

#### Chapter 4

- 1) A \_\_\_\_\_ is a group of similar cells that usually have a similar embryological origin and are specialized for a particular function.
- 2) The science that deals with the study of tissues is called \_\_\_\_\_.
- 3) \_\_\_\_\_, physicians who specialize in laboratory studies of cells and tissues, aid other physicians in making diagnoses; they also perform autopsies.
- 4) Depending on their function and structure, the various tissues of the body are classified into four principal types.
  1. \_\_\_\_\_ tissue covers body surfaces, lines hollow organs, body cavities, and ducts; and forms glands.
  2. \_\_\_\_\_ tissue protects and supports the body and its organs, binds organs together, stores energy reserves as fat, and provides immunity.
  3. \_\_\_\_\_ tissue is responsible for movement and generation of force.
  4. \_\_\_\_\_ tissue initiates and transmits action potentials (nerve impulses) that help coordinate body activities.
- 5) All tissues and organs of the body develop from one or more of the three primary germ layers: \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
- 6) In a \_\_\_\_\_, samples of living tissue removed for microscopic examination, is a chief responsibility of a pathologist
- 7) Cell \_\_\_\_\_ are points of contact between adjacent plasma membranes.
- 8) Depending on their structure, cell junctions may serve one of three functions.
  1. Some cell junctions form \_\_\_\_\_-tight seals between cells.
  2. Other cell junctions \_\_\_\_\_ cells together or to extracellular material.
  3. Still others act as \_\_\_\_\_, which allow ions and molecules to pass from cell to cell within a tissue.

C. The five most important kinds of cell junctions are tight junctions, adherens junctions, desmosomes, hemidesmosomes, and gap junctions
- 9) \_\_\_\_\_ junctions are formed by weblike strands of transmembrane proteins that hold adjacent plasma membranes together. They are common among epithelial cells that line the stomach, intestines, and urinary bladder
- 10) \_\_\_\_\_ junctions are made of plaque, actin microfilaments, and cadherins.

Tissue Histology Pathologists Epithelial Connective Muscle Nervous Ectoderm Endoderm Mesoderm biopsy junctions fluid anchor channels Tight Adherens
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