
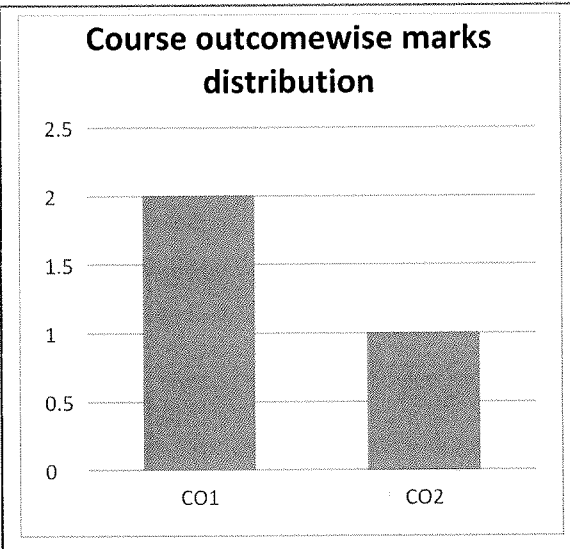
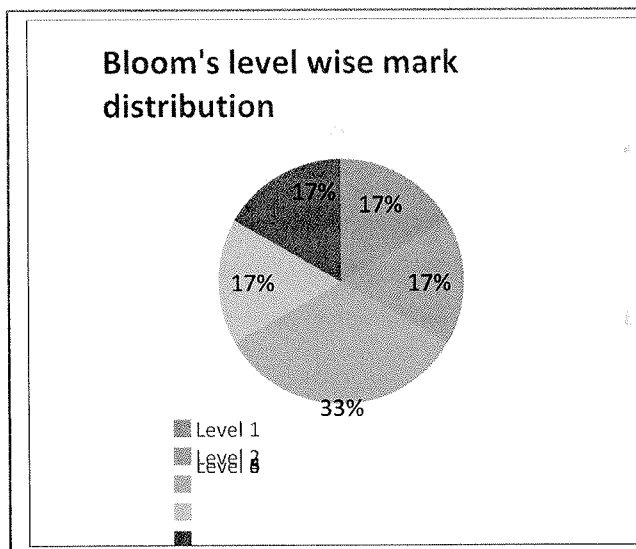



SCHOOL OF PHARMACY				3 rd INTERNAL EXAMINATION		
Program Name	Diploma in Pharmacy	Program Code	D.PHARM			
Course Name	Biochemistry and clinical pathology	Semester/Year	2 nd Year (Group-A)			
Course Code	DPHM12038	Year	April 2026			
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80			
Knowledge 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 various factors affecting enzyme activity. एंजाइम की सक्रियता को प्रभावित करने वाले विभिन्न कारकों पर संक्षेप (सिर्नॉप्सिस) लिखिए।	10	CO1	K1, K2	PO1	
Section B						[30 + 20=50 Marks]
Q. No.	Questions	Marks	COs	KL	PO	
II	a.Major Experiment Perform qualitative analysis of the urine sample to detect normal constituents. मूत्र नमूने का गुणात्मक विश्लेषण करके सामान्य घटकों का पता लगाइए।	30	CO2	K3, K4	PO2	
	b.Minor Experiment Perform Molisch's test and Benedict's test to detect the presence of carbohydrate in the given sample. दिए गए नमूने में कार्बोहाइड्रेट की उपस्थिति ज्ञात करने के लिए मोलिश परीक्षण एवं बेनेडिक्ट परीक्षण कीजिए।	20	CO1	K3, K5	PO1	
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

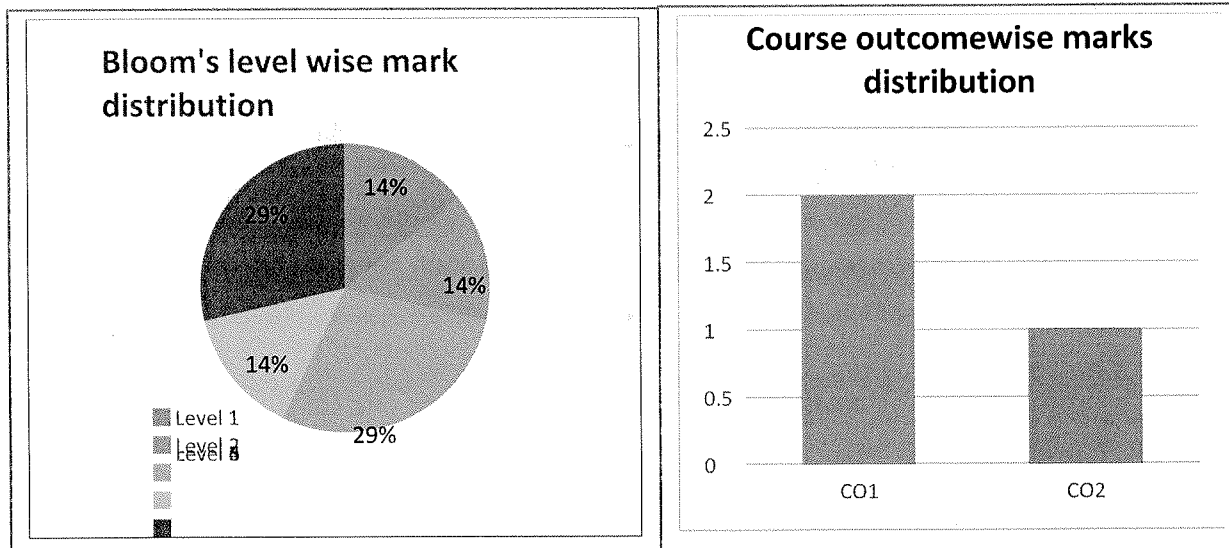
Course Outcomes	CO1	Qualitatively determine the biomolecules / metabolites in the given biological samples
	CO2	Determine the normal and abnormal constituents in blood and urine samples and interpret the results of such testing




SCHOOL OF PHARMACY				3 rd 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	April 2026		
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 diseases related to abnormal metabolism of Carbohydrates. कार्बोहाइड्रेट के असामान्य चयापचय से संबंधित रोगों पर संक्षेप (सिनॉप्सिस) लिखिए।	10	CO1	K1, K2	PO1
Section B					
[30 + 20=50 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
II	a.Major Experiment Perform an experiment to study the effect of temperature on the hydrolysis of starch by salivary amylase. लार एमाइलेज द्वारा स्टार्च के अपघटन पर तापमान के प्रभाव का अध्ययन कीजिए।	30	CO1	K3, K4, K5	PO1
	b.Minor Experiment Determine the presence of glucose in the urine sample. मूत्र नमूने में ग्लूकोज की उपस्थिति का निर्धारण कीजिए।	20	CO2	K3, K5	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

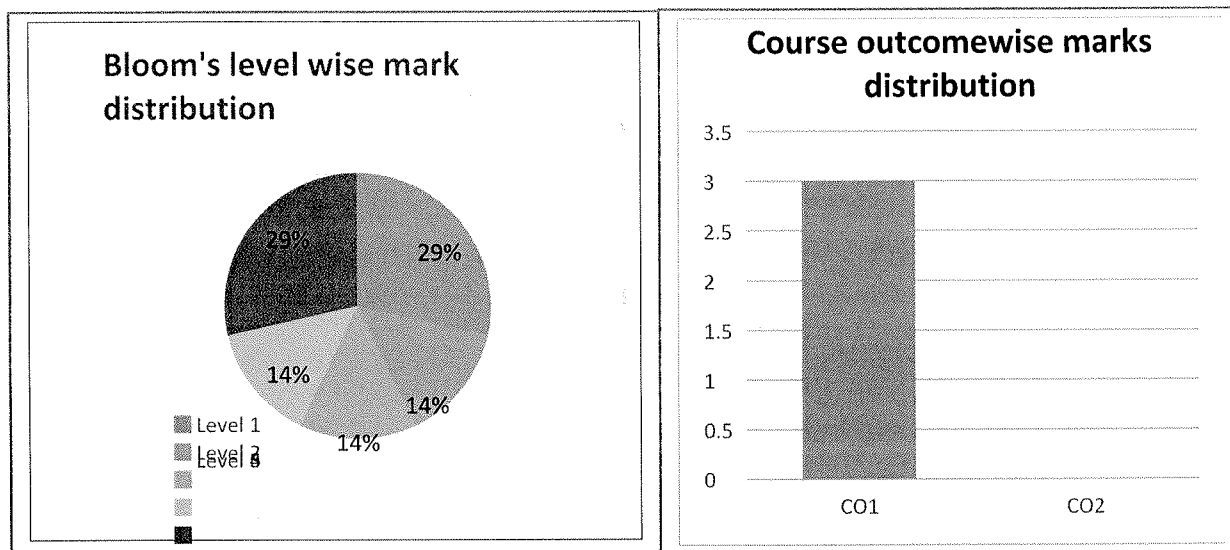
Course Outcomes	CO1	Qualitatively determine the biomolecules / metabolites in the given biological samples
	CO2	Determine the normal and abnormal constituents in blood and urine samples and interpret the results of such testing



SCHOOL OF PHARMACY			3 rd 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	April 2026		
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 monosaccharides and its classification. मोनोसैकराइड एवं उसके वर्गीकरण पर संक्षेप (सिनाॅप्सिस) लिखिए।	10	CO1	K1, K2	PO1
Section B					
[30 + 20=50 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
II	a.Major Experiment Perform qualitative analysis of protein sample. प्रोटीन नमूने का गुणात्मक विश्लेषण करें।	30	CO1	K1, K3, K5	PO1
	b.Minor Experiment Perform Sudan III test and saponification test to detect lipids in the sample. नमूने में लिपिड की उपस्थिति ज्ञात करने के लिए Sudan III टेस्ट और सैपोनिफिकेशन टेस्ट करें।	20	CO1	K4, K5	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

