

## ANNEXURE – III

**SCHEME AND SYLLABUS FOR THE POST OF CIVIL ASSISTANT SURGEONS IN  
INSURANCE MEDICAL SURGEONS**

**Scheme of Examination**

<b>Part-A:WRITTEN EXAMINATION (Objective Type)</b>	<b>No.of Questions</b>	<b>Duration (Minutes)</b>	<b>Maximum Marks</b>
Paper-I: General Studies and General Abilities	<b>150</b>	<b>150</b>	<b>150</b>
Paper-II: Medical Science And General Medicine (Degree Level)	<b>150</b>	<b>150</b>	<b>300</b>
<b>Part-B:Interview</b>			<b>50</b>
		<b>Total</b>	<b>500</b>

**Syllabus**

**PAPER-I: GENERAL STUDIES AND GENERAL ABILITIES**

1. Current Affairs: International, National and State.
2. Society, Heritage and Culture, Polity, Economy, Human Development Indices and the Development Programmes in India and Telangana.
3. Natural Resources in India and Telangana: their distribution, exploitation, conservation and related issues.
4. Basic concepts of Ecology and Environment and their impact on health and economy; Disasters and Disaster management.
5. Impact of changing demographic trends on health, environment and society.
6. Agriculture, Industry, Trade, Transportation and Service sectors in India and Telangana.
7. Food adulteration, Food processing, food distribution, food storage and their relevance to public health.
8. Recent trends in Science and Technology.
9. Telangana Statehood movement and formation of Telangana State.
10. Moral values and Professional ethics.
11. Logical Reasoning: Analytical Ability and Data Interpretation.

## PAPER-II: MEDICAL SCIENCE AND GENERAL MEDICINE

### 1. Anatomy

The subject deals with the structure of human body. The curriculum for subject is as follow:

- General Anatomy
- Regional Anatomy
  - Upper limb
  - Lower limb
  - Abdomen and Pelvis
  - Thorax
  - Head & Neck
  - Spinal Cord & Brain
- Micro-Anatomy
  - General Histology
  - Systemic Histology
- Developmental Anatomy
  - General Embryology
  - Systemic Embryology
- Genetics
- Radiological Anatomy, USG, CT, MRI
- Surface Anatomy, Living & Marking

### 2. Physiology

- General Physiology.
- Hematology
- Nerve
- Muscle
- Respiratory Physiology
- Cardiovascular Physiology
- Renal Physiology
- Body Temperature Regulation
- Alimentary System
- Nutrition
- Endocrine System
- Reproductive Physiology
- Special Senses: Eye, Ear, Taste, Smell
- Central Nervous System
- Bio Physics
- Environmental Physiology

### 3. Bio CHEMISTRY

- Molecular and functional organization of a cell and its sub-cellular components.
- Chemistry of enzymes and their clinical applications.
- Chemistry and metabolism of proteins and related disorders.
- Chemistry and metabolism of purines and pyrimidines and related disorders.
- Chemistry and functions of DNA and RNA, Genetic code; Protein bio synthesis & regulation (Lac-operon)
- The principles of genetic engineering and their applications in medicine.
- Chemistry and Metabolism of haemoglobin.
- Biological oxidation.
- Molecular concept of body defense and their applications in medicine.
- Vitamins and Nutrition.
- Chemistry and metabolism of carbohydrates and related disorders.
- Chemistry and metabolism of lipids and related disorders.
- Mineral metabolism: Water and electrolyte balance & imbalance.
- Acid base balance and imbalance.
- Integration of various aspects of metabolism and their regulatory pathways. Starvation metabolism.
- Mechanism of hormone action.
- Environmental biochemistry.
- Liver function tests, Kidney function tests, Thyroid function tests
- Detoxification mechanisms.
- Biochemical basis of cancer and carcinogenesis.

- Radioisotopes.
- Investigation techniques Colorimeter, Electrophoresis, Chromatography & Flame photometer.

#### **4. Pathology**

- General Pathology
- Haematology
- Systemic Pathology
- Clinical Pathology
- Autopsy

#### **5. Microbiology**

- General Microbiology
- Immunology
- Systemic Bacteriology
- Mycology
- Virology
- Parasitology

#### **6. Pharmacology**

- Introduction to Pharmacology
- General Pharmacology:
- Autonomic Pharmacology:
- Cardiovascular System Including Drugs Affecting Coagulation and Those Acting On Kidneys:
- Haematinics and Haematopoietic Factors:
- Neuropsychiatric Pharmacology Including Inflammation, Pain & Substance Abuse
- Chemotherapy Including Cancer Chemotherapy:
- Endocrinology:
- Agents Used In Gastrointestinal Disorders:
- Peri operative Management
- Rational Pharmacotherapy:
- Miscellaneous Topics:  
Anti Allergies, Immuno modifying drugs, vaccines, Sera, Drugs acting on uterus, Drug interactions, Chelating Drugs, Drugs in extremes of age, Pregnancy, Drugs in organ disfunction, General anaesthetics, ocular and dermatological pharmacology.

