Human Body Systems on Charts Models and Specimens

Experiment 9 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

1. Axial Skeleton

Aim

To identify the main structures of the axial skeleton on models and charts.

Principle

The arrangement of skull, vertebral column, ribs and sternum supports support and protection. Structure, position and connections should be described together, with a clear distinction between a model and an actual anatomical section.

Requirements

- Instructor-labelled charts, models or preserved teaching specimens; notebook.

Procedure

1. Orient

Identify the model view, body side and the relevant anatomical directions.

2. Trace structures

Locate skull, vertebral column, ribs and sternum. Trace the main connections in sequence.

3. Relate to function

Explain how two labelled structures support support and protection.

4. Record

Draw a labelled diagram and explain one clinically relevant structural relationship.

Observations and Record

Structure	Observed location / connection	Function
1	_____	_____
2	_____	_____
3	_____	_____

Result

Record the completed observations, calculations and conclusion with units. State any limitation of the observation.

Precautions

- Label only structures supported by the chart or teaching specimen.
- Do not confuse anatomical direction with the viewer's left and right.

Viva Questions and Answers

1. What is the main function of this system?

Support and protection.

2. Why record connections?

The function depends on how components act together, not on isolated names.

2. Appendicular Skeleton

Aim

To identify the main structures of the appendicular skeleton on models and charts.

Principle

The arrangement of limb bones, pectoral girdle and pelvic girdle supports movement and attachment. Structure, position and connections should be described together, with a clear distinction between a model and an actual anatomical section.

Requirements

- Instructor-labelled charts, models or preserved teaching specimens; notebook.

Procedure

1. Orient

Identify the model view, body side and the relevant anatomical directions.

2. Trace structures

Locate limb bones, pectoral girdle and pelvic girdle. Trace the main connections in sequence.

3. Relate to function

Explain how two labelled structures support movement and attachment.

4. Record

Draw a labelled diagram and explain one clinically relevant structural relationship.

Observations and Record

Structure	Observed location / connection	Function
1	_____	_____
2	_____	_____
3	_____	_____

Result

Record the completed observations, calculations and conclusion with units. State any limitation of the observation.

Precautions

- Label only structures supported by the chart or teaching specimen.
- Do not confuse anatomical direction with the viewer's left and right.

Viva Questions and Answers

1. What is the main function of this system?

Movement and attachment.

2. Why record connections?

The function depends on how components act together, not on isolated names.

3. Cardiovascular System

Aim

To identify the main structures of the cardiovascular system on models and charts.

Principle

The arrangement of heart chambers, valves, major vessels and pulmonary/systemic circuits supports blood circulation. Structure, position and connections should be described together, with a clear distinction between a model and an actual anatomical section.

Requirements

- Instructor-labelled charts, models or preserved teaching specimens; notebook.

Procedure

1. Orient

Identify the model view, body side and the relevant anatomical directions.

2. Trace structures

Locate heart chambers, valves, major vessels and pulmonary/systemic circuits. Trace the main connections in sequence.

3. Relate to function

Explain how two labelled structures support blood circulation.

4. Record

Draw a labelled diagram and explain one clinically relevant structural relationship.

Observations and Record

Structure	Observed location / connection	Function
1	_____	_____
2	_____	_____
3	_____	_____

Result

Record the completed observations, calculations and conclusion with units. State any limitation of the observation.

Precautions

- Label only structures supported by the chart or teaching specimen.
- Do not confuse anatomical direction with the viewer's left and right.

Viva Questions and Answers

1. What is the main function of this system?

Blood circulation.

2. Why record connections?

The function depends on how components act together, not on isolated names.

4. Respiratory System

Aim

To identify the main structures of the respiratory system on models and charts.

Principle

The arrangement of airways, lungs, alveoli, diaphragm and pulmonary vessels supports ventilation and gas exchange. Structure, position and connections should be described together, with a clear distinction between a model and an actual anatomical section.

Requirements

- Instructor-labelled charts, models or preserved teaching specimens; notebook.

Procedure

1. Orient

Identify the model view, body side and the relevant anatomical directions.

2. Trace structures

Locate airways, lungs, alveoli, diaphragm and pulmonary vessels. Trace the main connections in sequence.

3. Relate to function

Explain how two labelled structures support ventilation and gas exchange.

4. Record

Draw a labelled diagram and explain one clinically relevant structural relationship.

Observations and Record

Structure	Observed location / connection	Function
1	_____	_____
2	_____	_____
3	_____	_____

Result

Record the completed observations, calculations and conclusion with units. State any limitation of the observation.

Precautions

- Label only structures supported by the chart or teaching specimen.
- Do not confuse anatomical direction with the viewer's left and right.

Viva Questions and Answers

1. What is the main function of this system?

Ventilation and gas exchange.

2. Why record connections?

The function depends on how components act together, not on isolated names.

5. Digestive System

Aim

To identify the main structures of the digestive system on models and charts.

Principle

The arrangement of alimentary canal, liver, gall bladder and pancreas supports digestion, absorption and accessory secretions. Structure, position and connections should be described together, with a clear distinction between a model and an actual anatomical section.

Requirements

- Instructor-labelled charts, models or preserved teaching specimens; notebook.

Procedure

1. Orient

Identify the model view, body side and the relevant anatomical directions.

2. Trace structures

Locate alimentary canal, liver, gall bladder and pancreas. Trace the main connections in sequence.