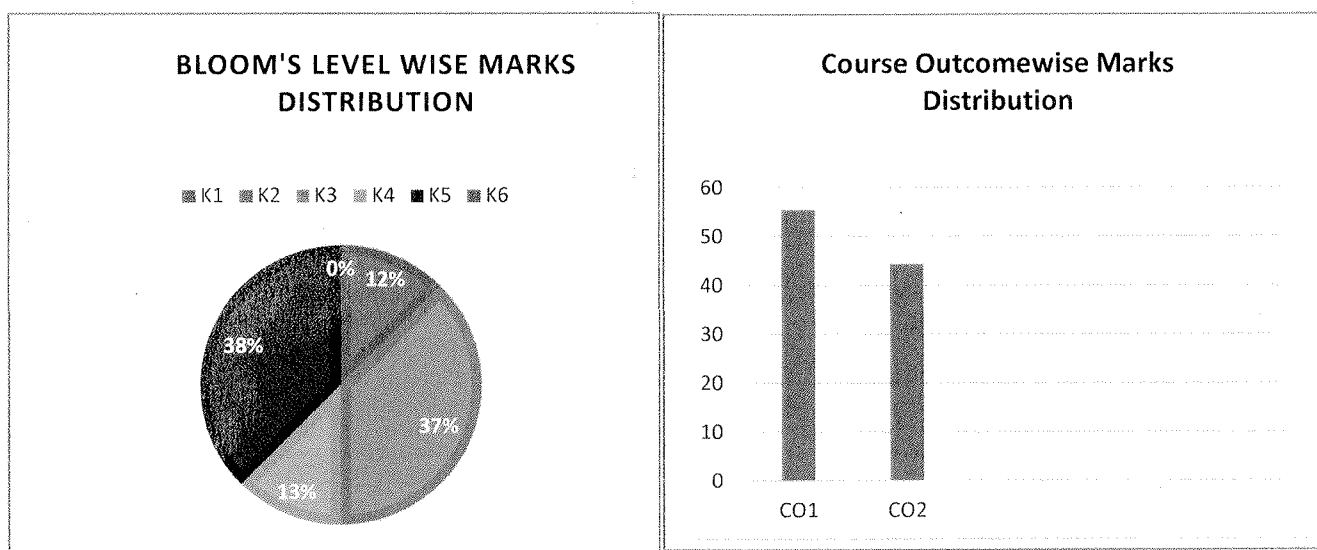





SCHOOL OF PHARMACY		 		3 rd INTERNAL EXAMINATION		
Program Name	Diploma in Pharmacy	Program Code	D.PHARM			
Course Name	Pharmacotherapeutics	Semester/Year	2 nd Year (Group-A)			
Course Code	DPHM12039	Year	April 2026			
Time: 3 Hours	All the Questions are COMPULSORY	Maximum Marks	80			
Knowledge Level (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 Depression. Explain its etiopathogenesis and discuss pharmacological and non-pharmacological management.	10	CO2	K2,K4	PO1,PO2	
Section B						
[30 + 20=50 Marks]						
Q. No.	Questions	Marks	COs	KL	PO	
II	a.Major Experiment: Hypothetical Case Depression : A 32-year-old patient presents with the following complaints: <ul style="list-style-type: none"> • Persistent sadness for the past 1 month • Loss of interest in daily activities • Fatigue and low energy • Disturbed sleep and reduced appetite • Difficulty in concentration • Prepare a SOAP note and Recommend suitable pharmacological medication and lifestyle advice. 	30	CO1,CO2	K3,K5	PO1,PO3	
	b.Minor Experiment: A 6-year-old child is prescribed Paracetamol . The adult dose is 500 mg . <ol style="list-style-type: none"> 1. Calculate the dose for the child using Young's formula. 2. Write the final dose in mg. 	20	CO1	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

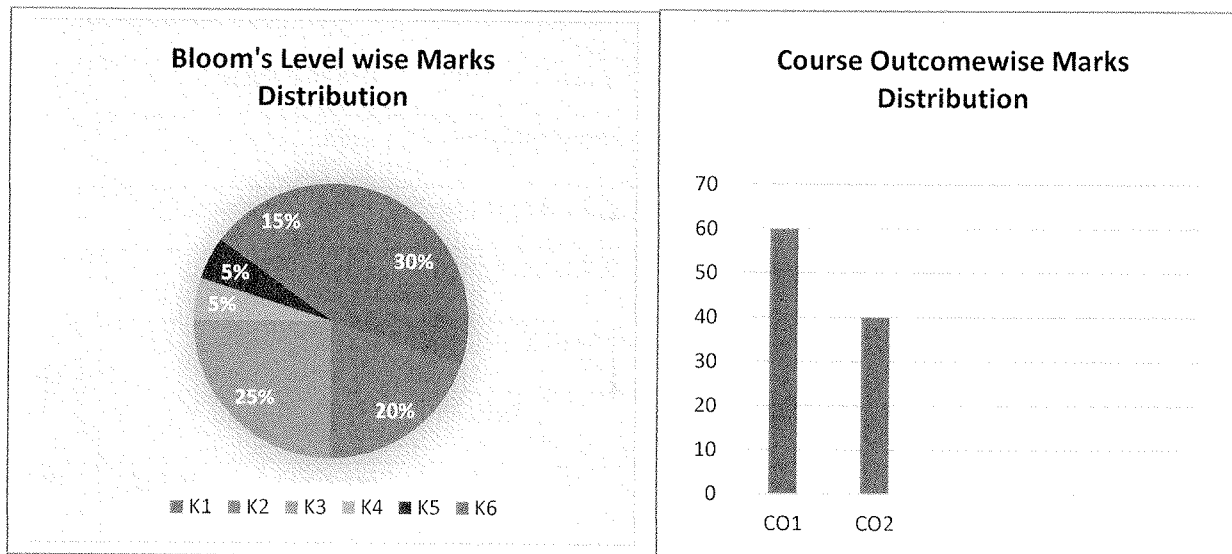
Course Outcomes	CO1	Write SOAP (Subjective, Objective, Assessment and Plan) notes for the given clinical cases of selected common diseases
	CO2	Counsel the patients about the disease conditions, uses of drugs, methods of handling and administration of drugs, life-style modifications, and monitoring parameters.




SCHOOL OF PHARMACY	  		3rd INTERNAL EXAMINATION		
	Program Name	Diploma in Pharmacy	Program Code	D.PHARM	
Course Name	Pharmacotherapeutics	Semester/Year	2nd Year (Group-B)		
Course Code	DPHM12039	Year	April 2026		
Time: 3 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 Stroke. Explain its etiopathogenesis and discuss pharmacological and non-pharmacological management.	10	CO1,CO2	K1,K2,K3	PO1
Section B					
[30 + 20=50 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
II	a.Major Experiment: Hypothetical Case Psoriasis : A 28-year-old patient presents with red, scaly patches on elbows and knees with itching. 1. Prepare a SOAP note 2. Recommend suitable topical/systemic therapy and lifestyle advice	30	CO1,CO2	K1,K2,K6	PO1
	b.Minor Experiment: To calculate the doze of Levocetirizine for four year old child suffering from allergic Rhinitis.	20	CO1	K3	PO1
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.

