


Section C (Answer any SEVEN out of NINE) - 35 Marks
 (Each question Carry 05 Marks)

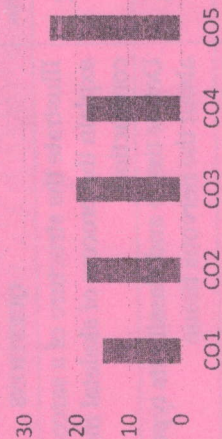
Q. No.	QUESTIONS	Marks	COs	KL	PO
5	Describe the process of hemoglobin formation, highlighting the key steps involved in its synthesis	5	CO3	K2, K4	PO1
6	Classify the peripheral nervous system and explain its components and functions.	5	CO4	K1	PO2
7	Explain the cardiac cycle, and write down detailing its phases and the events that occur during each phase.	5	CO2	K3, K5	PO1
8	Define the neuromuscular junction (NMJ) and list the steps involved in neurotransmission at the NMJ.	5	CO3	K1, K4	PO2
9	Explain the different types of cell junctions.	5	CO1	K1, K2	PO2
10	Discuss the structure and function of the skin.	5	CO2	K3	PO4
11	Define anemia and discuss its types.	5	CO3	K1, K3,	PO7
12	Explain the regulation of blood pressure by the Renin-Angiotensin-Aldosterone System (RAAS), outlining the key steps and mechanisms involved.	5	CO5	K2, K3,	PO2
13	Define joints and explain, in brief, the structural and functional classification of joints.	5	CO3	K1, K3	PO2

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

Course Outcomes	CO1	Explains the gross morphology, structure and functions of various organs of the human body
	CO2	Describe the various homeostatic mechanisms and their imbalances.
	CO3	Identify the various tissues and organs of different systems of human body.
	CO4	Perform the various experiments related to special senses and nervous system.
	CO5	Appreciate coordinated working pattern of different organs of each system.

GRAPHICAL REPRESENTATION
Bloom's level wise marks distribution


■ K1 ■ K2 ■ K3 ■ K4 ■ K5 ■ K6

Course outcome wise marks distribution

Bachelor of Pharmacy

Human Anatomy & Physiology-I

Semester I

Year January, 2025

• Start writing from 2nd page onwards; don't write on the 1st Page Backside

• Answer all Questions of Section A (Compulsory)

• Answer Any Two out of Three of Section B

• Answer Any Seven out of Nine of Section C

• Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or Discussing with Co-Student will come under Unfair Means and will result in the Cancellation of the Papers.

 Knowledge Level
 (KL)

K1: Remembering K3: Applying K5: Evaluating


K2: Understanding K4: Analysing K6: Creating

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


Q. N I	QUESTIONS	Marks	COs	KL	PO
i	What is the precursor molecule for the synthesis of heme? a) Succinyl-CoA and glycine b) Pyruvate and alanine c) Acetyl-CoA and serine d) Glutamate and proline	1	CO3	K2, K1	PO9
ii	Epithelial cells that can stretch from a cuboidal or columnar shape to a squamous shape are called a) Simple squamous epithelium. b) Simple cuboidal epithelium. c) Pseudostratified columnar epithelium. d) Transitional epithelium.	1	CO1	K2, K1	PO1
iii	The baroreceptors that help to regulate blood pressure are located in the: a) Kidneys and pancreas b) Heart and liver c) Aortic arch and carotid sinus d) Brain and spinal cord	1	CO5	K5, K1	PO2
iv	What type of receptor is present on the muscle fiber at the neuromuscular junction? a) Nicotinic acetylcholine receptor b) Muscarinic acetylcholine receptor	1	CO2	K5	PO2

v	c) Adrenergic receptor d) Dopaminergic receptor Which one of the following is not a connective tissue? a) Bone b) Cartilage c) Blood d) Muscles	1	CO1	K2, K1	PO1
vi	The autonomic nervous system is further divided into: a) Central and peripheral divisions b) Sensory and motor divisions c) Sympathetic and parasympathetic divisions d) Cranial and spinal divisions	1	CO4	K1	PO2
vii	Aplastic anemia is characterized by: a) Insufficient production of red blood cells, white blood cells, and platelets b) Increased destruction of red blood cells c) A lack of iron in the diet d) A deficiency in vitamin C	1	CO4	K1, K3	PO1
viii	Which of the following is responsible for the sensation of touch in the skin? a) Keratinocytes b) Merkel cells c) Melanocytes d) Langerhans cells	1	CO2	K1, K4	PO1
ix	What is the functional unit of a muscle fiber? a) Myofibril b) Sarcomere c) Sarcolemma d) T-tubule	1	CO4	K2, K3	PO1
x	The knee joint is classified as which type of joint? a) Hinge joint b) Ball and socket joint c) Pivot joint d) Gliding joint	1	CO2	K2, K4	PO1
xi	The serous membrane that lines the abdominal cavity and covers the abdominal organs is called the: a) Pleura b) Peritoneum c) Pericardium d) Meninges	1	CO3	K1, K2	PO2
xii	Plasma proteins, such as albumin, play a key role in: a) Blood clotting b) Immunity c) Maintaining osmotic pressure d) Oxygen transport	1	CO3	K1, K2	PO1
xiii	Which of the following formulas correctly calculates cardiac output? a) Stroke Volume \times Heart Rate b) Heart Rate \times Blood Pressure c) Stroke Volume \div Heart Rate	1	CO1	K1, K2	PO2

