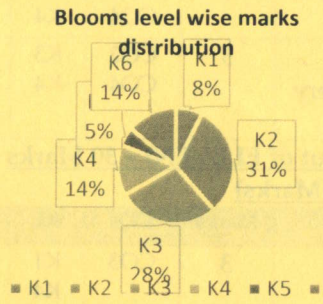
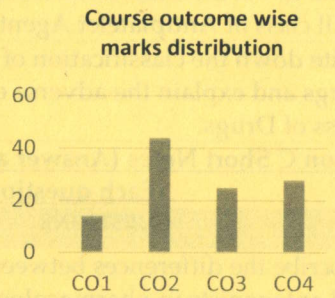
10	Explain the role of hormones in Calcium balance in human system.	3	CO2	K2 K3	P02
11	Give a short notes on Routes of drug administration.	3	CO3	K2	P01
12	Write down the role of Oestrogen and Progesterone in Menstrual cycle.	3	CO1	K2	P08
13	Classify Cholinergic Receptors with their locations.	3	CO2	K2 K3	P02
14	Write down the uses and Adverse effect of given drugs. A. Omeprazole B. Sucralfate C. Bismuth Chelate	3	CO1 CO4	K5 K6	P01
15	Write down Pharmacokinetic, uses and Adverse effect of Sodium Nitroprusside.	3	CO2	K2 K6	P01
16	Write down Pharmacokinetic, uses and Adverse effect of Acetazolamide.	3	CO2	K2 K6	P01
17	Give a short note on Insulin.	3	CO3	K2	P01
18	Write down Pharmacokinetic, uses and Adverse effect of Furosemide.	3	CO1	K5 K6	P01
19	Write down the classification of Antianginal Drugs.	3	CO3	K3	P01

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

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

GRAPHICAL REPRESENTATION





ARKA JAIN University
Jharkhand

NAAC GRADE A ACCREDITED UNIVERSITY

[20-06-2025]
END SEM EXAMINATION
School of Allied Health Science

Program	**Diploma in Pharmacy**		
Subject Name	**Pharmacology**	**Session**	**Even, 2024-2025**
Year	**II**	**Exam**	**June, 2025**
Time: 3 Hour Max. Marks : **80**	• Start writing from 2nd page onwards; **don't Write on the 1st Page Backside** • **Answer all Questions of Section A (Compulsory)** • **Answer Any SIX out of SEVEN of Section B LONG ANSWER** • **Answer Any TEN out of ELEVEN of Section C SHORT NOTES** • **Possession of Mobile Phones** or any kind of **Written Material, Arguments with the Invigilator or Discussing with Co-Student** will comes under **Unfair Means** and will **Result** in the **Cancellation of the Papers**.		
Knowledge Level (KL)	**K1 :** Remembering	**K3 :** Applying	**K5 :** Evaluating
	K2 : Understanding	**K4 :** Analysing	**K6 :** Creating

Section A (Each question Carry 01 Mark from Q1-i to Q1-xx) –20 Marks

Q. N 1	QUESTIONS	Marks	COs	KL	PO
i	M3 receptor present in _____ a) Exocrine Glands b) CNS c) Autonomic Ganglia d) Heart	1	CO1	K2 K3	P010
ii	The Enzyme have Mucosa damaging Property is _____. a) HCO 3 - b) PG c) Mucin d) Pepsin	1	CO2	K2	P08
iii	What does "affinity" mean? a) A measure of how tightly a drug binds to plasma proteins b) A measure of how tightly a drug binds to a receptor c) A measure of inhibiting potency of a drug d)A measure of the bioavailability of a drug	1	CO1	K2	P01
iv	Which drug is commonly used as a local anaesthetic drug? a) Procaine b) Warfarin c) Atorvastatin d) Metoprolol	1	CO2	K1	P010
v	Which Drug can Cause Adverse effect like Mucosal irritation? a) Cocaine b) procaine c) Tetracaine d) All of the Above	1	CO4	K2 K3	P02

vi	Which of the following is NOT a type of diuretic? a) Thiazide diuretic b) Loop diuretic c) Cholinergic diuretic d) Osmotic diuretic	1	CO2	K1	P02
vii	Regular use of Levodopa may causes :- a) Levodopa induced psychosis b) Parkinson c) Epilepsy d) All of the above	1	CO3	K3	P01
viii	The main side effect of benztropine is a) Miosis b) Confusion c) Diarrhoea d) GIT haemorrhage	1	CO4	K1	P010
ix	Which drug is commonly used to treat acid reflux and peptic ulcers by neutralizing stomach acid? a) Salt of Magnesium b) Ranitidine c) Sucralfate d) Misoprostol	1	CO1	K2	P02
x	Drugs which are used to prevent or relieve nausea and vomiting are called as_____. a) Emetics b) Antiemetics c) Anti diarrhoeas d) Steroids	1	CO2	K3	P02
xi	Diuretic drug Act on Loop of Henle_____. a) Acetazolamide b) Furosemide c) Chlorothiazides d) Mifopristone	1	CO1	K3	P01
xii	Which class of drugs is commonly used to treat hypertension by blocking calcium channels? a) Beta-blockers b) ACE inhibitors c) Dihydro pyridines derivatives d) Angiotensin II receptor blockers	1	CO1	K2 K3	P010
xiii	Which type of Prostaglandins Lowers Intra Ocular Pressure? a) PGE_2 b) $PGF_{2\alpha}$ c) PGI_2 d) TxA_2	1	CO3	K1	PO2
xiv	Hormone which act as negative regulator in Female Reproductive System is _____. a) LH b) FSH c) Progesterone d) All of the Above	1	CO4	K5	PO1
xv	PGE_2 &PGI_2 is responsible for_____. a) Reduce Acid Secretion b) Increase secretion of Mucus c) Both A &B d) None of the Above	1	CO2	K2 K3	PO1
xvi	Which of the following species is used for producing streptomycin? a) S. ramosus b) S. griseus c) S. aureofaciens d) S. griseoflavus	1	CO2	K1	P010
xvii	Which agents have key role in Erythropoiesis. a) Iron Preparations b) Cobalamin c) Folic Acid d) All of the above	1	CO4	K2 K3 K4	PO1
xviii	Hormone which is responsible for Stress is - a) Glucocorticoid b) Thyroid c) Cortisol d) All of them	1	CO2	K1	PO1
xix	Adverse reaction of High Ceiling diuretics is- a) Hypersensitive reaction b) Ototoxicity c) Osteoporosis d) diabetics	1	CO4	K1	P010
xx	Which drug is commonly used for the treatment of hypertension and heart failure by inhibiting the renin-angiotensin-aldosterone system? a) Telmisartan b) Digoxin c) Furosemide d) Amlodipine	1	CO3	K3	P01