#### **7. Forensic Medicine and Medical Jurisprudence and Toxicology**

- History of Forensic Medicine
- Need, Scope, Importance and probative value of Medical evidence in Crime Investigation
- Personal identity need and its importance.
- Mechanical Injuries And Burns
- Medico-Legal Aspects of Sex, Marriage And Infant Death
- Medico-Legal Aspects Of Death
- Medico-Legal Autopsy
- Forensic Psychiatry
- Poisons And Their Medico-Legal Aspects
- Forensic Science Laboratory
- Legal And Ethical Aspects Of Practice Of Medicine
- Definition Of Health And Items To Certify About Health
- Acts And Schemes Related To Medical Profession

#### **8. Social and Preventive Medicine / Community Medicine**

- Basic concept of Health and disease
- Principles of epidemiology and epidemiological methods
- Screening for diseases
- Epidemiology of Communicable diseases
- Epidemiology of chronic non-communicable diseases and conditions
- National Health Programmes of India
- Essential medicines and counterfeit medicines
- Demography and family planning
- Preventive medicine in obstetrics paediatrics and geriatrics
- Nutrition and health

- Medicine and social sciences
- Environment and health
- Hospital waste management
- Disaster management
- Occupational health
- Genetics and health
- Mental health
- Health information and basic medical statistics
- Communication for health education
- Health planning and management
- Health care of the community
- NGO's & International health

### 9. Medicine

- Principals of Medicine. Good medical practice, Therapeutics, Molecular & Genetic factors in disease, Immunological factors in disease, Environmental & nutritional factors in disease, Principles of Infectious diseases, Ageing & disease.
- Practice of Medicine.
- Critical Illness, Acute medical care, Emergencies & total management.
- Poisoning,
- Medical psychiatry,
- Oncology,
- Palliative care and pain,
- Infectious disease,
- HIV & AIDS,
- STD's,
- Clinical Biochemistry & Metabolism, & Lab reference ranges,
- Kidney & Urinary tract disease,
- Cardiovascular system,
- Respiratory diseases,
- Endocrine Diseases and Diabetes
- Alimentary Tract and Pancreatic Diseases
- Liver and Biliary Diseases
- Blood Diseases,
- Musculo Skeletal Diseases,
- Neurological diseases,
- Stroke,
- Skin diseases,
- Geriatrics.

### 10. Paediatrics

- Introduction of Paediatrics.
- Normal Growth and Normal Development and its disorders.  
Adolescent health and Development
- Nutrition, Micro nutrients in health and diseases
- New born infant
- Immunization and Immuno deficiencies
- Infections and infestations
- Disorders of gastro intestinal system, liver and Fluid & Electrolyte disturbances
- Disorders of Respiratory system, Cardio vascular system, Kidney, Urinary tract, Endocrine, Metabolic, Rheumatological, Genetic and Neuro Muscular
- Central nervous system
- Inborn Errors of Metabolism
- Haematological disorders
- Childhood malignancies
- Poisonings, injuries and accidents
- Paediatric critical care
- National Health Programme for Child including Immunization Programmes

### 11. Psychiatry

- Nature and development of different aspects of normal human behaviour like learning memory, motivation, personality and intelligence.
- Recognition of differences between normal and abnormal behaviour,
- Classification of psychiatric disorders
- Organic psychosis,
- Functional psychosis,

- Schizo-phrenia,
- Affective disorders,
- Neurotic disorders,
- Personality disorders,
- Psycho-physiological disorders,
- Drug & Alcohol dependence,
- Psychiatric disorders of childhood and adolescence
- Use of different modes of Therapy in Psychiatric Disorders

## 12. Dermatology and Sexually Transmitted Diseases and Leprosy

- Common skin diseases etiology pathology clinical features complications investigations and complete management
- Common sexually transmitted diseases etiology pathology clinical features complications investigations and complete management National AIDS control programmes
- Leprosy etiology pathology clinical features investigations complications and complete management, National leprosy eradication programme
- Various modes of topical therapy, Commonly used drugs, their doses, side-effects/toxicity, indications and contraindications and interactions common dermatological medical and surgical procedures for various skin diseases and STD's

## 13. Tuberculosis and Respiratory Diseases

- Common chest diseases clinical manifestations, investigations, complications and complete management.
- Mode of action of commonly used drugs, their doses, side effects/ toxicity, indications and contra-indications and interactions, common medical and surgical procedures for various respiratory diseases and tuberculosis and National Tuberculosis Control Programmes.

