



Library

 <b>ARKA JAIN University</b> <small>Jharkhand</small>				[ 20/02/2025 ] <b>END SEM EXAMINATION</b> School of Health & Allied Sciences	
Program	Bachelor of Science (MLT / AOTT)				
Subject Name	Human Anatomy & Physiology				
	Semester	I			
	Year	February, 2025			
Time: 3 Hour Max. Marks : 70	<ul style="list-style-type: none"> <li>Start writing from 2nd page onwards; <b>don't Write on the 1st Page Backside</b></li> <li>Answer all Questions of Section A (Compulsory)</li> <li>Answer Any Four out of Six of Section B</li> <li>Answer Any Two out of Four of Section C</li> <li>Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or Discussing with Co-Student will come under <b>Unfair Means</b> and will <b>Result</b> in the <b>Cancellation of the Papers.</b></li> </ul>				
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 xii) - 12 Marks					
Q. N1	QUESTIONS	Marks	COs	KL	
i	What is anatomy?	01	CO1	K2	
ii	What is the basic unit of life? *	01	CO1	K2	
iii	Name one organ in the digestive system.	01	CO2	K4	
iv	What is the function of the heart?	01	CO1	K4	
v	How many bones are in the human body?	01	CO2	K1	
vi	What is the main function of the lungs?	01	CO2	K2	
vii	Give one example of epithelial tissue.	01	CO3	K2	
viii	Name the different types of muscle tissue.	01	CO4	K1	
ix	What are the two main divisions of the nervous system?	01	CO4	K1	
x	What is the function of haemoglobin?	01	CO4	K3	
xi	Which organ is responsible for gas exchange in the respiratory system?	01	CO3	K4	
xii	Name one digestive enzyme and its function.	01	CO2	K2	

**Section B (Answer any FOUR out of SIX) – 28 Marks**  
(Each question Carry 07 Marks)

Q.No.	QUESTIONS	Marks	COs	KL
2	Describe the different parts of a human cell and their functions.	07	CO1	K2
3	What are the different types of joints in the human body? Give examples.	07	CO2	K1
4	What is the difference between primary active transport and secondary active transport?	07	CO3	K2
5	Describe the structure and functions of the heart.	07	CO4	K4
6	What factors affect bone growth and bone density?	07	CO5	K1
7	What are the unique features of skull?	07	CO4	K4

**Section C (Answer any TWO out of FOUR) – 30Marks**  
(Each question Carry 15 Marks)

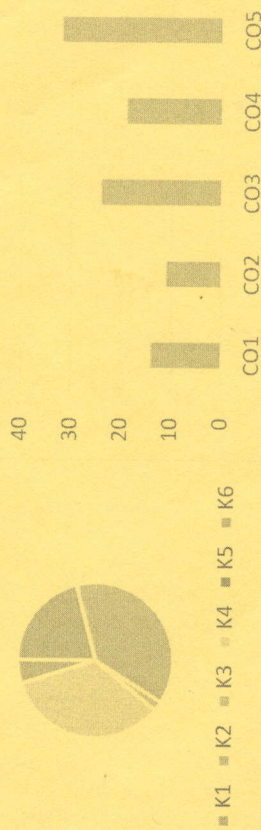
Q.No.	QUESTIONS	Marks	COs	KL
8	Explain the location, function, muscle attachments, and nerve attachments of the humerus bone.	15	CO1	K6
9	Define cardiovascular system.	15	CO3	K2
10	Explain the location, function, bones, nerves, and muscles involved in the shoulder joint.	15	CO4	K4
11	(A) explain the process of digestion from the mouth to the stomach. (10 marks) (b) what is the function of the small intestine in digestion? (5 marks)	15	CO2	K4

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

Course Outcomes	CO1	CO2	CO3	CO4	CO5
	Design a visual representation of the human body's systems and their functions.	Assess the impact of medical treatments on human anatomy and physiology.	Analyze how body systems interact during physical activities.	Recall major organs and their functions in key body systems.	Apply anatomical and physiological knowledge to clinical cases.

**GRAPHICAL REPRESENTATION**

**Bloom's Level wise Marks Distribution**      **Course Outcome Wise Marks Distribution**





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**University**  
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[ 21/02/2025 ]

**END SEM EXAMINATION**  
**School of Health & Allied Sciences**

Program **Bachelor of Science (MLT / AOTT)**

Subject Name **Biochemistry**

Semester **I**  
Year **February, 2025**

- Start writing from 2nd page onwards; don't Write on the 1st Page Backside
- Answer all Questions of Section A (Compulsory)
- Answer Any Four 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.

