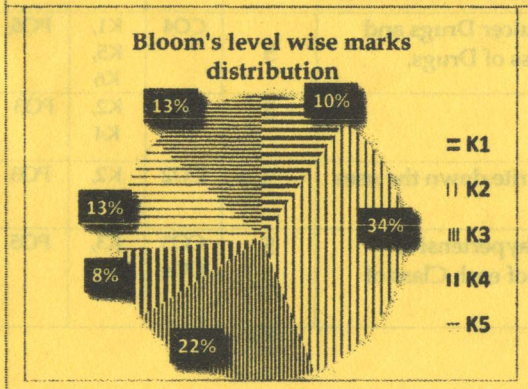
Section C Short Notes (Answer any TEN out of ELEVEN) – 30 Marks
(Each question Carry 03 Marks)

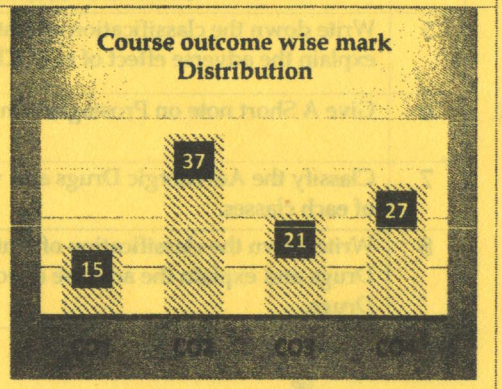
Q. No.	QUESTIONS	Marks	COs	KL	PO
9	Define the Following terms. A. Antagonist B. Agonist C. Receptor	3	CO1	K5, K6	PO1
10	Give a short On Routes of drug administration.	3	CO3	K2	PO2
11	Write down Pharmacokinetic, uses and Adverse effect of Sodium Nitro-prusside	3	CO1 CO4	K6	PO4
12	Explain the Clinical uses and adverse effect of each class of NSAIDs	3	CO3	K1, K4	PO3
13	Write down the Adverse effect of given drugs. A. Omeprazole B. Sucralfate C. Bismuth Chelate	3	CO4	K5, K6	PO4
14	Discuss the pharmacological Classification of Non-steroidal anti-inflammatory drugs (NSAIDs).	3	CO2	K2, K3	PO5
15	Write down the classification of Antiemetic.	3	CO2	K3	PO5
16	Give A short note on Insulin.	3	CO3	K2	PO4
17	Write down the classification of Haematinics.	3	CO2	K3	PO5
18	Write down the Adverse effect of each class of Anti-fungal Drugs.	3	CO4	K4, K5	PO5
19	Write down the role of Oestrogen and Progesterone in Menstrual cycle.	3	CO1	K2	PO5

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

[30-04-2026]
END SEM EXAMINATION
School of Health & Allied Sciences

Program	Diploma in Pharmacy		
Subject Name	Pharmacology		
Year	II	Exam	April, 2026
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	Diuretic drug that act on Loop of Henley_____. a) Acetazolamide b) Furosemide c) Chlorothalidone d) Mifepristone	1	CO3	K2	PO1
ii	Which drug is commonly used as a local anaesthetic drug? a) Procaine b) Warfarin c) Atorvastatin d) Metoprolol	1	CO2	K1	PO4
iii	Which of the following drugs is classified as Anti-cholinergic drug? a) Atenolol b) Atropine c) Morphine d) Diazepam	1	CO2	K3	PO5
iv	Which Drug can Cause Adverse effect like Mucosal irritation? a) Cocaine b) Procaine c) Betacaine d) All of the Above	1	CO4	K2, K3	PO5
v	Potassium channel opener is _____. a) Minoxidil b) Sodium Nitroprusside c) Valsartan d) Nicorandil	1	CO2	K1, K2	PO4
vi	Barbiturates can cause_____. a) COMA b) Hypersensitivity c) Ventricular tachycardia d) Ototoxicity	1	CO4	K1, K2	PO4