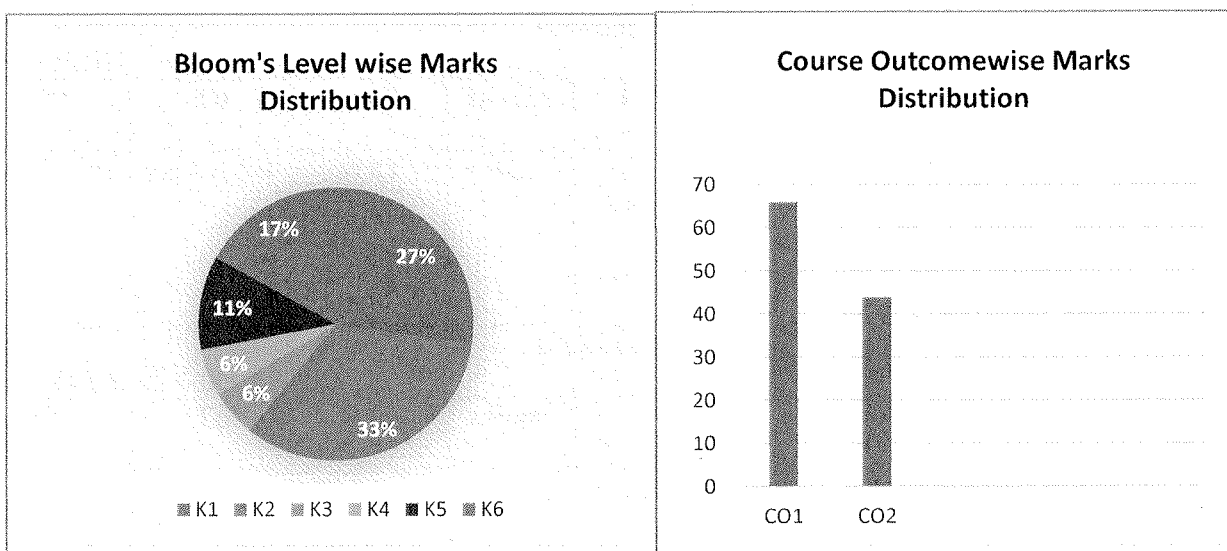



SCHOOL OF PHARMACY			3 rd INTERNAL EXAMINATION		
Program Name	Diploma in Pharmacy	Program Code	D.PHARM		
Course Name	Pharmacotherapeutics	Semester/Year	2nd Year (Group-C)		
Course Code	DPHM12039	Year	April 2026		
Time: 3 Hours	All the Questions are COMPULSORY	Maximum Marks	80		
Knowledge Level (KL)	K1 : 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 COVID-19 (SARS-CoV-2 infection) . Explain its etiopathogenesis, symptoms, and management including pharmacological and supportive therapy.	10	CO1	K2,K3,K4	PO1,PO4
Section B					
[30 + 20=50 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
II	a.Major Experiment: Hypothetical Case – Uncomplicated Malaria A 25-year-old male presents with high fever, chills, sweating, and headache . Blood smear shows <i>Plasmodium vivax</i> infection. 1. Prepare a SOAP note 2. Recommend suitable antimalarial therapy and patient advice	30	CO1,CO2	K1,K2,K6	PO1
	b.Minor Experiment: Prepare a hypothetical SOAP note for a patient suffering from Anemia . Marks COs KL	20	CO1	K1,K2,K5	PO1,PO2
Section C					
[20 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
III	Viva voce	10			

IV	Record	10			
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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.

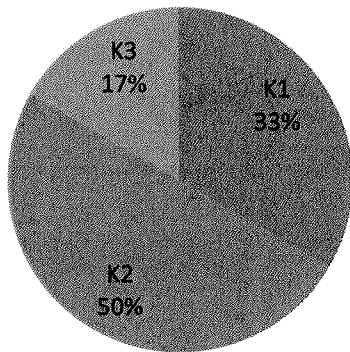


SCHOOL OF PHARMACY				3 rd INTERNAL EXAMINATION	
Program Name	Diploma in Pharmacy	Program Code	D.PHARM		
Course Name	Hospital and Clinical Pharmacy	Semester/Year	2 nd Year (Group-A)		
Course Code		Year	April 2026		
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80		
Knowledge Level (KL)	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 Aim and Scope of Pharmacovigilance.	10	Co2	K1 K2	PO1
Section B					
[30 + 20=50 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
II	a. Major Experiment: Glucose monitoring: Use of glucometer in diabetes management.	30	CO1	K1,K2	PO1
	a. Minor Experiment: Collection and handling of biological samples: Urine, blood, sputum.	20	CO2	K2,K3	PO2
Section C					
[20 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
III	Viva voce	10			
IV	Record	10			

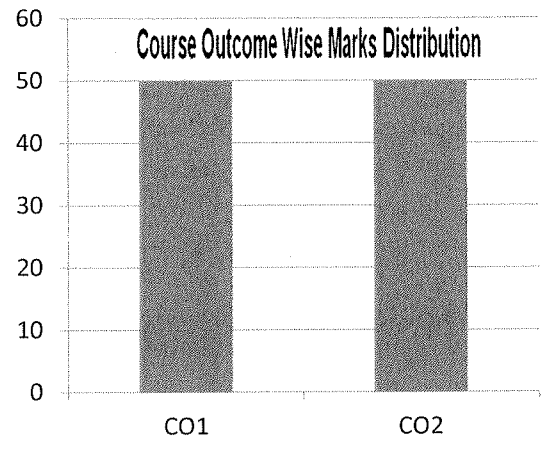
CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome



Course Outcomes	CO1	Learn the basic concept of business, its proper management, source of finances in order to run it successfully.
	CO2	To study about various transactions in books of account with a view to having a permanent record of the same commerce and accountancy.

Bloom's Level wise Marks Distribution



Course Outcome Wise Marks Distribution

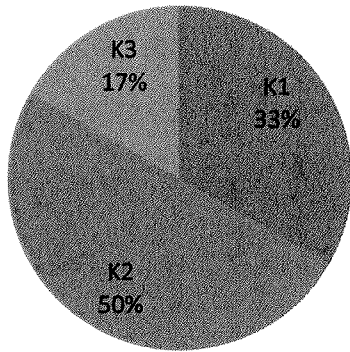


SCHOOL OF PHARMACY		 ARKA JAIN University <small>Jharkhand</small>				3 rd INTERNAL EXAMINATION	
Program Name		Diploma in Pharmacy		Program Code		D.PHARM	
Course Name		Hospital and Clinical Pharmacy		Semester/Year		2nd Year (Group-B)	
Course Code				Year		April 2026	
Time: 4 Hours		All the Questions 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 Drug Interaction and its Types.			10	CO2	K1 K2	PO1
Section B							
[30 + 20=50 Marks]							
Q. No.	Questions			Marks	COs	KL	PO
II	a. Major Experiment: Use of medical devices: Identification and application of needles, syringes, catheters, IV sets, urine bags, Ryle's tube.			30	CO1	K1,K2	PO1
	b. Minor Experiment: Wound care: Demonstration of wound dressing techniques.			20	CO2	K2,K3	PO2
Section C							
[20 Marks]							
Q. No.	Questions			Marks	COs	KL	PO
III	Viva voce			10			
IV	Record			10			

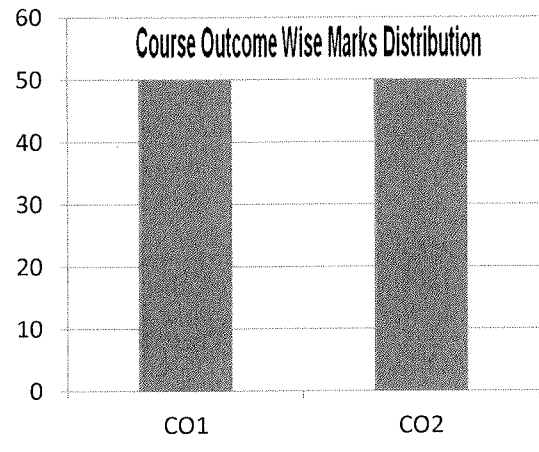
CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome


Course Outcomes	CO1	Learn the basic concept of business, its proper management, source of finances in order to run it successfully.
	CO2	To study about various transactions in books of account with a view to having a permanent record of the same commerce and accountancy.

Bloom's Level wise Marks Distribution



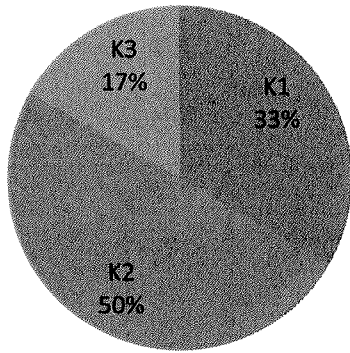
Course Outcome Wise Marks Distribution



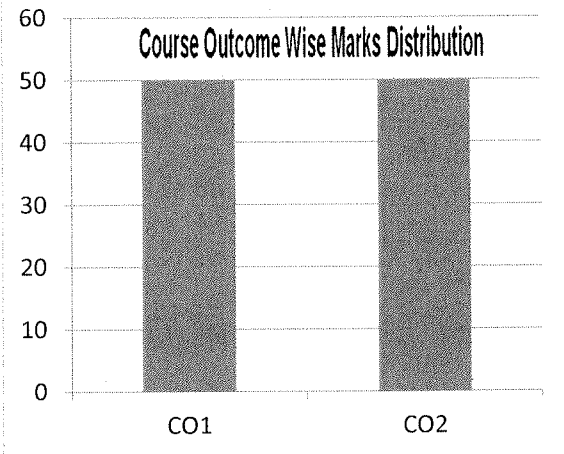
SCHOOL OF PHARMACY				3 rd INTERNAL EXAMINATION		
Program Name	Diploma in Pharmacy	Program Code	D.PHARM			
Course Name	Hospital and Clinical Pharmacy	Semester/Year	2 nd Year (Group-C)			
Course Code		Year	April 2026			
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80			
Knowledge Level (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: Injection techniques: Intra venous administration using mannequins.	30	CO1	K1,K2	PO1	
	b. Minor Experiment: Patient counselling: Simulated counselling for common diseases.	20	CO2	K2,K3	PO2	
Section C						[20 Marks]
Q. No.	Questions	Marks	COs	KL	PO	
III	Viva voce	10				
IV	Record	10				



Course Outcomes	CO1	Learn the basic concept of business, its proper management, source of finances in order to run it successfully.
	CO2	To study about various transactions in books of account with a view to having a permanent record of the same commerce and accountancy.

