

**GOVERNMENT OF MIZORAM
HEALTH & FAMILY WELFARE DEPARTMENT
MIZORAM SECRETARIAT BUILDING, MINECO, KHATLA
AIZAWL-796001**

NOTIFICATION

Dated Aizawl, the 29th November, 2022

No.A.42011/6/2022-HFW: In the interest of public service, the competent authority is pleased to notify Syllabus for Direct Recruitment to the post of Grade-I of MHS under Super Specialist Sub-Cadre (Department of Nephrology) as per Appendix.

Sd/- ESTHER LAL RUATKIMI
Principal Secretary to the Govt. of Mizoram
Health & Family Welfare Department

Memo No.A.42011/6/2022-HFW : Dated Aizawl, the 29th Nov., 2022

Copy to:

1. P.S to Minister, Health & Family Welfare Deptt., Govt. of Mizoram.
2. P.S to Principal Secretary, Health & Family Welfare Department.
3. Principal Director, Health & Family Welfare Department.
4. Director of Health Services, Mizoram.
5. Director, Hospital & Medical Education, Mizoram.
6. Director, Zoram Medical College.
7. Mission Director, National Health Mission.
8. Controller, Printing & Stationary with 6 (six) spare copies for publication in the Mizoram Gazette.
9. Medical Superintendent, State Referral Hospital, Falkawn.
10. Guard File.


(LIANHMINGTHANGI HMAR)

Under Secretary to the Govt. of Mizoram
Health & Family Welfare Department

SYLLABUS FOR NEPHROLOGY DEPARTMENT OF GRADE-I OF MHS (SUPER SPECIALIST SUB-CADRE) UNDER HEALTH & FAMILY WELFARE DEPARTMENT

PAPER – I

Total marks - 200

Duration - 3 hours

- (a) Current events of national and international importance.
- (b) Indian Polity and Indian Constitution.
- (c) General issues on Environmental Ecology, Bio-diversity and Climate Change - that do not require subject specialization.
- (d) General awareness on Mizo culture, its heritage and society.
- (e) English Comprehension.
- (f) English Language (Class XII level).
- (g) Interpersonal skills including communication skills.
- (h) Logical reasoning and analytical ability.
- (i) Decision-making and problem-solving.

Note:

1. Question will be set in English without negative marking;
2. Question paper will consist of 50% multiple choice objective questions (MCQ) for General Studies and 50% conventional type questions for English paper.
3. Duration of examination for Paper I will be for 3 (three) hours.
4. Each MCQ will carry 1 (one) mark and will consists of 100 questions for General Studies.

PAPER-II (TECHNICAL)

Total marks – 200
Duration – 2hours

I. Renal Anatomy and Physiology

1. Renal Anatomy
2. Renal Physiology

II. Investigation of Renal Disease

1. Assessment of Glomerular Filtration Rate
2. Urinalysis
3. Imaging
4. Renal Biopsy

III. Fluid and Electrolyte Disorders

1. Disorders of Water Balance
2. Disorders of Sodium Balance

3. Disorders of Potassium Balance
4. Disorders of Calcium and Phosphate Metabolism
5. Metabolic Acidosis

IV. Hereditary and Congenital Diseases of the Kidney

1. Autosomal Dominant Polycystic Kidney Disease
2. Alport Syndrome
3. Fanconi Syndrome
4. Congenital Anomalies of the Kidney and Urinary Tract

V. Urologic Disorders

1. Nephrolithiasis and Nephrocalcinosis
2. Urinary Tract Obstruction
3. Urologic Issues for the Nephrologist

PAPER-III (TECHNICAL)

Total marks – 200

Duration – 2 hours

I. Glomerular Disease

1. Clinical Presentations
2. Minimal Change Disease
3. Primary and Secondary (Non-Genetic) Causes of Focal and Segmental Glomerulosclerosis
4. Inherited Causes of Nephrotic Syndrome
5. Membranous Nephropathy
6. Membranoproliferative Glomerulonephritis and Cryoglobulinemic Glomerulonephritis
7. Immunoglobulin A Nephropathy and IgA Vasculitis (Henoch-Schönlein Purpura)
8. Anti-Glomerular Basement Membrane Disease and Goodpasture Disease
9. Renal and Systemic Vasculitis
10. Lupus Nephritis
11. Thrombotic Microangiopathies, Including Hemolytic Uremic Syndrome