vii	Enzyme induction results in: a) Increased metabolism of drugs b) Decreased metabolism of drugs c) No change in metabolism d) Increased drug absorption	1	CO3	K2, K3	PO5
viii	Adverse effect of Ketoconazole except_____. a) Gynaecomastia b) kidney damage c) Oligospermia d) Menstrual irregularities	1	CO4	K2, K5	PO4
ix	The term "pharmacokinetics" refers to the: a) Study of drug interactions with cellular components b) Study of the effects of drugs on the body c) Study of drug absorption, distribution, metabolism, and excretion d) Study of drug-drug interactions	1	CO1	K2	PO1
x	Which of the following is NOT a type of diuretic? a) Thiazide diuretic b) high ceiling diuretic c) Osmotic diuretic d) Cholinergic diuretic	1	CO2	K1	PO5
xi	M3 receptor present in _____ a) Exocrine Glands b) CNS c) Heart d) Autonomic Ganglia	1	CO3	K2, K3	PO1
xii	Which class of drugs is commonly used to treat hypertension by blocking calcium channels? a)Beta-blockers b) ACE inhibitors c) Dihydro pyridine d) AT -II receptor blockers	1	CO2	K2	PO4
xiii	Hormone which is responsible for Stress is _____. a) Glucocorticoid b) Thyroid c) Cortisol d) All of them	1	CO2	K1	PO3
xiv	Which drug is commonly used for the treatment of hypertension and heart failure by inhibiting the renin-angiotensin-aldosterone system? a) Lisinopril b) Digoxin c) Furosemide d) Amlodipine	1	CO3	K3	PO5
xv	Drug act by inhibiting DNA Synthesis is _____. a) ketoconazole b) Griseofulvin c) Fluconazole d) Itraconazole	1	CO3	K2, K3	PO5
xvi	Sulphonamide are a structural analogues of which of the following? a) Folic Acid b) Tetrahydrofolate c) PABA d) dihydrofolate	1	CO3	K2	PO5
xvii	Which of the following vaccines is a live virus vaccine? a) Measles b) Rabies c) Typhoid d) HBV	1	CO3	K2, K3	PO8
xvii i	Which of the following drugs is commonly used as a bronchodilator in the management of asthma and chronic obstructive pulmonary disease (COPD)? a) Montelukast b) Fluticasone c) Salbutamol d) Theophylline	1			
xix	Which of the following drugs is a proton pump inhibitor commonly used to treat gastric ulcers and gastroesophageal reflux disease (GERD)? a) Omeprazole b) Ranitidine c) Metoclopramide d) Sucralfate	1	CO2	K2	PO5
xx	Which of the following is the main therapeutic use of benzodiazepines at usual clinical doses? a) Induction of general surgical anaesthesia b) Relief of anxiety and insomnia c) Treatment of hypertension d) Rapid relief of severe pain	1	CO2	K1	PO8

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

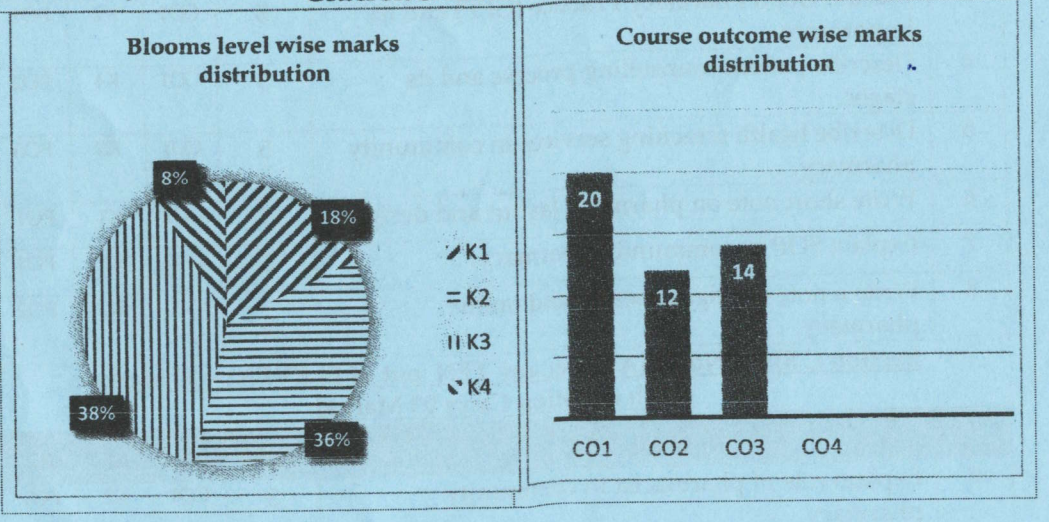
Q. No.	QUESTIONS	Marks	Cos	KL	PO
2	Discuss the different classes of antibiotics and their uses of each class.	5	CO2	K2	PO5
3	Describe steps involving Neurohumoral transmission.	5	CO1	K2, K6	PO1
4	Explain the Classification Sedative and hypnotics. Write down the uses of each class.	5	CO2 CO4	K2, K3	PO5
5	Write down the classification of Antiulcer Drugs and explain the adverse effect of each Class of Drugs.	5	CO4	K1, K5, K6	PO5
6	Give A Short note on Prostaglandin.	5	CO2	K2, K4	PO3
7	Classify the Adrenergic Drugs and write down the uses of each classes.	5	CO2	K2, K3	PO3
8	Write down the classification of Antihypertensive Drugs and explain the adverse effect of each Class of Drugs.	5	CO3 CO4	K3, K5	PO5

18	Explain the procedure for procurement in pharmacy	3	CO1	K2	PO1
19	Explain briefly the role of pharmacist in self-medication.	3	CO4	K3	PO1

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

Course Outcomes	CO1	Describe about the different dosage forms and their formulation aspects
	CO2	Explain the advantages, disadvantages, and quality control tests of different dosage forms
	CO3	Discuss the importance of quality assurance and good manufacturing practices