xiv	d) Blood Volume \times Stroke Volume The retina contains which two types of photoreceptor cells? a) Rods and cones b) Rods and bipolar cells c) Cones and ganglion cells d) Bipolar cells and ganglion cells	1	CO4	K1, K2	PO1
xv	The bones of the pectoral girdle include: a) Scapula and clavicle b) Humerus and radius c) Femur and tibia d) Ilium and sacrum	1	CO2	K1, K2	PO2
xvi	The primary pacemaker of the heart is the: a) Atrioventricular (AV) node b) Sinoatrial (SA) node c) Bundle of His d) Purkinje fibers	1	CO5	K2, K3	PO2
xvii	Homeostasis refers to the body's ability to: a) Grow and develop b) Maintain a stable internal environment c) Respond to external stimuli d) Reproduce	1	CO2	K2, K3	PO2
xviii	During which phase of the cell cycle does DNA replication occur? a) G1 phase b) S phase c) G2 phase d) M phase	1	CO1	K4	PO2
xix	The Reticuloendothelial System is also known as the: a) Mononuclear Phagocyte System (MPS) b) Lymphatic System c) Neuroendocrine System d) Endoplasmic System	1	CO5	K4	PO1
xx	The vagus nerve (Cranial Nerve X) is involved in: a) Smell b) Vision c) Hearing d) Heart rate, digestion, and parasympathetic control	1	CO4	K4, K5	PO1
Section B (Answer any TWO out of THREE) – 20 Marks (Each question Carry 10 Marks)					
Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Illustrate the structure of a sarcomere and explain the process of skeletal muscle contraction.	10	CO5	K1, K2, K4	PO1
3	Define tissue and classify its types. Discuss about the nervous tissue	10	CO3	K1, K2, K3	PO2
4	Define hemostasis and elaborate on the process of blood coagulation.	10	CO5	K2, K5	PO4



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NAAC GRADE A
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END SEM EXAMINATION
School of Health & Allied Science

Program	Bachelor of Pharmacy	
Subject Name	Pharmaceutics- I	
	Semester	I
	Year	January, 2025

• Start writing from 2nd page onwards; don't Write on the 1st Page Backside

• Answer all Questions of Section A (Compulsory)

• Answer Any Two out of Three of Section B

• Answer Any Seven out of Nine 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.

Time: 3 Hour
Max. Marks : 75

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 xx) - 20 Marks

Q.N	QUESTIONS	Marks	COs	KL	PO
1					
i	The first edition of IP was published in which year? a) 1965 b) 1975 * c) 1955 d) 1985	1	CO1	K1, K2	PO1, PO2
ii	The prescription is an order written by a registered medical practitioner addressed to whom a) Patient b) Pharmacist c) Nurse d) None of above	1	CO3	K3	PO1
iii	Which route of drug administration provides the fastest therapeutic effect? a) Intravenous (IV) b) Oral c) Topical d) None of above	1	CO3	K1, K2	PO1, PO2
iv	Which university started first course in pharmacy in India? a) Banaras Hindu University (BHU) b) JSS College Of Pharmacy Ooty c) Institute of Chemical Technology d) None of the above	1	CO1	K1, K2	PO1, PO2
v	In mixing of powder which method is used when potent substances are mixed with a large amount of diluent? a) Geometric dilutions b) Spatulation c) Sifting d) Both b and c	1	CO 3	K4	PO1

Section C (Answer any SEVEN out of NINE) - 35 Marks
(Each question Carry 05 Marks)

Q.No.	QUESTIONS	Marks	COs	KL	PO
5	Define posology. Explain any 4 factors affecting the dose of the drug (posology).	5	CO2	K2	PO1
6	Define dosage form. Give a classification of dosage forms.	5	CO4	K1	PO2
7	Define pharmaceutical incompatibilities. Write any 3 therapeutic incompatibilities.	5	CO2	K4	PO2
8	Define semisolid dosage form. Write advantage and disadvantage of semisolid dosage form.	5	CO4	K1	PO1
9	Explain in detail about the handling of prescription	5	CO3	K2	PO1
10	Shortly discuss about method of preparation of suppositories	5	CO4	K3	PO1
11	Write a note on the role of suspending agent in the formulation of a suspension.	5	CO2	K1, K2	PO1
12	Write a note on creaming in a suspension and how to overcome it.	5	CO2	K1, K2	PO1
13	Prepare and dispense the following castor oil emulsion Rx Castor oil 8 ml Water ad 30 ml And send 120 ml. (Give detail formula for primary emulsion and calculation only)	5	CO2	K2, K5	PO1

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

Course Outcomes	Acquire high consciousness/ realization of current issues related to health worldwide
CO1	Acquire high consciousness/ realization of current issues related to health worldwide
CO2	Get knowledge about pharmaceutical problems within the country and worldwide
CO3	Understand about various preventive medicines
CO4	Have a critical way of thinking based on current healthcare development
CO5	Evaluate alternative ways of solving problems related to health and pharmaceutical issues