Section B Long Answer (Answer any SIX out of SEVEN) – 30 Marks
(Each question Carry 05 Marks)

Q. No.	QUESTIONS	Marks	Cos	KL	PO
2	Give a Short note on Diuretics.	5	CO2	K3	P08
3	Classify Antihypertensive drugs with examples.	5	CO2	K2 K6	P01
4	Discuss the different classes of antibiotics with examples and their uses of each classes.	5	CO2 CO4	K2 K6	P01
5	Describe steps involving neurohumoral transmission.	5	CO2	K2	P02
6	Give a Short note on Prostaglandins.	5	CO3	K2	PO9
7	Write down the Classification, uses and ADR of all class of Antiplatelet Agents.	5	CO3 CO4	K3 K4	PO10
8	Write down the classification of Antiulcer Drugs and explain the adverse effect of every Class of Drugs.	5	CO2 CO4	K3 K4	P08

Section C Short Notes (Answer any TEN out of ELEVEN) – 30 Marks
(Each question Carry 03 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
9	Describe the differences between agonists and antagonists in pharmacology. Give examples of each.	3	CO3	K1 K4	P010

Section C Short Notes (Answer any TEN out of ELEVEN) – 30 Marks
(Each question Carry 03 Marks)

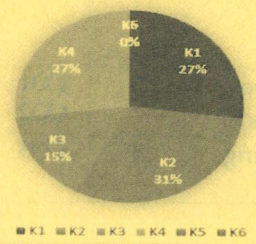
Q. No.	QUESTIONS	Marks	COs	KL	PO
9	Write a note on vendor selection process.	3	CO4	K1 K4	PO3
10	Write a short note on legal requirements for retail or whole drug store.	3	CO4	K1 K2	PO1 0
11	Define community pharmacy. Write are roles and responsibilities of community pharmacist.	3	CO1	K1 K2	PO1 PO2
12	Define SOP. Write are the objectives and advantages of SOP.	3	CO1 CO2	K1 K2	PO1
13	Write a short note on prescription handling.	3	CO2	K1 K2	PO1
14	Write a short note on pharmacist's interaction with patients.	3	CO2 CO3	K1 K2	PO1
15	Write a short note on patient counselling for COPD.	3	CO3	K1 K2	PO2
16	Define health screening. Define the different types of health screening.	3	CO3	K1 K4	PO2 PO3
17	Write in brief about scenario of OTC Medications in India.	3	CO2 CO3	K1 K2	PO2
18	What are the strategies to minimize dispensing errors?	3	CO1 CO4	K2 K2	PO1
19	What do you mean by 'one to one' and 'over the telephone' communication?	3	CO1 CO2	K1	PO1

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

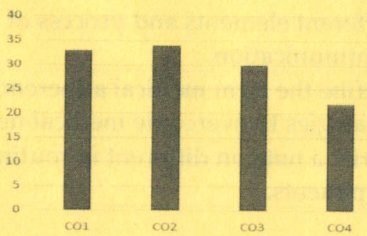
Course Outcomes	CO1	Describe the establishment, legal requirements, and effective administration of a community pharmacy
	CO2	Professionally handles prescriptions and dispense medications
	CO3	Counsel patients about the disease, prescription and or non-prescription medicines
	CO4	Perform basic health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

GRAPHICAL REPRESENTATION

Bloom's Level Wise Marks Distribution



Course Outcome Wise Marks Distribution



ARKA JAIN University Jharkhand

NAAC GRADE A ACCREDITED UNIVERSITY

[21-06-2025]
END SEM EXAMINATION
School of Allied Health Science

Program	Diploma in Pharmacy		
Subject Name	Community Pharmacy and Management	Session	Even, 2024-2025
Year	II	Exam	June, 2025
Time: 3 Hour Max. Marks : 80	• Start writing from 2nd page onwards; **don't Write on the 1st Page Backside** • **Answer all Questions of Section A (Compulsory)** • **Answer Any SIX out of SEVEN of Section B LONG ANSWER** • **Answer Any TEN out of ELEVEN of Section C SHORT NOTES** • **Possession of Mobile Phones** or any kind of **Written Material, Arguments with the Invigilator or Discussing with Co-Student** will comes under **Unfair Means** and will **Result** in the **Cancellation of the Papers**.		
Knowledge Level (KL)	**K1** : Remembering	**K3** : Applying	**K5** : Evaluating
	K2 : Understanding	**K4** : Analysing	**K6** : Creating

