	PO9	
	b. Minor To perform the Study of Local Anaesthesia on Rabbit Eye. खरगोश की आँख पर स्थानीय एनेस्थीसिया का अध्ययन करना।	20	CO1	K2, K3	PO10	
Section C						[20 Marks]
Q. No.	Questions	Marks	COs	KL	PO	
III	Viva voce	10				
IV	Record	10				

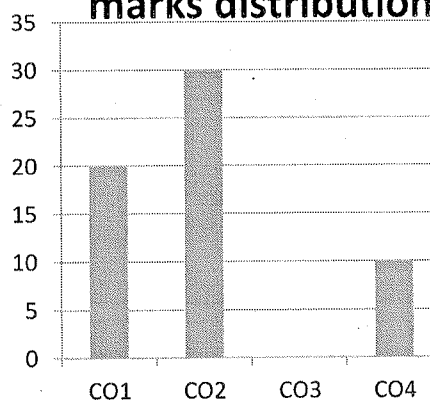
CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome

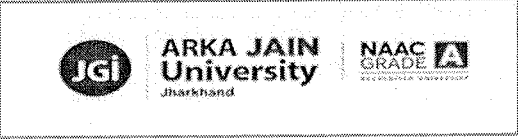
Course Outcomes	CO1	Study and report the local anaesthetic, mydriatic and mitotic effects of the given drug on the rabbit eye
	CO2	Choose appropriate animal experiment model to study the effects of the given drugs acting on the central nervous system and submit the report
	CO3	Perform the effects of given tissues (simulated) on isolated organs / tissues and interpret the results
	CO4	Interpret the dose dependent responses of drugs in various animal experiment models