II. Diabetic Kidney Disease

1. Prevention and Treatment of Diabetic Kidney Disease
2. Management of the Diabetic Patient With Chronic Kidney Disease

III. Hypertension

1. Evaluation of Hypertension
2. Primary Hypertension
3. Nonpharmacologic Prevention and Treatment of Hypertension
4. Pharmacologic Treatment of Hypertension
5. Treatment of Hypertensive Emergencies and Urgencies
6. Endocrine Causes of Hypertension: Aldosterone
7. Reno-vascular Hypertension and Ischemic Nephropathy

IV. Pregnancy and Renal Disease

1. Renal Physiology and Complications in Normal Pregnancy
2. Pregnancy With Pre-existing Kidney Disease

V. Infectious Diseases and the Kidney

1. Urinary Tract Infections in Adults
2. Tuberculosis of the Urinary Tract
3. Fungal Infections of the Urinary Tract
4. Human Immunodeficiency Virus Infection and the Kidney

PAPER-IV (TECHNICAL)

Total marks – 200

Duration – 2 hours

I. Tubulointerstitial Diseases

1. Acute Interstitial Nephritis
2. Primary Vesicoureteral Reflux and Reflux Nephropathy
3. Chronic Interstitial Nephritis
4. Myeloma and the Kidney

II. Acute Kidney Injury

1. Etiology of Acute Kidney Injury
2. Acute Kidney Injury in the Tropics
3. Diagnosis and Clinical Evaluation of Acute Kidney Injury
4. Prevention and Non-dialytic Management of Acute Kidney Injury
5. Dialytic Management of Acute Kidney Injury and Intensive Care Unit Nephrology
6. Hepatorenal Syndrome

III. Chronic Kidney Disease and the Uremic Syndrome

1. Epidemiology of Chronic Kidney Disease
2. Pathophysiology of Disease Progression in Proteinuric and Nonproteinuric Kidney Disease
3. Retarding Progression of Kidney Disease
4. Clinical Evaluation and Management of Chronic Kidney Disease
5. Anemia in Chronic Kidney Disease
6. Bone and Mineral Disorders in Chronic Kidney Disease
7. Gastroenterology and Nutrition in Chronic Kidney Disease
8. Dermatologic Manifestations of Chronic Kidney Disease

IV. Dialytic Therapies

1. Hemodialysis: Principles and Techniques
2. Hemodialysis: Dialysis Prescription and Adequacy
3. Acute Complications During Hemodialysis
4. Peritoneal Dialysis: Principles, Techniques, and Adequacy
5. Complications of Peritoneal Dialysis

V. Transplantation

1. Immunosuppressive Medications in Kidney Transplantation
2. Evaluation and Preoperative Management of Kidney Transplant Recipient and Donor
3. Prophylaxis and Treatment of Kidney Transplant Rejection
4. Medical Management of the Kidney Transplant Recipient: Infections and Malignancies,
5. Medical Management of the Kidney Transplant Recipient: Cardiovascular Disease and Metabolic Abnormalities
6. Chronic Allograft Injury
7. Recurrent Disease in Kidney Transplantation
8. Outcomes of Renal Transplantation

Notes for Technical Paper-II, Paser-III and Paper-IV

- 1. Questions will be set in English without negative marking**
- 2. Question paper will consist of 100% multiple choice objective question (MCQ).**
- 3. Each question will carry 2 (two) marks and will consist of 100 questions for a total of 200 marks.**
- 4. Duration of the examination for all technical papers for 2 (two) hours. Paper II, Paper III and Paper IV shall be classified as Technical Paper and question will be set in MCQ and carry 200 marks for each paper.**

PERSONAL INTERVIEW:

The total marks allotted for personal interview for the post of Grade-I of Mizoram Health Service (Super-Specialist Sub-Cadre) shall be as prescribed in "The Mizoram Direct Recruitment (Conduct of Examination) Guidelines, 2018 as amended issued vide No. A.12026/1/2017-P&AR (GSW) dt.09.02.2018 or as prescribed by the Government from time to time.

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