GRAPHICAL REPRESENTATION

Bloom's level wise marks distribution

12% 7% 16% 15% 27%

■ Level 1
■ Level 2
■ Level 3


Course outcome wise marks distribution

50
0


CO1 CO2 CO3 CO4 CO5 CO6

vi	Which of the following is a semisolid dosage form? a) Tablet b) Syrup c) Capsule d) Ointment	1	CO4	K1, K2	PO1
vii	Which part of the prescription contain drug information a) Subscriptio b) Superscription c) Inscriptio d) Refill	1	CO3	K3	PO1
viii	What is USP? a) The United States Pharmacology b) The United States Pharmacy c) The United States Pharmacopoeia d) The United States Pharmaceuticals	1	CO1	K1, K2	PO1
ix	The "Pharmacy Act" came in force in which year? a) 1947 b) 1948 c) 1949 d) 1950	1	CO1	K1	PO2
x	Which kind of incompatibilities cause changes in a formulation's color, taste, texture, and odor? a) Physical incompatibilities b) Chemical incompatibilities c) Therapeutic incompatibilities d) Both a and d	1	CO2	K5	PO1
xi	Which of the following is an example of Chemical incompatibility? a) Hydrolysis b) Oxidation c) Immiscibility d) Both a and b	1	CO2	K5	PO2
xii	Which one of the following in solid doses from accept a) Tablet b) Powder c) Capsules d) Iotons	1	CO2	K1	PO1
xiii	In the avoirdupois system, which of the following is the standard unit? a) Meter b) Kilogram c) Pound d) Both a and b	1	CO2	K1, K2	PO1
xiv	Which of the following is a unit solid dosage form? a) Tablet b) Powder c) Cream d) None of the above	1	CO4	K1, K2	PO1
xv	Who is considered as the father of Surgery? a) Charak b) Sushruta c) Adam d) Pontus	1	CO1	K1	PO1

xvi	In the preparation of an emulsion, what should be the proportion of oil, water and gum if oil is volatile a) 4:2:1 b) 4:4:2 c) 2:4:1 d) 2:4:4	1	CO2	K1, K2	PO1
xvii	What should be the particle size range of the solids in an pharmaceutical suspension a) 0.7-7 μ b) 0.5-5 μ c) 0.2-2 μ d) 0.1-1 μ	1	CO2	K1	PO1
xviii	Which of the following is a natural marine phyto-emulsifying agent a) Acacia b) Chondrus c) Pectin d) Starch	1	CO2	K1	PO1
xix	What is the bioavailability status of a flocculated suspension in comparison to de-flocculated suspension a) Excellent b) Poorly c) Average d) None of above	1	CO2	K1, K2	PO1
xx	Which of the following is an animal origin coloring agent used in the formulation of suspension a) Titanium dioxide b) Alizarin c) Cochineal d) Rosaniline	1	CO2	K1	PO1
Section B (Answer any TWO out of THREE) – 20 Marks (Each question Carry 10 Marks)					
Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Explain in detail about the career opportunities in pharmacy. Or Briefly discuss the Stability Problems in suspension and methods to overcome it.	10	CO1 CO2	K2	PO1
3	Write a short note on solubility enhancement techniques. Or Briefly discuss about the Stability Problems in emulsion, specifically creaming, cracking, phase inversion and methods to overcome it.	10	CO4 CO2	K5	PO2
4	Write short notes on semisolid dosage form. Or Briefly discuss about the formulation of a heterogeneous dispersible system where solid is a discontinuous phase	10	CO4 CO2	K2, K1	PO1



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END SEM EXAMINATION
School of Health & Allied Science

Program	Bachelor of Pharmacy	
Subject Name	Pharmaceutical Analysis - Theory	Semester I Year January, 2025
Time: 3 Hour Max. Marks : 75	<ul style="list-style-type: none"> Start writing from 2nd page onwards; don't write on the 1st Page <u>Backside</u> Answer all Questions of Section A (Compulsory) Answer Any Two out of Three of Section B Answer Any Seven out of Nine of Section C Possession of Mobile Phones or any kind of <u>Written Material</u>, Arguments with the <u>Invigilator</u> or <u>Discussing with Co-Student</u> will come under <u>Unfair Means</u> and will <u>Result in the Cancellation of the Papers.</u> 	
Knowledge Level (KL)	K1 : Remembering K2 : Understanding	K3 : Applying K4 : Analysing K5 : Evaluating K6 : Creating