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

Q. N 1	QUESTIONS	Marks	COs	KL	PO
i	Minimum qualification of registered pharmacist is a. D. pharm b. B. pharm c. Pharm D d. BDS	1	CO1	K1	PO1
ii	Role of community pharmacists includes a. Processing of prescription b. Health screening services c. Both a and b d. None of these	1	CO1 CO2	K1 K2	PO1 PO2
iii	Process Guidelines of Good Pharmacy Practice includes: a. Prescription handling b. Dispensing c. Pharmacovigilance d. All of these	1	CO2	K1	PO2
iv	The Latin abbreviations a.d. or Auris dexter means a. Left ear b. Right ear c. Right eye d. Left eye	1	CO2 CO3	K1 K2	PO1
v	"For external use only" is labelled for: a. Creams b. Pastes c. Liniments and lotions d. All of these	1	CO3	K1 K2	PO2

vi	Which of the following is not a component of non-verbal communication. a. Space language b. Touch language c. Written communication d. Paralanguage	1	CO2	K2	PO2
vii	The elements of face-to-face communication are a. Words b. Tone of voice c. Body language d. All of the above	1	CO1 CO2	K4	PO1
viii	A special way of communication in which no words and sentences are used is termed as a. Written communication b. One to one communication c. Non-verbal communication d. Telephone	1	CO4	K1 K2	PO1
ix	Types of barriers in patient counselling are a. Patient related barriers b. Pharmacist related barriers c. System related barriers d. All of these	1	CO3	K1 K2	PO 10
x	Patient package inserts are also called as a. Medication guide b. Pharmaceutical care c. Medication adherence d. Therapeutic care	1	CO3	K4	PO1
xi	Patient adherence means correct following of _____ by the patient a. Medical advice b. Medical Prescription c. Medical coding d. Medical Writing	1	CO2	K2	PO1 PO2
xii	_____ is forcible voluntary or involuntary emptying of stomach contents through mouth. a. Vomiting b. Diarrhoea c. GERD d. Peptic ulcer	1	CO3 CO4	K1 K2	PO2
xiii	Which one is a common malignancy among women? a. Breast cancer b. Prostate cancer c. Cervical cancer d. Colorectal cancer	1	CO3 CO4	K1 K2	PO1 ,O2
xiv	_____ is the maximal volume of air exhaled from quiet breathing. a) Tidal volume b) Residual volume c) Expiratory reserve volume d) Inspiratory reserve volume	1	CO3	K1 K4	PO1
xv	Over the counter drugs are also known as a. Non-prescription drugs b. Scheduled drugs c. Prescription drugs d. Ancillary drugs	1	CO1 CO2	K1 K2	PO1
xvi	_____ may also include personal or sensitive patient concerns that need to be kept private. a. OTC counselling b. Patient counselling c. Medical counselling d. Patient monitoring	1	CO1 CO2	K1 K2	PO2
xvii	_____ is a normal reflex that occurs as the body attempts to remove irritants from the upper and lower airways. a. Pollen b. Cough c. Dust d. Smells	1	CO2 CO3	K1 K2	PO 10
xvii i	____ deals with various areas of patient care, drug dispensing and advising patient on safe and rational use of drug. a. Industrial Pharmacy b. Clinical Pharmacy c. Community Pharmacy d. Hospital Pharmacy	1	CO2	K1	PO3
xix	A retail drug store establishment needs a minimum of _____ feet area a. 100 sq. b. 120 sq. c. 150 sq. d. 250 sq.	1	CO4	K1 K2	PO1
xx	The unit of glucose values are in a. Milligrams per decilitre b. Kilogram per litre c. Gram per millilitre d. Microgram per nano-litre	1	CO3	K1 K2	PO1

Section B Long Answer (Answer any SIX out of SEVEN) – 30 Marks
(Each question Carry 05 Marks)

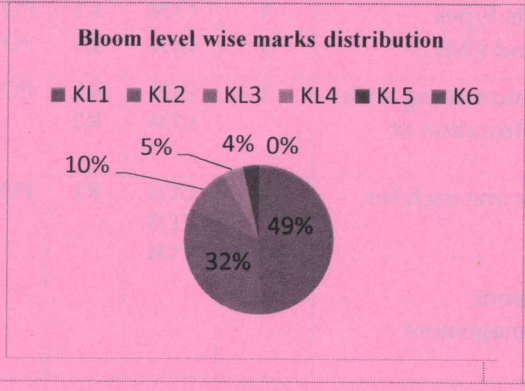
Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Define self-medication. What are roles of pharmacist in promoting the safe practices during self-medication?	5	CO3	K1 K2	PO3
3	Discuss about structure and design of retail store.	5	CO4	K4	PO2
4	Write a note on ABC analysis and VED analysis.	5	CO4	K1	PO2
5	Write in brief the different guidelines in Good Pharmacy Practice.	5	CO1 CO2	K2	PO2
6	Define communication skills. Write about different elements and process of communication.	5	CO1	K1 K2	PO1
7	Define the term medical adherence. Write the strategies to overcome medical non-adherence.	5	CO1 CO2	K1 K2	PO1
8	Write a note on different in routine monitoring of patients.	5	CO3	K1 K2	PO1 PO2

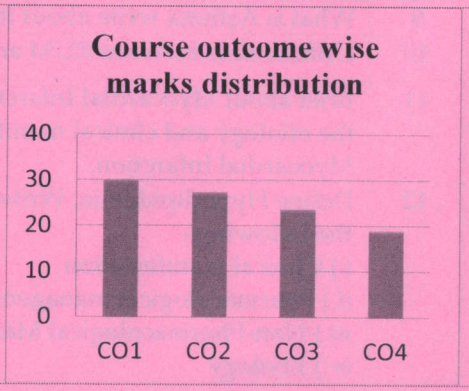
13	Write the following about Congestive Heart Failure: i.) Etiology ii.) Clinical Manifestation iii.) Pharmacological Management	3	CO1 CO2 CO3	K1, K2	PO1
14	Write about diabetes and its type and pharmacological management in short.	3	CO1 CO2	K1, K2	PO1 PO2
15	Write about migraine and its type. Also write about its pathophysiology.	3	Co1	K1, K2, K3	PO2
16	Write about pathogenesis of Peptic Ulcer.	3	CO1 CO2	K1	PO1
17	Write the following about Migraine: i.) Etiology ii.) Clinical Manifestation iii.) Pharmacological Management	3	CO4	K1	PO1
18	Write the following about Eczema: i.) Etiology ii.) Clinical Manifestation iii.) Pharmacological Management	3	CO4	K1, K2, K4, K3	PO1 PO2 PO3
19	Write about the pharmacological management, clinical manifestation and etiology of Anxiety	3	CO3 CO4	K1	PO1

