

RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER

SYLLABUS OF COMPETITIVE EXAMINATION FOR THE POST OF ASSISTANT PROFESSOR (Super Speciality) Uro-Oncology MEDICAL EDUCATION DEPARTMENT

1. Clinical Decision Making-

- **Evaluation of Uro-oncologic Patient**, Basics of Urinary Tract Imaging including CT, MRI, Assessment of Urologic & Surgical outcome,
- Evaluation and Management of Hematuria.
- Evaluation and Management of renal/supra-renal/retroperitoneal lump.
- Evaluation and Management of raised tumor markers like PSA/ AFP/hCG.
- Role of Isotope studies in Uro-oncology including PET-CT.
- Ethics & Consent.

2. Basics of Uro-oncologic Surgery-

- Principles of Uro-oncologic Surgery- Perioperative Care.
- Principles of Uro-oncologic Surgery- Incisions and Access.
- Principles of Uro-oncologic Surgery- Intraoperative Technical Decisions.
- Principles of Urologic Endoscopy-diagnostic and therapeutic.
- Fundamentals and advanced practice of Laparoscopic and Robotic Urologic Surgery.
- Basic Energy Modalities in Uro-oncologic Surgery.
- Complications of Uro-oncologic Surgery.
- Uro-oncologic Considerations in Pregnancy.
- Intraoperative Consultation

3. Molecular and Cellular Biology-

- Basic Principles of Immunology and Immunotherapy in Urologic Oncology.
- Molecular Genetics and Cancer Biology Tract.

4. Renal Physiology and Pathophysiology-

- Surgical, Radiologic and Endoscopic Anatomy of the Kidney and Ureter.
- Physiology and Pharmacology of the Renal Pelvis and Ureter.
- Renal Physiology and Pathophysiology Including Renovascular Hypertension.
- Renal Insufficiency and Ischemic Nephropathy.
- Pathophysiology of Ureteric obstruction.
- Pathophysiological changes in outlet obstruction.

5. Male Genitalia-

- Surgical, Radiographic and Endoscopic Anatomy of the Retroperitoneum.
- Etiology, classification, Diagnosis and management of Testicular Tumors.

- Surgery of Testicular Tumors.
- Laparoscopic and Robotic-Assisted Retroperitoneal Lymphadenectomy for Testicular Tumors.
- Etiology, classification, Diagnosis and management of Penile Tumors.
- Etiology, classification, Diagnosis and management of Urethral Tumors.
- Management of Inguinal Nodes in Penile and Urethral tumors.
- Inguinal Node Dissection.
- Surgery for Benign Disorders of the Penis and Urethra.
- Surgery of the Scrotum and Seminal Vesicles.

6. Neoplasms of the Upper Urinary Tract-

- Diagnosis and treatment of Benign Renal Tumors.
- Renal Cystic Diseases.
- Etiology, classification, Diagnosis and management of various Malignant renal Tumors.
- Urothelial Tumors of the Upper Urinary Tract and Ureter.
- Surgical Management of Upper Urinary Tract Urothelial Tumors.
- Retroperitoneal Tumors.
- Open Surgery of the Kidney in Malignancies.
- Role of Laparoscopic and Robotic Surgery in Kidney disease.
- Focal Therapy for Renal Tumors.
- Treatment of Advanced Renal Cell Carcinoma.

7. The Adrenals-

- Surgical and Radiographic Anatomy of the Adrenal Gland.
- Pathophysiology, Evaluation and Medical Management of Adrenal Disorders.
- Surgery of the Adrenal Glands.

8. Benign and Malignant Bladder Disorders-

- Bladder Surgery for Benign Disease.
- Etiology, Pathology and Evaluation of various Bladder Tumors.
- Tumors of the Bladder
- Management Strategies for Non–Muscle-Invasive Bladder Cancer (Ta, T1, and CIS).
- Management of Muscle-Invasive and Metastatic Bladder Cancer.
- Surgical Management of Bladder Cancer Transurethral, Open and Robotic.
- Use of Intestinal Segments in Urinary Diversion.
- Cutaneous Continent Urinary Diversion.
- Orthotopic Urinary Diversion.

9. The Prostate-

- Development, Molecular Biology and Physiology of the Prostate.
- Benign Prostatic Hyperplasia Etiology, Pathophysiology, Epidemiology and Natural History.

- Epidemiology, Etiology and Prevention of Prostate Cancer.
- Prostate Cancer Biomarkers.
- Prostate Biopsy Techniques and Imaging.
- Pathology of Prostatic Neoplasia.
- Diagnosis and Staging of Prostate Cancer.
- Active Management Strategies for Localized Prostate Cancer.
- Active Surveillance of Prostate Cancer.
- Open Radical Prostatectomy.
- Laparoscopic and Robotic-Assisted Laparoscopic Radical.
- Prostatectomy and Pelvic Lymphadenectomy.
- Radiation Therapy for Prostate Cancer.
- Focal Therapy for Prostate Cancer.
- Treatment of Locally Advanced Prostate Cancer.
- Management Strategies for Biochemical Recurrence of Prostate Cancer.
- Treatment of Metastatic Prostatic Carcinoma.

10. Pediatric Uro-Oncology

- Pediatric renal tumors (mainly Wilms)
- Pediatric adrenal tumors (mainly Neuroblastoma)
- Pediatric bladder tumors (mainly Rhabdo-myo-sarcoma)
- Pediatric testicular tumors

11. Research Methodology, Statistics and Recent Advances in Uro-Oncology

- Observational studies
- Cohort studies
- Randomised control trials
- Pediatric renal tumors (mainly Wilms)
- Pediatric adrenal tumors (mainly Neuroblastoma)
- Pediatric bladder tumors (mainly Rhabdo-myo-sarcoma)
- Pediatric testicular tumors

Pattern of Question Papers:

- 1. Objective Type Paper**
- 2. Maximum Marks: 150**
- 3. Number of Questions: 150**
- 4. Duration of Paper : 2.30 Hours**
- 5. All Questions carry equal marks**
- 6. There will be Negative Marking**

(For every wrong answer one-third of the marks prescribed for that Particular question shall be deducted.)