

Practice Questions – Cells, Tissues, and Skin

Note: choices may be used more than once or not at all.

1-5. Matching

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|--------------------------|--|-----------------|
| A) Nucleus | transport synthesized substances throughout the cell | 1) <u> E </u> |
| B) Ribosomes | package synthesized substances for secretion | 2) <u> D </u> |
| C) Mitochondria | produce ATP from glucose and fatty acids | 3) <u> C </u> |
| D) Golgi Apparatus | site for protein synthesis in the cytoplasm | 4) <u> B </u> |
| E) Endoplasmic Reticulum | contains the genetic DNA code | 5) <u> A </u> |

6-10. Matching

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|---|---------------------------|------------------|
| A) Side of plasma membrane facing the cytoplasm | hydrophilic | 6) <u> D </u> |
| B) Side of plasma membrane facing outside | hydrophobic | 7) <u> C </u> |
| C) Interior of plasma membrane | contains lipids | 8) <u> C </u> |
| D) <i>A and B</i> | contains receptors | 9) <u> B </u> |
| | contains phosphate groups | 10) <u> D </u> |

11-15. Matching

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|----------------------------|--|------------------|
| A) Connective tissue cells | have membranes | 11) <u> E </u> |
| B) Epithelial cells | cells secrete a matrix material | 12) <u> A </u> |
| C) Muscle cells | cells are specialized to shorten | 13) <u> C </u> |
| D) Neurons | cells are tightly connected together | 14) <u> B </u> |
| E) All of the above | cells are specialized to conduct signals | 15) <u> D </u> |

16-20. Matching

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|--|--|------------------|
| A) Transitional Epithelium | line exocrine glands, ducts, renal tubules | 16) <u> B </u> |
| B) Simple Cuboidal Epithelium | line body cavities and blood vessels | 17) <u> D </u> |
| C) Simple Columnar Epithelium | line respiratory airways | 18) <u> E </u> |
| D) Simple Squamous Epithelium | line ureter and bladder | 19) <u> A </u> |
| E) Pseudostratified Ciliated Columnar Epithelium | line digestive tract | 20) <u> C </u> |

21-25. Matching

- | | | |
|--|-----------------------------|------------------|
| A) Pseudostratified Ciliated Columnar Epithelium | sweep away debris | 21) <u> A </u> |
| B) Stratified Squamous Epithelium | provide(s) a barrier | 22) <u> E </u> |
| C) Simple Squamous Epithelium | often found in glands | 23) <u> D </u> |
| D) Simple Cuboidal Epithelium | easiest to diffuse through | 24) <u> C </u> |
| E) All of the above | found in skin and esophagus | 25) <u> B </u> |

26-30. Matching

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|------------------------------------|--|------------------|
| A) Dense regular connective tissue | accumulates lipids | 26) <u> D </u> |
| B) Areolar connective tissue | contains chondroitin | 27) <u> C </u> |
| C) Hyaline cartilage | contains calcium phosphate | 28) <u> E </u> |
| D) Adipose tissue | contains mainly collagen protein fibers | 29) <u> A </u> |
| E) None of the above | contains elastin and collagen protein fibers | 30) <u> B </u> |

31-35. Matching

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|---------------------------------|------------------------------------|------------------|
| A) Fibroblasts / Fibrocytes | found in Fibrous Connective Tissue | 31) <u> A </u> |
| B) Adipocytes | found in Hyaline cartilage | 32) <u> D </u> |
| C) Osteocytes / osteoblasts | found in Osseous Tissue | 33) <u> C </u> |
| D) Chondrocytes / chondroblasts | found in Adipose Tissue | 34) <u> B </u> |
| | found in hypodermis | 35) <u> B </u> |

36-40. Matching

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|---------------------------------|--|------------------|
| A) Fibroblasts | found in papillary layer of the dermis | 36) <u> A </u> |
| B) Adipocytes | produce mainly collagen fibers | 37) <u> A </u> |
| C) Osteocytes / osteoblasts | produce calcium phosphate | 38) <u> C </u> |
| D) Chondrocytes / chondroblasts | produce chondroitin sulfate | 39) <u> D </u> |
| | found in the hypodermis | 40) <u> B </u> |

41-45. Matching

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|--------------------------------------|---------------------------------------|------------------|
| A) Dense irregular connective tissue | often called "fat" | 41) <u> D </u> |
| B) Areolar connective tissue | contains elastic fibers | 42) <u> B </u> |
| C) Hyaline cartilage | found under most epithelium | 43) <u> B </u> |
| D) Adipose tissue | often found under areolar CT | 44) <u> A </u> |
| | found at end of joints and in trachea | 45) <u> C </u> |

46-50. Matching

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|----------------------|--|------------------|
| A) Thin skin | epidermis is thin | 46) <u> A </u> |
| B) Thick skin | epidermis is thick | 47) <u> B </u> |
| C) None of the above | often contains hair follicles | 48) <u> A </u> |
| | Areolar connective tissue layer of dermis is <i>thin and obscure</i> | 49) <u> A </u> |
| | Areolar connective tissue layer of dermis is <i>usually visible</i> | 50) <u> B </u> |

51-55. Matching

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|-------------------------|--|------------------|
| A) Stratum Lucidum | composed of dead cells filled with Keratin | 51) <u> B </u> |
| B) Stratum Corneum | contains cells that are cuboidal in shape | 52) <u> E </u> |
| C) Stratum Spinosum | nuclei and organelles disappear' | 53) <u> A </u> |
| D) Stratum Granulosum | contains cells that are 'growing | 54) <u> E </u> |
| E) Stratum Germinativum | keratohyalin is formed here | 55) <u> D </u> |

56-60. Matching

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|------------------------------|--|------------------|
| A) Papillary layer of Dermis | origin of hair follicles | 56) <u> D </u> |
| B) Reticular layer of Dermis | contains blood vessels | 57) <u> E </u> |
| C) Hypodermis | composed of adipose tissue | 58) <u> C </u> |
| D) Epidermis | composed of areolar connective tissue | 59) <u> A </u> |
| E) A, B and C | composed of stratified squamous epithelium | 60) <u> D </u> |

61-65. Matching

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|---------------------------|---|------------------|
| A) Merocrine sweat glands | secrete into hair follicles | 61) <u> B </u> |
| B) Sebaceous glands | anatomically are bulb-like glands | 62) <u> B </u> |
| C) Hair follicles | secrete sweat onto surface of epidermis | 63) <u> A </u> |
| D) A and B | are a continuation of the 'epidermis' into the dermis | 64) <u> C </u> |
| E) None of the above | anatomically are simple coiled tubular glands | 65) <u> A </u> |