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

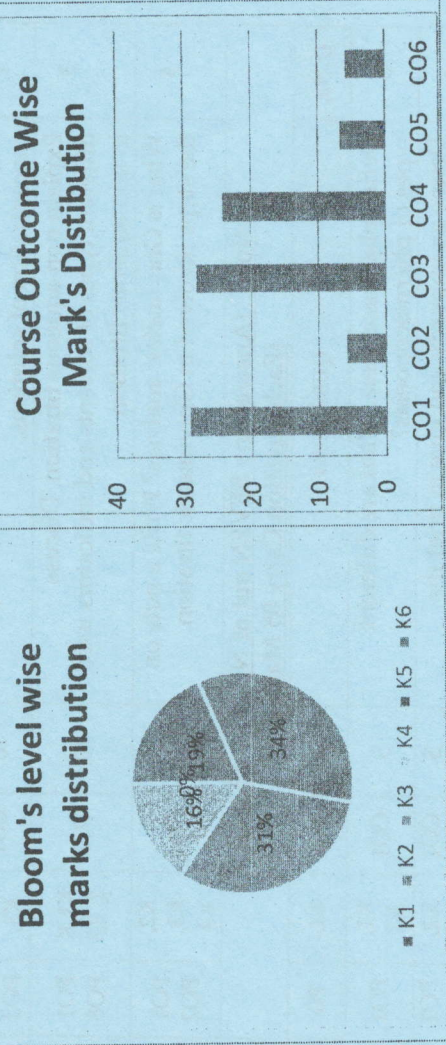
Q. N 1	QUESTIONS	Marks	COs	KL	PO
i	Phenolphthalein has a pH range of a. 6.8-8.4 c. 8.3-11.0 b. 1.2-2.8 d. 4.2-6.3	1	CO3	K1, K2	PO1
ii	The process of adding known concentration until it complete the reaction with known volume is called as a. Titrant c. Titration b. Analysis d. Titrant	1	CO1, CO3	K1, K2, K3	PO1
iii	All of the following are oxidation, except a. Gain of oxygen c. Increase in oxidation state b. Loss of proton d. Loss of electrons	1	CO5	K1, K2	PO2
iv	Which is used as primary standard for standardization of NaOH? a. Sodium carbonate c. Sodium chloride b. Oxalic Acid d. Potassium dichromate	1	CO3	K1, K3	PO2
v	Complexometric titrations are useful for the determination of a. Non-metal ions c. Metal ions b. Basic drug d. None of the above	1	CO4	K1, K2	PO1
vi	Potentiometry is which type of, method? a. Qualitative c. Classical b. Chromatographic d. Electro-chemical	1	CO6	K1,K3	PO1, PO9

12	Define pharmaceutical analysis. What are the different techniques of analysis	5	CO1	K2, K3	PO8 PO9
13	Discuss the end point detection technique involved in diazotization.	5	CO3	K2, K3	PO9

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


Course Outcomes	<p>CO1 Develop the ideas with the fundamental of analytical chemistry.</p> <p>CO2 Know the sources of mistakes and errors in analysis and their minimizing techniques.</p> <p>CO3 Develop the fundamentals of volumetric analytical skills.</p> <p>CO4 Understand the fundamentals and mechanism of precipitation, and complex ometric titration.</p> <p>CO5 Understand the fundamentals and types of redox titration.</p> <p>CO6 Acquire the basic knowledge in the principles of electrochemical analytical techniques.</p>	PO – Program Outcome
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GRAPHICAL REPRESENTATION




vii	The number of gms of solute per 100 ml of solvent is known as a. Normality b. % weight by volume c. Molality d. Mole fraction	1	CO3	K1, K2	PO2
viii	Which analytical method is based on the weight of the PPT? a. Acid base Titration b. Complexometric Titration c. Precipitation Titration d. Gravimetric Titration	1	CO4	K1, K2	PO1
ix	The precision under the same operating conditions over a short interval of time is called as a. Reproducibility b. Intermediate precision c. Repeatability d. Robustness	1	CO2	K2, K3	PO1
x	Which one is aprotic solvent? a. Chloroform b. Benzene c. Both d. None.	1	CO3	K1, K2, K3	PO2
xi	Which method are used to determination of primary amine? a. Diazotization Titration b. Karl Fischer titration c. Precipitation titration d. All of the above	1	CO1	K1, K2	PO2
xii	Titration based on the use of silver nitrate are called a. Argentometric b. Complexometric c. Amperometric d. Conductometric	1	CO4	K1, K3	PO1, PO2
xiii	Which of the following is a sensitive self-indicator? a. Cerium sulfate b. 1,10-phenanthroline-iron(II) ion c. Iodine d. Diphenylamin	1	CO1, CO5	K1, K3	PO1
xiv	20gm NaOH in 500 ml = a. 0.1 N b. 1 N c. 0.5 M d. 0.05 N	1	CO1, CO3	K2, K4	PO1, PO8
xv	Which of the following is chelating agent? a. Salicylic acid b. EDTA c. Benzoic acid d. Glycerol	1	CO4	K1, K2	PO1
xvi	Which method is used for the Limit test for arsenic? a. Gutzeit method b. Oswald method c. Arrhenius method d. Karl-Fischer method	1	CO1, CO3	K1, K2, K3	PO1

xvii	Which one of the following acts as oxidizing agent? a. HNO ₃ b. MnO ₂ c. H ₂ O ₂ d. SO ₂	1	CO5	K1, K2	PO2
xviii	The indicator used in Mohr method is a. Iron (III) thiocyanate b. Fluorescein c. Potassium Chromate d. Eosin	1	CO4	K1, K2	PO1, PO2
xix	Non aqueous titration is carried out for a. Water insoluble drug b. Weakly acidic drug c. Weakly basic drug d. All the above	1	CO3	K1, K2	PO1
xx	In titration end point can be determined by change in colour by a. Measuring cylinder b. Burette c. Instrument d. Indicator	1	CO3	K1	PO1
Section B (Answer any TWO out of THREE) – 20 Marks (Each question Carry 10 Marks)					
Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Describe different methods of expressing concentration of solutions.	10	CO1	K2, K3, K3	PO1, PO2
3	Explain non-aqueous titration. Discuss different types of solvents and indicators used in non-aqueous titration.	10	CO3	K1, K2, K3	PO1, PO8
4	What is Gravimetric analysis? Write a note on the steps involved in Gravimetric titration.	10	CO4	K2, K3, K4	PO1, PO2
Section C (Answer any SEVEN out of NINE) – 35 Marks (Each question Carry 05 Marks)					
Q. No.	QUESTIONS	Marks	COs	KL	PO
5	Define pharmacopoeia. What are different types of pharmacopoeias?	5	CO1	K1, K2	PO1
6	Define an impurity and give in brief the sources of Impurities	5	CO1, CO2	K2, K3, K4	PO1, PO7
7	Discuss the mechanism of Metal-ion indicator.	5	CO4	K3, K4	PO1
8	Write the principle and applications of 'Polarography'.	5	CO6	K1, K3	PO1
9	Discuss various neutralization curves of acid base titration.	5	CO3	K2, K3, K3	PO2
10	Discuss titration involving Potassium permanganate	5	CO5	K2, K3	PO1
11	Explain Fajan's method in details.	5	CO4	K1, K2	PO1