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

Course Outcomes	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 disease
	CO4	Design and deliver discharge counselling for patients

GRAPHICAL REPRESENTATION





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NAAC GRADE A ACCREDITED UNIVERSITY

[24-06-2025]
END SEM EXAMINATION
School of Allied Health Science

Program	**Diploma in Pharmacy**		
Subject Name	**Pharmacotherapeutics**	**Session**	**Even, 2024-2025**
Year	**II**	**Exam**	**June, 2025**
Time: 3 Hour Max. Marks : **80**	• Start writing from 2nd page onwards; **don't Write on the 1st Page Backside** • **Answer all Questions of Section A (Compulsory)** • **Answer Any SIX out of SEVEN of Section B LONG ANSWER** • **Answer Any TEN out of ELEVEN of Section C SHORT NOTES** • **Possession of Mobile Phones** or any kind of **Written Material, Arguments with the Invigilator or Discussing with Co-Student** will comes under **Unfair Means** and will **Result** in the **Cancellation of the Papers**.		
Knowledge Level (KL)	**K1 :** Remembering	**K3 :** Applying	**K5 :** Evaluating
	K2 : Understanding	**K4 :** Analysing	**K6 :** Creating

Section A (Each question Carry 01 Mark from Q1-i to Q1-xx) –20 Marks

Q. N 1	QUESTIONS	Marks	COs	KL	PO
i	Treponema Pallidium bacteria causes? a.) Malaria b.) Anxiety c.) Asthma d.) Syphilis	1	CO1	K2	PO2
ii	COVID-19 is transmitted: a.) Airborne droplets b.) Fecal-oral route c.) Vector-borne d.) Direct skin contact	1	CO1	K1	PO1
iii	Which of the following drugs is a proton pump inhibitor (PPI)? a.) Omeprazole b.) Cimetidine c.) Ranitidine d.) Sucralfate	1	CO1C O2	K1	PO1
iv	What is BMR? a.) Body Mass Ratio b.) Body Mind Ratio c.) Basal Metabolic rate d.) None of the above	1	CO1	K1	PO1
v	Blood sugar level is expressed as....? a.) mg/dl b.) g/dl c.) µg/d d.) Kg/dl	1	CO2 CO3	K1 K2 K3	PO1 PO2
vi	Alcoholic Fatty Liver is .... stage of ALD? a.) First b.) Third c.) Second d.) None of the above	1	CO1	K2	PO1
vii	What is the full form of PMS?	1	CO2	K1	PO1

	a.) Premenstrual Stress b.) Premenstrual Syndrome c.) Pre-Menstrual Symptoms d.) Periodic Menstrual Symptoms				
viii	Increase in cortisol level leads to? a.) Happiness b.) Fear. c.) Stress d.) None of the above	1	CO3	K1	PO1
ix	PCOS is a hormonal disorder caused by -----? a.) > male hormone b.) < male hormone c.) > pituitary hormone d.) > pituitary hormone	1	CO1, CO2, CO3	K1	PO1
x	What is the recommended regimen in severe cases of Psoriasis? a.) Steroid cream b.) Anthralin cream c.) Methotraxate d.)oral corticorsteroid	1	CO1. CO2, CO3	K1	PO1
xi	Study of therapeutics, uses and effect of drug is known as.....? a.) Etiology b.) Pharmacology c.) Pharmacotherapeutics d.) None of these	1	CO2, CO3	K2	PO1
xii	Spironolactone belongs to? a.) Anti-androgens b.)Anti-depressant c.)MAO's inhibitors d.) None of the above	1	CO1	K1, K2	PO1
xiii	What is the role of FSH hormone? a.) Promotes follicle growth b.) Maturation of egg c.) Production of Estrogen d.) All of the above	1	CO2, CO3	K1, K2	PO1
xiv	Which class of drugs is commonly used in the management of hypertension? a.) Beta-blockers b.) Proton pump inhibitors c.) H1-antihistamines d.)Antifungal	1	CO3	K1	PO1
xv	What is the duration of Petit Mal? a.) 2-5 min b.) 30 sec-1min c.) 10-20 min d.) 40-50 sec	1	CO1, CO2	K1	PO1
xvi	A patient with COPD is prescribed a medication to help clear mucus from the lungs. What class of drugs is this medication likely from? a.) Mucolytics b.) Corticosteroids c.) Anticholinergics d.) Beta-2 agonists	1	CO2	K1	PO1
xvii	Glaucoma is a general term used to describe a group of eye disorder that damage? a.) Optic nerve b.) Protective nerve c.) Stable nerve d.) Chronic nerve	1	CO3	K1	PO1
xviii	Primary Dysmenorrhea occurs ..... after first menstruation? a.) 6-12 months b.) 2 years c.) 7 years d.) After 60 years	1	CO1, CO2	K1 K2 K3	PO1
xix	Which enzyme prevents Neurotransmitter Serotonin to bind with its receptor? a.) Transferases b.) Hydrolases d.) Monoamine oxidase enzyme c.) Amylase	1	CO2	K1	PO1
xx	Migraine lasts for ..... hours? a.) 4-48 b.) 2-24 c.) 1-2 d.) None of these	1	CO1 CO2	K1 K2 K3	PO2

Section B Long Answer (Answer any SIX out of SEVEN) – 30 Marks
(Each question Carry 05 Marks)

Q. No.	QUESTIONS	Marks	Cos	KL	PO
2	Explain in detail about the structure of SARS-CoV-2.	5	CO1	K1, K2	PO1
3	What is UTI? Explain the Pathphysiology in detail	5	CO3 CO4	K1, K2	PO1
4	What is Hepatitis? Write about different type of viral Hepatitis	5	CO3	K1 K5	PO1
5	What is PCOS? Write about its Pharmacological Management.	5	CO1 CO2	K1 K2	PO1
6	Discuss about STG's and its key features.	5	CO1	K1	PO1
7	Write about Tuberculosis and its management.	5	CO1 CO2	K1, K2	PO1 PO2
8	What is Psoriasis? Detail about the different types of Psoriasis.	5	CO1 CO2	K1	PO1