3. Relate to function

Explain how two labelled structures support digestion, absorption and accessory secretions.

4. Record

Draw a labelled diagram and explain one clinically relevant structural relationship.

Observations and Record

Structure	Observed location / connection	Function
1	_____	_____
2	_____	_____
3	_____	_____

Result

Record the completed observations, calculations and conclusion with units. State any limitation of the observation.

Precautions

- Label only structures supported by the chart or teaching specimen.
- Do not confuse anatomical direction with the viewer's left and right.

Viva Questions and Answers

1. What is the main function of this system?

Digestion, absorption and accessory secretions.

2. Why record connections?

The function depends on how components act together, not on isolated names.

6. Urinary System

Aim

To identify the main structures of the urinary system on models and charts.

Principle

The arrangement of kidneys, nephron, ureters, bladder and urethra supports filtration, reabsorption, secretion and excretion. Structure, position and connections should be described together, with a clear distinction between a model and an actual anatomical section.

Requirements

- Instructor-labelled charts, models or preserved teaching specimens; notebook.

Procedure

1. Orient

Identify the model view, body side and the relevant anatomical directions.

2. Trace structures

Locate kidneys, nephron, ureters, bladder and urethra. Trace the main connections in sequence.

3. Relate to function

Explain how two labelled structures support filtration, reabsorption, secretion and excretion.

4. Record

Draw a labelled diagram and explain one clinically relevant structural relationship.

Observations and Record

Structure	Observed location / connection	Function
1	_____	_____
2	_____	_____
3	_____	_____

Result

Record the completed observations, calculations and conclusion with units. State any limitation of the observation.

Precautions

- Label only structures supported by the chart or teaching specimen.
- Do not confuse anatomical direction with the viewer's left and right.

Viva Questions and Answers

1. What is the main function of this system?

Filtration, reabsorption, secretion and excretion.

2. Why record connections?

The function depends on how components act together, not on isolated names.

7. Nervous System

Aim

To identify the main structures of the nervous system on models and charts.

Principle

The arrangement of brain, spinal cord, peripheral nerves and autonomic divisions supports information processing and control. Structure, position and connections should be described together, with a clear distinction between a model and an actual anatomical section.

Requirements

- Instructor-labelled charts, models or preserved teaching specimens; notebook.

Procedure

1. Orient

Identify the model view, body side and the relevant anatomical directions.

2. Trace structures

Locate brain, spinal cord, peripheral nerves and autonomic divisions. Trace the main connections in sequence.

3. Relate to function

Explain how two labelled structures support information processing and control.

4. Record

Draw a labelled diagram and explain one clinically relevant structural relationship.

Observations and Record

Structure	Observed location / connection	Function
1	_____	_____
2	_____	_____
3	_____	_____

Result

Record the completed observations, calculations and conclusion with units. State any limitation of the observation.

Precautions

- Label only structures supported by the chart or teaching specimen.
- Do not confuse anatomical direction with the viewer's left and right.

Viva Questions and Answers

1. What is the main function of this system?

Information processing and control.

2. Why record connections?

The function depends on how components act together, not on isolated names.

8. Special Senses

Aim

To identify the main structures of the special senses on models and charts.

Principle

The arrangement of eye, ear and the structures involved in taste, smell and balance supports sensory reception and transduction. Structure, position and connections should be described together, with a clear distinction between a model and an actual anatomical section.

Requirements

- Instructor-labelled charts, models or preserved teaching specimens; notebook.

Procedure

1. Orient

Identify the model view, body side and the relevant anatomical directions.

2. Trace structures

Locate eye, ear and the structures involved in taste, smell and balance. Trace the main connections in sequence.

3. Relate to function

Explain how two labelled structures support sensory reception and transduction.

4. Record

Draw a labelled diagram and explain one clinically relevant structural relationship.

Observations and Record

Structure	Observed location / connection	Function
1	_____	_____
2	_____	_____
3	_____	_____

Result

Record the completed observations, calculations and conclusion with units. State any limitation of the observation.

Precautions

- Label only structures supported by the chart or teaching specimen.
- Do not confuse anatomical direction with the viewer's left and right.

Viva Questions and Answers

1. What is the main function of this system?

Sensory reception and transduction.

2. Why record connections?

The function depends on how components act together, not on isolated names.

9. Reproductive System

Aim

To identify the main structures of the reproductive system on models and charts.

Principle

The arrangement of male and female reproductive organs and their connections supports gamete production, hormonal function and reproduction. Structure, position and connections should be described together, with a clear distinction between a model and an actual anatomical section.

Requirements

- Instructor-labelled charts, models or preserved teaching specimens; notebook.

Procedure

1. Orient

Identify the model view, body side and the relevant anatomical directions.

2. Trace structures

Locate male and female reproductive organs and their connections. Trace the main connections in sequence.

3. Relate to function

Explain how two labelled structures support gamete production, hormonal function and reproduction.

4. Record

Draw a labelled diagram and explain one clinically relevant structural relationship.

Observations and Record

Structure	Observed location / connection	Function
1	_____	_____
2	_____	_____
3	_____	_____

Result

Record the completed observations, calculations and conclusion with units. State any limitation of the observation.

Precautions

- Label only structures supported by the chart or teaching specimen.
- Do not confuse anatomical direction with the viewer's left and right.

Viva Questions and Answers

1. What is the main function of this system?

Gamete production, hormonal function and reproduction.

2. Why record connections?

The function depends on how components act together, not on isolated names.

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