

# **RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER**

## **SYLLABUS OF COMPETITIVE EXAMINATION FOR THE POST OF ASSISTANT PROFESSOR (Broad Speciality) Traumatology & Surgery MEDICAL EDUCATION DEPARTMENT**

### **Unit-I Airway**

1. Airway management including Endotracheal intubation and difficult airway
2. Threatened Airway /Tracheotomy, open and percutaneous
3. Cricothyroidotomy
4. Rapid sequence intubation
5. Nasal Packing (ant. & post) and Oral packing
6. Intermaxillary wiring (MMF) if unstable facial fractures
7. Tracheal injuries
8. Tongue injuries

### **Unit-II Breathing**

1. Principles of cardiopulmonary resuscitation
2. Needle thoracocentesis/Chest drain insertion/Pericardial drainage
3. Define and describe the various aspect of respiratory and circulatory failure
4. Tracheobronchial injuries
5. Open/Tension pneumothorax
6. Rib fractures/Flail chest

### **Unit-III Circulation**

1. Venous access/Intraosseous access
2. Fluid resuscitation in Trauma/Massive hemorrhage protocol
3. Focused Assessment Sonography in Trauma (FAST)
4. Shock in Trauma
5. Abdominal trauma including Liver/Spleen /Renal bleeds
6. Pelvic haemorrhage
7. Suprapubic cystostomy

### **Unit-IV Neurological Trauma**

1. Glassgow Coma Scoring
2. Pupillary signs
3. Nexus criteria
4. Canadian Cervical Spine rule
5. ICP Monitoring
6. Ventriculostomy/Lateral canthotomy
7. Cranial decompression in dire emergencies when neurosurgeon not present
8. Management of seizures in ED

## **Unit-V General**

1. Metabolic, nutritional and endocrine effects of Trauma and critical illness
2. Local/Regional/Intumescent Anesthesia in Surgery
3. Nerve blocks in Trauma/Analgesia in Trauma
4. Diagnose and manage acute surgical patients including Obstetric patients, Geriatric, Pediatric and mentally disabled patients
5. Describe hematological and coagulation disorders
6. Describe the pharmacokinetics and dynamics of drug metabolism, excretion in critical illness
7. Breaking bad news/Consent in Trauma Set up

## **Unit-VI Musculoskeletal Trauma**

1. Radical soft tissue debridement for necrotizing infection
2. Exposure and emergency management of upper extremity injuries
3. Exposure and emergency management of lower extremity injuries
4. Vascular injuries
5. Damage control techniques in the management of extremity vascular injuries, including temporary shunts/ Acute thrombo-embolism
6. Fasciotomy, upper extremity/ lower extremity
7. Amputations, lower extremity (Hip disarticulation, AKA, BKA,
8. Reducing dislocations of shoulder/elbow/hip/knee
9. Splinting fractures
10. Applying femoral/tibial traction
11. Pelvic stabilization with non-operative means/with external fixators
12. Application of plaster slab for various extremity fractures

## **Unit-VII Infections in Surgery & Trauma**

1. Microbiological basis of infectious diseases and its pharmacotherapeutics
2. Antimicrobial stewardship in Surgery
3. Surgical Site infections
4. Principles of ICU bundles of care

## **Unit-VIII Radiology basics in trauma**

1. Demonstrate ability to interpret radiographs and CT Scans on surgical patients
2. CXR/ PXR/NCCT Head Spine
3. Contrast CT Abdomen & Chest
4. RGU
5. FAST/eFAST
6. Ultrasonography in both trauma and non-trauma patients.

## **Unit-IX Acute care Surgery**

1. Exposure & definitive management of gastric, small intestine and colon injuries
2. Exposure & emergency management of gastric, small intestine and colon inflammation, bleeding perforation & obstructions.
3. Gastrostomy (open and percutaneous) and jejunostomy
4. Exposure & definitive management of duodenal injury/perforation
5. Emergency management of rectal injury
6. Emergency management of liver injury
7. Emergency management of splenic injury, infection, inflammation
8. Emergency management of pancreatic injury, infection and inflammation
9. Emergency management of renal, ureteral and bladder injury
10. Emergency management of injuries to the female reproductive tract
11. Emergency management of acute operative conditions in the pregnant patient
12. Emergency management of abdominal compartment syndrome
13. Damage control surgery principles
14. Abdominal wall reconstruction following ventral hernias
15. Laparoscopic techniques as they pertain to the above procedures
16. Thoracic and abdominal organ harvesting for transplantation
17. Laparotomy for acute abdomen – obstruction, perforation, ischemia, inflammation and non-trauma hemoperitoneum
18. Surgical management of ovarian torsion, pelvic sepsis and ruptured ectopic gestation
19. Obstetric emergencies: Caesarian section when gynecologist is not available
20. Obstructed Inguinal Hernia
21. Urogenital emergencies

## **Unit-X Burns & Blast injuries**

1. Demonstrate the ability to manage the acutely burned patient, including minor and major injuries.
2. Burn fluid management
3. Burn area calculation
4. Tangential excision/Fasciotomy in Burns
5. Split thickness, full thickness skin grafting for coverage
6. Pressure ulcer prevention and basic flap covers
7. Electric Burn assessment

## **Unit-XI Trauma Systems**

Trauma systems, Trauma scores, Disaster Management, Triage etc.

Multiple/Mass casualty

Incident command system

## **Unit-XII Research**

Basics of biostatistics and research methodology

**Ethical and legal** aspects of surgical critical care and acute trauma care

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

1. Objective Type Paper
2. Maximum Marks: 150
3. Number of Questions: 150
4. Duration of Paper: Two Hours & Thirty Minutes
5. All Questions carry equal marks
6. There will be Negative Marking