Section C Short Notes (Answer any TEN out of ELEVEN) – 30 Marks
(Each question Carry 03 Marks)

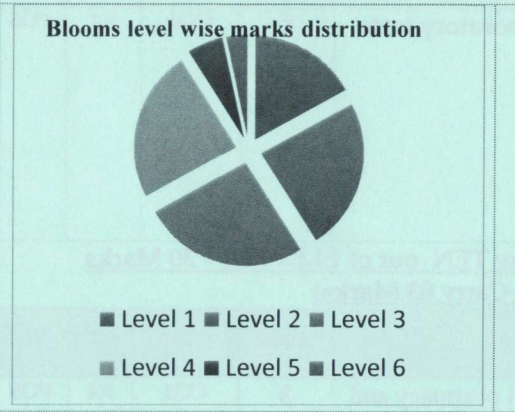
Q. No.	QUESTIONS	Marks	COs	KL	PO
9	What is Asthma write about its types	3	CO4	K1	PO2
10	Differentiate between RUM and EML.	3	CO3	K1	PO1
11	Brief about Myocardial Infarction along with the etiology and clinical manifestation of Myocardial Infarction.	3	CO3 CO4	K1, K2	PO1
12	Define Hyperlipidemia. Write one each for the following:- i.) Clinical manifestation ii.) Pharmacological management iii.) Non-Pharmacological Management iv.) Etiology	3	CO2 CO3 CO4	K1	PO1

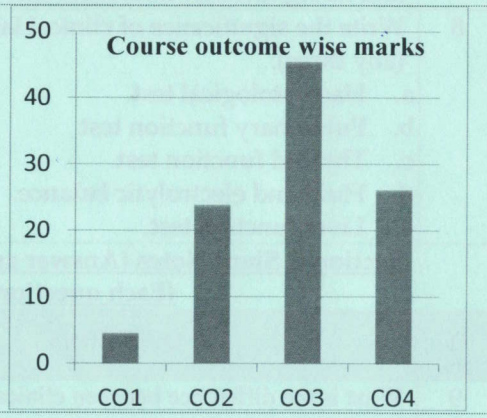
10	How does food interact with drugs? Give one example.	3	CO3	K3	PO3
11	What is a pharmacokinetic drug interaction?	3	CO4	K1	PO4
12	Write the contribution of pharmacist in public health.	3	CO3	K2	PO5
13	Write two examples of non-sterile preparations.	3	CO2	K3	PO4
14	Give one example of a dispensing error.	3	CO4	K3	PO6
15	Define antidote.	3	CO3	K4	PO5
16	What is a packaging error?	3	CO3	K3	PO6
17	Give two examples of dispensing errors.	3	CO2	K1	PO6
18	Write the Application of computers in Hospital Pharmacy Practice.	3	CO3	K4	PO5
19	Write the role of Pharmacist in NABH Accreditation.	3	CO4	K6	PO2

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

GRAPHICAL REPRESENTATION





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NAAC GRADE A
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[25-06-2025]
END SEM EXAMINATION
School of Allied Health Science

Program	**Diploma in Pharmacy**		
Subject Name	**Hospital and Clinical Pharmacy**	**Session**	**Even, 2024-2025**
Year	**II**	**Exam**	**June, 2025**

Time: 3 Hour
Max. Marks : **80**

- Start writing from 2nd page onwards; **don't Write on the 1st Page Backside**
- **Answer all Questions of Section A (Compulsory)**
- **Answer Any SIX out of SEVEN of Section B LONG ANSWER**
- **Answer Any TEN out of ELEVEN of Section C SHORT NOTES**
- **Possession of Mobile Phones** or any kind of **Written Material, Arguments with the Invigilator or Discussing with Co-Student** will comes under **Unfair Means** and will **Result** in the **Cancellation of the Papers**.

Knowledge Level (KL)	**K1 :** Remembering	**K3 :** Applying	**K5 :** Evaluating
	K2 : Understanding	**K4 :** Analysing	**K6 :** Creating

Section A (Each question Carry 01 Mark from Q1-i to Q1-xx) –20 Marks

Q. N 1	QUESTIONS	Marks	COs	KL	PO
i	Which laboratory test is commonly used to monitor kidney function in patients? A) Liver function test B) Complete blood count C) Serum creatinine D) Blood glucose level	1	CO4	K3	PO1
ii	Which method ensures that the oldest stock is used first, reducing the risk of expiration? A) LIFO B) FIFO C) JIT D) VED	1	CO2	K1	PO9
iii	Which activity is NOT typically part of a clinical pharmacist's daily routine? A) Ward round participation B) Patient counselling C) Surgical procedures D) Adverse drug reaction monitoring	1	CO3	K2	PO4
iv	In the Economic Order Quantity (EOQ) model, what is the primary objective? A) Maximize order frequency B) Minimize total inventory costs C) Eliminate safety stock D) Increase lead time	1	CO3	K4	PO3