Bloom's Level wise Marks Distribution



Course Outcome Wise Marks Distribution

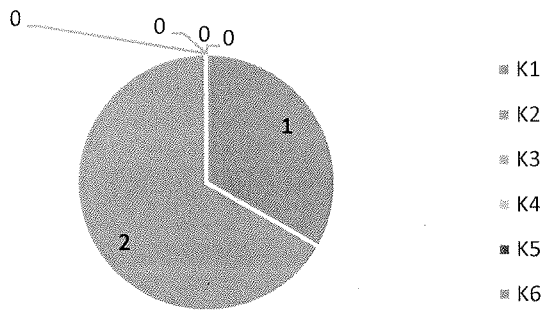


SCHOOL OF PHARMACY		 ARKA JAIN University <small>Jharkhand</small>				3 rd INTERNAL EXAMINATION	
Program Name		DiplomainPharmacy		Program Code		D.PHARM	
Course Name		COMMUNITY PHARMACY AND MANAGEMENT		Semester/Year		2st Year (Group-A)	
Course Code				Year		April 2026	
Time: 4 Hours		All the Questions 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 medication adherence and factors affecting medication adherence			10	CO3	K1 K2	Po2
Section B							
[30 + 20=50Marks]							
Q. No.	Questions			Marks	COs	KL	PO
II	a.Major Experiment To perform the patient counselling on asthma			30	CO4	K1	Po1
	b.Minor Experiment To perform the study on dispensing and auxiliary labels for the disease hypertension			20	CO4	K1	Po1
Section C							
[20 Marks]							
Q. No.	Questions			Marks	COs	KL	PO
III	Viva voce			10			
IV	Record			10			

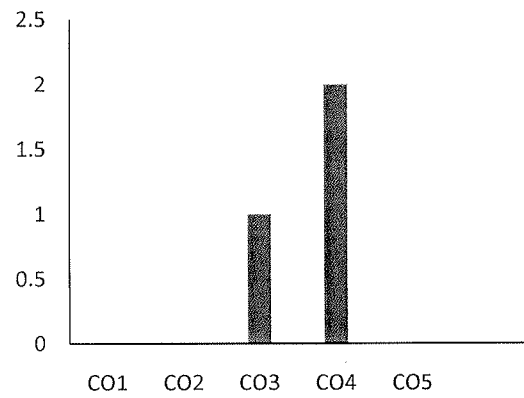
CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome


Course Outcomes	CO1	Handle and fill prescriptions in a professional manner
	CO2	Counsel patients on various diseases and minor ailments
	CO3	Counsel patients on prescription and or non-prescription medicines
	CO4	Design and prepare patient information leaflets
	CO5	Perform basic health screening tests

Bloom's Level wise Marks Distribution



Course outcome wise marks distribution

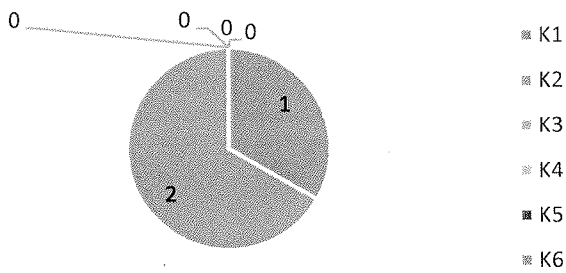


SCHOOL OF PHARMACY				3 rd INTERNAL EXAMINATION	
Program Name	Diploma in Pharmacy	Program Code	D.PHARM		
Course Name	COMMUNITY PHARMACY AND MANAGEMENT	Semester/Year	2 st Year (Group-B)		
Course Code		Year	April 2026		
Time: 4 Hours	All the Questions are COMPULSORY	Maximum Marks	80		
Knowledge Level (KL)	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 scope and importance of various health screening services	10	Co3	K1 K2	Po2
Section B					
[30 + 20=50Marks]					
Q. No.	Questions	Marks	Cos	KL	PO
II	a.Major Experiment To perform the patient counselling on diabetes	30	Co4	K1	Po1
	b.Minor Experiment To perform the study on dispensing and auxiliary labels for the disease rheumatoid arthritis	20	Co4	K1	Po1
Section C					
[20 Marks]					
Q. No.	Questions	Marks	COs	KL	PO
III	Viva voce	10			
IV	Record	10			

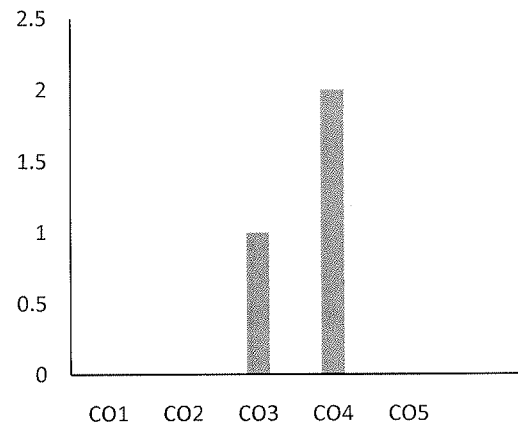
CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome



Course Outcomes	CO1	Handle and fill prescriptions in a professional manner
	CO2	Counsel patients on various diseases and minor ailments
	CO3	Counsel patients on prescription and or non-prescription medicines
	CO4	Design and prepare patient information leaflets
	CO5	Perform basic health screening tests

Bloom's Level wise Marks Distribution



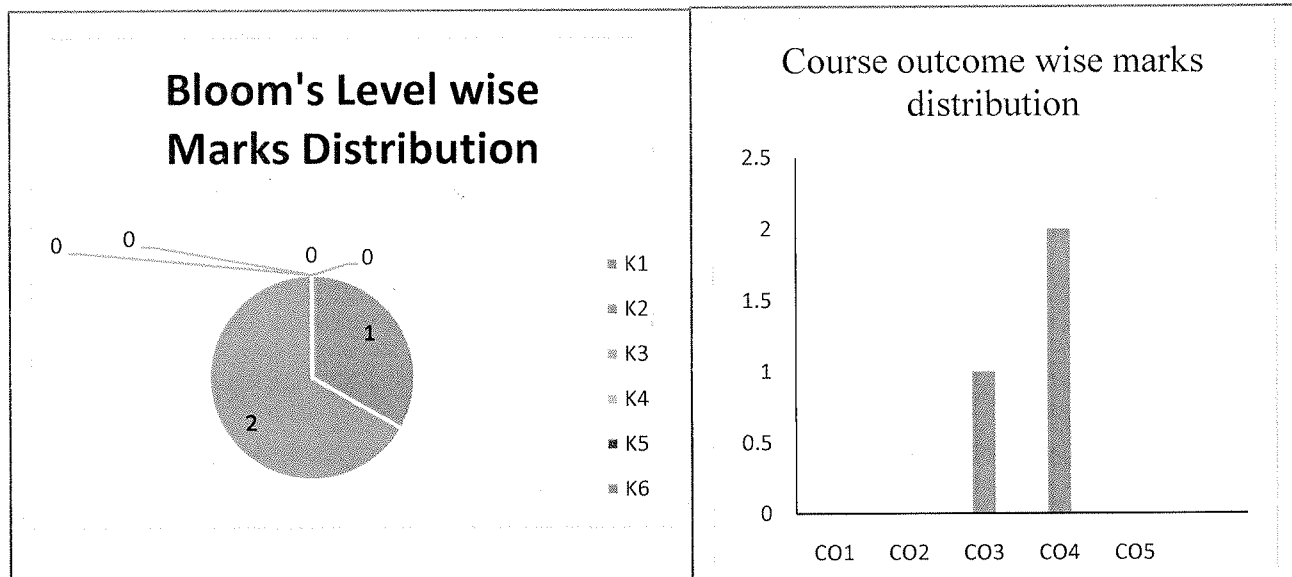
Course outcome wise marks distribution



SCHOOL OF PHARMACY	 ARKA JAIN University Jharkhand 			3 rd INTERNAL EXAMINATION		
Program Name	Diplomain Pharmacy	Program Code	D.PHARM			
Course Name	COMMUNITY PHARMACY AND MANAGEMENT	Semester/Year	2st Year (Group-C)			
Course Code		Year	April 2026			
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 the the role of pharmacists in OTC medication	10	Co3	K1 K2	Po2	
Section B						
[30 + 20=50Marks]						
Q. No.	Questions	Marks	Cos	KL	PO	
II	a.Major Experiment To perform the patient counselling on headache to a patient	30	Co4	K1	Po1	
	b.Minor Experiment To perform the study on dispensing and auxiliary labels for the disease diabetes	20	Co4	K1	Po1	
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	Handle and fill prescriptions in a professional manner
	CO2	Counsel patients on various diseases and minor ailments
	CO3	Counsel patients on prescription and or non-prescription medicines
	CO4	Design and prepare patient information leaflets
	CO5	Perform basic health screening tests



JGI	ARKA JAIN University Jharkhand	NAAC GRADE A ACCREDITED UNIVERSITY	3rd INTERNAL EXAMINATION School of Pharmacy
Branch	D. Pharmacy	Program	Pharmacy
Subject Name	Biochemistry & Clinical Pathology	Semester/Year	II
		Year	April 2026
Time: 1:30 Hour Max. Marks : 40	<ul style="list-style-type: none"> Answer all Questions of Section A (Compulsory) Answer Any <i>Three</i> out of <i>Four</i> of Section B Answer Any <i>Five</i> out of <i>Six</i> 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 Result in the <u>Cancellation of the Papers.</u> 		
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating
	K2 : Understanding	K4 : Analysing	K6 : Creating