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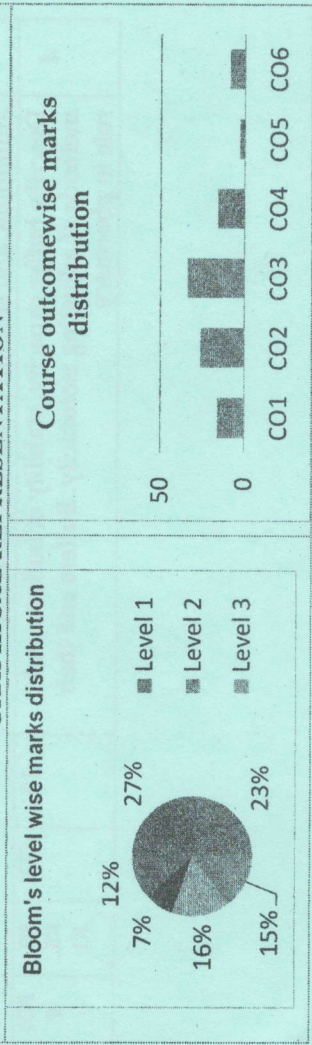
END SEM EXAMINATION
School of Health & Allied Science

Program	Bachelor of Pharmacy	
Subject Name	Pharmaceutical Inorganic Chemistry	Semester I Year January, 2025
Time: 3 Hour Max. Marks: 75	<ul style="list-style-type: none"> Start writing from 2nd page onwards; don't write on the 1st Page Backside Answer all Questions of Section A (Compulsory) Answer Any Two out of Three of Section B Answer Any Seven out of Nine of Section C Possession of <u>Mobile Phones</u> or any kind of <u>Written Material, Arguments with the Invigilator or Discussing with Co-Student</u> will come under <u>Unfair Means</u> and will <u>Result in the Cancellation of the Papers.</u> 	
Knowledge Level (KL)	K1 : Remembering K2 : Understanding	K3 : Applying K4 : Analysing K5 : Evaluating K6 : Creating

Section A (Each question Carry 01 Mark from Q1-i to xx) - 20 Marks					
Q. N	QUESTIONS	Marks	COs	KL	PO
i	All cations and molecules that are short of an electron pair act as..... a) Lewis acids b) Lewis bases c) Bronsted acids d) Bronsted base	1	CO1	K1, K2	PO2
ii	Magnesium sulphate is used as..... a) Astringents b) Dental products c) Cathartics d) Expectorant	1	CO3	K1, K2	PO1
iii	Which of the following is not a property of the base a) Taste bitter b) React with salts to form acid c) Turn red litmus blue d) Feel slippery on the skin	1	CO2	K1, K2	PO2
iv	Hydrogen peroxide are usually used as.... a) Protective b) Antioxidant c) Acidifying agent d) Antiseptic e) A and B	1	CO2	K2, K3	PO2
v	A combination of antacids is prepared because a) To attain the synergistic effect b) To enhance the antacid effect c) An attempt to balance the consti- pation effect of calcium and aluminium with the laxative effect of magnesium d) All of these	1	CO2	K2, K3	PO2

Section C (Answer any SEVEN out of NINE) - 35 Marks (Each question Carry 05 Marks)					
Q. No.	QUESTIONS	Marks	COs	KL	PO
5	Write a note on a combination of electrolyte replacement therapy.	5	CO3	K1, K6	PO2
6	Write in detail the principle, reactions and procedure for the limit test for iron.	5	CO3 CO2	K1, K2	PO2
7	What are GIT agents? Classify them with examples. Write a note on acidifiers.	5	CO3	K3, K6	PO4
8	What are gastrointestinal protectives and adsorbents? Write a short note on kaolin.	5	CO3	K1, K3, K4	PO7
9	Define and classify antacids. Discuss the preparation, assay principle, and Medicinal uses of Baking soda.	5	CO6	K6, K2, K3	PO2
10	What are Haematinics? Explain the preparation and assay Of Green Vitriol.	5	CO3 CO2	K1, K3	PO2
11	What do you mean by the term monograph? What are the contents of the monograph in Detail?	5	CO1	K2, K4	PO1
12	Explain the preparation, assay principle, storage conditions, and medical uses of calcium Gluconate injection.	5	CO1 CO2	K1, K6	PO2
13	What are dentifrices? Classify them with an example. Write a note on the role of fluoride as an Anticaries agent.	5	CO2	K3, K5	PO1