Time: 3 Hour  
Max. Marks : 70

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 xii) – 12 Marks**

Q. N1	QUESTIONS	Marks	COs	KL
i	What are the primary bio elements?	01	CO1	K2
ii	Difference between oil and fat?	01	CO1	K2
iii	What is the main function of nucleic acids?	01	CO2	K4
iv	What is metabolism?	01	CO1	K4
v	What are types of biomolecules?	01	CO2	K1
vi	Name one function of LH & FSH in human body?	01	CO2	K2
vii	Full form of ATP?	01	CO3	K2
viii	Primary sources of vitamin k?	01	CO4	K1
ix	Write down the chemical name of vitamin A?	01	CO4	K1
x	What do you mean by AST & ALT?	01	CO4	K3
xi	What are the major minerals?	01	CO3	K4
xii	Give an example of monosaccharide?	01	CO2	K2

**Section B (Answer any FOUR out of SIX) – 28 Marks**  
(Each question Carry 07 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
2	Outline the major functions of carbohydrate in biological systems.	07	CO1	K2
3	Write a short note on protein.	07	CO2	K1
4	What are the important dietary roles of lipoproteins in human nutrition?	07	CO3	K2
5	Explain the clinical importance of sodium in the human body, along with its sources and functions.	07	CO4	K4
6	Explain the sources, functions, and biological significance of vitamin D.	07	CO5	K1
7	Describe the factors affecting enzyme action and provide examples of each?	07	CO4	K4

**Section C (Answer any TWO out of FOUR) – 30 Marks**  
(Each question Carry 15 Marks)

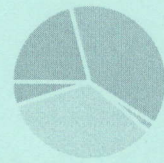
Q. No.	QUESTIONS	Marks	COs	KL
8	Explain the importance of biochemistry in healthcare.	15	CO1	K6
9	Define enzyme-substrate complex.	15	CO3	K2
10	Define the posterior pituitary gland, list the hormones it secretes, and explain their functions	15	CO4	K4
11	Difference between DNA & RNA?	15	CO5	K4

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

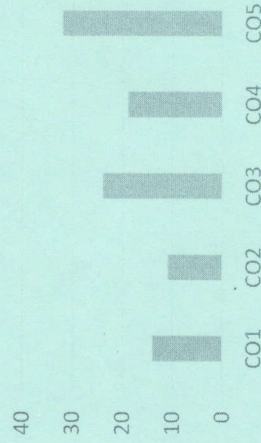
Course Outcomes	CO1	CO2	CO3	CO4	CO5
	Develop a biochemical pathway chart illustrating metabolic processes.	Analyse metabolic pathways involved in energy production.	Memorize key enzymes and intermediates in major metabolic pathways.	Apply metabolic principles to understand metabolic disorders	Describe energy conversion processes in the body

**GRAPHICAL REPRESENTATION**

**Bloom's Level wise Marks Distribution**



**Course Outcome Wise Marks Distribution**



■ K1 ■ K2 ■ K3 ■ K4 ■ K5 ■ K6



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[ 25/02/2025 ]  
**END SEM EXAMINATION**  
School of Health and Allied Sciences

Program	Bachelor of Science ( AOTT / MLT )	
Subject Name	Accounting and Finance	Semester I Year
Time: 3 Hour Max. Marks : 70	<ul style="list-style-type: none"> <li>Start writing from 2nd page onwards; don't Write on the 1st Page Backside</li> <li>Answer all Questions of Section A (Compulsory)</li> <li>Answer Any Four out of Six of Section B</li> <li>Answer Any Two out of Four of Section C</li> <li>Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or Discussing with Co-Student will comes under <u>Unfair Means</u> and will <u>Result</u> in the <u>Cancellation of the Papers.</u></li> </ul>	
Knowledge Level (KL)	K1 : Remembering	K5 : Evaluating
	K2 : Understanding	K6 : Creating
	K3 : Applying	
	K4 : Analysing	

