

**RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER**  
**SYLLABUS FOR SCREENING TEST FOR THE POST OF**  
**ASSISTANT PROFESSOR (Super Speciality)**  
**RENAL TRANSPLANTATION (Urology)**  
**MEDICAL EDUCATION DEPARTMENT**

- Brief history of Renal transplant.
- Basic sciences applied to Renal Transplant- Anatomy, Physiology, Lab Diagnosis & Imaging.
- Etiopathogenesis of Acute and Chronic Renal Failure.
- Causes and Management of Acute Renal Failure.
- Causes and Management of Chronic Renal Failure.
- Peritoneal Dialysis- Principle, Process, Access, Indications, Fluid Status, Electrolytes, Anemia, Adequacy and Various Techniques of Catheter Placement. Complications Associated with Peritoneal Dialysis Catheter.
- Hemodialysis
  - Principle, Process, Access, Indications Techniques, Fluid Status, Electrolytes, Anemia, Adequacy and various Techniques of A-V fistula & A-V Graft.
  - Surgical Complications and their management.
  - Vascular access Catheter for short and long term use.
  - Long term outcome of Peritoneal and Hemodialysis.
- Complications of Renal Failure and their Management.
- Immunological considerations and Histocompatibility in Renal Transplantation.
- Immunology of Graft Rejection.
- Basics of Immunosuppressive Therapy & its Complications.
- Evaluation and Preparation of Renal Transplant Recipient.
- Concept of Warm Ischemia & Cold Ischemic- its relevancy in various Renal surgeries and Organ Transplantation.
- Live donor Evaluation for Renal Transplantation.
- Cadaveric Donor Evaluation for Renal Transplantation.
- Extended Criteria for Cadaveric Donor.
- Strategies to maximize donor pool.
- Cadaveric Donor Optimization and Management.
- Brain Death Certification.
- Ethics and Legal issues of Human Organ Transplantation.

- Human Organ Transplant Act, role of NOTTO, ROTTO and SOTTO.
- Renal allocation principles & registry in India, Cadaveric Organ Transplantation in India in reference to developed Countries.
- Organ Preservation, Storage and Transportation.
- Surgical aspect of Live Donor Nephrectomy.
- Use of laparoscopy and Robot in Renal Transplantation.
- Complications of Donor Nephrectomy- Medical and Surgical.
- Standard Multi organ procurement from Cadaveric Donor and Back table Procedure for kidneys.
- Renal Transplant recipient- surgical aspects including vascular and Ureterovesical Anastomosis.
- Early Post- Operative Care of Renal Transplant Recipient.
- Early and late surgical complications in Renal Transplantation.
- Brief overview of medical complications in Renal Transplantation.
- Long term outcomes of Renal Transplant.
- Psychosocial aspects of Renal Transplantation.
- Renal Transplant in Neuropathic Bladder Patients.
- Renal Transplant in Pediatric Patients.
- Renal Transplant in patients with previous Renal Transplant history.
- Renal Transplant in multi organ recipient Patient.
- Transplant in urinary diversion Patients.
- Various Urological Malignances in Renal Transplanted patient and their management.
- Stone disease in transplanted kidney and its management.
- Long term complications of live kidney donation.
- Early and Late Surgical Causes of Graft Dysfunction.
- Miscellaneous and Recent advances in Renal Transplantation particularly in reference to Surgical Aspects.
- Renal Transplantation in Pregnancy.

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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).