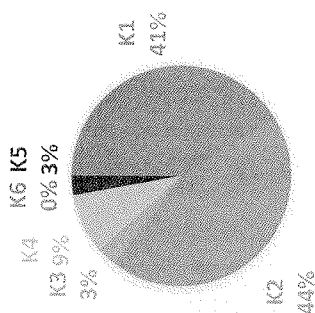
Section A (Each question Carry 01 Marks from Q1-i to Q1-x) – 10 Marks					
Q. N-1	QUESTIONS	Marks	COs	KL	PO
i	HDL is beneficial because it: a) Deposits cholesterol in arteries b) Removes cholesterol from tissues c) Increases glucose d) Decreases protein HDL लाभकारी है क्योंकि यह: a) धमनियों में कोलेस्ट्रॉल जमा करता है b) ऊतकों से कोलेस्ट्रॉल हटाता है c) ग्लूकोज बढ़ाता है d) प्रोटीन घटाता है	1	CO4	K1	PO1
ii	Platelets are essential for: a) Immunity c) Oxygen transport प्लेटलेट्स आवश्यक होते हैं: a) प्रतिरक्षा के लिए c) ऑक्सीजन परिवहन के लिए Which of the following is NOT a lipid? a) Cholesterol c) Glycogen निम्नलिखित में से कौन लिपिड नहीं है? a) कोलेस्ट्रॉल c) ग्लाइकोजन	1	CO6	K1	PO1
iii	Which of the following is NOT a lipid? a) Cholesterol c) Glycogen निम्नलिखित में से कौन लिपिड नहीं है? a) कोलेस्ट्रॉल c) ग्लाइकोजन	1	CO1	K1	PO2
iv	Decarboxylation removes: a) NH ₂ group c) CH ₃ group डीकार्बोक्सिलेशन में हटाया जाता है:	1	CO5	K1, K2	PO2

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

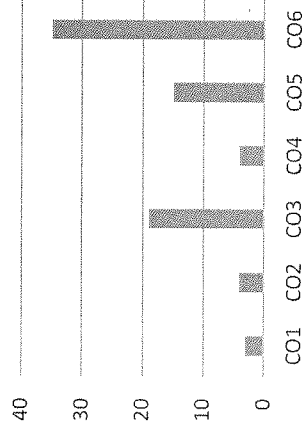
CO1	Describe the functions of biomolecules
CO2	Discuss the various functions of enzymes in the human system
CO3	Explain the metabolic pathways of biomolecules in both physiological and pathological conditions
CO4	Describe the principles of organ function tests and their clinical significances
CO5	Determine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

GRAPHICAL REPRESENTATION

Bloom's Level Wise Mark Distribution



Course outcomewise marks distribution



v	<p>a) NH_3 समूह c) CH_3 समूह</p> <p>Bilirubin is a product of: a) Fat metabolism c) Hemoglobin breakdown बिलिरुबिन किसका उत्पाद है: a) वसा चयापचय c) हीमोग्लोबिन के अपघटन का</p>	<p>b) COOH समूह d) OH समूह</p> <p>Protein metabolism Glucose metabolism प्रोटीन चयापचय ग्लूकोज चयापचय</p>	1	CO4	K2, K1	PO1	
vi	<p>Sucrose is composed of: a) Glucose + Fructose c) Galactose + Fructose सुक्रोज किससे बना होता है: a) ग्लूकोज + फ्रुक्टोज c) गैलेक्टोज + फ्रुक्टोज</p>	<p>b) Glucose + Galactose d) Glucose + Glucose</p>	1	CO1	K2, K1	PO1	
vii	<p>Which complex does NOT pump protons? a) Complex I c) Complex III निम्न में से कौन-सा कॉम्प्लेक्स प्रोटॉन पंप नहीं करता है? a) कॉम्प्लेक्स I c) कॉम्प्लेक्स III</p>	<p>b) Complex II d) Complex IV</p>	1	CO5	K1, K2	PO1	
viii	<p>At the end of glycolysis, what is the final product formed? a) lactose c) pyruvate ग्लाइकोलिसिस के अंत में अंतिम उत्पाद क्या बनता है? a) लैक्टोज c) पाइरुवेट</p>	<p>b) fructose-6-phosphate d) glucose-6-phosphate</p>	1	CO5	K2	PO2	
ix	<p>ORS solution contains: a) Protein and fat c) Vitamins only ORS घोल में क्या होता है: a) प्रोटीन और वसा c) केवल विटामिन</p>	<p>b) Glucose and electrolytes d) Enzymes</p> <p>b) ग्लूकोज और इलेक्ट्रोलाइट्स d) एंजाइम</p>	1	CO3	K1, K2	PO1	
x	<p>Erythrocytes are responsible for: a) Immunity c) Blood clotting erythrocytes जिम्मेदार होते हैं: a) प्रतिरक्षा के लिए c) रक्त का थक्का बनने के लिए</p>	<p>b) Oxygen transport d) Hormone transport</p> <p>b) ऑक्सीजन परिवहन के लिए d) हार्मोन परिवहन के लिए</p>	1	CO6	K1, K2	PO1	
Section B Answer any Three out of Four [3 x 5 = 15 Marks]							
Q. No.	QUESTIONS		Marks	COs	KL	PO	
2	Describe diseases related to abnormal metabolism of carbohydrates. कार्बोहाइड्रेट के असामान्य चयापचय से संबंधित रोगों का वर्णन कीजिए।		5	CO3	K2	PO1	
3	Explain the TCA (Krebs) cycle with its steps and significance. TCA (केब्स) चक्र को उसके चरणों तथा उसके महत्व सहित		5	CO5	K1, K2	PO2	

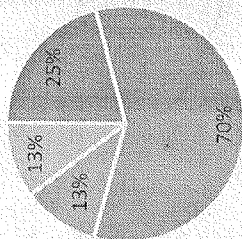
4	<p>Explain the urea cycle with steps and its significance in ammonia detoxification. यूरिया चक्र को उसके चरणों सहित समझाइए तथा अमोनिया के डिटॉक्सिकेशन में इसके महत्व को बताइए।</p>	5	CO5	K2	PO2	
5	<p>Write the major functions of the liver. यकृत (लिवर) के प्रमुख कार्यों को लिखिए।</p>	5	CO4	K1, K2	PO1	
Section C Answer any Five out of Six [5 x 3 = 15 Marks]						
Q. No.	QUESTIONS		Marks	COs	KL	PO
6	Describe jaundice and its types. पीलिया (जाडिस) का वर्णन कीजिए तथा इसके प्रकारों को बताइए।		3	CO5	K5	PO1
7	Explain the role of platelets in blood clotting. रक्त के थक्का बनने में प्लेटलेट्स की भूमिका को समझाइए।		3	CO6	K1, K2	PO2
8	Write a short note on diabetes mellitus. डायबिटीज मेलिटस पर एक संक्षिप्त टिप्पणी लिखिए।		3	CO3	K4, K2	PO2
9	Write a short note on lipolysis. लिपोलिसिस पर एक संक्षिप्त टिप्पणी लिखिए।		3	CO5	K1, K2	PO1
10	Define ketoacidosis and mention its causes. कीटोएसिडोसिस को परिभाषित कीजिए तथा इसके कारणों का उल्लेख कीजिए।		3	CO5	K1, K2	PO1
11	Differentiate between DNA and RNA. DNA और RNA के बीच अंतर बताइए।		3	CO1	K1, K2	PO1

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

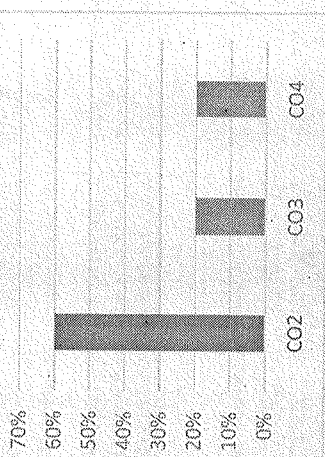
GRAPHICAL REPRESENTATION



Bloom's Level Wise Mark Distribution



■ K1 ■ K2 ■ K3 ■ K4

Course Outcome Wise Marks Distribution



 ARKA JAIN University Jharkhand		 NAAC GRADE A ACCREDITED UNIVERSITY		3rd INTERNAL EXAMINATION School of Pharmacy	
Branch	D. Pharmacy	Program	Pharmacy		
Subject Name	Pharmacy Law and Ethics	Year	II		
		Year	April 2026		
Time: 1.5	<ul style="list-style-type: none"> Answer all Questions of Section A (Compulsory) Answer Any <i>Three</i> out of <i>Four</i> of Section B Answer Any <i>Five</i> out of <i>Six</i> 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. 				
Hour Max. Marks: 40					
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 1	QUESTIONS				
i	Full form of BCS: BCS का पूर्ण रूप क्या है? (a) Biotechnology pharmaceuticals Classification System/ बायोटेक्नोलॉजी फार्मास्यूटिक्स वर्गीकरण प्रणाली (b) Bio pharmaceuticals Classification System (c) Biology pharmaceuticals Classification System (d) Bio pharmacy Classification System	1	CO4	K1	PO1
ii	What is blood bank? (a) Place where blood is available for human (b) Blood or blood component for human (c) Both (d) All of these ब्लड बैंक क्या है? (a) वह स्थान जहाँ मानव के लिए रक्त उपलब्ध होता है (b) मानव उपयोग हेतु रक्त या रक्त घटक (c) दोनों (d) उपरोक्त सभी	1	CO2	K1	PO1
iii	What are general things that is used for blood collection? (a) Weighing machine for donor and sample (b) Hb determination equipment (c) PVC bag for blood collection (d) All of these रक्त संग्रह (Blood Collection) के लिए सामान्यतः कौन-सी चीजें उपयोग होती हैं? (a) दाता और नमूने के लिए वजन मशीन (b) Hb निर्धारण उपकरण (c) रक्त संग्रह के लिए PVC बैग	1	CO2	K1	PO1