CO- Course Outcomes,	KL- Knowledge Level,	PO - Program Outcome
CO1	Know the principles of limit tests.	
CO2	Understand different classes of inorganic pharmaceuticals and their analysis	
CO3	Know about identification and test for purity of different inorganic pharmaceuticals.	
CO4	Acquire knowledge about the sources of impurities and methods to determine the impurities in inorganic drugs and pharmaceuticals	
CO5	Understand the medicinal and radiopharmaceutical importance of inorganic compounds	



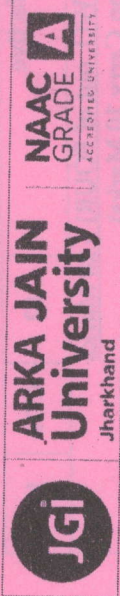
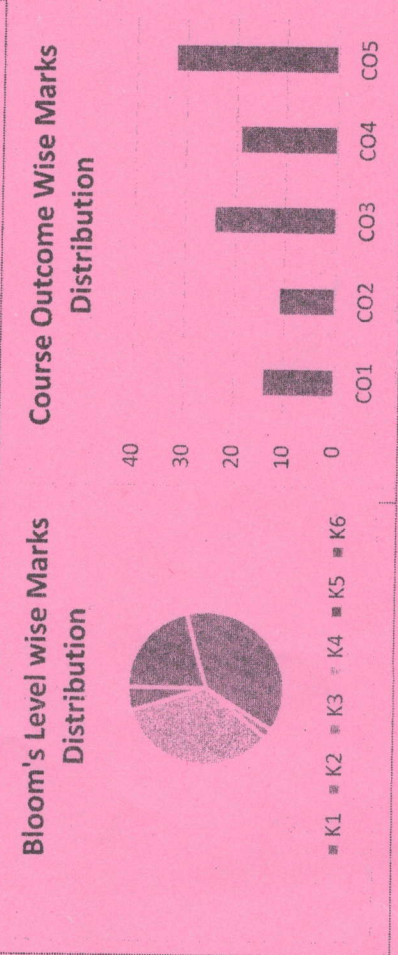
vi	Alum is commonly used as a) Anti-infective c) Protectives b) Astringent d) All of these	1	CO1 CO3	K4, K5	PO2
vii	Indicate the drug which does not improve Lower oesophageal sphincter tone or Prevent gastroesophageal reflux, but is used as first-line treatment of Gastro oesophageal reflux disease a) Sodium alginate + Aluminium hydroxide gel b) Omeprazole c) Mosapride d) Famotidine	1	CO4	K4, K5	PO1
viii	Potassium therapy is contraindicated in patient a) Impaired renal function c) Myotonia congenital b) Acute dehydration d) All of the above	1	CO4	K4, K5	PO1
ix	Zinc sulphate is prepared by the action of On ZincOxide a) Conc.HCl c) Conc.HN03 b) Conc.H2S04 d) None of these	1	CO5	K2, K1	PO9
x	The age of a tree is determined using radio-Isotope of a) Phosphorus c) Cobalt b) Iodine d) Carbon	1	CO3	K2, K1	PO1
xi	Which one of the following is an example of antidote? a) Sodium thiosulphate c) Sodium Nitrite b) Activated Charcol d) All of the above	1	CO5	K5, K1	PO2
xii	Bismuth Sub carbonate is used as a) Antidiarrheal c) Mild antiseptic and astringent b) Mild antacid d) All of these	1	CO2	K5	PO2
xiii	Which one of the following is used as expectorant a) Copper Sulphate c) Potassium Iodide b) Ferrous Sulphate d) Zinc Sulphate	1	CO3	K2, K1	PO1
xiv	Limit test for Heavy Metals is carried out To identify and control impurities a) Mercury c) Bismuth b) Cadmium d) All of the above	1	CO1	K1	PO2
xv	In the limit test for chloride, the standard Solution is a a) 0.0824% w/v sodium chloride solution b) 5.85% w/v sodium chloride solution c) 1% hydrochloric acid solution d) 1 M hydrochloric acid solution	1	CO4	K1, K3	PO1

xvi	The standard solution of arsenic contains a) Arsenious acid c) Arsine b) Arsenic acid d) Arsenic oxide	1	CO2	K1, K4	PO1
xvii	Thioglycolic acid is used in a limit test of iron because a) It provides an acidic medium b) It reduces ferric iron to ferrous iron c) It gives purple coloured complex with iron d) Both b & c	1	CO4	K2, K3	PO1 0
xviii	What is added in preparation of barium Sulphate reagent to prevent super Saturation a) Ethanol c) K2S04 b) BaCl2 d) Both A & B	1	CO4	K2, K4	PO1
xix	The function of granulated Zn in the limit test For Arsenic is a) Low and prolonged evolution of Nascent H2 gas b) High and prolonged evolution of Nascent H2 gas c) Low and prolonged evolution of Nascent N2 gas d) Low and prolonged evolution of Nascent N2 gas	1	CO3	K1, K2	PO2
xx	Sodium orthophosphate is used as- a) Cathastics c) Anti - microbial b) Antacid d) Expectorant	1	CO3	K1, K2	PO1