**Section A (Each question Carry 01 Mark from Q1-i to xii) – 12 Marks**

Q. N 1	QUESTIONS	Marks	COs	KL
i	What are financial assets? Provide an example	01	C1	K2
ii	What is the role of financial statements?	01	C2	K4
iii	Write 5 steps to create a budget?	01	C1	K3
iv	Write down the steps for managing living expenses.	01	C1	K4
v	Define the concept of budgeting	01	C2	K2
vi	Write down the types of financial goal. Briefly	01	C4	K2
vii	Write down the steps to build a good credit reputation	01	C4	K4
viii	Write down the controlling spending technique?	01	C3	K3
ix	How does budgetary control help in financial planning?	01	C2	K1
x	Write the different forms of debts.	01	C1	K4
xi	What do you understand by budget?	01	C5	K5
xii	What is the age to start the financial goal?	01	C4	K4

**Section B (Answer any FOUR out of SIX) – 28 Marks**  
(Each question Carry 07 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
2	Discuss the importance of financial accounting in business operations.	07	C3	K4
3	Explain the accounting equation and its significance.	07	C4	K5
4	Describe the process of preparing a trial balance and its importance.	07	C3	K4
5	What are adjusting entries, and why are they required in accounting?	07	C2	K3
6	Write down the scope of accounting and finance	07	C2	K3
7	Why financial goal is important?	07	C3	K5

**Section C (Answer any TWO out of FOUR) – 30 Marks**  
(Each question Carry 15 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
8	Write down the steps in your career planning process in job search application?	15	C3	K4
9	Write down the difference between long term and short-term goal?	15	C4	K4
10	Write down the different types of financial products	15	C5	K5
11	What are the three main types of financial statements?	15	C4	K4

**CO- Course Outcomes,**

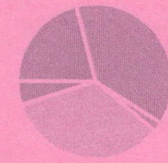
**KL- Knowledge Level,**

**PO – Program Outcome**

Course Outcomes	CO1	CO2	CO3	CO4	CO5
	Create a financial plan for a hypothetical business using accounting principles	Assess an organization financial health through financial statements and ratio	Analyze Financial data to determine a company performance	Apply accounting principles to record transactions and prepare statements	Explain key finance concepts such as time value of money and risk.

**GRAPHICAL REPRESENTATION**

**Bloom's Level wise Marks Distribution**



■ K1 ■ K2 ■ K3 ■ K4 ■ K5 ■ K6

**Course Outcome Wise Marks Distribution**





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[ 26/02/2025 ]

**END SEM EXAMINATION**  
School of health and allied sciences

Program	Bachelor of Science (AOTT / MLT)	
Subject Name	Communication Skills	
	Semester	I
	Year	February, 2025
Time: 3 Hour Max. Marks : 70	<ul style="list-style-type: none"> <li>Start writing from 2nd page onwards; <u>don't Write on the 1st Page Backside</u></li> <li>Answer all Questions of Section A (Compulsory)</li> <li>Answer Any Four out of Six of Section B</li> <li>Answer Any Two out of Four of Section C</li> <li>Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or Discussing with Co-Student will come under <u>Unfair Means</u> and will <u>Result in the Cancellation of the Papers.</u></li> </ul>	
Knowledge Level (KL)	K1 : Remembering	K5 : Evaluating
	K2 : Understanding	K6 : Creating
	K3 : Applying	
	K4 : Analysing	

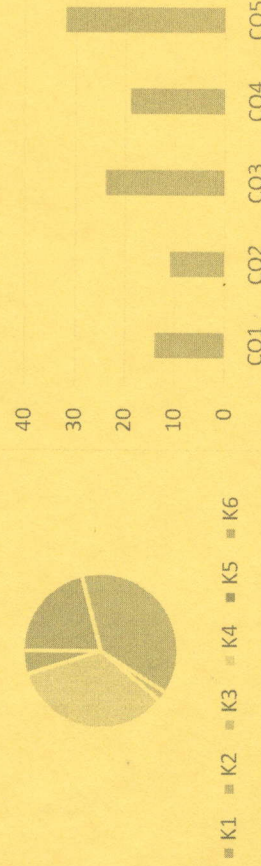
**Section A (Each question Carry 01 Mark from Q1-i to xii) – 12 Marks**

Q. N	QUESTIONS	Marks	COs	KL
i	How are vowel sounds created *	01	C2	K2
ii	Provide an example of a closed-ended question	01	C3	K3
iii	What does avoiding eye contact usually indicate?	01	C3	K4
iv	What should healthcare providers do before delivering bad news?	01	C7	K3
v	Why must patient information be handled confidentially?	01	C4	K2
vi	Who is the sender in the communication process?	01	C5	K4
vii	What is a communication channel?	01	C2	K4
viii	How should providers address patients during the first meeting?	01	C3	K4
ix	Why is respecting patients' time important in healthcare?	01	C5	K4
x	What are vowel sounds	01	C3	K3
xi	Types of communication	01	C4	K4
xii	Importance of active listening	01	C2	K4

CO1	Compose professional emails, presentations, and reports
CO2	Evaluate the effectiveness of communication techniques in achieving goals.
CO3	Analyse verbal and non-verbal communication styles
CO4	Recall core communication principles such as active listening and clarity.
CO5	Apply communication strategies to improve collaboration and customer relations.