v	The primary role of a Poison Information Centre is to: A) Manufacture antidotes B) Provide information on poisoning management C) Conduct surgical interventions D) Monitor hospital hygiene	1	CO1	K1	PO4
vi	Which cold storage equipment is specifically designed for storing vaccines in hospitals? A) Deep Freezer B) Walk-in Cold Room C) Ice Lined Refrigerator (ILR) D) Standard Refrigerator	1	CO4	K3	PO4
vii	What does **ADME** stand for in clinical pharmacokinetics? A) Absorption, Digestion, Metabolism, Excretion B) Administration, Dose, Monitoring, Elimination C) Absorption, Distribution, Metabolism, Excretion D) Action, Dilution, Metabolism, Excretion	1	CO1	K1	PO4
viii	In India, pharmacovigilance is coordinated by: A) AICTE B) CDSCO .C) PCI D) ICMR	1	CO2	K3	PO5
ix	In inventory management, ABC analysis is based on: A) Shelf-life B) Size of packaging C) Annual consumption value D) Expiry date	1	CO3	K4	PO5
x	A drug listed under the Essential Drug List (EDL) is: A) High-cost and newly launched B) Available only in private hospitals C) Considered critical for basic healthcare needs D) Always imported and patented	1	CO4	K3	PO6
xi	What does 'V' stand for in VED analysis?	1	CO2	K2	PO4
xii	Expand FIFO.	1	CO1	K3	PO4
xiii	What is the full form of CDSCO?	1	CO2	K2	PO4
xiv	Which global organization coordinates international pharmacovigilance?	1	CO4	K1	PO3
xv	What is drug interaction?	1	CO3	K2	PO3
xvi	Define antagonism.	1	CO3	K3	PO5
xvii	What is the full form of OPD?	1	CO1	K2	PO4
xviii	What is the main use of radiopharmaceuticals?	1	CO3	K2	PO5
xix	GPP Stands for?	1	CO2	K2	PO6
xx	What is the meaning of ADR?	1	CO3	K2	PO4

Section B Long Answer (Answer any SIX out of SEVEN) – 30 Marks
(Each question Carry 05 Marks)

Q. No.	QUESTIONS	Marks	Cos	KL	PO
2	Define drug interaction. Classify drug interactions and explain each type with examples.	5	CO2	K1	PO3
3	Discuss the importance of patient counselling and communication in preventing medication errors.	5	CO3	K2	PO3
4	Define poisoning. Classify poisons and describe general principles of management of poisoning.	5	CO4	K2	PO6
5	Discuss how pharmaceutical errors can be identified and prevented in a hospital pharmacy.	5	CO3	K5	PO6
6	Discuss various methods of inventory control used in hospitals (e.g., ABC, VED, and FSN analysis).	5	CO2	K4	PO4
7	Discuss the regulatory requirements and quality control tests for radiopharmaceuticals. Explain the concept of half-life in radiopharmaceuticals and its significance in clinical use.	5	CO3	K3	PO4
8	Write the significance of clinical laboratory tests (any three): a. Haematological test. b. Pulmonary function test. c. Thyroid function test. d. Fluid and electrolytic balance. e. Liver function test.	5	CO4	K4	PO6

Section C Short Notes (Answer any TEN out of ELEVEN) – 30 Marks
(Each question Carry 03 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
9	What is the difference between clinical pharmacy and hospital pharmacy?	3	CO3	K4	PO5

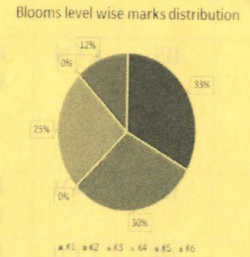
Section C Short Notes (Answer any TEN out of ELEVEN) – 30 Marks
(Each question Carry 03 Marks)

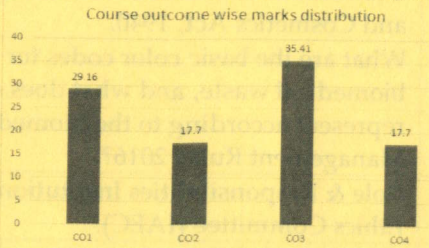
Q. No.	QUESTIONS	Marks	COs	KL	PO
9	What penalties are under the Narcotic Drugs & Psychotropic Substance Act?	03	CO1	K2	PO1
10	How do pharmacists participate in public health initiatives?	03	CO1 CO4	K1 K6	PO2
11	What role does donor recruitment and education play in a blood bank?	03	CO3	K1	PO6
12	What are the general principles of law?	03	CO4	K1	PO6
13	Explain the roles and functions of the Drug Technical Advisory Board (DTAB).	03	CO2	K1 K4	PO6
14	What is the purpose of the ICMR Ethical Guidelines?	03	CO3	K2 K6	PO2
15	What is the main objective of the Disaster Management Act, 2005?	03	CO3	K2 K4	PO1
16	What is the primary role of the Central Drugs Standard Control Organization (CDSCO) in India?	03	CO3	K1 K6	PO2
17	What are the standards of quality, misbranded drugs, adulterated drugs, and spurious drugs?	03	CO4	K1 K6	PO2
18	Describe the role of the National List of Essential Medicines (NLEM) in regulating drug prices in India and ensuring the availability of essential medicines to the public.	03	CO3	K1 K4	PO1
19	What is the Code of Pharmaceutical Ethics?	03	CO1	K2	PO1

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

Course Outcomes	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

GRAFICAL REPRESENTATION





ARKA JAIN University
Jharkhand

NAAC GRADE A
ACCREDITED UNIVERSITY

[26-06-2025]
END SEM EXAMINATION
School of Allied Health Science

Program	**Diploma in Pharmacy**		
Subject Name	**Pharmacy Law & Ethics**	**Session**	**Even, 2024-2025**
Year	**II**	**Exam**	**June, 2025**

Time: 3 Hour
Max. Marks :80

- Start writing from 2nd page onwards; **don't Write on the 1st Page Backside**
- **Answer all Questions of Section A (Compulsory)**
- **Answer Any SIX out of SEVEN of Section B LONG ANSWER**
- **Answer Any TEN out of ELEVEN of Section C SHORT NOTES**
- **Possession of Mobile Phones** or any kind of **Written Material, Arguments with the Invigilator or Discussing with Co-Student** will comes under **Unfair Means** and will **Result** in the **Cancellation of the Papers**.