	(d) उपरोक्त सभी				
iv	Types of bio medical waste categories: (a) Yellow Category (b) Red Category (c) White Category (d) All of these बायोमैडिकल वेस्ट की श्रेणियाँ कौन सी हैं? (a) Yellow Category (b) Red Category (c) White Category (d) उपरोक्त सभी	1	CO2	K1	PO1
v	Phase I clinical trials are mainly concerned with: a) Efficacy in patients b) Safety in healthy volunteers c) Long-term toxicity d) Post-marketing surveillance Phase I क्लिनिकल ट्रायल मुख्यतः किससे संबंधित होता है? (a) मरीजों में प्रभावकारिता (b) स्वस्थ स्वयंसेवकों में सुरक्षा (Safety) (c) दीर्घकालिक विषाक्तता (d) पोस्ट-मार्केटिंग सार्वतास NDA stands for: NDA का पूर्ण रूप क्या है? a) New Drug Application b) National Drug Authority c) New Development Approval d) Novel Drug Assessment	1	CO2	K2	PO1
vi	NDA का पूर्ण रूप क्या है? a) New Drug Application b) National Drug Authority c) New Development Approval d) Novel Drug Assessment	1	CO2	K1	PO1
vii	A generic drug must demonstrate: a) Higher efficacy than brand b) Bioequivalence with brand drug c) Lower toxicity only d) Different composition Generic दवा को क्या सिद्ध करना होता है? (a) ब्रांड दवा से अधिक प्रभावशीलता (b) ब्रांड दवा के साथ Bioequivalence (c) केवल कम विषाक्तता (d) अलग संरचना	1	CO4	K2	PO1
viii	Phase IV clinical trials are also known as: Phase IV क्लिनिकल ट्रायल को क्या कहा जाता है? a) Preclinical studies b) Toxicity studies c) Post-marketing surveillance d) Animal studies	1	CO2	K2	PO1
ix	Trade name of a drug refers to: दवा का Trade name किसे कहा जाता है? a) Chemical name b) Generic name c) Brand name given by company d) Pharmacological class	1	CO4	K1	PO1

x	ANDA is used for approval of: ANDA का उपयोग किसके अनुमोदन (approval) के लिए किया जाता है? a) New innovative drugs b) Herbal medicines c) Generic drugs d) Vaccines only	1	CO2	K2	PO1
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Section B Answer any Three out of Four [3 x 5 = 15 Marks]

Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Explain clinical trial in details. क्लिनिकल ट्रायल को विस्तार से समझाइए।	5	CO2	K2	PO1 PO9
3	Differentiate between NDA (New Drug Application) and ANDA (Abbreviated New Drug Application). NDA (New Drug Application) और ANDA (Abbreviated New Drug Application) में अंतर बताइए।	5	CO2	K4	PO1 PO2
4	Write down the biomedical waste classification. बायोमैडिकल वेस्ट का वर्गीकरण लिखिए।	5	CO2	K2	PO1, PO7
5	Explain the importance of ethical guidelines in biomedical research as given by the Indian Council of Medical Research. भारतीय आयुर्विज्ञान अनुसंधान परिषद (ICMR) द्वारा दिए गए नैतिक दिशानिर्देशों का महत्व समझाइए।	5	CO3	K3	PO5 PO6

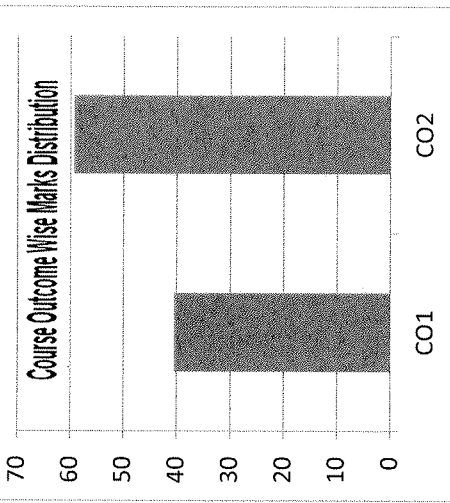
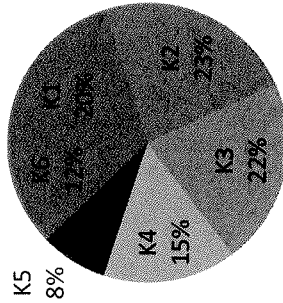
Section C Answer any Five out of Six [5 x 3 = 15 Marks]

Q. No.	QUESTIONS	Marks	COs	KL	PO
7	Mention the principles of biomedical ethics. बायोमैडिकल एथिक्स के सिद्धांत लिखिए।	3	CO3	K1	PO6
8	What is the Objective of biomedical waste management rules 2016? Biomedical Waste Management Rules 2016 का उद्देश्य क्या है?	3	CO2	K2	PO7
9	What is the difference between generic medicine and branded medicine. Generic और Branded दवाओं में अंतर बताइए।	3	CO4	K2	PO2 PO1
10	What is the main purpose of clinical trials. क्लिनिकल ट्रायल का मुख्य उद्देश्य क्या है?	3	CO2	K2	PO1, PO9
11	What is the role of ICMR? ICMR की भूमिका क्या है?	3	CO3	K2	PO5 PO6
12	Write a short note on Emergency Use Authorization (EUA). Emergency Use Authorization (EUA) पर संक्षिप्त टिप्पणी लिखिए।	3	CO2	K2	PO9 PO10

CO1	Learn the basic concept of business, its proper management, source of finances in order to run it successfully.
CO2	To study about various transactions in books of account with a view to having a permanent record of the same commerce and accountability.

GRAPHICAL REPRESENTATION

Bloom's Level wise Marks Distribution



Branch	D. Pharmacy	Program	Pharmacy
Subject Name	Hospital and Clinical Pharmacy	Semester/ Year	II
Time: 1.30 Hour Max. Marks : 40		Year	April-2026
Knowledge Level (KL)	K1 : Remembering K2 : Understanding	K3 : Applying K4 : Analysing	K5 : Evaluating 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.

Section A (Each question Carry 01 Marks from Q1-i to Q1-x) – 10 Marks

Q. N1	QUESTIONS	Marks	COs	KL	PO
i	Antidote is used for a) Infection b) Poisoning c) Fever d) Pain विषनाशक का प्रयोग किसके लिए किया जाता है? a) संक्रमण b) विषाणु c) बुखार d) दर्द	1	CO1	K1, K2	PO1, PO2
ii	Medication error occurs due to a) Wrong dose b) Wrong drug c) Wrong route d) All of the above दवा संबंधी त्रुटि निम्न कारणों से होती है: a) गलत खुराक b) गलत दवा c) गलत तरीका d) उपरोक्त सभी	1	CO1	K2	PO1, PO2
iii	Liver function test includes a) SGPT b) SGOT c) Bilirubin d) All of the above लिबर फंक्शन टेस्ट में शामिल हैं: a) एसजीपीटी b) एसजीओटी c) बिलिरुबिन d) उपरोक्त सभी	1	CO2	K3	PO2, PO3
iv	Thyroid test includes a) T3 b) T4 c) TSH d) All of the above थायरॉइड परीक्षण में शामिल हैं: a) T3 b) T4 c) TSH d) उपरोक्त सभी	1	CO1	K3	PO2
v	Reserved antibiotics are used for a) Mild infection b) Severe infection c) Fever d) Pain आरक्षित एंटीबायोटिक दवाओं का उपयोग निम्न स्थितियों में किया जाता है: a) हल्का संक्रमण b) गंभीर संक्रमण c) बुखार d) दर्द	1	CO2	K4	PO3

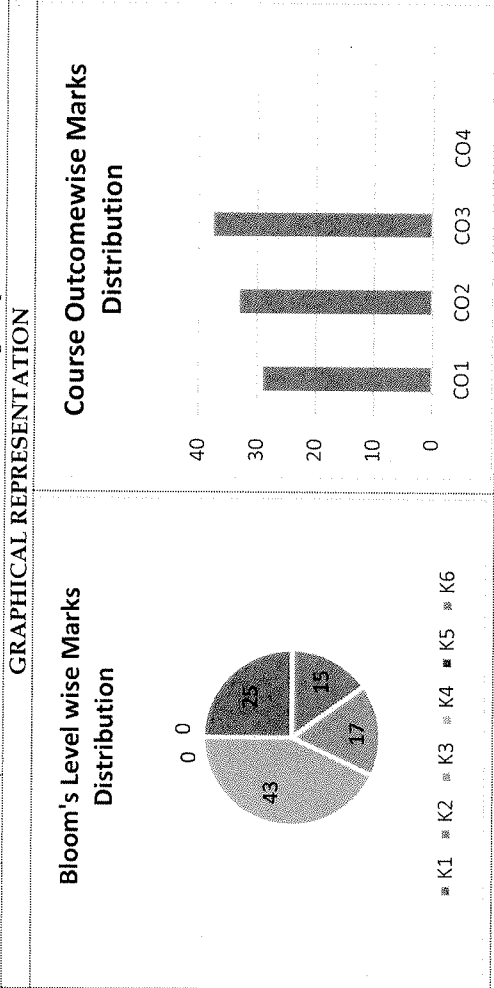
vii	Poison information centre provides a) Drug price b) Poison treatment information c) Marketing d) Manufacturing विष सूचना केंद्र निम्नलिखित जानकारी प्रदान करता है: a) दवा की कीमत b) विष उपचार संबंधी जानकारी c) विपणन d) विनिर्माण	1	CO2	K2	PO2, PO4
viii	Cytotoxic drugs are used for a) Diabetes b) Cancer c) Fever d) Infection साइटोटॉक्सिक दवाओं का उपयोग किसके लिए किया जाता है? a) मधुमेह b) कैंसर c) बुखार d) संक्रमण	1	CO2	K3	PO3
ix	Which test is related to cardiac disorders? a) Troponin test b) Hemoglobin test c) Thyroid test d) Blood sugar कौन सा परीक्षण हृदय संबंधी विकारों से संबंधित है? a) ट्रोपोनिन परीक्षण b) हीमोग्लोबिन परीक्षण c) थायरॉइड परीक्षण d) रक्त शर्करा	1	CO1	K2	PO3
x	Drug interaction occurs when: a) Two drugs are taken together b) Food interacts with drug c) One drug alters the effect of another drug d) Drug dissolves in stomach दवाओं की परस्पर क्रिया तब होती है जब: a) दो दवाएं एक साथ ली जाती हैं b) भोजन दवा के साथ प्रतिक्रिया करता है c) एक दवा दूसरी दवा के प्रभाव को बदल देती है d) दवा पेट में घुल जाती है	1	CO2	K6	PO2
	Which of the following test is used to evaluate liver function? a) Serum creatinine b) SGPT c) Hemoglobin d) Troponin निम्नलिखित में से कौन सा परीक्षण यकृत की कार्यप्रणाली का मूल्यांकन करने के लिए उपयोग किया जाता है? a) सीरम क्रिएटिनिन b) एसजीपीटी c) हीमोग्लोबिन d) ट्रोपोनिन	1	CO2	K6	PO2
Section B Answer any Three out of Four [3 x 5 = 15 Marks]					
QUESTIONS					
Q. No.	Marks	COs	KL	PO	
2	5	CO1 CO2	K1 K2	PO1 PO2	Define Pharmacovigilance. Discuss medication errors, their types, causes and strategies to minimize medication errors in hospital pharmacy. फार्माकोविजिलेंस को परिभाषित करें। अस्पताल की