Section B (Answer any TWO out of THREE) - 20 Marks
(Each question Carry 10 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Explain the principle, reaction, and procedure involved in the assay of chlorinated lime and hydrogen peroxide.	10	CO2	K1, K2, K4	PO1
3	What are Antacids? Enlist in detail any drug with its molecular formula, synonym (if any) method of preparation, and use belongs to magnesium, aluminum, and sodium-containing antacids.	10	CO3	K1, K2, K3, K6	PO2
4	Describe buffer capacity, stability of buffers, and methods of adjusting isotonicity. Buffers and their role in pharmacy.	10	CO4	K2, K5, K1	PO1 0

CO1	To understand the behavioral needs for a Pharmacist to function effectively in the areas of pharmaceutical operation
CO2	Communicate effectively (Verbal and Non Verbal)
CO3	Effectively manage the team as a team player
CO4	To develop interview skills
CO5	To develop Leadership qualities and essentials
Knowledge Level (KL)	K1 : Remembering K3 : Applying K5 : Evaluating K2 : Understanding K4 : Analysing K6 : Creating



NAAC GRADE A
ACCREDITED UNIVERSITY

END SEM EXAMINATION
School of Health and Allied Science

Program	Bachelor of Pharmacy	Semester	I
Subject Name	Communication Skills	Year	January, 2025
Time: 1.5 Hour Max. Marks : 35	• Start writing from 2nd page onwards; don't Write on the 1st Page Backside • Answer all Questions of Section A (Compulsory) • Answer Any Five out of Six of Section B • Answer Any Two out of Four 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>		

Q. N	QUESTIONS	Marks	COs	KL
1				
i	What is the most important element of effective communication?	01	CO1	KL1
ii	What are the two primary types of communication?	01	CO1	KL2
iii	What is the process of sending and receiving messages called?	01	CO3	KL2
iv	Which is more important in active listening: hearing or understanding?	01	CO1	KL2
v	Name one key barrier to effective communication.	01	CO2	KL1

Section B (Answer any FIVE out of SIX) – 10 Marks (Each question Carry 02 Marks)				
Q. No.	QUESTIONS	Marks	COs	KL
2	What are the at least two purposes of communication?	02	CO2	KL3
3	Define verbal and non-verbal communication with one example each.	02	CO1	KL1
4	What is grapevine communication?	02	CO4	KL3
5	What is active listening, and why is it important in communication?	02	CO1	KL2
6	Mention a situation where you were appreciated for your communication and why?	02	CO5	KL3

Q. No.	QUESTIONS	Marks	COs	KL
7	Explain the role of feedback in effective communication.	02	CO4	KL2
Section C (Answer any TWO out of FOUR) - 20 Marks (Each question Carry 10 Marks)				
8	How does emotional intelligence impact communication skills? Describe with examples.	10	CO3	KL3
9	What are the common barriers to effective communication, such as cultural differences, assumptions, or emotional states? How can one overcome these barriers to ensure clarity and understanding?	10	CO4	KL3
10	Why is non-verbal communication essential in interpersonal communication? Establish its importance in effective communication.	10	CO2	KL3
11	Write a letter to your Dean requesting for an educational trip.	10	CO3	KL2

CO1	Evaluate and demonstrate the partial fraction, logarithms, functions and limits and continuity.
CO2	Explain matrices and determination.
CO3	Explain simple equations using graphs.
CO4	Evaluate calculus and integral calculus.
CO5	Evaluate relationship and functions; fundamentals of trigonometry and geometry.

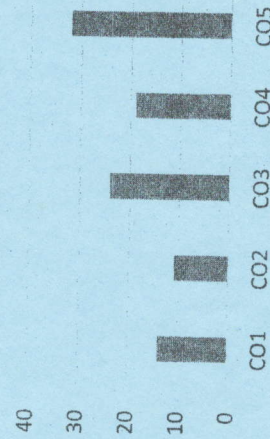
GRAPHICAL REPRESENTATION

Bloom's Level wise Marks Distribution



■ K1 ■ K2 ■ K3 ■ K4 ■ K5 ■ K6

Course Outcome Wise Marks Distribution



30/01/25

ARKA JAIN University
Jharkhand

NAAC GRADE A
ACCREDITED UNIVERSITY

END SEM EXAMINATION
School of Health & Allied Science

Program Bachelor of Pharmacy
Subject Name Remedial Mathematics

Semester I
Year January, 2025

Time: 1.5 Hour
Max. Marks : 35

- Start writing from 2nd page onwards; don't write on the 1st Page Backside
- Answer all Questions of Section A (Compulsory)
- Answer Any Five out of Six of Section B
- Answer Any Two out of Four of Section C
- Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or Discussing with Co-Student will come under Unfair Means and will result in the Cancellation of the Papers.