## 14. Radiodiagnosis and Radiotherapy

### Radiodiagnosis,

- Basics of X-Ray production it's uses and hazards.
- Identification and diagnosis of changes in bones like fractures, infections, tumour and metabolic diseases.
- Identification and diagnosis of various radiological changes in diseases conditions of chest & mediastinum, skeletal system, GIT, Hepatobiliary system, and Genito-urinary system.
- Isotopes, Computerised Tomography(CT) Ultrasound, Magnetic Resonance Imaging(M.R.I.) and D.S.A.

### Radiotherapy

- Symptoms and signs of various cancers, investigations and management.
- Basic principles of Radiotherapy and effect of radiation therapy on human beings
- Radio-active isotopes and their physical properties.
- Advances made in radiotherapy in cancer management
- Radiotherapeutic equipment.

## 15. Surgery

### I. General Principles

- Wound healing and management, management of severely injured. Metabolic response to injury
- Asepsis, antisepsis, sterilization.
- Surgical sutures.
- Acute, chronic Surgical infections and their management. Bites and stings.
- Hospital infection.
- AIDS and Hepatitis B; Occupational hazards and prevention.
- Mechanism and Management of missile, blast and gunshot injuries. Trauma and Disaster Management.
- Organ transplantation - Basic principles.
- Nutritional support to surgical patients.
- Diagnostic Imaging
- Resuscitation, Fluid electrolyte balance, Shock, Blood transfusion and Common postoperative complications.

- Anaesthesia and pain relief
- Day care surgery
- Principles of Laparoscopic and Robotic surgery
- Principles of Oncology
- Surgical Audit and Research.

## II. Etiopathology Clinical Features and Management of :

- Common skin and subcutaneous conditions.
- Disorders of Arteries, Veins, Lymphatics and Lymph nodes
- Burns
- Disorders of Scalp, Skull and Brain
- Disorders of Oral cavity, jaws, salivary glands and neck.
- Disorders of Thyroid, Para Thyroid and Adrenal glands
- Diseases of Thorax, Heart, Pericardium and Breast
- Diseases of Oesophagus, Stomach, Duodenum, Liver, Spleen, Gall Bladder, Bile ducts, Pancreas, Peritoneum, Omentum, Mesentery and Retroperitoneal space.
- Diseases of Small Intestine, Large Intestine, Appendix, Rectum, Anal Canal.
- Acute Abdomen and Hernias.
- Diseases of Genito-Urinary system, Prostate, Seminal Vesicles, Urethra, Penis, Scrotum and Testis.

### 16. Orthopedics

#### Applied Anatomy, Etiopathogenesis, Clinical features and Management of:

- Bone injuries and dislocations
- Common infections of bones and joints,
- Congenital and skeletal anomalies,
- Common Degenerative and Metabolic Bone diseases in India,
- Neoplasms affecting Bones, joints and soft tissues.
- Sports injuries.

### 17. E.N.T.

- Anatomy and physiology of Ear, Nose, Throat
- Diseases of the Ear
- Diseases of the Nose and paranasal sinuses
- Diseases of the Oral Cavity and Salivary Glands
- Diseases of the pharynx
- Diseases of the Larynx and Trachea
- Diseases of the Oesophagus
- Deafness, Audiometry, Hearing Aids, and Rehabilitation

### 18. Ophthalmology

- Introduction Anatomy & Physiology of the Eye
- Ophthalmic Optics and Refraction
- Common Disease of Eye.
- Disorders of Ocular Motility
- Diseases of the Eye Adnexa
- Systemic Ophthalmology
- Principles of Management of Major Ophthalmic Emergencies
- Ophthalmic Pharmacology
- Community Ophthalmology and NPCB
- Nutritional Ophthalmology

### 19. Obstetrics and Gynaecology

- Anatomy, Physiology, Patho Physiology of Reproductive system, common conditions affecting it and its management.
- Normal pregnancy, Labour, Puerperium and the Management of concerned problems.
- Causes of maternal and perinatal morbidity and mortality
- Principles of contraceptions and various techniques, methods of Medical termination of pregnancy, sterilization and their complications.
- Use and abuse and side effects of drugs in pregnancy, pre-menopausal and post-menopausal periods.
- National programmes, maternal child health and family welfare and their implementation at various levels.
- Common Gynaecological diseases and principles of their management.
- Common obstetrical diseases and their medical and surgical management.