**GRAPHICAL REPRESENTATION**

**Bloom's Level wise Marks Distribution**      **Course Outcome Wise Marks Distribution**



**Section B (Answer any FOUR out of SIX) – 28 Marks**  
(Each question Carry 07 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
2.	Explain the steps to take when reading a patient's report.	07	C5	K2
3	How should healthcare providers establish rapport before delivering bad news?	07	C6	K4
4	What role does body language play when delivering bad news? Give examples of effective body language techniques.	07	C6	K5
5	How can closed-ended questions be used to confirm specific details and gather focused information from patients?	07	C4	K6
6	How can healthcare professionals use facial expressions to communicate empathy and understanding to patients?	07	C5	K5
7	Explain the importance of staying updated on the latest advancements in medical research and patient care	07	C6	K5

**Section C (Answer any TWO out of FOUR) – 30Marks**  
(Each question Carry 15 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
8	Discuss the importance of following up with patients after delivering bad news. What steps should healthcare providers take to ensure ongoing support and address emerging needs or concerns?	15	C4	K3
9	Discuss the different types of questions (open-ended, closed-ended, and clarifying) and their importance in gathering accurate information from patients. Provide one example for each type.	15	C3	K6
10	Describe the importance of practicing active listening in conjunction with questioning skills to improve patient care.	15	C5	K4
11	Describe the significance of facial expressions in healthcare communication. How can healthcare professionals interpret and respond to patients' facial expressions, such as frowning or raised eyebrows?	15	C2	K5





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[ 27/02/2025 ]

**END SEM EXAMINATION**  
**School of Health and Allied Sciences**

Program **Bachelor of Science (AOTT / MLT)**

Subject Name **Introduction to Quality and Patient Safety**

Semester **I**

Year **February, 2025**

Time: 3 Hour  
Max. Marks : 70

- Start writing from 2nd page onwards; don't Write on the 1st Page Backside
- Answer all Questions of Section A (Compulsory)
- Answer Any Four 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

K5 : Evaluating

K2 : Understanding

K3 : Applying

K6 : Creating

**Section A (Each question Carry 01 Mark from Q1-i to xii) – 12 Marks**

Q. N1	QUESTIONS	Marks	COs	KL
i	Define quality care.	01	C1	K2
ii	What is the normal respiratory rate for an adult?	01	C1	K3
iii	Name two conditions where an AED should be used.	01	C1	K2
iv	What does the acronym "ABC" stand for in primary assessment?	01	C2	K4
v	Which artery is commonly used to check the pulse in an unconscious adult?	01	C3	K3
vi	What is the purpose of biomedical waste segregation?	01	C5	K2
vii	Name one environmental hazard caused by improper biomedical waste disposal.	01	C5	K5
viii	What does the term "triage" mean in disaster management?	01	C3	K5
ix	What are the four phases of disaster management?	01	C6	K3
x	What is a hospital-acquired infection (HAI)?	01	C5	K6
xi	What does the term "antimicrobial resistance" mean?	01	C6	K3
xii	Which term is used for a heart rate above 100 beats per minute?	01	C3	K2

**Section B (Answer any FOUR out of SIX) – 28 Marks**  
(Each question Carry 07 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
2	Describe various quality improvement approaches with examples.	07	C2	K2
3	Outline the main features of the current NABH guidelines.	07	C3	K2
4	Explain the principles of first aid in common medical emergencies.	07	C1	K4
5	Describe the role of healthcare workers in biomedical waste management.	07	C2	K3
6	Explain the classification of biomedical waste with suitable examples.	07	C4	K4
7	Describe the standard precautions taken to prevent hospital-acquired infections (HAIs).	07	C5	K1