GRAPHICAL REPRESENTATION



ARKA JAIN University
Jharkhand

NAAC GRADE A ACCREDITED UNIVERSITY

[04-05-2026]
ANNUAL EXAMINATION
School of Health & Allied Sciences

Program	Diploma in Pharmacy		
Subject Name	Community Pharmacy and Management		
Year	II	Exam	April, 2026
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 of the following best represents Good Dispensing Practice? A. Fast dispensing B. Accurate and safe dispensing C. Low-cost dispensing D. Bulk dispensing	1	CO1	K1	PO1
ii	Which factor most significantly affects medication adherence? A. Drug color B. Patient education C. Packaging D. Brand	1	CO1	K1	PO1
iii	The primary purpose of patient information leaflet is: A. Promotion B. Education C. Pricing D. Branding	1	CO1	K1	PO1
iv	Which of the following is a legal requirement for a valid prescription? A. Patient photo B. Doctor registration number C. Drug price D. Brand logo	1	CO1	K2	PO2
v	Which is an example of non-verbal communication? A. Writing B. Talking C. Gestures D. Calling	1	CO1	K2	PO1

vi	Which of the following leads to dispensing errors? A. SOP adherence B. Work overload C. Double-checking D. Training	1	CO1	K2	PO2
vii	Which inventory control technique reduces expiry loss? A. LIFO B. FIFO C. Random D. Bulk	1	CO1	K2	PO1
viii	Which is the most important element in patient counselling? A. Speed B. Clarity C. Cost D. Brand	1	CO1	K1	PO1
ix	Which of the following is part of digital health? A. Manual billing B. Telemedicine C. Paper record D. Handwritten prescription	1	CO1	K3	PO1
x	Which is the role of pharmacist in OTC medication? A. Manufacturing B. Counselling and guidance C. Advertising D. Pricing	1	CO1	K3	PO1
xi	Which stage is first in patient counselling? A. Closing B. Introduction C. Evaluation D. Documentation	1	CO1	K2	PO1
xii	Which is NOT a barrier to counselling? A. Lack of time B. Language difference C. Illiteracy D. Proper understanding	1	CO1	K1	PO1
xiii	Which of the following improves patient trust? A. Ignoring patient B. Effective communication C. Fast service D. Poor communication	1	CO2	K1	PO1
xiv	Which factor is most important in pharmacy layout? A. Decoration B. Workflow efficiency C. Color D. Cost	1	CO1	K1	PO1
xv	Which of the following is included in SOP? A. Random steps B. Standard procedures C. Personal opinion D. Advertisement	1	CO1	K1	PO1
xvi	Which of the following is an example of chronic disease counselling? A. Fever B. Diabetes C. Cold D. Headache	1	CO1	K1	PO2
xvii	Which term refers to improper use of medicine without prescription? A. Compliance B. Self-medication C. Counselling D. Dispensing	1	CO3	K2	PO1
xvii i	Which system helps manage customer relationships? A. ERP B. CRM C. SOP D. FIFO	1	CO1	K2	PO1
xix	BMI measures: A. Height B. Weight C. Body fat D. Blood pressure	1	CO1	K1	PO2
xx	Which is the key role of pharmacist in community pharmacy? A. Drug production B. Patient care C. Marketing only D. Research only	1	CO3	K3	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	Explain the parts of a prescription with diagram.	5	CO1	K1	PO1
3	Discuss Good Pharmacy Practice (GPP) and its importance.	5	CO1	K2	PO1
4	Describe patient counselling process and its stages.	5	CO1	K4	PO2
5	Describe health screening services in community pharmacy.	5	CO1	K2	PO3
6	Write short note on pharmacy layout and design.	5	CO2	K1	PO1
7	Explain SOP in community pharmacy.	5	CO2	K1	PO1
8	Write a note on digital health and online pharmacy.	5	CO2	K2	PO2

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

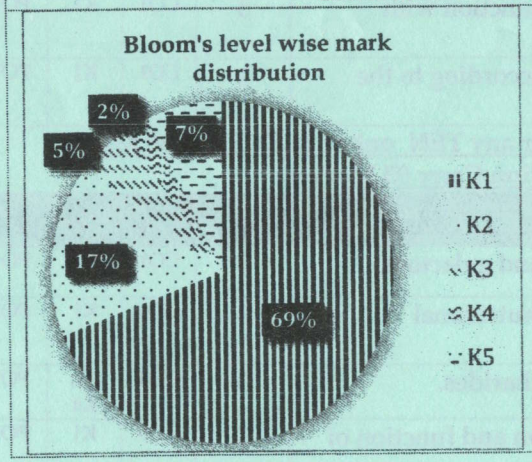
Q. No.	QUESTIONS	Marks	COs	KL	PO
9	Explain role of pharmacist in community pharmacy.	3	CO1	K2	PO1
10	What procedure to be allowed in prescription handling?	3	CO4	K3	PO1
11	Explain the barrier in patient counselling.	3	CO1	K4	PO2
12	Explain the type of label used in dispensing medications.	3	CO4	K2	PO1
13	CRM Explain its importance.	3	CO3	K4	PO1
14	Explain the management of OTC drug?	3	CO3	K2	PO3
15	Explain its scope & importance in health screening.	3	CO2	K2	PO1
16	Explain the different inventory method in brief.	3	CO2	K1	PO1
17	Explain the concept of Good Dispensing Practice.	3	CO2	K3	PO1

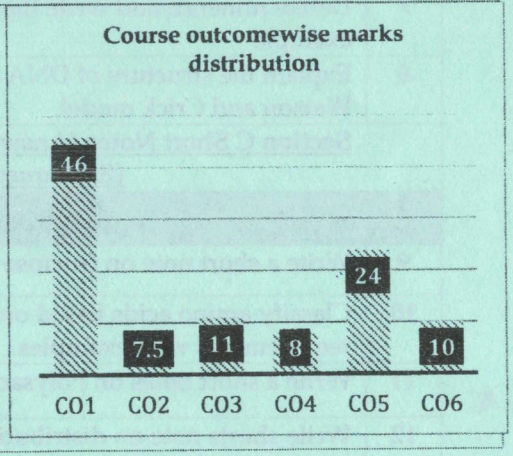
15	Describe glycogen and its biological importance.	3	CO1	K1	PO1
16	Write a short note on bilirubin and its clinical importance.	3	CO4	K3, K4	PO1
17	Write a short note on abnormal constituents of urine.	3	CO6	K5	PO1
18	Write a short note on fatty liver.	3	CO5	K1	PO1
19	Write the functions of lymphocytes in the body.	3	CO6	K1	PO1