3	5	CO2	K2	PO2 PO3	फार्मसी म दवा संबंधी गुणधर्म, उनके प्रकार, कारणों और उन्हें कम करने की रणनीतियों पर चर्चा करें। Explain drug interactions and their types with proper example. उचित उदाहरणों के साथ दवाओं की परस्पर क्रिया और उनके प्रकारों की व्याख्या करें।
4	5	CO2	K3	PO3, PO4	Classify types of poisoning and write the general treatment and antidotes used in poisoning. विषाणुओं के प्रकारों का वर्गीकरण कीजिए और विषाणुओं के सामान्य उपचार और उनमें प्रयुक्त विषनाशक दवाओं के बारे में लिखिए।
5	5	CO1	K4	PO1, PO2	Explain fluid and electrolyte balance tests and pulmonary function tests. द्रव और इलेक्ट्रोलाइट संतुलन परीक्षणों और फुफ्फुसीय कार्य परीक्षणों की व्याख्या करें।
6	5	CO1 CO2	K5	PO3, PO4	Write in detail about poisoning, its types, clinical manifestations, and antidotes. विषाणु के बारे में विस्तार से लिखें, इसके प्रकार, नैदानिक लक्षण और विषनाशक दवाओं के बारे में बताएं।
Section C Answer any Five out of Six [5 x 3 = 15 Marks]					
QUESTIONS					
Q. No.	Marks	COs	KL	PO	
7	3	CO1	K6	PO1, PO2	Explain Liver function test. लिवर फंक्शन टेस्ट की व्याख्या करें।
8	3	CO2	K2	PO3 PO4	Define poisoning and classify types of poisoning. विषाणु की परिभाषा दीजिए और विषाणु के प्रकारों का वर्गीकरण कीजिए।
9	3	CO2	K3	PO3 PO4	Define LASA drugs and Tallman lettering. LASA दवाओं और Tallman अक्षरों को परिभाषित करें।
10	3	CO1 CO2	K3 K4	PO2 PO4	Define drug interaction and classify drug interactions. दवाओं की परस्पर क्रिया को परिभाषित करें और दवाओं की परस्पर क्रिया को वर्गीकृत करें।
11	3	CO2	K1 K2	PO3 PO4	Write a note on renal function tests. गुर्दे की कार्यक्षमता संबंधी परीक्षणों पर एक टिप्पणी लिखिए।
12	3	CO1 CO2	K3	PO3	Define medication error and write its types. दवा संबंधी त्रुटि को परिभाषित करें और इसके प्रकार लिखें।

				3rd INTERNAL EXAMINATION School of Pharmacy	
Branch	D. Pharmacy	Program	Pharmacy	Semester /Year	2nd year
Subject Name	Pharmacotherapeutics	Year	April 2026		
Time: 1.5 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 <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 Result 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.N	QUESTIONS	Marks	COs	KL	PO	
i	The causative microorganism of gonorrhoea is a-Treponema pallidum b-Neisseria gonorrhoea c-Chlamydia trachomatis d-Haemophilus ducreyi गोनोरिया का कारक सूक्ष्मजीव है: a-ट्रेपोनेमा पैलिडम b- नीसेरिया गोनोरिया c-क्लैमाइडिया ट्रैकोमैटिस d- हीमोफिलस ड्युक्रेई	1	CO2	K1	PO1	
ii	Resistance to antibiotics is mainly due to: a- Proper use b- Overuse/ misuse c- Low dose only d- High cost एंटीबायोटिक दवाओं के प्रति प्रतिरोधकता मुख्य रूप से निम्न कारणों से होती है: a- उचित उपयोग b- अत्यधिक उपयोग/दुरुपयोग c- केवल कम खुराक d- उच्च लागत	1	CO2	K2	PO1	
iii	HIV attacks which cells? a- RBC b- CD4 T cells c- Platelets d- Neutrophils एचआईवी किन कोशिकाओं पर हमला करता है? a- लाल रक्त कोशिकाएं (RBC) b- CD4 T कोशिकाएं c- प्लेटलेट्स d- न्यूट्रोफिल्स	1	CO1	K1	PO1	
iv	Methotrexate is used in psoriasis as: a- Antibiotic b- Immunosuppressant c- Antifungal d- Analgesic सोरायसिस में मेटोत्रेक्सेट का उपयोग किस रूप में किया जाता है? a- एंटीबायोटिक b- इम्यूनोसप्रेसेंट c- एंटीफंगल d- एनाल्जेसिक	1	CO3	K1	PO1	

CO- Course Outcomes,	KL- Knowledge Level,	PO – Program Outcome
CO1	Help assessing the subjective and objective parameters of patients in common disease conditions	
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	





v	First-line treatment for eczema: a- Antibiotics b- Topical corticosteroids c- Antifungals d- Antivirals एकिक्रम के प्राथमिक उपचार: a- एंटीबायोटिक्स b- टॉपिकल कॉर्टिकोस्टेरॉइड्स c- एंटीफंगल d- एंटीवायरल	1	CO3	K1	PO1
vi	Which drug is used in malaria? a- Chlorofloxacin b- Chloroquine c- Metformin d- Atenolol मलेरिया के इलाज में कौन सी दवा का प्रयोग किया जाता है? a- क्लोफ्लोक्सासिन b- क्लोरोक्वीन c- मेटफॉर्मिन d- एटनोलॉल	1	CO3	K1	PO1
vii	Hyaluronic acid injection is used in: a- Osteoarthritis b- Rheumatoid arthritis c- Osteoporosis d- Glaucoma हाइल्यूरॉनिक एसिड इंजेक्शन का उपयोग निम्नलिखित में किया जाता है: a- ऑस्टियोआर्थराइटिस b- रूमेटॉइड आर्थराइटिस c- ऑस्टियोपोरोसिस d- ग्लॉकॉमा	1	CO3	K1	PO1
viii	Normal intra ocular pressure of our eye in mm of Hg is a-10-21 b-35 c-70 d-100 हमारी आंख का सामान्य अंतःनेत्र दाब (मिलीमीटर Hg में) है: a-10-21 b-35 c-70 d-100	1	CO1	K1	PO1
ix	Which of the following is a common symptoms of Dysmenorrhea? a-Hot flashes b-Severe abdominal pain c-Increase libido d-Irregular menstrual cycles निम्नलिखित में से कौन सा डिस्मेनोरिया का एक सामान्य लक्षण है? a- गर्म लहरें b- पेट में तेज दर्द c- कामेच्छा में वृद्धि d- अनियमित मासिक धर्म चक्र	1	CO1	K1	PO1
x	Which drug is used for medical termination of pregnancy? a- Oxytocin b- Misoprostol c- Progesterone d- Estrogen गर्भावस्था को चिकित्सकीय रूप से समाप्त करने के लिए किस दवा का उपयोग किया जाता है? a- ऑक्सीटोसिन b- मिसोप्रोस्टोल c- प्रोजेस्टेरोन d- एस्ट्रोजन	1	CO3	K1	PO1

Section B Answer any Three out of Four [3 x 5 = 15 Marks]

Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Describe the non-pharmacological and pharmacological management of rheumatoid arthritis and osteoarthritis रूमेटॉइड आर्थराइटिस और ऑस्टियोआर्थराइटिस के नैदानिक और औषधीय प्रबंधन का वर्णन करें।	5	CO 3	K4	PO2
3	Describe the etopathogenesis and clinical manifestations of HIV infection. एचआईवी संक्रमण के एटियोलॉजीजनेसिस और नैदानिक अभिव्यक्तियों का वर्णन करें।	5	CO1	K4	PO1
4	Discuss the clinical manifestations and pharmacological management of polycystic ovary syndrome पॉलीसिस्टिक ओवरी सिंड्रोम के नैदानिक लक्षणों और औषधीय प्रबंधन पर चर्चा करें।	5	CO2	K4	PO2
5	Write down the pharmacological management of Depression and Anxiety अवसाद और चिंता के औषधीय प्रबंधन को लिखिए।	5	CO3	K3	PO2