Blooms level wise mark Distribution

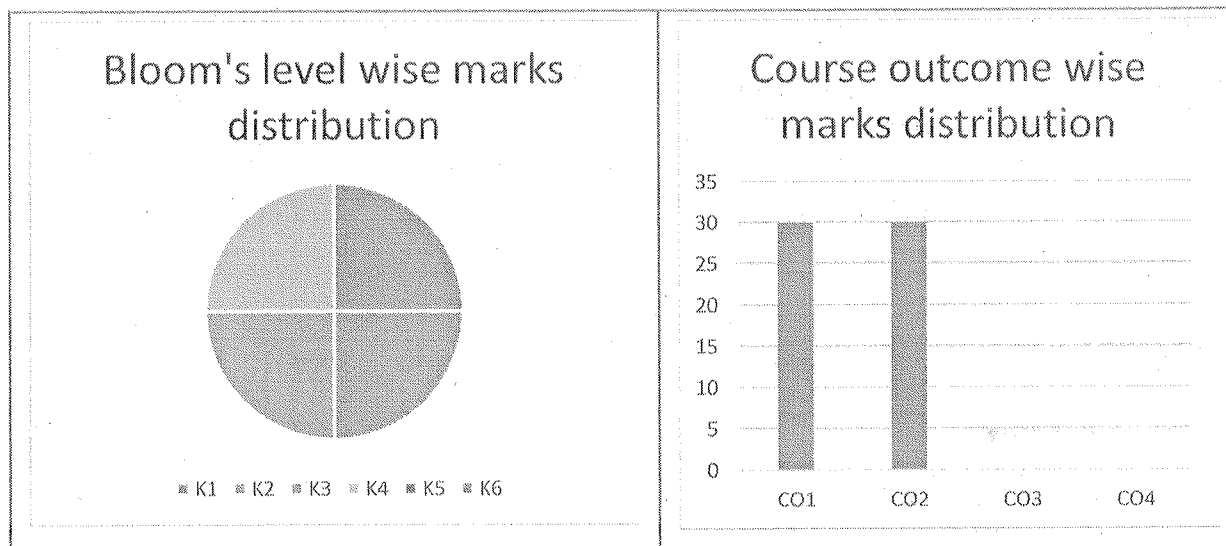



Course outcome wise marks distribution



SCHOOL OF PHARMACY				1 ST INTERNAL EXAMINATION	
Program Name	Diploma in Pharmacy	Program Code	D.PHARM		
Course Name	Pharmacology (Practical)	Semester/Year	2 nd Year (Group-C)		
Course Code	DPHM12036	Year	October 2025		
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80		
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating		
	K2 : Understanding	K4 : Analysing	K6 : Creating		
Section A					
[10 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
I	Synopsis Write Synopsis on Pharmacokinetics of Drug in human body. मानव शरीर में औषधि के फार्माकोकाइनेटिक्स पर सारांश लिखें।	10	CO2	K1, K2	P01
Section B					
[30 + 20=50 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
II	a. Major To perform the Study of analgesic effect of Morphine using Eddy's Hot Plate. एडी की हॉट प्लेट का उपयोग करके मॉर्फिन के एनाल्जेसिक प्रभाव का अध्ययन करना।	30	CO1, CO4	K3, K4	PO9
	b. Minor To perform the Commonly used Instrument in Experimental pharmacology. प्रायोगिक औषध विज्ञान में सामान्यतः प्रयुक्त उपकरण का प्रदर्शन करना।	20	CO2	K1, K2	PO10
Section C					
[20 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
III	Viva voce	10			
IV	Record	10			

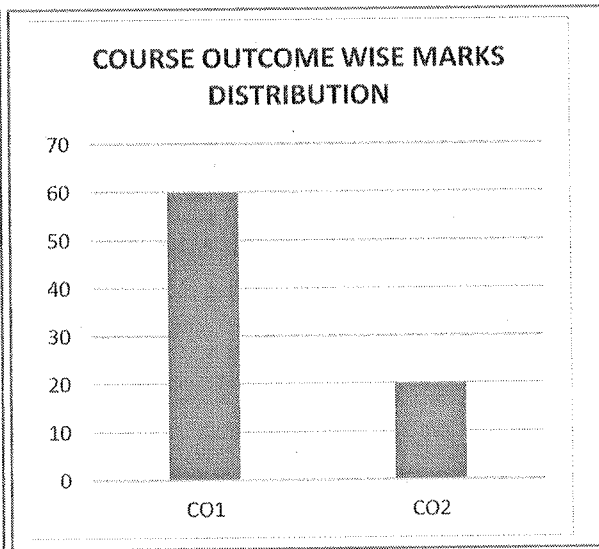
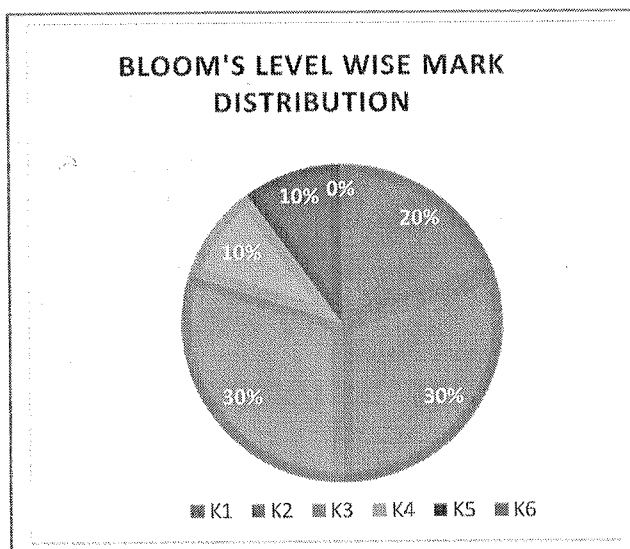
Course Outcomes	CO1	Study and report the local anaesthetic, mydriatic and mitotic effects of the given drug on the rabbit eye
	CO2	Choose appropriate animal experiment model to study the effects of the given drugs acting on the central nervous system and submit the report
	CO3	Perform the effects of given tissues (simulated) on isolated organs / tissues and interpret the results
	CO4	Interpret the dose dependent responses of drugs in various animal experiment models




SCHOOL OF PHARMACY			1 ST INTERNAL EXAMINATION		
Program Name	Diploma in Pharmacy	Program Code	D.PHARM		
Course Name	Biochemistry and Clinical Pathology	Semester/Year	2 ND Year (Group-A)		
Course Code	DPHM12038	Year	November 2025		
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80		
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating		
	K2 : Understanding	K4 : Analysing	K6 : Creating		
Section A					
[10 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
I	Synopsis Write a synopsis on the definition of carbohydrate and mention the biological role of carbohydrates. कार्बोहाइड्रेट की परिभाषा पर एक सारांश लिखें और कार्बोहाइड्रेट की जैविक भूमिका का उल्लेख करें।	10	CO1	K1, K2, K3	PO1
Section B					
[30 + 20=50 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
II	a.Major Perform the qualitative analysis of fructose. फ्रक्टोज का गुणात्मक विश्लेषण करें।	30	CO1	K2, K3, K5	PO1, PO2
	b.Minor Perform Molisch's test and Iodine test on the given sample. दिए गए नमूने पर मोलिश परीक्षण और आयोडीन परीक्षण करें।	20	CO2	K2, K3, K4	PO1, PO2
Section C					
[20 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
III	Viva voce	10			
IV	Record	10			

CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome

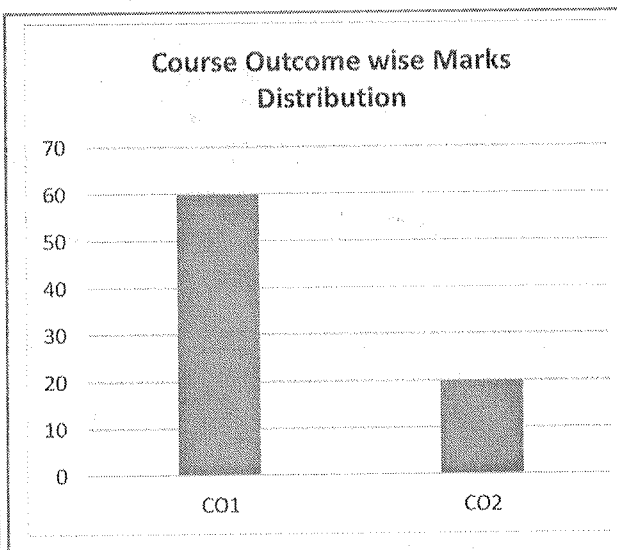
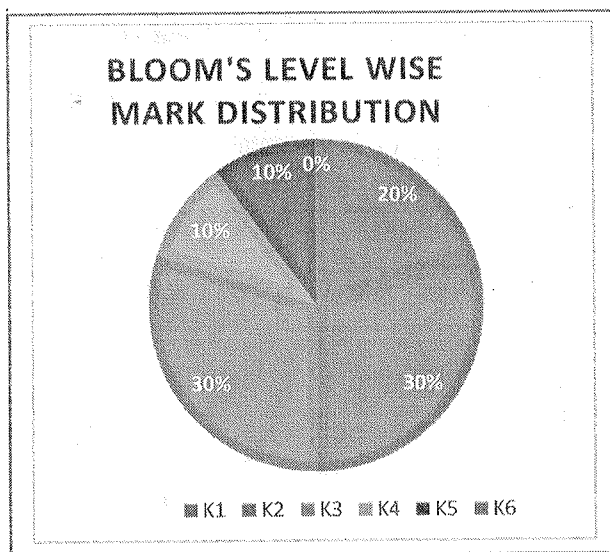
Course Outcomes	CO1	Qualitatively determine the biomolecules / metabolites in the given biological samples
	CO2	Determine the normal and abnormal constituents in blood and urine samples and interpret the results of such testing.




SCHOOL OF PHARMACY				1 ST INTERNAL EXAMINATION	
Program Name	Diploma in Pharmacy	Program Code	D.PHARM		
Course Name	Biochemistry and Clinical Pathology	Semester/Year	2 ND Year (Group-B)		
Course Code	DPHM12038	Year	November 2025		
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80		
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating		
	K2 : Understanding	K4 : Analysing	K6 : Creating		
Section A					
[10 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
I	Synopsis Write a synopsis on the different levels of protein structure. प्रोटीन संरचना के विभिन्न स्तरों पर एक सारांश लिखें।	10	CO1	K1, K2, K3	PO1
Section B					
[30 + 20=50 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
II	a.Major Perform the qualitative analysis of Proteins. प्रोटीन का गुणात्मक विश्लेषण करें।	30	CO1	K2, K3, K5	PO1, PO2
	b.Minor Perform Biuret test and Ninhydrin test on the given protein sample. दिए गए प्रोटीन नमूने पर बायुरेट परीक्षण और निनहाइड्रिन परीक्षण करें।	20	CO2	K2, K3, K4	PO1, PO2
Section C					
[20 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
III	Viva voce	10			
IV	Record	10			

CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome

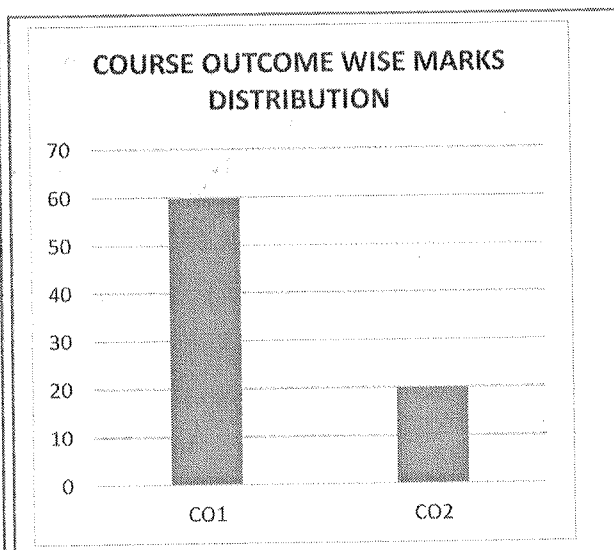
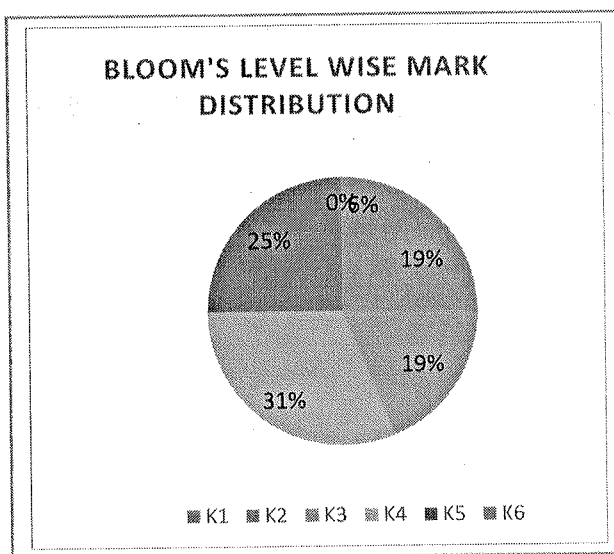
Course Outcomes	CO1	Qualitatively determine the biomolecules / metabolites in the given biological samples
	CO2	Determine the normal and abnormal constituents in blood and urine samples and interpret the results of such testing.





SCHOOL OF PHARMACY					1 ST INTERNAL EXAMINATION	
Program Name	Diploma in Pharmacy	Program Code	D.PHARM			
Course Name	Biochemistry and Clinical Pathology	Semester/Year	2 ND Year (Group-C)			
Course Code	DPHM12038	Year	November 2025			
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80			
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating			
	K2 : Understanding	K4 : Analysing	K6 : Creating			
Section A						
[10 Marks]						
Q. No.	Questions	Marks	COs	KL	PO	
I	Synopsis Write a synopsis on the structure and function of cholesterol in the body. शरीर में कोलेस्ट्रॉल की संरचना और कार्य पर एक सारांश लिखें।	10	CO1	K1, K2, K3	PO1	
Section B						
[30 + 20=50 Marks]						
Q. No.	Questions	Marks	COs	KL	PO	
II	a.Major Perform the qualitative analysis of glucose ग्लूकोज का गुणात्मक विश्लेषण करें।	30	CO1	K2, K3, K4	PO1, PO2	
	b.Minor Perform Benedict's test and Fehling's test on the given sample. दिए गए नमूने पर बेनेडिक्ट परीक्षण और फेलिंग परीक्षण करें।	20	CO1	K2, K3, K5	PO1, PO2	
Section C						
[20 Marks]						
Q. No.	Questions	Marks	COs	KL	PO	
III	Viva voce	10				
IV	Record	10				

CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome

Course Outcomes	CO1	Qualitatively determine the biomolecules / metabolites in the given biological samples
	CO2	Determine the normal and abnormal constituents in blood and urine samples and interpret the results of such testing.

