1. **Anatomy and Physiology**

Write the terms that match the phrases in the spaces at the right.

1) The study of cells. **Cytology**
2) The study of body organization and structure. **Anatomy**
3) The study of body functions. **Physiology**

2. **Levels of Organization**

a. List the levels of organization from the most complex to the simplest.

1) **Organismic**
2) **Organ system**
3) **Organ**
4) **Tissue**
5) **Cellular**
6) **Chemical**

b. Write the terms that match the phrases in the spaces at the right.

1) A coordinated group of organs. **Organ system**
2) Structural and functional units of the body. **Cells**
3) An aggregation of similar cells. **Tissue**

   c. Match the names of the organ systems with the phrases.

<table>
<thead>
<tr>
<th>Organ system</th>
<th>Cells</th>
<th>Tissue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular</td>
<td>Lymphatic</td>
<td>Reproductive, male</td>
</tr>
<tr>
<td>Digestive</td>
<td>Muscle</td>
<td>Respiratory</td>
</tr>
<tr>
<td>Endocrine</td>
<td>Nervous</td>
<td>Skeletal</td>
</tr>
<tr>
<td>Integumentary</td>
<td>Reproductive, female</td>
<td>Urinary</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>Nervous</td>
<td>Urinary</td>
</tr>
<tr>
<td>Urinary</td>
<td>Reproductive, male</td>
<td>Reproductive, female</td>
</tr>
<tr>
<td>Integumentary</td>
<td>Lymphatic</td>
<td>Skeletal</td>
</tr>
<tr>
<td>Lymphatic</td>
<td>Nervous</td>
<td>Skeletal</td>
</tr>
<tr>
<td>Nervous</td>
<td>Reproductive, male</td>
<td>Reproductive, female</td>
</tr>
<tr>
<td>Reproductive, female</td>
<td>Cardiovascular</td>
<td></td>
</tr>
<tr>
<td>Skeletal</td>
<td>Integumentary</td>
<td>Urinary</td>
</tr>
<tr>
<td>Endocrine</td>
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<td>Nervous</td>
<td>Digestive</td>
</tr>
</tbody>
</table>
19) Gas exchange between air and blood.
20) Larynx, trachea, bronchi, and lungs.

3. Directional Terms

Provide the term that correctly completes each statement.
1) The head is _____ to the neck.
2) The hand is _____ to the wrist.
3) The skin is _____ to the muscles.
4) The mouth is _____ to the nose.
5) The elbow is _____ to the wrist.
6) The ear is on the _____ surface of the head.
7) The umbilicus is on the _____ body surface.
8) The hip is on the _____ body surface.
9) The buttocks are on the _____ body surface.

4. Body Regions

Label the body regions by placing the number of the label line in the space by the correct label.

- Superior
- Distal
- Exterior (superficial)
- Inferior
- Proximal
- Lateral
- Anterior (ventral)
- Lateral
- Posterior (dorsal)

5 Abdominal
7 Abdominopelvic
20 Antebrachial
4 Antecubital
2 Axillary
3 Brachial
8 Carpal
16 Cephalic
1 Cervical
21 Cranial
14 Cranial
12 Crural
10 Digital
15 Facial
11 Genital
19 Inguinal
9 Palmar
22 Patellar
18 Pectoral
23 Pedal
6 Pelvic
17 Sternal
13 Tarsal
5. Body Planes and Sections

Name the planes that match the statements.

1) Divides the body into equal left and right halves.

2) Divides the body into superior and inferior portions.

3) Divides the body into left and right portions.

4) Divides the body into anterior and posterior portions.

- Midsagittal
- Transverse
- Sagittal
- Coronal (frontal)
6. Body Cavities

a. Label the body cavities and related structures by placing the number of the label line in the space by the correct label.

**Cavities**

4 Abdominal
6 Abdominopelvic
5 Pelvic
2 Pericardial
1 Pleural
3 Thoracic
7 Ventral

**Structures**

10 Diaphragm
9 Parietal pericardium
11 Parietal peritoneum
8 Parietal pleura
b. Place the number of the cavity in which the organ occurs in the space by the organ.

1) Abdominal  3) Pelvic  5) Thoracic, lateral parts  
2) Cranial  4) Vertebral canal  6) Thoracic, mediastinum  

  2  Brain  
  1  Kidneys  
  1  Gallbladder  
  1  Liver  
  6  Heart  
  5  Lungs  
  6  Heart, small  
  1  Pancreas  
  3  Urinary bladder  
  3  Rectum  

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c. Write the names of the membranes that match the statements in the spaces at the right.

1) Covers the heart.  
   Visceral pericardium  

2) Covers the stomach.  
   Visceral peritoneum  

3) Lines the abdominal cavity.  
   Parietal peritoneum  

4) Covers the brain.  
   Meninges  

5) Lines the thoracic cavity.  
   Parietal pleurae  

6) Lines the spinal cavity.  
   Meninges  

7) Cover the lungs.  
   Visceral pleurae  

8) Forms double-membrane sac around heart.  
   Parietal pericardium  

9) Double-layered membranes supporting abdominal organs.  
   Mesenteries  

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7. Abdominopelvic Subdivisions

Select the abdominopelvic quadrant and abdominopelvic region in which the following structures are located.

<table>
<thead>
<tr>
<th>Quadrants</th>
<th>Regions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Right upper</td>
<td>5. Epigastric</td>
</tr>
<tr>
<td>2. Left upper</td>
<td>6. Hypogastric</td>
</tr>
<tr>
<td>3. Right lower</td>
<td>7. Left hypochondriac</td>
</tr>
<tr>
<td>4. Left lower</td>
<td>8. Left iliac</td>
</tr>
<tr>
<td>9. Left lumbar</td>
<td>10. Right hypochondriac</td>
</tr>
<tr>
<td>11. Right iliac</td>
<td></td>
</tr>
<tr>
<td>12. Right lumbar</td>
<td></td>
</tr>
<tr>
<td>13. Umbilical</td>
<td></td>
</tr>
</tbody>
</table>

- 1, 5, 7 Gallbladder  
- 2, 7 Spleen  
- 3, 6, 13 Right kidney  
- 6, 13 Appendix  

8. Maintenance of Life

Write the terms that match the statements in the spaces at the right.

1) Maintenance of a dynamic balance of substances in body fluids.  
   Homeostasis  

2) The sum of all life processes.  
   Metabolism  

3) Breakdown of complex substances.  
   Catabolism  

4) Synthesis of complex substances.  
   Anabolism  

5) Maintenance of a relatively stable internal environment.  
   Homeostasis
6) Sum of the chemical reactions that occur in the body.

7) List the five basic needs essential for human life.

- Metabolism
- Food
- Water
- Oxygen
- Body temperature
- Atmospheric pressure

9. Clinical Applications

a. A patient complains of pain in the epigastric region. What organs may be involved?
   **Gall bladder, liver, pancreas, or stomach**

b. A patient complains of pain in the right lower quadrant. What organs may be involved?
   **Appendix, cecum, ascending colon, or small intestine**