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-xx) –20 Marks

Q. N 1	QUESTIONS	Marks	COs	KL	PO
i	In nominated member of the central council's members nominated by: (a) MCI (b) Central Government (c) AICTE (d) All of the above	01	CO1 CO2	K1 K2	PO1
ii	Drug Inspector is appointed under ____section of the act: (a) 42 of IPC (b) 36 of IPC (c) 21 of IPC (d) 41 of IPC	01	CO1	K2	PO1
iii	Advertisement of drugs claiming a cure for the disease mentioned in Schedule-J is: (a) Granted (b) Prohibited (c) Exempted (d) None of the above	01	CO2 CO3	K1 K4	PO1
iv	The chairman of the Animal Welfare Board of India is appointed by: (a) Pharmacy Council of India (b) MCI (c) Central Government (d) None of the Above	01	CO3	K1 K4	PO6
v	At____ head office of Food Safety and Standards Authority of India is located. (a) Delhi (b) Mumbai (c) Kolkata (d) Ahmadabad	01	CO3	K2 K4	PO6

vi	When was the Prevention of Cruelty to Animals Act passed? (a) 1960 (b) 1955 (c) 1961 (d) 1651	01	CO2	K1	PO1
vii	The objective of the Poison Act 1919 is to regulate and control: (a) Import of poison (b) Sale of poison (c) Possession of poison (d) All of the above	01	CO3	K2 K4	PO1
viii	The full form of FSSAI is: (a) Food Standards and Safety Authority of India (b) Food Sample and Standards Authority of India (c) Food Safety and Standards Authority of India (d) None of these	01	CO1	K1 K4	PO6
ix	When the length of pregnancy exceeds from 12 to 20 weeks, the opinion of how many RMP is considered for termination of pregnancy? (a) 1 (b) 2 (c) 3 (d) 4	01	CO3	K1	PO6
x	The Medical Termination of Pregnancy Act was passed in the year: (a) 1965 (b) 1971 (c) 1947 (d) 1945	01	CO2	K1	PO6
xi	In what category of waste do paint, household cleaners, medical waste, and solvents belong? (a) Hazardous (b) Compost (c) Municipal solid (d) Industrial	01	CO3	K2 K4	PO6
xii	The head office of CDSCO is at: (a) Chennai (b) New Delhi (c) Lucknow (d) Ahmedabad	01	CO4	K1 K4	PO6
xiii	The biopharmaceutics classification system classifies the drugs into one of the groups. (a) 1 (b) 2 (c) 3 (d) 4	01	CO4	K1	PO1
xiv	Which of the following areas has the lowest chance of producing biomedical waste? (a) Hospitals (b) Clinics (c) Laboratories (d) Agricultural lands	01	CO3	K2 K4	PO1
xv	What is the full form of NDRF? (a) National Disaster Response Force (b) Natural Disaster Relief Factor (c) National Disaster Relief Force (d) National Drainage Response Force	01	CO3	K1	PO1
xvi	Examples of Narcotic drugs: (a) Opium (b) Coca (c) Hemp (d) All of the above	01	CO4	K1	PO1
xvii	What are the uses of Medical devices? (a) Diagnosing (b) Monitoring (c) Preventing (d) All of the above	01	CO3	K1 K4	PO6
xviii	Which of the following is not a biomedical waste? (a) Animal waste (b) Chemical waste (c) Microbiological waste (d) Domestic waste	01	CO1	K1	PO6
xix	Which BCS class shows High Solubility and Low permeability? (a) BCS Class | (b) BCS Class II (c) BCS Class III (d) BCS Class IV	01	CO2 CO4	K1	PO6
xx	The High-Risk medical devices are classified under which class of the Medical Devices Rules? (a) Class A (b) Class B (c) Class C (d) Class D	01	CO2	K4	PO1

Section B Long Answer (Answer any SIX out of SEVEN) – 30 Marks

(Each question Carry 05 Marks)

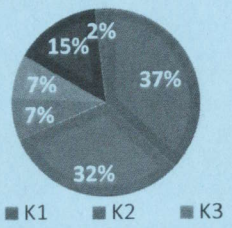
Q. No.	QUESTIONS	Marks	COs	KL	PO
2	What are the responsibilities of registered food business operators (FBOs)in the sale of food supplements, according to the regulations set by FSSAI?	05	CO1	K2	PO6
3	How does the Indian Pharmacopoeia Commission contribute to drug quality control?	05	CO3	K1 K4	PO6
4	Key provisions and objectives of the Pharmacy Act, 1948.	05	CO2	K1	PO1
5	Explain the importance of the Drugs and Cosmetics Process for a license under the Drugs and Cosmetics Act, 1940.	05	CO3	K2 K4	PO6
6	What are the basic color codes for segregating biomedical waste, and what does each color represent according to the Biomedical Waste Management Rules 2016?	05	CO4	K2 K6	PO6
7	Role & Responsibilities Institutional Animal Ethics Committee (IAEC).	05	CO1	K2 K4	PO6
8	Explain in detail the Prevention of Cruelty to Animals Act, 1960.	05	CO1	K2	PO2

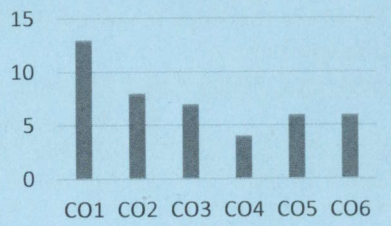
15	Define enzyme. Explain activation energy of enzyme with graph.	3	CO6, CO2	K1	PO1
16	Write any 3 classifications of enzyme according to IUBMB.	3	CO2	K2	PO2
17	How are vitamins classified based on their solubility?	3	CO1	K1	PO2
18	Difference between RNA and DNA.	3	CO1	K2	PO1
19	Write short note on hormones which maintain blood glucose level in body.	3	CO4	K1	PO2

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

Course Outcomes	CO1	Structure and functions of biomolecules
	CO2	Catalytic activity, diagnostic and therapeutic importance of enzymes
	CO3	Metabolic pathways of biomolecules in health and illness (metabolic disorders)
	CO4	Biochemical principles of organ function tests and their clinical significance
	CO5	Qualitative and quantitative determination of biomolecules / metabolites in the biological sample
	CO6	Clinical pathology of blood and urine

GRAPHICAL REPRESENTATION





JGi	ARKA JAIN University Jharkhand	NAAC GRADE A ACCREDITED UNIVERSITY	[30-06-2025] END SEM EXAMINATION School of Allied Health Science