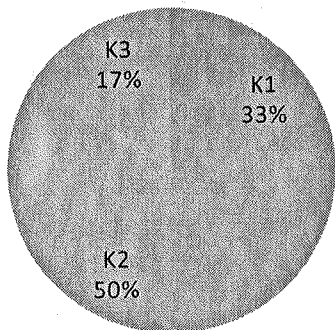


SCHOOL OF PHARMACY		 ARKA JAIN University <small>Jharkhand</small>			 NAAC <small>GRADE A</small>		1ST INTERNAL EXAMINATION	
Program Name		Diploma in Pharmacy		Program Code		D.PHARM		
Course Name		Hospital and Clinical Pharmacy		Semester/Year		1st Year (Group-A)		
Course Code				Year		October 2025		
Time: 4 Hours		All the Questions are COMPULSORY		Maximum Marks		80		
Knowledge Level (KL)		K1 : Remembering		K3 : Applying		K5 : Evaluating		
		K2 : Understanding		K4 : Analysing		K6 : Creating		
Section A								
[10 Marks]								
Q. No.	Questions			Marks	COs	KL	PO	
I	Synopsis Write Synopsis on Pharmacy and Therapeutic Committee (PTC).			10	Co2	K1 K2	PO1	
Section B								
[30 + 20=50 Marks]								
Q. No.	Questions			Marks	COs	KL	PO	
II	a. Major Experiment: Systematic approach to drug information queries using primary sources.			30	CO1	K1,K2	PO1	
	b. Minor Experiment: Interpretation of laboratory reports to optimize drug therapy in clinical cases.			20	CO2	K2,K3	PO2	
Section C								
[20 Marks]								
Q. No.	Questions			Marks	COs	KL	PO	
III	Viva voce			10				
IV	Record			10				

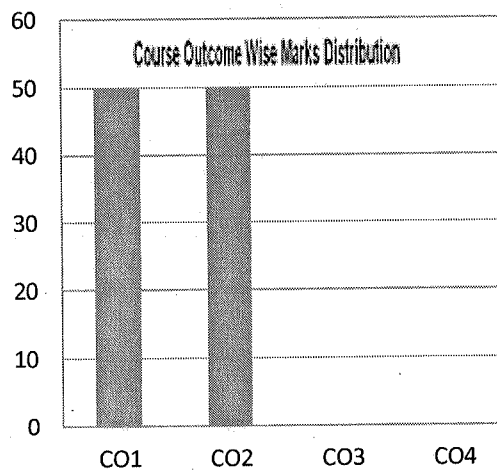
CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome


Course Outcomes	CO1	Explain about the basic concepts of hospital pharmacy administration
	CO2	Manage the supply chain and distribution of medicines within the hospital settings
	CO3	Assist the other healthcare providers in monitoring drug therapy and address drug related problems
	CO4	Interpret common lab investigation reports for optimizing drug therapy

Bloom's Level wise Marks Distribution



Course Outcome Wise Marks Distribution

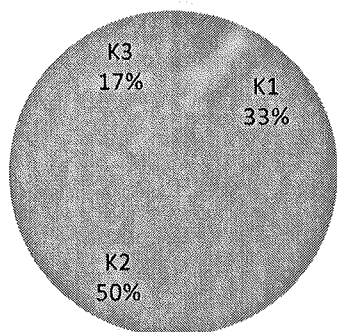


SCHOOL OF PHARMACY					1ST INTERNAL EXAMINATION	
Program Name	Diploma in Pharmacy	Program Code	D.PHARM			
Course Name	Hospital and Clinical Pharmacy	Semester/Year	2nd Year (Group-B)			
Course Code		Year	October 2025			
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80			
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating			
	K2 : Understanding	K4 : Analysing	K6 : Creating			
Section A						
[10 Marks]						
Q. No.	Questions	Marks	COs	KL	PO	
I	Synopsis Write Synopsis on Inventory Control and Management.	10	CO2	K1 K2	PO1	
Section B						
[30 + 20=50 Marks]						
Q. No.	Questions	Marks	COs	KL	PO	
II	a. Major Experiment: ADR reporting: Fill IPC ADR reporting form and perform causality assessment.	30	CO1	K1,K2	PO1	
	b. Minor Experiment: Systematic approach to drug information queries using secondary and tertiary sources.	20	CO2	K2,K3	PO2	
Section C						
[20 Marks]						
Q. No.	Questions	Marks	COs	KL	PO	
III	Viva voce	10				
IV	Record	10				

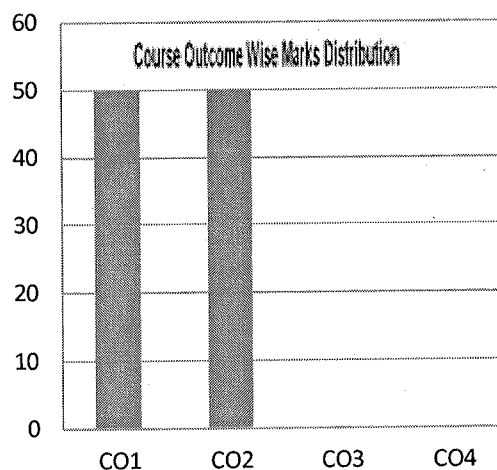
CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome


