

**RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER**  
**SYLLABUS FOR SCREENING TEST FOR THE POST OF**  
**ASSISTANT PROFESSOR (Broad Speciality) EMERGENCY MEDICINE**  
**MEDICAL EDUCATION DEPARTMENT**

**1. Prehospital Care-**

- Emergency Medical Services: Historical Background, Overview and Future Trends, Prehospital equipments & adjuncts
- Air Medical Transport, Neonatal and pediatric Transport
- Mass Gatherings

**2. Disaster Preparedness-**

- Disaster Preparedness and Response
- Natural Disaster
- BombBlast, and Crush Injuries
- Chemical Agents and Mass Casualities
- Bio-Terrorism, Radiation Injuries

**3. Resuscitation and Resuscitative procedure-**

- Sudden Cardiac Death
- Resuscitation (basic and advanced life support) of Neonates, Children, Pregnancy and Adults
- Ethical Issue of Resuscitation
- Acid-Base Disorder, Fluids and Electrolytes
- Blood Gases, pulse oximetry capnography
- Cardiac rhythm disturbances
- Pharmacology of vasopressor, inotropes, antiarrhythmics antihypertensives agents
- Approach to the patient in shock
- Anaphylaxis and allergy
- Airway management (noninvasive, invasive, surgical)
- Mechanical ventilation
- Vascular access (Neonatal, pediatric, adults)
- Hemodynamic monitoring
- Cardiac pacing
- Defibrillation and cardioversion
- Pericardiocentesis

#### **4. Analgesia, anesthesia and procedural sedation-**

- Acute pain management (infants, children, adults)
- Local and regional anesthesia
- Procedural sedation and analgesia (infants, children, adults)
- Adults with chronic pain

#### **5. Emergency wound management-**

- Wound: Evaluation, preparation, closure
- Laceration to: face, scalp, arm, forearm, hand, thigh, leg, foot
- Soft tissue foreign bodies
- Puncture wound and bites
- Postrepair wound care

#### **6. Cardiovascular Disease-**

- Chest pain, Acute coronary syndrome, Low probability acute coronary syndrome
- Cardiogenic shock, Acute heart failure
- Syncope
- Valvular emergencies
- The cardiomyopathies, myocarditis, and pericardial disease
- Thromboembolism
- Systemic and pulmonary hypertension
- Aortic dissection and related aortic syndrome
- Aneurysmal disease
- Arterial occlusion

#### **7. Pulmonary Emergencies-**

- Respiratory distress
- Hemoptysis
- Acute bronchitis and upper respiratory tract infection
- Community acquired pneumonia, aspiration pneumonia and noninfectious pulmonary infiltrates
- Empyema and lung abscess
- Tuberculosis
- Pneumothorax
- Acute asthma in adults
- Chronic obstructive pulmonary disease

#### **8. Gastrointestinal Emergencies-**

- Acute abdominal pain
- Nausea and vomiting

- Disorders presenting primarily with diarrhea
- Constipation
- Upper gastrointestinal and Lower gastrointestinal bleeding
- Esophageal emergencies
- Peptic ulcer disease and gastritis
- Pancreatitis, cholecystitis, Acute appendicitis, Diverticulitis
- Hepatic disorder, jaundice and hepatic failure
- Bowel obstruction and volvulus
- Hernias, Anorectal disorder
- Gastrointestinal procedures and devices
- Complication of general surgical procedures

### **9. Renal and Genitourinary Disorders-**

- Acute renal failure
- Rhabdomyolysis
- End stage renal disease
- Urinary tract infections and hematuria
- Acute urinary retention
- Male genital problems
- Urologic stone disease
- Complication of urologic procedures and devices

### **10. Pediatrics and neonatal-**

- Emergency care of children
- Neonatal emergencies and common neonatal problems
- Sudden infant death syndrome and apparent life threatening event
- Fever and serious bacterial illness
- Ear and mastoid disorder in infant and children
- Eye emergencies in infant and children
- The nose, sinuses, mouth and throat disorder
- Neck masses in children
- Stridor, drooling, Wheezing, Pneumonia
- Congenital and acquired heart defects, syncope, dysrhythmias
- Vomiting, diarrhea and dehydration, Fluid and electrolyte therapy
- Acute abdominal pain, Gastrointestinal bleeding in children
- Urinary tract infection, Urologic and gynecologic problems
- Renal, Oncology, hematology, metabolic emergencies, Sickle cell disease, diabetes
- Headache, Altered mental status, Seizures

- Musculoskeletal disorders in children
- Rashes in infants and children
- The child with special health care needs, Behavioral disorder in children