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

Course Outcomes	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





JGI **ARKA JAIN University** Jharkhand — NAAC GRADE A ACCREDITED UNIVERSITY

[06-05-2026]
ANNUAL EXAMINATION
School of Health & Allied Sciences

Program	Diploma in Pharmacy		
Subject Name	Biochemistry and Clinical Pathology		
Year	II	Exam	April, 2026
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	Nitrogen bases in DNA are: a) A, G, C, U b) A, G, C, T c) G, U, C, T d) A, C, U, T	1	CO1	K1	PO1
ii	Waxes are examples of: a) Compound lipids b) Simple lipids c) Derived lipids d) Sterols	1	CO1	K1	PO1
iii	Activation energy is: a) Energy released during reaction b) Energy needed to start a chemical reaction c) Energy stored in products d) None	1	CO2	K1	PO1
iv	DNA double helix model was proposed by: a) Watson and Crick b) Avery and MacLeod c) Franklin and Wilkins d) Chargaff	1	CO1	K1	PO1
v	Which vitamin is also known as Thiamine? a) Vitamin B1 b) Vitamin B2 c) Vitamin B3 d) Vitamin B6	1	CO1	K1	PO1

vi	Deamination is the removal of: a) Amino group b) Carboxyl group c) Methyl group d) Phosphate group	1	CO5	K1	PO1
vii	The electron transport chain is located in: a) Cytoplasm b) Outer mitochondrial membrane c) Inner mitochondrial membrane d) Nucleus	1	CO5	K1, K2	PO1
viii	HDL is known as: a) Bad cholesterol b) Good cholesterol c) Neutral cholesterol d) Trans fat	1	CO1	K1	PO1
ix	The main function of the urea cycle is to: a) Produce glucose b) Convert ammonia into urea c) Synthesize fatty acids d) Break down lipids	1	CO5	K1	PO1
x	Triglycerides are: a) Proteins b) Carbohydrates c) Lipids d) Vitamins	1	CO1	K1	PO1
xi	Low platelet count leads to: a) Increased clotting b) Bleeding disorders c) Hypertension d) Diabetes	1	CO6, CO3	K5	PO1
xii	Dehydration is defined as: a) Excess water in body b) Loss of body water c) Increase in electrolytes d) Normal hydration	1	CO3	K5	PO1
xiii	Normal urine contains: a) Glucose b) Protein c) Urea d) Blood	1	CO3	K5	PO1
xiv	Maltose is composed of: a) Glucose + Glucose b) Glucose + Fructose c) Glucose + Galactose d) Fructose + Galactose	1	CO1	K1, K2	PO1
xv	Amino acids contain: a) Amino and carboxyl group b) Only amino group c) Only carboxyl group d) Hydroxyl group	1	CO1	K1, K2	PO1
xvi	Glucose is a: a) Ketose b) Aldose c) Disaccharide d) Polysaccharide	1	CO1	K1, K2	PO1
xvii	ORS solution contains: a) Protein and fat b) Glucose and electrolytes c) Vitamins only d) Enzymes	1	CO3	K1, K2	PO1
xvii i	Erythrocytes are responsible for: a) Immunity b) Oxygen transport c) Blood clotting d) Hormone transport	1	CO6	K1, K2	PO1
xix	The primary function of the kidney is: a) Protein synthesis b) Filtration of blood c) Hormone storage d) Lipid digestion	1	CO4	K1, K2	PO1
xx	Which of the following is a fat-soluble vitamin? a) Vitamin B6 b) Vitamin C c) Vitamin E d) Vitamin B12	1	CO1	K1	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	Describe the Electron Transport clean in mitochondria	5	CO5	K1	PO1
3	Describe disorders of Proteins metabolism	5	CO5	K1	PO1
4	Define carbohydrates and classify them with suitable examples.	5	CO1	K1	PO1
s	Describe dehydration, its causes, and effects on the body.	5	CO3	K3, K4	PO1
6	Describe the mechanism of action of enzymes with lock and key model.	5	CO2	K1	PO1
7	Define minerals and write the function with example	5	CO1	K1	PO1
8	Explain the structure of DNA according to the Watson and Crick model.	5	CO1	K1	PO1