Course Outcomes	CO1	Explain about the basic concepts of hospital pharmacy administration
	CO2	Manage the supply chain and distribution of medicines within the hospital settings
	CO3	Assist the other healthcare providers in monitoring drug therapy and address drug related problems
	CO4	Interpret common lab investigation reports for optimizing drug therapy

Bloom's Level wise Marks Distribution



Course Outcome Wise Marks Distribution

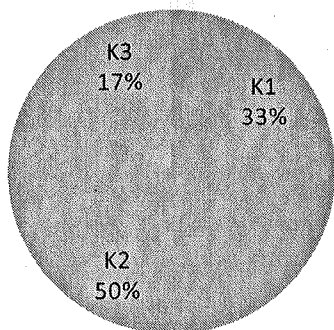


SCHOOL OF PHARMACY				1 ST INTERNAL EXAMINATION		
Program Name	Diploma in Pharmacy	Program Code	D.PHARM			
Course Name	Hospital and Clinical Pharmacy	Semester/Year	2 nd Year (Group-C)			
Course Code		Year	October 2025			
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80			
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating			
	K2 : Understanding	K4 : Analysing	K6 : Creating			
Section A						[10 Marks]
Q. No.	Questions	Marks	COs	KL	PO	
I	Synopsis Write Synopsis on Hospital Formulary	10	Co2	K1 K2	PO1	
Section B						[30 + 20=50 Marks]
Q. No.	Questions	Marks	COs	KL	PO	
II	a. Major Experiment: Causality assessment: Use WHO-UMC or Naranjo scale to evaluate ADR probability.	30	CO1	K1,K2	PO1	
	b. Minor Experiment: Handling of prescriptions: Compounding and dispensing as per hospital protocols.	20	CO2	K2,K3	PO2	
Section C						[20 Marks]
Q. No.	Questions	Marks	COs	KL	PO	
III	Viva voce	10				
IV	Record	10				

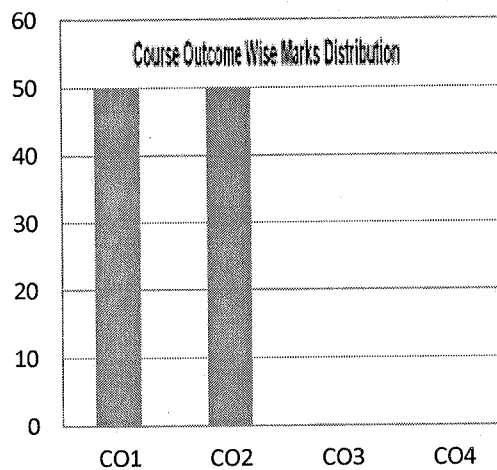
CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome


Course Outcomes	CO1	Explain about the basic concepts of hospital pharmacy administration
	CO2	Manage the supply chain and distribution of medicines within the hospital settings
	CO3	Assist the other healthcare providers in monitoring drug therapy and address drug related problems
	CO4	Interpret common lab investigation reports for optimizing drug therapy

Bloom's Level wise Marks Distribution



Course Outcome Wise Marks Distribution



SCHOOL OF PHARMACY				1 ST INTERNAL EXAMINATION		
Program Name	Diploma in Pharmacy	Program Code	D.PHARM			
Course Name	Pharmacotherapeutic (Practical)	Semester/Year	2 nd Year (Group-A)			
Course Code	ER20-24P	Year	October 2025			
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80			
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating			
	K2 : Understanding	K4 : Analysing	K6 : Creating			
Section A						[10 Marks]
Q. No.	Questions	Marks	COs	KL	PO	
I	Synopsis Define Pharmacotherapeutics and explain its scope in healthcare practice.	10	CO1, CO2	K1, K2	PO1, PO2	
Section B						[30 + 20=50 Marks]
Q. No.	Questions	Marks	COs	KL	PO	
II	a.Major Experiment Hypothetical case- Angina Pectoris Case: A 50-year-old male experiences chest pain while climbing stairs, relieved by rest. His pulse is 78/min, BP 140/85 mmHg. 1)Prepare a SOAP note for this patient. 2)Suggest one drug and lifestyle advice.	30	CO1, CO2	K1, K2, K6	PO1	
	b.Minor Experiment Prepare and discuss a hypothetical SOAP (Subjective, Objective, Assessment, Plan) note for a patient suffering from Depression.	20	CO1	K1, K2	PO1, PO2	
Section C						[20 Marks]
Q. No.	Questions	Marks	COs	KL	PO	
III	Viva voce	10				
IV	Record	10				