**Section C (Answer any TWO out of FOUR) – 30Marks**  
(Each question Carry 15 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
8	Discuss in detail the vital signs, their normal ranges, and their significance in patient assessment.	15	C2	K2
9	Elaborate on the primary assessment process in an emergency, including scene safety, patient evaluation, and management steps.	15	C3	K2
10	Discuss the latest guidelines of NABH & JCI For Hospitals infection Control.	15	C4	K1
11	Explain the phases of disaster management and discuss the role of healthcare professionals in disaster management.	15	C5	K2

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

Course Outcomes	CO1	CO2	CO3	CO4	CO5
	Develop a quality improvement plan for healthcare facility	Evaluate the effectiveness of patient safety protocols in reducing errors	Analyze medical errors and propose preventive measures	Apply quality management principles to assess healthcare outcome	Explain the role of patient safety in reducing harm

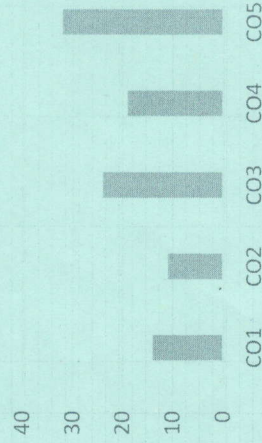
**GRAPHICAL REPRESENTATION**

**Bloom's Level wise Marks Distribution**



■ K1 ■ K2 ■ K3 ■ K4 ■ K5 ■ K6

**Course Outcome Wise Marks Distribution**





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**University**  
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[ 20/02/2025 ]

**END SEM EXAMINATION**  
School of Health and allied Sciences

Program		Bachelor of Science (AOTT / MLT)	
Subject Name		Introduction to Computing	
Time: 3 Hour Max. Marks : 70		Semester	I
		Year	February, 2025
<p>Start writing from 2nd page onwards; <b>don't Write on the 1st Page Backside</b></p> <ul style="list-style-type: none"> <li>• Answer all Questions of Section A (Compulsory)</li> <li>• Answer Any Four out of Six of Section B</li> <li>• Answer Any Two out of Four of Section C</li> <li>• 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.</li> </ul>			
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 xii) – 12 Marks			
Q. N	QUESTIONS	Marks	COs
i	Give an example of an optical storage device	01	C3
ii	Name any two input devices.	01	C2
iii	List any two characteristics of a computer.	01	C1
iv	What is the function of an MS-DOS command?	01	C5
v	What is the purpose of the operating system?	01	C5
vi	Name any two output devices.	01	C2
vii	Name any two types of computer networks.	01	C2
viii	What is the primary function of a computer?	01	C1
ix	Write Down the full form of World Wide Web	01	C3
x	Define mass storage devices	01	C3
xi	Name one application of computers in the banking sector.	01	C3
xii	What are the components of a CPU?	01	C1

**Section B (Answer any FOUR out of SIX) – 28 Marks**  
(Each question Carry 07 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
2	Discuss the role and impact of the Internet in daily life.	07	C4	K2
3	Explain different types of input devices and their functions.	07	C2	K3
4	Explain the different storage devices available in a computer system	07	C1	K2
5	What are the basic services of the Internet? Explain any three in detail.	07	C3	K5
6	What are the features of MS-Word? Explain its key components	07	C3	K4
7	Explain the block diagram of a computer with a neat sketch.	07	C4	K4

**Section C (Answer any TWO out of FOUR) – 30Marks**  
(Each question Carry 15 Marks)

Q. No.	QUESTIONS	Marks	COs	KL
8	Describe the role of computers in various fields such as healthcare, industry, and commerce.	15	C2	K4
9	Explain the functionalities of MS-Word, including document formatting, tables, and mail merge.	15	C4	K3
10	Describe in detail the various types of computer languages with examples.	15	C3	K3
11	What are the key features and components of the Windows operating system?	15	C2	K2

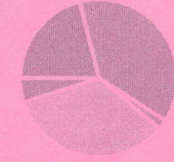
CO- Course Outcomes, **KL-** Knowledge Level, **PO** – Program Outcome

CO1	Design a simple software application or website.
CO2	Assess the effectiveness of computing technologies in solving problems.
CO3	Analyze the societal impact of technologies like AI and cloud computing.
CO4	Recall essential hardware, software, and programming concepts
CO5	Apply computational thinking to solve problems with programming solutions.

**GRAPHICAL REPRESENTATION**

**Bloom's Level wise Marks**

**Distribution**



**Course Outcome Wise Marks**

**Distribution**



■ K1 ■ K2 ■ K3 ■ K4 ■ K5 ■ K6