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

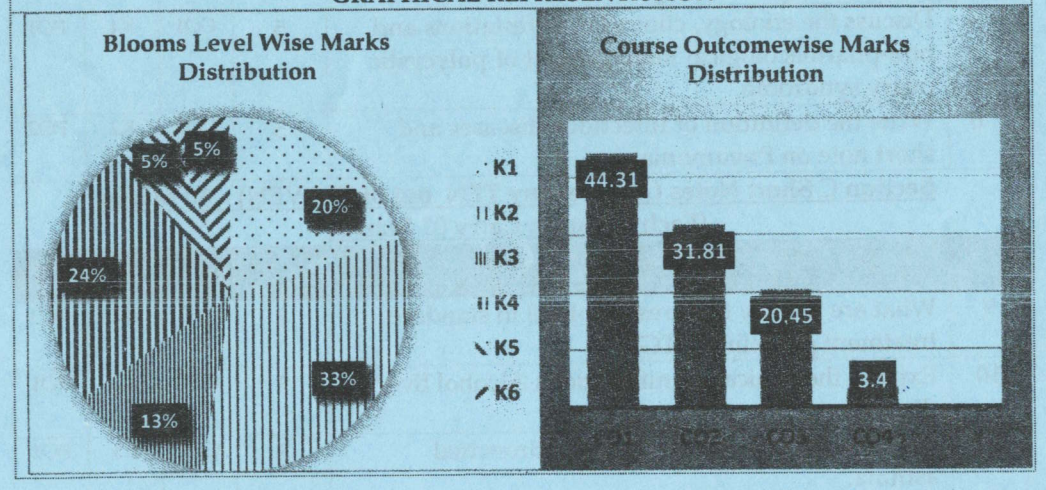
Q. No.	QUESTIONS	Marks	COs	KL	PO
9	Write a short note on fructose and galactose.	3	CO1	K1	PO1
10	Classify amino acids based on nutritional requirements with examples.	3	CO1	K1	PO1
11	Write a short notes on Polysaccharides.	3	CO4	K1, K4	PO1
12	Write shorts note on distribution and function of water in the body	3	CO5	K1	PO1
13	Describe the secondary structure of proteins.	3	CO1	K1	PO1
14	Write short note on Ketoacidosis	3	CO5	K5	PO1

16	Describe the pathogenesis and pharmacological management of rheumatoid arthritis.	3	CO2	K3	PO2
17	Define the pathogenesis and non – pharmacological management of SARS-coV-2.	3	CO2	K2	PO2
18	Write the clinical manifestations and Pharmacological management for Psoriasis.	3	CO2	K3	PO2
19	Differentiate between bacterial and viral conjunctivitis.	3	CO1	K4	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 diseases
	CO4	Design and deliver discharge counselling for patients

GRAPHICAL REPRESENTATION



ARKA JAIN University
Jharkhand

NAAC GRADE A ACCREDITED UNIVERSITY

[08-05-2026]
ANNUAL EXAMINATION
School of Health & Allied Sciences

Program	Diploma in Pharmacy		
Subject Name	Pharmacotherapeutics		
Year	II	Exam	April, 2026
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 SHORTs 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	The primary defect in Type 2 Diabetes Mellitus is: A. Insulin deficiency only B. Insulin resistance C. Autoimmune destruction D. Glucagon excess	1	CO1	K1	PO1
ii	Drug of choice in hypothyroidism: A. Carbimazole B. Propranolol C. Levothyroxine D. Iodine	1	CO1	K1	PO1
iii	In Epilepsy, absence seizures are best treated with: A. Phenytoin B. Ethosuximide C. Diazepam D. Carbamazepine	1	CO1	K1	PO1
iv	Hallmark symptom of Parkinson's disease: A. Hyperactivity B. Tremor at rest C. Seizures D. Paralysis	1	CO1	K1	PO1
v	Drug used in acute migraine: A. Atenolol B. Sumatriptan C. Fluoxetine D. Diazepam	1	CO2	K1	PO2
vi	First-line drug for Peptic Ulcer Disease: A. Antacids B. Proton pump inhibitors C. Antibiotics D. Laxatives	1	CO2	K1	PO2
vii	GERD is caused by: A. Increased acid secretion	1	CO1	K2	PO1

	B. LES relaxation C. Infection D. Allergy				
viii	Drug used in Tuberculosis causing red urine: A. Isoniazid B. Rifampicin C. Ethambutol D. Pyrazinamide	1	CO1	K1	PO1
ix	Common organism causing UTI: A. Staphylococcus B. E. coli C. Virus D. Fungi	1	CO1	K1, K2	PO1
x	Drug used for acute attack of Angina Pectoris: A. Amlodipine .B. Nitroglycerin C. Atenolol D. Warfarin	1	CO2	K1	PO2
xi	Major cause of Chronic Obstructive Pulmonary Disease: A. Infection B. Smoking C. Allergy D. Genetics	1	CO1	K1	PO1
xii	Main clinical manifestations of Alzheimer's disease: A. Tremor B. Memory loss C. Seizures D. Paralysis	1	CO1	K1, K2	PO1
xiii	Vitamin deficiency causing Megaloblastic anemia: A. Vitamin C B. Vitamin B12 C. Vitamin D D. Vitamin K	1	CO1	K1	PO1
xiv	First-line therapy for Malaria: A. Penicillin B. ACT (Artemisinin combination) C. Paracetamol D. Aspirin	1	CO2	K1	PO2
xv	Target cells of HIV: A. RBC B. Platelets C. CD4 cells D. Neurons	1	CO1	K1	PO1
xvi	Rheumatoid Arthritis is: A. Infectious B. Autoimmune C. Viral D. Genetic only	1	CO1	K1	PO1
xvii	First-line drug in Anxiety: A. Diazepam B. Insulin C. Warfarin D. Metformin	1	CO2	K1	PO2
xvii i	Infection causing itching in Scabies is due to: A. Bacteria B. Virus C. Mite D. Fungus	1	CO1	K1	PO1
xix	Drug used for hirsutism in PCOS: A. Spironolactone B. Metformin C. Aspirin D. Diazepam	1	CO2	K1	PO2
xx	Primary cause of Dysmenorrhea: A. Infection B. Increased prostaglandins C. Hormone deficiency D. Trauma	1	CO1	K1	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 Evidence-Based Medicine and list its three main components of EBM.	5	CO3	K2, K6	PO3
3	Explain the etiopathogenesis, pharmacological and non-pharmacological management of Hyperlipidaemia.	5	CO3	K4	PO3
4	Differentiate between chronic bronchitis and emphysema with pharmacological treatment with the disease'	5	CO2	K4	PO2
5	Describe the differences between hypo and hyper thyroidism.	5	CO1	K4	PO1
6	State the pharmacological and non-pharmacological management of Stroke.	5	CO3	K5	PO3
7	Discuss the etiology, clinical manifestations and non-pharmacological management of polycystic ovary syndrome.	5	CO1	K4	PO1
8	Write the definition of Infectious diseases and short note on Pneumonia.	5	CO2	K2	PO2