Section C Answer any Five out of Six [5 x 3 = 15 Marks]

Q. No.	QUESTIONS	Marks	COs	KL	PO
7	Write down the etiology and clinical manifestation of Megaloblastic anemia? मेगालोब्लास्टिक एनीमिया के कारण और नैदानिक लक्षण लिखिए?	3	CO1	K2	PO1
8	Write short note on non-pharmacological and pharmacological management of pneumonia disease? निमोनिया रोग के नैदानिक और औषधीय प्रबंधन पर संक्षिप्त टिप्पणी लिखिए?	3	CO3	K3	PO2
9	What are the causative agent used in Gonorrhoea and Syphilis and explain it's pathogenesis गोनोरिया और सिफिलिस में कौन-कौन से कारक कारक प्रयुक्त होते हैं और इनकी रोगजनन प्रक्रिया की व्याख्या कीजिए।	3	CO2	K4	PO2
10	Define premenstrual syndrome(PMS) and list common symptoms associated with it प्रीमेन्सट्रुअल सिंड्रोम (PMS) को परिभाषित करें और इसमें जुड़े सामान्य लक्षणों की सूची बनाएं।	3	CO1	K1	PO1
11	Differentiate between bacterial and viral conjunctivitis जीवाणु और वायरल कंजंक्टिवाइटिस के बीच अंतर स्पष्ट करें।	3	CO2	K4	PO2
12	Define Antimicrobial Resistance and explain why it is considered a global health threat. रोजगारप्रतिरोधी प्रतिरोध को परिभाषित करें और समझाएं कि इसे वैश्विक स्वास्थ्य खतरा क्यों माना जाता है।	3	CO2	K2	PO1

 ARKA JAIN University Jharkhand		 NAAC GRADE A ACCREDITED UNIVERSITY		3rd INTERNAL EXAMINATION School of Pharmacy		
Branch	D. Pharmacy	Program	Pharmacy	Semester/Year	II	
Subject Name	COMMUNITY PHARMACY AND MANAGEMENT	Year	April 2026			
Time: 1:30 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 <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</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

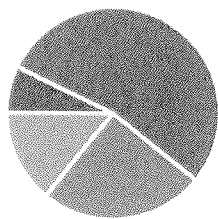
Q. N1	QUESTIONS	Marks	COs	KL	PC
i	Which of the following is NOT a component of IV admixture services? A. Sterile compounding B. Compatibility checking C. Patient counselling D. Aseptic preparation निम्न में से कौन IV admixture सेवाओं का भाग नहीं है? A. स्टेराइल कंपाउंडिंग B. संगतता जाँच C. रोगी परामर्श D. एसेप्टिक तैयारी	1	CO1	K2	PO
ii	Total Parenteral Nutrition (TPN) is primarily administered through: A. Oral route B. Intramuscular route C. Central vein D. Subcutaneous route Total Parenteral Nutrition (TPN) मुख्य रूप से किसके माध्यम से दिया जाता है? A. मौखिक मार्ग B. इंटरमस्क्युलर मार्ग C. केंद्रीय शिरा D. सबक्यूटेनियस मार्ग	1	CO1	K2	PO
iii	Radiopharmaceuticals require storage under: A. Normal room condition B. Shielded containers C. Open shelves D. High humidity रेडियोफार्मास्यूटिकल्स को किस परिस्थिति में संग्रहित किया जाता है? A. सामान्य कक्ष तापमान B. शील्ड कंटेनर C. खुली शेल्फ D. उच्च आर्द्रता	1	CO1	K2	PO
iv	Medication Therapy Management (MTM) is a part of A. Drug distribution B. Pharmaceutical care C. Inventory control D. Compounding Medication Therapy Management (MTM) किसका भाग है? A. दवा वितरण B. फार्मास्यूटिकल केयर C. इन्वेंटरी नियंत्रण D. कंपाउंडिंग	1	CO2	K2	PO
v	Which is a clinical pharmacist activity? A. Drug manufacturing B. Ward round participation C. Drug synthesis D. Packaging निम्न में से कौन क्लिनिकल फार्मासिस्ट की गतिविधि है? A. दवा निर्माण B. वार्ड राउंड में भागीदारी C. दवा संश्लेषण D. पैकेजिंग	1	CO2	K2	PO

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

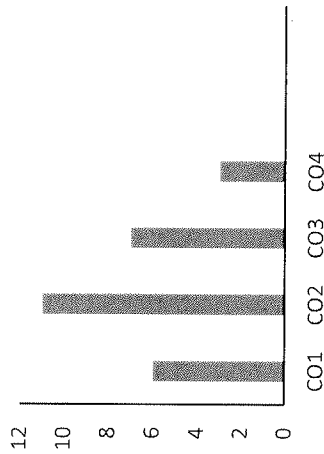
GRAPHICAL REPRESENTATION

Bloom's Level wise Marks Distribution



■ K1 ■ K2 ■ K3 ■ K4

Course outcome wise marks distribution



vi	Which is a clinical pharmacist activity? A. Drug manufacturing B. Ward round participation C. Drug synthesis D. Packaging ADR मॉनिटरिंग किसमें सहभागी है? A. लागत में कमी B. रोगी सुरक्षा C. इन्वेंटरी नियंत्रण D. दवा विपणन	1	CO2	K2	PO6
vii	Drug-related problems include: A. Overdose B. Drug interaction C. Non-compliance D. All of the above ड्रग-संबन्धित समस्याओं में शामिल है: A. ओवरडोज B. दवा अंतःक्रिया C. अनुपालन की कमी D. उपरोक्त सभी	1	CO2	K3	PO2
viii	Electronic Health Records (EHR) are used for: A. Drug storage B. Patient data management C. Manufacturing D. Billing only Electronic Health Records (EHR) का उपयोग किसके लिए होता है? A. दवा भंडारण B. रोगी डेटा प्रबंधन C. निर्माण D. केवल बिलिंग	1	CO1	K1	PO2
ix	Patient counselling mainly aims to: A. Increase profit B. Improve compliance C. Reduce stock D. Promote brand रोगी परामर्श का मुख्य उद्देश्य क्या है? A. लाभ बढ़ाना B. अनुपालन सुधारना C. स्टॉक कम करना D. ब्रांड प्रचार	1	CO3	K1	PO2
x	Clinical pharmacy mainly focuses on: A. Drug production B. Patient-oriented services C. Marketing D. Packaging क्लिनिकल फार्मसी मुख्यतः किस पर केंद्रित है? A. दवा उत्पादन B. रोगी-उन्मुख सेवाएँ C. विपणन D. पैकेजिंग	1	CO2	K3	PO3

Section B Answer any Three out of Five [3 x 5 = 15 Marks]

Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Explain IV admixture services and incompatibilities in hospitals. अस्पतालों में IV admixture सेवाएँ एवं असंगतियाँ समझाइए।	5	CO1	K2 K3	PO1 PO2
3	Describe storage, dispensing and disposal of radiopharmaceuticals. रेडियोफार्मास्यूटिकल के भंडारण, वितरण एवं निपटान का वर्णन कीजिए।	5	CO1 CO2	K2 K3	PO1 PO2
4	Explain the role of clinical pharmacist in ward rounds. बार्ड राउंड में क्लिनिकल फार्मासिस्ट की भूमिका समझाइए।	5	CO2 CO3	K2 K4	PO1 PO3
5	Discuss Medication Therapy Management (MTM). Medication Therapy Management (MTM) पर चर्चा कीजिए।	5	CO2 CO3	K2 K3	PO3 PO4
6	Write short notes on pharmaceutical care. फार्मास्यूटिकल केयर पर संक्षिप्त टिप्पणी लिखिए।	5	CO2	K2	PO2 PO3

Section C Answer any Five out of Six [5 x 3 = 15 Marks]

Q. No.	QUESTIONS	Marks	COs	KL	PO
7	Discuss the ethical considerations in patient counselling. परिचर निरीक्षण सेवाओं में सामुदायिक फार्मासिस्ट की भूमिका बताइए।	3	CO3	K2 K4	PO2 PO3

8	Discuss the impact of patient non-adherence on therapeutic outcomes. रोगी द्वारा दवा का सही पालन न करने (Non-adherence) के प्रभावों पर चर्चा करें।	3	CO3	K3 K4	PO
9	Describe the role of pharmacists in tobacco cessation programs. स्वस्थ जीवन कार्यक्रमों में सामुदायिक फार्मासिस्ट का योगदान समझाइए।	3	CO3 CO4	K2 K4	PO PO
10	List any three activities of a clinical pharmacist. क्लिनिकल फार्मासिस्ट की तीन गतिविधियाँ लिखिए।	3	CO2	K1	PO
11	What is ADR monitoring? ADR मॉनिटरिंग क्या है?	3	CO2 CO4	K2	PO PO
12	Explain the role of a community pharmacist in patient counselling for chronic diseases. दीर्घकालिक रोगों में रोगी परामर्श (Patient Counselling) में सामुदायिक फार्मासिस्ट की भूमिका स्पष्ट करें।	3	CO3 CO4	K2 K3	PO