PHYSIOLOGY: CONTROLLING & COORDINATING SYSTEM

CC-6

UNIT-I

Fill in the blanks 1 marks

1. _____ tissue forms the coverings or outer cover of organs.
2. Epithelial tissues lack _____.
3. Exchange of substances between epithelium and connective tissue occurs by _____ process.
4. _____ are the modified columnar epithelial cells.
5. Salivary and pancreas are _____ glands.
6. _____ is an example of apocrine secretion.
7. Sebaceous gland of skin is a _____ gland.
8. _____ connective tissue is avascular.
9. _____ is the mother of all connective tissues.
10. _____ tissue stores fat.
11. The cells of matured cartilage is called _____.
12. Cartilage is covered by _____.
13. Anti-angiogenesis factors is secreted by _____.
14. The mature bone cells are called _____.
15. _____ form the bone matrix.

Answer the followings. 1.5/2.5marks

1. Define tissue. Write its importance.
2. Classify tissues.
3. Write the characters of epithelial tissue.
4. Write the functions of epithelial tissues.
5. Classify epithelial tissue basing on arrangement of cell layers.
6. Write the characters, location of simple squamous epithelium.
7. Describe the characters of non-ciliated epithelial cells with its functions.
8. What are merocrine glands?
9. Write the types of exocrine secretions.
10. Write the characters of connective tissues.
11. Write the physiological importance of adipose tissue.
12. Differentiate tendons from ligaments.

Long answer questions. 6 marks

1. Define tissue. Write the types, structure and location of different epithelial tissues.
2. Write the structure and types of bones and cartilages.
3. Describe different types of connective tissues.

UNIT-II

Muscle & Nervous system

Fill in the blanks 1 marks

1. Neurons are nourished by _____.
2. Number of axons present in bipolar neuron is _____.
3. Gaps in myelin sheath are termed as _____.
4. The anterior segment of eye is filled by _____.
5. Vertebrate lens proteins are _____.
6. The middle layer of eye ball is _____.
7. Bright light vision is mediated by _____.
8. Number of bones in the middle ear is _____.
9. _____ is named as labyrinth.
10. Eustachian tube connects to _____.

Answer the followings. 1.5/2.5marks

1. Draw skeletal muscle sarcomere.
2. Draw a myelinated neuron.
3. What is resting membrane potential?
4. What is action potential?
5. What are synapses?
6. What is reflex action?
7. Draw a reflex path.
8. Write the parts of a neuron.
9. Write the factors affecting speed of nerve impulse.

Long answer questions. 6 marks

1. Write the molecular and chemical basis of muscle contraction.
2. Write the propagation of action potential across the myelinated nerve.
3. What is synapses? Write different types of synapses.
4. Write the physiology of hearing.
5. Write the physiology of vision.

UNIT-III

Reproductive system

Fill in the blanks 1 marks

1. _____ holds the testis in its position.
2. _____ separates scrotum into two lateral partitions externally.
3. Scrotal septum is composed of _____.
4. The cells that carry out spermatogenesis are _____.
5. _____ forms the blood testes barrier.
6. Testosterone secreting cells are _____.

Answer the followings. 1.5/2.5marks

1. Define reproduction. Write different kinds of reproduction.
2. Write the functions of male reproductive system
3. Write the role of scrotum in male reproduction.
4. Write the structural components of a seminiferous tubule.
5. What is blood- testis barrier?

Long answer questions. 6 marks

1. Describe the physiology of male reproductive system.
2. Describe the physiology of female reproductive system
3. Describe the ovarian cycle (menstrual cycle).
4. Write the methods of contraception in males and females.

UNIT-IV

Fill in the blanks 1 marks

1. The chemicals secreted by endocrine glands are _____.
2. Hormones act on _____.
3. Catecholamines are synthesized by modifying amino acid _____.
4. Steroid hormones are derived from _____.
5. Serotonin and melatonin are derived from _____.
6. Hypothalamus is a _____ gland.
7. The stimulatory secretions of hypothalamus is called _____ hormones.
8. _____ hormone from hypothalamus inhibits the release of growth hormone from the pituitary.
9. Factors released from hypothalamus reach the pituitary gland via _____.
10. _____ part of hypothalamus is concerned with sleep.
11. Pituitary gland is located in _____.

Answer the followings. 1.5/2.5marks

1. Define endocrine glands.
2. Differentiate the endocrine glands from exocrine glands.
3. Define hormones.
4. What are lipid soluble hormones?
5. How hypothalamus controls pituitary secretions?
6. Write the role of thyrotropin releasing hormone.
7. Why pituitary is called master gland?
8. What is the fate of hormones in the body?
9. Write the cause and important symptoms of goitre.
10. Differentiate hormones and enzymes.

Long answer questions. 6 marks

1. Describe the structure and function of pituitary/ thyroid/ pancreases/ adrenal gland.
2. Classify hormones. Write the mechanism of hormone action.