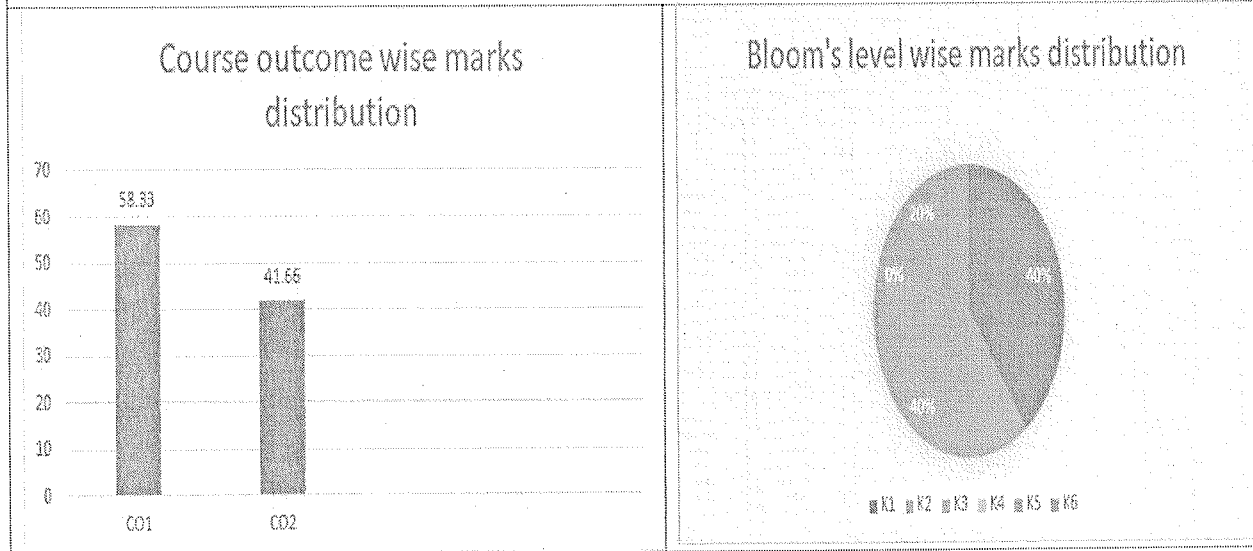
CO- Course Outcomes,


KL- Knowledge Level,

PO – Program Outcome

Course Outcomes	CO1	Write SOAP (Subjective, Objective, Assessment and Plan) notes for the given clinical cases of selected common diseases.
	CO2	Counsel the patients about the disease conditions, uses of drugs, methods of handling and administration of drugs, life-style modifications and monitoring parameters.

GRAPHICAL REPRESENTATION



SCHOOL OF PHARMACY				1 ST INTERNAL EXAMINATION	
Program Name	Diploma in Pharmacy	Program Code	D.PHARM		
Course Name	Pharmacotherapeutic (Practical)	Semester/Year	2 nd Year (Group B)		
Course Code	ER20-24P	Year	October 2025		
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80		
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating		
	K2 : Understanding	K4 : Analysing	K6 : Creating		
Section A					
[10 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
I	Synopsis Explain Myocardial Infarction (MI). Give three causes and discuss both pharmacological and non-pharmacological management of MI.	10	CO1, CO2	K1, K2	PO1, PO2
Section B					
[30 + 20=50 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
II	a.Major Experiment Hypothetical Case – Hypertension Case: A 55-year-old male patient visits the clinic with complaints of headache, dizziness, and occasional blurred vision. His blood pressure is 160/100 mmHg, and he has a family history of hypertension. 1)Prepare a SOAP note (Subjective, Objective, Assessment, Plan) for this patient. 2)Suggest one drug and lifestyle advice.	30	CO1, CO2	K1, K6	PO1
	b.Minor Experiment Prepare & discuss the hypothetical SOAP for patient with Diabetes.	20	CO1, CO2	K1, K2	PO1, PO2
Section C					
[20 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
III	Viva voce	10			
IV	Record	10			

