There are 70 questions on this midterm. Each question is worth 2 points. The maximum score is 140. You have 120 minutes to complete the exam. Answer all questions to the best of your ability. Show your work where applicable. Partial credit may be awarded for incomplete answers. Good luck!

Question 1: Which of the following is a primary function of the cardiovascular system?

A) Digestion of food
B) Transport of oxygen and nutrients
C) Production of hormones
D) Regulation of body temperature

Question 2: What is the term for the study of the structure of body parts and their relationships to one another?

A) Physiology
B) Anatomy
C) Histology
D) Pathology

Question 3: Which of the following is NOT a component of blood?

A) Red blood cells
B) White blood cells
C) Platelets
D) Neurons

Question 4: The process by which cells break down glucose to release energy is called:

A) Photosynthesis
B) Glycolysis
C) Fermentation
D) Respiration

Question 5: Which of the following is a function of the liver?

A) Production of bile
B) Storage of glycogen
C) Detoxification of harmful substances
D) All of the above

Question 6: What is the primary function of the kidneys?

A) Filtration of blood
B) Production of urine
C) Regulation of electrolyte balance
D) All of the above

Question 7: Which of the following is a type of muscle tissue?

A) Skeletal muscle
B) Cardiac muscle
C) Smooth muscle
D) All of the above

Question 8: What is the term for the movement of substances from an area of high concentration to an area of low concentration?

A) Osmosis
B) Diffusion
C) Active transport
D) Facilitated diffusion

Question 9: Which of the following is a function of the skeletal system?

A) Support
B) Protection
C) Movement
D) All of the above

Question 10: What is the term for the study of the function of body parts and how they work together?

A) Anatomy
B) Physiology
C) Histology
D) Pathology

Question 11: Which of the following is a type of joint?

A) Hinge joint
B) Ball-and-socket joint
C) Pivot joint
D) All of the above

Question 12: What is the primary function of the respiratory system?

A) Exchange of oxygen and carbon dioxide
B) Production of hormones
C) Regulation of body temperature
D) Digestion of food

Question 13: Which of the following is a function of the nervous system?

A) Control of body movements
B) Regulation of body temperature
C) Production of hormones
D) All of the above

Question 14: What is the term for the study of the structure of tissues?

A) Anatomy
B) Physiology
C) Histology
D) Pathology

Question 15: Which of the following is a type of epithelial tissue?

A) Simple squamous epithelium
B) Stratified squamous epithelium
C) Simple cuboidal epithelium
D) All of the above

Question 16: What is the primary function of the digestive system?

A) Breakdown of food
B) Absorption of nutrients
C) Elimination of waste
D) All of the above

Question 17: Which of the following is a function of the endocrine system?

A) Production of hormones
B) Regulation of body temperature
C) Control of body movements
D) Digestion of food

Question 18: What is the term for the study of the function of tissues?

A) Anatomy
B) Physiology
C) Histology
D) Pathology

Question 19: Which of the following is a type of connective tissue?

A) Bone tissue
B) Cartilage tissue
C) Blood tissue
D) All of the above

Question 20: What is the primary function of the reproductive system?

A) Production of offspring
B) Production of hormones
C) Regulation of body temperature
D) Digestion of food

Question 21: Which of the following is a function of the lymphatic system?

A) Transport of lymph
B) Production of lymphocytes
C) Filtration of blood
D) All of the above

Question 22: What is the term for the study of the structure of organs?

A) Anatomy
B) Physiology
C) Histology
D) Pathology

Question 23: Which of the following is a type of muscle contraction?

A) Isometric contraction
B) Isotonic contraction
C) Concentric contraction
D) All of the above

Question 24: What is the primary function of the integumentary system?

A) Protection of body surfaces
B) Regulation of body temperature
C) Production of hormones
D) Digestion of food

Question 25: Which of the following is a function of the urinary system?

A) Filtration of blood
B) Production of urine
C) Regulation of electrolyte balance
D) All of the above

Question 26: What is the term for the study of the function of organs?

A) Anatomy
B) Physiology
C) Histology
D) Pathology

Question 27: Which of the following is a type of bone tissue?

A) Compact bone tissue
B) Spongy bone tissue
C) Cartilage tissue
D) All of the above

Question 28: What is the primary function of the skeletal system?

A) Support
B) Protection
C) Movement
D) All of the above

Question 29: Which of the following is a function of the muscular system?

A) Movement
B) Support
C) Protection
D) All of the above

Question 30: What is the term for the study of the structure of cells?

A) Anatomy
B) Physiology
C) Histology
D) Pathology

Question 31: Which of the following is a type of cell?

A) Prokaryotic cell
B) Eukaryotic cell
C) Archaeal cell
D) All of the above

Question 32: What is the primary function of the cell membrane?

A) Protection of the cell
B) Regulation of cell growth
C) Production of energy
D) Storage of genetic information

Question 33: Which of the following is a function of the cytoplasm?

A) Production of energy
B) Storage of genetic information
C) Regulation of cell growth
D) All of the above

Question 34: What is the term for the study of the function of cells?

A) Anatomy
B) Physiology
C) Histology
D) Pathology

Question 35: Which of the following is a type of genetic material?

