

**SSR DEGREE COLLEGE, NIZAMABAD (5029)**  
**DEPARTMENT OF MEDICAL LAB TECHNOLOGY (MLT)**  
**SEMESTER – II, Descriptive Questions**  
**Paper- Human Physiology II**

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**UNIT – I: Physiology of Muscular, Skeleton and Integumentary system**

**Short Questions (4 Marks)**

1. Define Muscle contraction
2. What is Sliding Filament Theory?
3. List any four functions of the skeletal system.
4. Define integumentary system.
5. Write two functions of hair.

**Essay Questions (10 Marks)**

1. Describe the mechanism of muscle contraction according to the Sliding Filament Theory with a neat diagram.
2. Explain the functions of the skeletal system.
3. Describe the physiology of the integumentary system with reference to skin colour, hair and nail growth.
4. Discuss the age-related physiological changes in muscular, skeletal and integumentary systems.

**UNIT – II: Physiology of Reproductive System**

**Short Questions (4 Marks)**

1. Define fertilization.
2. What is parturition?
3. Hormones involved in parturition.
4. Spermatogenesis.
5. Oogenesis.
6. What is the menstrual cycle?
7. What is ovulation?
8. Name the phases of female sexual cycle.

**Essay Questions (10 Marks)**

1. Describe the mechanism of fertilization events.
2. Explain the physiology of parturition (birth).
3. Describe spermatogenesis and oogenesis in detail.
4. Explain the physiology of female sexual cycles.

## **UNIT – III: Physiology of Nervous System**

### **Short Questions (4 Marks)**

1. Nerve impulse
2. Neurotransmitters
3. Synapse
4. Synaptic transmission.
5. Sympathetic nervous system.
6. Parasympathetic nervous system.

### **Essay Questions (10 Marks)**

1. Describe the propagation of nerve impulse and its pathway.
2. Explain neurotransmitters and their functions.
3. Describe synapse types and synaptic transmission.
4. Explain the autonomic nervous system with reference to sympathetic and parasympathetic divisions.

## **UNIT – IV: Physiology of Special Senses and Endocrine System**

### **Short Questions (4 Marks)**

1. Refraction of light
2. Define hearing
3. Define hormone
4. What are peptide hormones
5. Mention two mechanisms of hormone action

### **Essay Questions (10 Marks)**

1. Describe the pathway of light through the eye and mechanism of light refraction.
2. Explain the mechanism of hearing.
3. Describe the chemistry of hormones including classification and types.
4. Explain the mechanism of hormone action and control of hormone release.