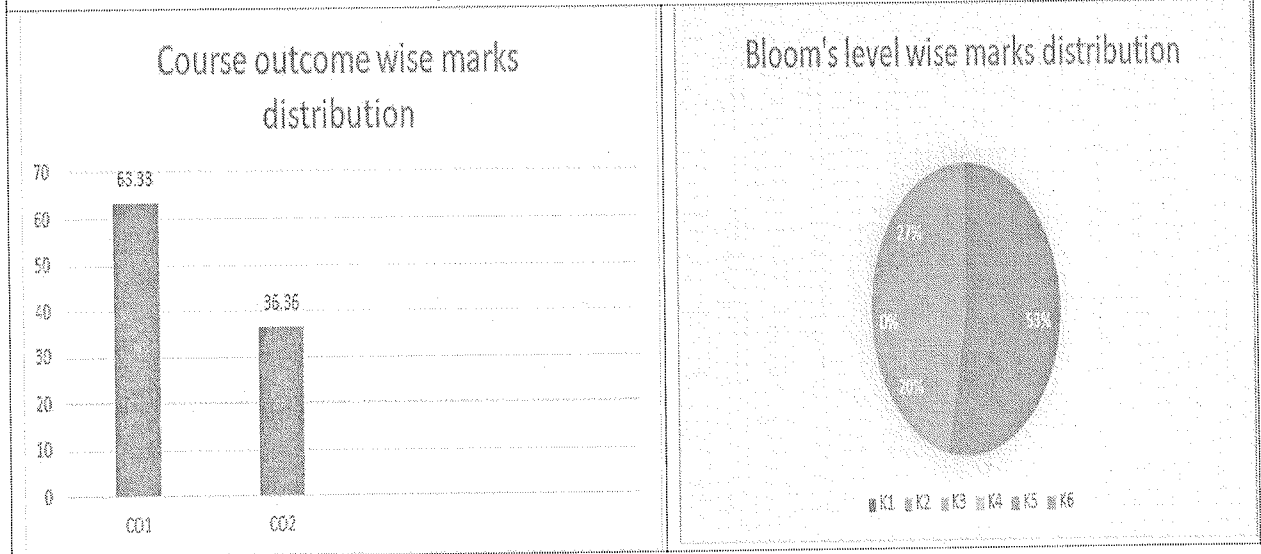
CO- Course Outcomes,


KL- Knowledge Level,

PO – Program Outcome

Course Outcomes	CO1	Write SOAP (Subjective, Objective, Assessment and Plan) notes for the given clinical cases of selected common diseases.
	CO2	Counsel the patients about the disease conditions, uses of drugs, methods of handling and administration of drugs, life-style modifications and monitoring parameters.

GRAPHICAL REPRESENTATION



SCHOOL OF PHARMACY			1 st INTERNAL EXAMINATION		
Program Name	Diploma in Pharmacy	Program Code	D.PHARM		
Course Name	Pharmacotherapeutic (Practical)	Semester/Year	2 nd Year (Group-C)		
Course Code	ER20-24P	Year	October 2025		
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80		
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating		
	K2 : Understanding	K4 : Analysing	K6 : Creating		
Section A					
[10 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
I	Synopsis What are Standard Treatment Guidelines? Explain their role in ensuring the rational use of medicines.	10	CO1, CO2	K1, K2	PO1, PO2
Section B					
[30 + 20=50 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
II	a.Major Experiment Hypothetical Case – Depression Case: A 28-year-old female patient reports persistent sadness, loss of interest in daily activities, fatigue, and disturbed sleep for the past two months. She also mentions having trouble concentrating at work and occasionally having thoughts of hopelessness. 1)Prepare a SOAP note (Subjective, Objective, Assessment, Plan) for this patient. 2)Give two non-pharmacological measures suitable for managing depression.	30	CO1	K1, K6	PO1
	b.Minor Experiment Prepare and discuss a hypothetical SOAP for a patient suffering from Asthma.	20	CO1, CO2	K1	PO1, PO2
Section C					
[20 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
III	Viva voce	10			
IV	Record	10			

CO- Course Outcomes,

KL- Knowledge Level,

PO – Program Outcome

Course Outcomes	CO1	Write SOAP (Subjective, Objective, Assessment and Plan) notes for the given clinical cases of selected common diseases.
	CO2	Counsel the patients about the disease conditions, uses of drugs, methods of handling and administration of drugs, life-style modifications and monitoring parameters.

GRAPHICAL REPRESENTATION