A) DNA
B) RNA
C) Protein
D) All of the above

Question 36: What is the primary function of the nucleus?

A) Storage of genetic information
B) Regulation of cell growth
C) Production of energy
D) Protection of the cell

Question 37: Which of the following is a function of the mitochondria?

A) Production of energy
B) Storage of genetic information
C) Regulation of cell growth
D) All of the above

Question 38: What is the term for the study of the structure of genes?

A) Anatomy
B) Physiology
C) Genetics
D) Pathology

Question 39: Which of the following is a type of gene mutation?

A) Point mutation
B) Frameshift mutation
C) Deletion mutation
D) All of the above

Question 40: What is the primary function of the ribosome?

A) Protein synthesis
B) Storage of genetic information
C) Regulation of cell growth
D) Production of energy

Question 41: Which of the following is a function of the endoplasmic reticulum?

A) Protein synthesis
B) Storage of genetic information
C) Regulation of cell growth
D) All of the above

Question 42: What is the term for the study of the function of genes?

A) Anatomy
B) Physiology
C) Genetics
D) Pathology

Question 43: Which of the following is a type of chromosome?

A) Autosome
B) Sex chromosome
C) Both A and B
D) Neither A nor B

Question 44: What is the primary function of the Golgi apparatus?

A) Protein modification and packaging
B) Storage of genetic information
C) Regulation of cell growth
D) Production of energy

Question 45: Which of the following is a function of the lysosome?

A) Digestion of cellular waste
B) Storage of genetic information
C) Regulation of cell growth
D) All of the above

Question 46: What is the term for the study of the structure of chromosomes?

A) Anatomy
B) Physiology
C) Genetics
D) Pathology

Question 47: Which of the following is a type of DNA replication?

A) Semi-conservative replication
B) Conservative replication
C) Dispersive replication
D) All of the above

Question 48: What is the primary function of the peroxisome?

A) Detoxification of harmful substances
B) Storage of genetic information
C) Regulation of cell growth
D) Production of energy

Question 49: Which of the following is a function of the cytoskeleton?

A) Maintenance of cell shape
B) Storage of genetic information
C) Regulation of cell growth
D) All of the above

Question 50: What is the term for the study of the function of chromosomes?

A) Anatomy
B) Physiology
C) Genetics
D) Pathology

Question 51: Which of the following is a type of RNA?

A) mRNA
B) tRNA
C) rRNA
D) All of the above

Question 52: What is the primary function of the centrosome?

A) Organization of microtubules
B) Storage of genetic information
C) Regulation of cell growth
D) Production of energy

Question 53: Which of the following is a function of the vacuole?

A) Storage of water and nutrients
B) Storage of genetic information
C) Regulation of cell growth
D) All of the above

Question 54: What is the term for the study of the structure of proteins?

A) Anatomy
B) Physiology
C) Biochemistry
D) Pathology

Question 55: Which of the following is a type of protein?

A) Enzyme
B) Hormone
C) Structural protein
D) All of the above

Question 56: What is the primary function of the chloroplast?

A) Photosynthesis
B) Storage of genetic information
C) Regulation of cell growth
D) Production of energy

Question 57: Which of the following is a function of the cell wall?

A) Protection of the cell
B) Regulation of cell growth
C) Production of energy
D) Storage of genetic information

Question 58: What is the term for the study of the function of proteins?

A) Anatomy
B) Physiology
C) Biochemistry
D) Pathology

Question 59: Which of the following is a type of carbohydrate?

A) Monosaccharide
B) Disaccharide
C) Polysaccharide
D) All of the above

Question 60: What is the primary function of the flagellum?

A) Movement of the cell
B) Storage of genetic information
C) Regulation of cell growth
D) Production of energy

Question 61: Which of the following is a function of the cilia?

A) Movement of the cell
B) Storage of genetic information
C) Regulation of cell growth
D) All of the above

Question 62: What is the term for the study of the structure of lipids?

A) Anatomy
B) Physiology
C) Biochemistry
D) Pathology

Question 63: Which of the following is a type of lipid?

A) Triglyceride
B) Phospholipid
C) Steroid
D) All of the above

Question 64: What is the primary function of the pseudopodium?

A) Movement of the cell
B) Storage of genetic information
C) Regulation of cell growth
D) Production of energy

Question 65: Which of the following is a function of the microvilli?

A) Increase surface area for absorption
B) Storage of genetic information
C) Regulation of cell growth
D) All of the above

Question 66: What is the term for the study of the function of lipids?

A) Anatomy
B) Physiology
C) Biochemistry
D) Pathology

Question 67: Which of the following is a type of nucleic acid?

A) DNA
B) RNA
C) Both A and B
D) Neither A nor B

Question 68: What is the primary function of the centriole?

A) Organization of microtubules
B) Storage of genetic information
C) Regulation of cell growth
D) Production of energy

Question 69: Which of the following is a function of the nucleolus?

A) Production of ribosomes
B) Storage of genetic information
C) Regulation of cell growth
D) All of the above

Question 70: What is the term for the study of the structure of nucleic acids?

A) Anatomy
B) Physiology
C) Biochemistry
D) Pathology