### **11. Infectious Diseases-**

- Sepsis, Soft Tissue Infections, Sexually Transmitted Diseases, Serious Viral Infections
- Human Immunodeficiency Virus Infection
- Endocarditis, Tetanus, Rabies, Malaria
- Foodborne and Waterborne Diseases, Zoonotic Infections, World Travelers
- Occupational Exposures, Infection Control, and Standard Precautions

### **12. Neurology-**

- Headache, Spontaneous Subarachnoid and Intracerebral Hemorrhage
- Stroke Syndromes, Altered Mental Status and Coma, Ataxia and Gait Disturbances, Vertigo and Dizziness, Seizures and Status Epilepticus in Adults
- Acute Peripheral Neurologic Lesions, Chronic Neurologic Disorders
- Central Nervous System and Spinal Infections
- Central Nervous System Procedures and Devices

### **13. Toxicology and Environmental Injuries-**

- General Management of Poisoned Patients
- Drugs (Cyclic Antidepressants, Atypical Antidepressants, Serotonin Reuptake Inhibitors and Serotonin Syndrome, Monoamine Oxidase Inhibitors, Antipsychotics, Lithium, Barbiturates, Benzodiazepines, Nonbenzodiazepine Sedatives, Digitalis Glycosides, Beta-Blockers, Calcium Channel Blockers, Antihypertensive, Anticonvulsants, Antimicrobials)
- Alcohols, Methylxanthines and Nicotine
- Opioids, Cocaine, Methamphetamine and Other Amphetamines, Hallucinogens
- Salicylates, Acetaminophen, Nonsteroidal Anti-Inflammatory Drugs
- Iron, Metals and Metalloids
- Hydrocarbons and Volatile Substances, Caustics, Pesticides, Anticholinergics
- Industrial Toxins, Vitamins and Herbals
- Dyshemoglobinemias
- Cold Injuries, Heat Emergencies

- Bites and Stings, Snake Bite
- Trauma and Envenomations from Marine Fauna
- Diving disorder, High-Altitude disorder
- Drowning, Thermal and Chemical Burns
- Electrical and Lightning Injuries
- Mushroom Poisoning, Poisonous Plants
- Carbon Monoxide

#### **14. Endocrine Emergencies-**

- Type 1 and Type 2 Diabetes Mellitus, Diabetic Ketoacidosis, Ketoacidotic syndromes, Hyperosmolar Hyperglycemic State
- Hypothyroidism, Myxedema Crisis, Hyperthyroidism, Thyroid Storm, Adrenal Insufficiency and Adrenal Crisis

#### **15. Hematologic and Oncologic Emergencies-**

- Anemia, polycythemia, Hemostasis, Acquired Bleeding Disorders, Clotting Disorders, Hemophilias and Von Willebrand Disease, Sickle Cell Disease and Hereditary Hemolytic Anemias, Acquired Hemolytic Anemia, Transfusion Therapy
- Thrombotics and Antithrombotics
- Emergency Complications of Malignancy

#### **16. Polytrauma and Orthopedic Injuries-**

- Trauma in Adults, elderly, Paediatrics, pregnancy
- Trauma to : Head, Spinal, Face, Neck, Pulmonary, Cardiac, Abdominal, Flank and Buttocks, Genitourinary and Extremities
- Initial Evaluation and Management of Orthopedic Injuries
- Injuries to upper limbs, lower limbs pelvis
- Compartment Syndrome

#### **17. Musculoskeletal Disorders-**

- Neck, Back, Shoulder Pain, Hip and Knee Pain
- Emergencies in Systemic Rheumatic Diseases
- Non Traumatic Disorders of the Hand
- Joints and Bursa
- Soft Tissue Problems of the Foot

#### **18. Obstetrics and Gynecology-**

- Abnormal uterine bleeding, Abdominal and pelvic pain in the nonpregnant female, Ectopic pregnancy and emergencies in the first 20 weeks of pregnancy

- Normal pregnancy, Emergencies after 20 weeks of pregnancy and the postpartum period, Emergency delivery, Co morbid disorder in pregnancy
- Vulvovaginitis, Pelvic inflammatory disease
- Breast disorder
- Complication of gynecologic procedures

### **19. Psychosocial Disorders-**

- Mental Health disorder: ED evaluation
- Mental Health disorder of elderly
- Acute Agitation
- Mood and Anxiety
- Psychoses
- Eating and substance use disorder

### **20. Others-**

- Eyes, Ears, Nose, Throat, and Oral Surgery
- Skin Disorders
- Abuse and Assault, Injection Drug Users, the Mentally Retarded Adult
- The Transplant Patient, the Morbidly Obese Patient, Palliative Care
- Legal Issues in Emergency Medicine, Death notification
- Military Medicine

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### **Pattern of Question Papers:**

- 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. Medium of Screening Test: English**
- 7. There will be Negative Marking**  
(1/3 part of the mark(s) of each question will be deducted for each wrong answer)