Program	Diploma in Pharmacy		
Subject Name	Biochemistry and Clinical Pathology	Session	Even, 2024-2025
Year	II	Exam	June, 2025
Time: 3 Hour Max. Marks : 80	• Start writing from 2nd page onwards; **don't Write on the 1st Page Backside** • **Answer all Questions of Section A (Compulsory)** • **Answer Any SIX out of SEVEN of Section B LONG ANSWER** • **Answer Any TEN out of ELEVEN of Section C SHORT NOTES** • **Possession of Mobile Phones** or any kind of **Written Material, Arguments with the Invigilator or Discussing with Co-Student** will comes under **Unfair Means** and will **Result** in the **Cancellation of the Papers**.		
Knowledge Level (KL)	**K1** : Remembering	**K3** : Applying	**K5** : Evaluating
	K2 : Understanding	**K4** : Analysing	**K6** : Creating

Section A (Each question Carry 01 Mark from Q1-i to Q1-xx) –20 Marks

Q. N 1	QUESTIONS	Marks	Cos	KL	PO
i	Koshland proposed which model: a. Fluid mosaic model b. Induced fit model c. Lock and key model d. Reflective index model	1	CO2	K1	PO1
ii	In the human body optimum temperature for enzymatic activities is: a. 37-degree Celsius b. 50-degree Celsius c. 20-degree Celsius d. 5-degree Celsius	1	CO2	K2	PO2
iii	Water soluble vitamin is a. Vitamin E b. Vitamin K c. Vitamin B d. Vitamin A	1	CO1	K4	PO2
iv	Urea production occurs almost exclusively in _____ a. Kidneys b. Liver c. Blood d. Urine	1	CO6 CO5	K5	PO1
v	Which of the following carries oxygen in human blood? a. Thrombocytes b. Leucocytes c. Erythrocytes d. All of the above	1	CO6 CO5	K5	PO1
vi	Anaemia is caused by deficiency of a. Iron b. Chloride c. Calcium d. None of the above	1	CO6 CO5	K3 K4	PO1

vii	Which of the following field comes under Biotechnology? a. Genetic Engineering b. Cloning c. Tissue culture d. All the above	1	CO4	K6	PO2
viii	Lactose is a disaccharide consisting of a. Galactose and glucose b. Glucose and fructose c. Sucrose and glucose d. Galactose and galactose	1	CO1	K1 K2	PO1
ix	Which of these is not a lipid? a. Fats b. Oils c. Proteins d. Waxes	1	CO1	K5	PO1
x	Rancidity of lipids of lipid-rich foodstuff is because of a. Saponification of fatty acids b. Hydrogenation of unsaturated fatty acids c. Oxidation of fatty acids d. None of the above	1	CO1	K5	PO1
xi	What is the solubility of lipids in water? a. Soluble b. Partially soluble c. Insoluble d. Partially insoluble	1	CO4	K5	PO2
xii	Glycolysis converts _____ a. Glucose into pyruvate b. Glucose into phosphoenolpyruvate c. Fructose into pyruvate d. Fructose into phosphoenolpyruvate	1	CO3	K4 K1	PO2
xiii	Which of the following enzyme catalyzes the first step of glycolysis? a. Pyruvate kinase b. Hexokinase c. Phosphofructokinase-1 d. Glucokinase	1	CO3	K4 K1	PO1
xiv	Which of the following is a fat-soluble vitamin. a. Vitamin E b. Vitamin B1 c. Vitamin B6 d. None of the above	1	CO2	K1 K2	PO2
xv	Deficiency of which vitamin cause night blindness? a. Vitamin D b. Vitamin C c. Vitamin B d. Vitamin A	1	CO1	K1 K2	PO2
xvi	Deficiency of which vitamin cause rickets? a. Vitamin D b. Vitamin C c. Vitamin B d. Vitamin A	1	CO1	K1 K2	PO1
xvii	Name the major storage form of carbohydrates in animals? a. Cellulose b. Chitin c. Glycogen d. Starch	1	CO3	K3	PO1
xviii	Sucrose is a a. Monosaccharide b. Disaccharide c. Polysaccharide d. All of the above	1	CO3	K1 K2	PO1
xix	Which is of the following is abnormal constituent of urine? a. Blood b. Calcium c. Sodium d. None of the above	1	CO6 CO5	K3	PO2
xx	Class of carbohydrate which cannot be hydrolysed further, is known as? a. Disaccharides b. Polysaccharides c. Monosaccharide d. All of the above	1	CO1	K1 K2	PO2

Section B Long Answer (Answer any SIX out of SEVEN) – 30 Marks
(Each question Carry 05 Marks)

Q. No.	QUESTIONS	Marks	Cos	KL	PO
2	What are the differences between kwashiorkor and marasmus?	5	CO3	K3	PO1
3	Write short note on four levels of protein structure.	5	CO4	K1 K2	PO2
4	Write short note on lipoproteins.	5	CO3	K5	PO1
5	What are the steps involved in Urea cycle?	5	CO5	K5	PO2
6	What are factors affecting enzyme activity?	5	CO2	K1 K2	PO2
7	Write short note on induced fit model of enzyme.	5	CO1	K1 K2	PO2
8	What are the steps involved in Electron transport chain?	5	CO1	K1 K2	PO1

Section C Short Notes (Answer any TEN out of ELEVEN) – 30 Marks
(Each question Carry 03 Marks)

Q. No.	QUESTIONS	Marks	Cos	KL	PO
9	Write short note on any three Organelles present in eukaryotic cell	3	CO2	K3	PO1
10	Define starch. Write short note on hydrolysis of starch.	3	CO2	K5	PO1
11	Write short note on Zwitterion.	3	CO1	K1 K2	PO2
12	Definition lipid with its classification.	3	CO1	K1 K2	PO2
13	Write short notes on chemical properties of triglycerides.	3	CO3	K1 K2	PO1
14	Define saturated fatty acid and unsaturated fatty acid.	3	CO5	K1 K2	PO1