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 are the key features involved in standard treatment guideline (STG).	3	CO3	K2	PO3
10	Explain the clinical manifestations Alcohol liver diseases.	3	CO1	K2	PO1
11	Describe the etio pathogenesis of Bronchial asthma.	3	CO1	K3	PO1
12	What are the pharmacological management used in the treatment of diabetes?	3	CO2	K3	PO2
13	Describe in brief about the clinical manifeststions and non –pharmacological management of Alzheimer's diseases.	3	CO4	K2	PO4
14	Write short note on inflammatory bowel diseases.	3	CO1	K2	PO1
15	Write the symptoms of megaloblastic anaemia and iron deficiency anaemia.	3	CO1	K2	PO1

JGI	**ARKA JAIN University** Jharkhand	NAAC GRADE A ACCREDITED UNIVERSITY	**[11-05-2026] ANNUAL EXAMINATION School of Health & Allied Sciences**

Program	**Diploma in Pharmacy**		
Subject Name	**Hospital and Clinical Pharmacy**		
Year	**II**	**Exam**	**April, 2026**
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	Hospital formulary is prepared by a) Medical Superintendent b) Pharmacist c) Pharmacy and Therapeutics Committee d) Nurse	1	CO1	K1	PO1
ii	LASA drugs means a) Look Alike Sound Alike b) Long Acting Slow Acting c) Low Alert Safe Agents d) Legal Approved Safe Agents	1	CO1	K1 K2	PO1
iii	Antidote is used for a) Infection b) Poisoning c) Fever d) Pain	1	CO2	K3	PO2
iv	Medication error occurs due to a) Wrong dose b) Wrong drug c) Wrong route d) All of the above	1	CO2	K2 K3	PO3
v	Normal storage temperature for cold chain drugs is a) 0–2°C b) 2–8°C c) 8–15°C d) 15–25°C	1	CO1	K2	PO2
vi	Pharmacovigilance deals with a) Drug storage b) Drug safety	1	CO1	K3	PO3

	monitoring c) Drug manufacturing d) Drug pricing				
vii	EOQ stands for a) Economic Order Quantity b) Emergency Order Quantity c) Estimated Order Quantity d) Equal Order Quantity	1	CO1	K4	PO4
viii	Unit dose drug distribution system is mainly used for a) OPD patients b) Inpatients c) Community pharmacy d) Veterinary hospital	1	CO2	K3	PO4
ix	NABH stands for a) National Accreditation Board for Hospitals b) National Association Board of Health c) National Board of Health d) National Accreditation Board of Healthcare	1	CO1	K2	PO5
x	Which inventory technique classifies drugs based on annual consumption value? a) VED analysis b) HML analysis c) ABC analysis d) FSN analysis	1	CO2	K1	PO
xi	Which organization provides NABH accreditation? a) WHO b) PCI c) National Accreditation Board for Hospitals & Healthcare Providers d) FDA	1	CO1	K4	PO
xii	Electronic Health Records are used for: a) Billing only b) Patient data management c) Manufacturing d) Marketing	1	CO2	K3	PO
xiii	Which route is used for Total Parenteral Nutrition? a) Oral b) Intramuscular c) Intravenous d) Subcutaneous	1	CO2	K2	PO
xiv	Which of the following is a pharmacokinetic drug interaction? a) Drug antagonism b) Synergism c) Altered drug metabolism d) Placebo effect	1	CO2	K3	P
xv	Which enzyme is commonly measured in Liver Function Test? a) Creatinine b) ALT/SGPT c) Troponin d) Hemoglobin	1	CO1	K4	P
xvi	In unit dose system, drugs are usually dispensed for: a) 1 week b) 48 hours c) 24 hours d) 1 month	1	CO2	K5	PO6
xvii	Which schedule includes strict control of narcotic drugs in India? a) Schedule H b) Schedule G c) NDPS Act d) Schedule K	1	CO1	K3	PO5
xvii i	Which clinical parameter indicates anemia? a) Creatinine b) Hemoglobin level c) ALT d) Troponin	1	CO2	K4	PO4
xix	Which parameter is most important for dose adjustment in renal faisslure? a) ALT b) Hemoglobin c) Creatinine clearance d) Platelet count	1	CO1	K4	PO3
xx	Which drug distribution system requires maximum pharmacist involvement? a) Floor stock system b) Individual prescription system c) Unit Dose Drug Distribution System d) Open ward system	1	CO2	K5	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	Define Hospital Pharmacy. Explain organizational structure and professional responsibilities of hospital pharmacist.	5	CO1	K4	PO3
3	Explain Good Pharmacy Practice (GPP) and NABH accreditation. Write role of pharmacist in NABH.	5	CO2	K5	PO4
4	Explain inventory control techniques used in hospital pharmacy such as EOQ, Reorder Level and Inventory Turnover.	5	CO1 CO2	K2	PO5
5	Explain role of clinical pharmacist in: a) ADR monitoring and b) Patient counselling.	5	CO2	K1	PO7
6	Explain drug distribution systems in hospitals: a) Floor Stock System b) Drug Basket Method	5	CO1 CO2	K3	PO8
7	Define Pharmacovigilance. Explain medication errors, LASA drugs and strategies to minimize medication errors.	5	CO2	K4	PO7

