

Syllabus for the post of

Associate Professor, Urology, Class-I (Advt. No. 35/2023-24)

Marks – 200

Questions – 200

Medium - English

1. Basic knowledge of following:

- 1) Biostatistics & Epidemiology.
- 2) Computer Sciences.
- 3) Scientific presentation.
- 4) Cardio-pulmonary resuscitation.
- 5) Ethics in medicine.
- 6) Biostatistics, Research Methodology and Clinical Epidemiology
- 7) Urological Procedures, Image Techniques and Surgery

2. Basic subjects like applied:

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| (a) Anatomy | (b) Embryology |
| (c) Physiology | (d) Biochemistry |
| (e) Pharmacology. | (f) Pathology |
| (g) Microbiology Epidemiology | (h) Immunology |

3. Anatomy:

Surgical Anatomy of the Retroperitoneum, Kidneys and Ureters.

- 1) Anatomy and Embryology of GU tracts, adrenal & retroperitoneum.
- 2) Applied physiology and biochemistry pertaining to Urology, Nephrology, renal transplantation and renovascular hypertension.
- 3) Investigative urology & Genito-urinary radiology and imaging including nuclear medicine.
- 4) Male Infertility, Andrology and Urological endocrinology.
- 5) Sexual dysfunction- investigations and management.

4. Infections and Inflammation:

1. Infections of the Urinary Tract.
 2. Schaeffer Inflammatory Conditions of the Male Genitourinary Tract
 3. Interstitial Cystitis and Related Disorders.
 4. Sexually Transmitted and Associated Diseases Urological Implications of AIDS and Related Conditions.
 5. Cutaneous Diseases of the External Genitalia.
 6. Tuberculosis and Other Opportunistic Infections of the Genitourinary System.
- Perioperative care, management of urological complications and care of the critically ill patients, Urodynamics and Neurology, Genito-urinary trauma.

5. Urolithiasis-Medical, Biochemical & Surgical aspects:

- Upper & Lower Urinary Tract Calculi.
- Evaluation, Diagnosis & Treatment.
- Surgery- PCNC, Intracavity, Cystoscopy, ESWL.

6. Pediatric Urology:

1. Normal and Anomalous Development of the Urinary Tract Renal Function In The Fetus Congenital Obstructive Uropathy.
2. Perinatal Urology Evaluation of Pediatric Urologic Patient.
3. Renal Disease in Childhood.
4. Urinary Tract Infections in Infants and Children.
5. Anomalies of the Kidney Renal Dysplasia and Cystic Disease of Kidney
6. Anomalies and Surgery of the Ureteropelvic Junction.
7. Ectopic Ureter Vesicoureteral Reflux.
8. Prune-Belly Syndrome.
9. Exstrophy and Epispadias.
10. Complex Surgical Technique for One-Stage Exstrophy.
11. Reconstruction Bladder Anomalies in Children.
12. Posterior Urethral Valves and Other Urethral Anomalies.

13. Voiding Dysfunction in Children: Neurogenic and Non-neurogenic Urinary Tract Reconstruction.
14. Hypospadias Abnormalities of External Genitalia in Boys Abnormalities of Testis and Scrotum: Surgical Management Sexual Differentiation: Normal and Abnormal Surgical Management of Intersex.
15. Pediatric Oncology Pediatric Endourology and Laparoscopy Pediatric Genitourinary Trauma;
 - Urinary tract infections and sexually transmitted diseases.
 - Obstructive Uropathy.
 - Renal transplantation (including transplant immunology medical &
 - Surgical aspects)

7. Prostate Molecular Biology, Endocrinology, and Physiology of the Prostate and Seminal Vesicles:

- 1) Etiology, Pathophysiology, and Epidemiology of Benign Prostatic Hyperplasia.
- 2) Natural History, Evaluation, and Nonsurgical Management of Benign Prostatic Hyperplasia Minimally Invasive and Endoscopic Management of Benign Prostatic Hyperplasia.
- 3) Retropubic and Suprapubic Open Radical Prostatectomy
- 4) Epidemiology, Etiology, and Prevention of Prostate Cancer
- 5) Pathology of Prostatic Neoplasms Ultrasonography and Biopsy of the Prostate.
- 6) Tumor Markers in Prostate Cancer
- 7) Early Detection, Diagnosis, and Staging of Prostate Cancer.
- 8) Definitive Therapy of Localized Prostate Cancer : Outcomes Expectant Management of Prostate Cancer.
- 9) Anatomic Retrograde Retropubic Prostatectomy.
- 10) Radical Perineal Prostatectomy Laparoscopic and Robotic Radical Prostatectomy and Pelvic Lymphadenectomy.
- 11) Radiation Therapy for Prostate.

- 12) Cancer Cryotherapy of Prostate Cancer Treatment of Locally Advanced Prostate Cancer Management of Rising Prostate-Specific Antigen after Definitive Therapy.
- 13) Hormonal Therapy for Prostate.
- 14) Cancer Management of Hormone-Resistant Prostate Cancer.

8. Kidney, Bladder, Genitalia:

- 1) Anatomy.
- 2) Evaluation & Diagnosis.
- 3) Diseases ; (Congenital, Infection and Oncology)

9. Neuro – Urology :

- Pathophysiology, Categorization, and Management of Voiding Dysfunction
- Urodynamic and Video dynamic Evaluation of Voiding.
- Dysfunction Neuromuscular.
- Dysfunction of the Lower Urinary Tract Urinary.
- Incontinence: Epidemiology, Pathophysiology, Evaluation, and Overview of Management the Overactive Bladder.
- Pharmacologic Management of Storage and Emptying.
- Failure Conservative Management of Urinary Incontinence : Behavioral and Pelvic Floor Therapy,
- Urethral and Pelvic Devices.
- Electrical Stimulation and Neuromodulation in Storage and Emptying Failure.
- Retropubic Suspension Surgery for Incontinence in Women.
- Vaginal Reconstructive Surgery for Sphincteric Incontinence.
- Pubovaginal Slings Tension-Free Vaginal Tape Procedures.
- Injection Therapy for Urinary Incontinence.
- Additional Treatment for Storage and Emptying Failure.
- Geriatric Voiding Dysfunction and Urinary Incontinence.
- Urinary Tract Fistulae Bladder and Urethral Diverticula.
- Surgical Procedures for Sphincteric Incontinence in the Male :
- The Artificial Genitourinary Sphincter; Perineal Sling Procedures.

10. The Adrenals:

Pathophysiology, Evaluation, and Medical Management of Adrenal Disorders Surgery of the Adrenals.

11. Newer developments in Genito-Urinary Surgery:

- Electro coagulation, lasers, fiber optics, instruments, catheters, endoscopes etc.
- Energy Sources in Urology.
- Robotics surgery.
- Nutrition in Urology.
- Molecular and Cellular Biology Basic.
- Principles of Immunology.
- Molecular Genetics and Cancer Biopsy.
- Tissue Engineering Perspectives for Reconstructive Surgery.

12. Clinical Decision Making:

- Evaluation of the Urologic Patient.
- History, Physical Examination, and Urinalysis Urinary Tract Imaging.

13. Experimental & Research methodology and Evidence Based Medicine.

14. MEDICO LEGAL ASPECTS RELEVANT TO THE DISCIPLINE.

15. Health Policy issues as may be applicable to the discipline

16. INDIAN MEDICAL COUNCIL (PROFESSIONAL CONDUCT, ETIQUETTE AND ETHICS) REGULATIONS, 2002.

17. CURRENT TRENDS AND RECENT ADVANCEMENTS IN THE FIELD OF UROLOGY.