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

Section A (Each question Carry 01 Marks from Q1-i to v) - 05 Marks			
Q. N1	QUESTIONS	Marks	COs
i	What are the possible order a matrix can have with 12 elements?	01	CO4
ii	Give one example of Square matrix.	01	CO3
iii	What is a Diagonal matrix?	01	CO3
iv	Evaluate $\lim_{x \rightarrow 4} x^2 - 3x$	01	CO1
v	Find the derivatives of $\sin x + \tan x$	01	CO3
Section B (Answer any FIVE out of SIX) - 10 Marks			
(Each question Carry 02 Marks)			
Q. No.	QUESTIONS	Marks	COs
2	Write the in logarithmic form $2^6 = 64$	02	CO5
3	Simplify: $\log 12 - 2 \log 2 + \log 3$	02	CO3
4	If Matrix $A = \begin{bmatrix} 9 & 5 \\ 1 & 0 \end{bmatrix}$, write the order of the matrix.	02	CO5
5	A matrix having 18 elements, what possible order it can have?	02	CO2
6	If matrix $A = \begin{bmatrix} 9 & 27 \\ 0 & -3 \end{bmatrix}$ find $\frac{1}{3} A = ?$	02	CO3
7	What is the result of the multiplication $5 \times \begin{bmatrix} 5 & 0 \\ 2 & -3 \end{bmatrix}$	02	CO5

Section C (Answer any TWO out of FOUR) – 20Marks

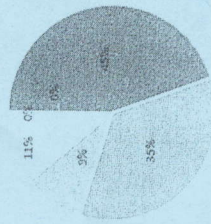
(Each question Carry 10 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
8	Simplify: a) $\log 12 - 2 \log 2 + \log 3$ b) $\log 9 - 3 \log 27 + \log 3$	10	CO2	K5
9	Resolve the rational fraction into partial fraction $\frac{2x + 3}{(x + 1)(x - 3)}$	10	CO3	K6
10	a) Solve $3^x(x) = 5^{x-2}$ using logarithms. b) Evaluate $\lim_{x \rightarrow 0} \frac{(\sqrt{1+x}) - \sqrt{1-x}}{x}$	10	CO6	K6, K4
11	Evaluate $\lim_{x \rightarrow 2} \frac{\sqrt{x+2} - 2}{x-2}$	10	CO4	K2, K5

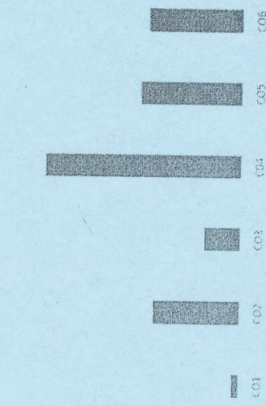
CO1	Understand classification system of the living world.
CO2	Know the morphology and anatomy of plants and animals
CO3	Understand the organ system in plant and there physiology
CO4	Know the organ system in animals and there physiology
CO5	Know about the nutrition and growth regulators of plant
CO6	Understand cell biology (Basic Nature of Plant cell and Animal cell)

GRAPHICAL REPRESENTATION

Bloom's Level Wise Marks Distribution



Course Outcome Wise Marks Distribution



ARKA JAIN University
Jharkhand

NAAC GRADE A
ACCREDITED UNIVERSITY

END SEM EXAMINATION
School of Health & Allied Science

Program	Bachelor of Pharmacy	
Subject Name	Remedial Biology	Semester I
		Year January, 2025
Time: 1.5 Hour Max. Marks : 35	<ul style="list-style-type: none"> Start writing from 2nd page onwards; don't Write on the 1st Page Backside Answer all Questions of Section A (Compulsory) Answer Any Five out of Six of Section B Answer Any Two out of Four 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 comes under <u>Unfair Means</u> and will <u>Result</u> in the <u>Cancellation of the Papers.</u> 	
Knowledge Level (KL)	K1 : Remembering	K5 : Evaluating
	K2 : Understanding	K6 : Creating
	K3 : Applying	
	K4 : Analysing	

Section A (Each question Carry 01 Marks from Q1-i to v) – 05 Marks			
Q.N	QUESTIONS	Marks	COs
i	Secretin and cholecystokinin are secreted in a. Pyloric region b. Ileum c. Duodenum d. Oesophagus	01	CO4
ii	What is nomenclature? a. Genus name is written after species b. Genus and species names are written in italics c. Genus and species have the same name d. The first letter of genus and species name is capital	01	CO1
iii	In which part of the respiratory system, gaseous exchange takes place? a. Alveoli b. Pharynx c. Larynx d. Trachea	01	CO4
iv	This hormone is responsible for "fight-or-flight" response a. Thyroxin and melatonin b. Insulin and glucagon c. Epinephrine and norepinephrine d. Oestrogen and progesterone	01	CO4

v	The process of cell respiration is carried out by a. Mitochondria b. Chloroplast c. Nucleus d. None of the above	01	CO6	K1, K2
Section B (Answer any FIVE out of SIX) – 10 Marks (Each question Carry 02 Marks)				
Q. No.	QUESTIONS	Marks	COs	KL
2	What is the definition of cell cycle?	02	CO6	K1, K2
3	What is Photosynthesis? Mention the Factors affecting Photosynthesis.	02	CO5	K1, K2
4	What are the functions of Liver?	02	CO4	K1, K4
5	Write down the difference between eukaryotic and prokaryotic cell.	02	CO2	K1, K3
6	Define blood and lymph.	02	CO4	K1, K2
7	What are the functions of Auxins in plant growth?	02	CO3, CO5	K1, K2,
Section C (Answer any TWO out of FOUR) – 20Marks (Each question Carry 10 Marks)				
Q. No.	QUESTIONS	Marks	COs	KL
8	Give details note on Nitrogen Cycle.	10	CO5	K1, K2
9	Write detailed about ABO blood grouping.	10	CO4	K1, K2, K3
10	Write a note on digestive glands.	10	CO2, CO4	K1, K2
11	Explain glycolysis pathway.	10	CO6	K1, K4