

# **RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER**

## **SYLLABUS OF SCREENING TEST FOR THE POST OF SENIOR DEMONSTRATOR – ANATOMY MEDICAL EDUCATION DEPARTMENT**

### **Unit –I**

#### **General Anatomy**

**Anatomical Terminology** - Anatomical position , Terms of Position & movement.

**Skin & Fascia** – Different types of skin, Dermatomes in body, Skin appendages & Skin Incisions. Superficial fascia , Deep fascia & its modifications.

**Muscle** – Classification of muscles, Differentiate between Tendons & aponeurosi, Shunt & Spurt muscle.

**Nervous System** – Components of Central, Peripheral & Autonomic nervous system, Neurons & Neuroglia, Typical Spinal nerve & Synapse, Sympathetic & Spinal Ganglia.

**Bones & joints** – Classification & Ossification of Bones, Various types of cartilage, Classification of Joints.

**Glands** – Exocrine & Endocrine glands- classification & function, Vascular & Lymphatic system – General features of arteries, Veins, lymphatics, portal system, arterial anastomoses, Define thrombosis, infarction & aneurysm.

### **Unit- II**

**Osteology** – Structure, attachment, relations, ossification, age changes & blood supply of all bones & cartilages.

### **Unit- III**

**Myology** – Attachment, action, nerve supply & vascular supply, relation of important muscles.

### **Unit –IV**

**Arthology** – Structure, relation, movements, Vascular , nerve supply & applied anatomy of joints.

### **Unit –V**

**Cardio-Vascular & lymphatic System** – Pericardium, External & Internal features of all the chambers of Heart, Blood supply, Nerve Supply ,Fibrous Skeleton & Anatomical Basis of Ischemic Heart Disease, Lymphatic Drainage of all parts & organs of the body. Position & Relations of various groups of lymph-nodes . Major lymph vessels of the body.

## **Unit- VI**

**Neuroanatomy** – Meanings of Brain & Spinal cord. Formation & Circulation of Cerebrospinal fluid, External & Internal features of all Subdivisions of Brain. Cortical & nuclear connections, Ventricles & cisterns, Commissures, Blood supply of Brain, Cranial nerves- Functional components , nuclei , course, relations, branches , distribution & applied aspects, Spinal nerves, Tracts of Spinal cord.

## **Unit- VII**

**Special Senses** – Anatomy of peripheral receptors of Taste, Smell, Vision, Hearing & Touch and their central connections, pathways functions & applied aspect.

## **Unit- VIII**

**Splanchnology** – Gross Anatomy of all viscera & organs including – Respiratory, Digestive, Urogenital, lymphoid organs, Endocrine & Exocrine glands.

## **Unit-IX**

**Embryology** – General embryology – Cell division, Gametogenesis, Formation & Maturation of Germ cells, Fertilization, Segmentation & Implantation, Foetal membranes & Twinning, Placenta and Foetal Circulation, Regional Embryology – Including – process of Development of various Tissues & organs of Body Factors influencing differentiations of various structures including organizers, Factors leading to Congenital Anomalies & their causation & effects. Prenatal Diagnosis.

## **Unit-X**

**Microanatomy** – Microscope – Types & parts, Study of histological features of all the cells, tissues & organs of the body.

## **Unit- XI**

**Applied Anatomy-** Related to Surgery, medicine, Obstetric & Gynaecology and ophthalmology branches of medical science.

## **Unit- XII**

**Functional Anatomy** – Relationship of structures & function in respect to various Tissues & organs of the body.

## **Unit- XIII**

**Living Anatomy** – Surface Anatomy, Understanding the principles of newer Imaging Techniques and Interpretation of CT, MRI and Endoscopic Anatomy.

## **Unit- XIV**

**Sectional Anatomy** – Cross / Sagittal / Coronal Sections of Brain, Head & neck, Thorax, Abdomen, Pelvis & Limbs to understand inter-relation of organs & interpretation with CT & MRI.

**Unit- XV**

**Genetics** – Structure & Significance of chromosomes, DNA & RNA, Mendelian laws of Inheritance. Karyotyping, Chromosomal aberrations, Mosaicism, Genetic Counselling, Teratology.

**Unit- XVI**

**Recent Advances-** Basic knowledge of Plastination .

**Unit- XVII**

**Radio Diagnosis** - Identification of Plain X-rays, special radiographic procedures and Arteriography.

**Unit-XVIII**

**Embalming and Body / Organ donation** – Basic knowledge.

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Note:- Pattern of Question Paper

1. Objective type paper.
2. Maximum Marks : 180
3. Number of Questions : 180
4. Duration of Paper : Three Hours.
5. All questions carry equal marks .
6. There will be Negative marking.

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