8	Explain drug interactions and their types with proper example.	5	CO2	K5	PO9

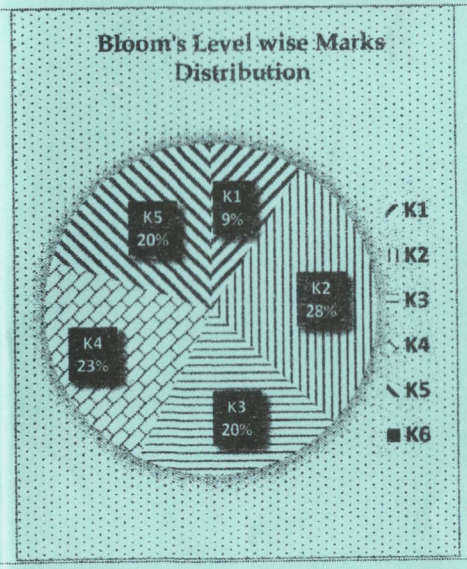
Section C Short Notes (Answer any TEN out of ELEVEN) – 30 Marks
(Each question Carry 03 Marks)

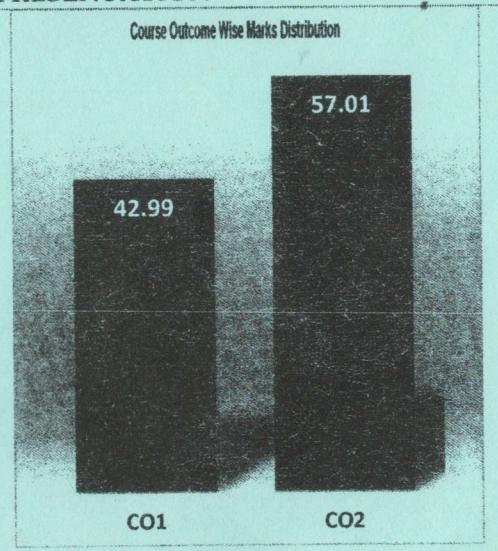
Q. No.	QUESTIONS	Marks	COs	KL	PO
9	Classify types of poisoning and write the general treatment and antidotes used in poisoning.	3	CO1	K2	PO5
10	Define Adverse Drug Reaction (ADR). Explain ADR monitoring and reporting procedure in hospital.	3	CO2	K5	PO4
11	Define Hospital Formulary. Explain the procedure for development and advantages of hospital formulary.	3	CO1 CO2	K5	PO4
12	Write a note on Infection Control Committee and explain the role of pharmacist in preventing antimicrobial resistance.	3	CO1	K2	PO7
13	Write a short note on IV Admixture Services and discuss drug incompatibilities in IV fluids.	3	CO2	K3	PO5
14	Define Total Parenteral Nutrition (TPN). Write its composition, preparation and uses.	3	CO1 CO2	K2	PO3
15	Define pharmaceutical drug interaction with example.	3	CO1	K4	PO2
16	Write a short note on Drug Information Centre and its functions in hospital pharmacy.	3	CO1 CO2	K4	PO4
17	Write the role of P&T Committee.	3	CO2	K2	PO5
18	Explain Liver function test.	3	CO2	K3	PO4
19	Explain Storage and distribution of narcotic and psychotropic drugs in hospitals.	3	CO1	K2	PO6

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.

GRAPHICAL REPRESENTATION





JGI	**ARKA JAIN University** Jharkhand	NAAC GRADE A ACCREDITED UNIVERSITY	[13-05-2026] AANUAL EXAMINATION School of Health & Allied Sciences

Program	**Diploma in Pharmacy**		
Subject Name	**Pharmacy Law & Ethics**		
Year	**II**	**Exam**	**April, 2026**
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	The Government of India appointed the Pharmaceutical Enquiry Committee in 1953 under the Chairmanship of (a) General S.S. Bhatia (b) Acharya Prafulla Chandra Ray (c) Late Dr. B.N. Ghosh (d) Prof. M. L. Schroff	1	CO1	K1	PO1
ii	To enquire the legislations that allow only qualified persons to access the pharmacy profession is the function of (a) Drugs Enquiry Committee (b) Health Care Committee (c) State Council (d) Indian Government	1	CO2	K1	PO1
iii	Misbranded means: (a) Brand of produced labelled incorrect (b) Brand of produced labelled correct (c) Misleading product (d) Both 'a' and 'c'	1	CO2	K1	PO1
iv	The number of registered pharmacists nominated by respective state government in a state council is (a) 6 (b) 5	1	CO2	K1	PO1

	(c) 7 (d) 8				
v	Which one of the following is an Ex-Officio member of the State Pharmacy Council? (a) Chief Pharmacist of Government hospital (b) Chief Administrative Medical Officer of the state (c) Registered Pharmacist (d) Assistant Drug Controller	1	CO2	K1	PO1
vi	Schedules X was introduced in which year? (a) 1987 (b) 1982 (c) 1966 (d) None of these	1	CO2	K1	PO1
vii	Narcotics drug are used for the beauty treatment. (a) True (b) False	1	CO2	K1	PO1
viii	Spirious drug means: (a) Substituted wholly or in part by another drug (b) Manufactured under different name (c) Imitation of another drug (d) All of these	1	CO2	K2	PO1
ix	Adulterated drugs mean: (a) Sub graded drug (b) Graded drug (c) Pure drug (d) Super quality drug	1	CO2	K1	PO1
x	Manufacturing of any drug should follow: (a) GMP (b) GMM (c) GMI (d) GDI	1	CO2	K1	PO1
xi	Main objective of narcotic drug and psychotropic substances act: (a) Stop illegal trafficking (b) Stop abuse used of narcotic (c) Control over cultivation on narcotics drugs (d) All of these	1	CO2	K1	PO1
xii	Objective of FSSAI: (a) Maintain food standard (b) Maintain food safety (c) Maintain food purity (d) All	1	CO2	K1	PO1
xiii	Types of bio medical waste as per colon code categories: (a) Yellow Category (b) Red Category (c) White Category (d) All of these	1	CO2	K1	PO1
xiv	Bulk drug includes any (a) Pure drug. (b) Pharmaceutical, chemical, biological conforming to the standards specified in First Schedule. (c) pharmaceutical, chemical, biological not Conforming to the standards specified in Second Schedule. (d) None of above	1	CO2	K1	PO1
xv	Full form of NPPA: (a) The National Pharmaceutical Pricing Authority (b) The National Pharmacy Pricing Authority (c) The National Pharmacist Pricing Authority (d) The National Policy Pricing Authority	1	CO2	K1	PO1
xvi	Full form of DPCO: (a) Drugs and Power Control Order (b) Drugs and Price Control Order (c) Drugs and Prices Control Order (d) Drugs and Post Control Order	1	CO2	K1	PO1
xvi i	What is the Code of Pharmaceutical Ethics? (a) To study moral duties (b) Studying the Pharmacy Act (c) Support all act (d) none	1	CO3	K1	PO6
xvi ii	Which of the following is NOT patentable under the provisions of the Indian Patent Act 1970? (a) A new drug molecule with enhanced efficacy (b) A process for manufacturing a pharmaceutical formulation (c) A mere discovery of a new form of a known substance without enhanced efficacy (d) A novel drug delivery system	1	CO4	K2	PO1
xix	BCS system divided into ..... classes: (a) 2 classes (b) 5 classes (c) 4 classes (d) None of these	1	CO2	K1	PO1
xx	Biomedical waste includes : management procedure (a) Segregation (b) Pre-treatment (c) Intramural Transportation (d) All of these	1	CO2	K1	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	Explain the New Drug Application (NDA).	5	CO2	K2	PO1 PO9
3	Elaborate the duties of Drug Inspectors.	5	CO2	K2	PO1 PO2
4	Explain the composition and role of IAEC.	5	CO3	K2	PO6 PO9

5	Explain the code of ethics for pharmacist in relation to his trade.	5	CO3	K2	PO6
6	Explain different phase of clinical trial	5	CO2	K2	PO9 PO1
7	Elaborate about the following Schedules as per Drugs and Cosmetic Act 1948: (a) Schedule A (b) Schedule L1 (c) Schedule T (d) Schedule D (e) Schedule K (f) Schedule H	5	CO2	K3	PO1 PO2
8	Elaborate the ICMR's national ethical guidelines for biomedical and health research.	5	CO3	K2	PO6 PO9

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	Elaborate the function of the Pharmacy Council of India (PCI).	3	CO2	K2	PO1
10	What are the Objectives of DPCO 2013?	3	CO2	K2	PO1
11	What do you understand by Ceiling price, Market price, Maximum retail price & Wholesaler?	3	CO2	K4	PO2 PO1 0
12	What are the objectives of Clinical trials?	3	CO2	K2	PO9
13	Mention the functions of blood banks?	3	CO2	K2	PO1 PO5
14	What are the differences between brand and generic drugs?	3	CO4	K4	PO1
15	What are the drug to be prohibited for advertisement?	3	CO2	K2	PO1
16	Mention the basic aspects of Biomedical Waste Management Rules, 2016.	3	CO2	K2	PO5
17	Explain the code of ethics for pharmacist in relation to his profession	3	CO3	K2	PO7
18	Give the offences and penalties under NDP Act1985.	3	CO2	K2	PO6
19	What are the objectives of Narcotic Drugs and Psychotropic substances Act, 1985 and rules?	3	CO2	K2	PO1 PO5

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

GRAPHICAL REPRESENTATION

