

शहीद धर्मभक्त राष्ट्रिय प्रत्यारोपण केन्द्र
नेपाल स्वास्थ्य सेवा, मेडिसिन समूह, नेफ्रोलोजी उपसमूह, सिनियर रजिष्ट्रार/रजिष्ट्रार आठौं (८) तहको
प्रतियोगितात्मक परीक्षाको लागि पाठ्यक्रम

एवं परीक्षा योजना

यस पाठ्यक्रम योजनालाई दुई चरणमा विभाजन गरिएको छ :

प्रथम चरण :- लिखित परीक्षा (Written Examination)

पूर्णाङ्क :- २००

द्वितीय चरण :- अन्तर्वार्ता (Interview)

पूर्णाङ्क :- ३०

प्रथम चरण (First Phase) : लिखित परीक्षा योजना (Written Examination Scheme)

Paper	Subject		Marks	Full Marks	Pass Marks	No. Questions & Weightage	Time Allowed
I	General Subject	Part I: Management	35	100	40	3 × 5 = 15 (Short answer) 2 × 10 = 20 (Long answer)	3.00 hrs
		Part II: General Health Issues	35			3 × 5 = 15 (Short answer) 2 × 10 = 20 (Long answer)	
		Part III: Human Organ Donation & Transplantation	30			3 × 10 = 30 (Long answer)	
II	Technical Subject			100	40	10 × 10 = 100 (Long answer)	3.00 hrs

द्वितीय चरण (Second Phase)

Subject	Full Marks	Examination
Interview	30	Oral

द्रष्टव्य :

- यो परीक्षा योजनालाई प्रथम चरण (लिखित परीक्षा) र द्वितीय चरण (अन्तर्वार्ता) गरी दुई चरणमा विभाजन गरिएको छ ।
- लिखित परीक्षाको माध्यम भाषा नेपाली वा अंग्रेजी अथवा नेपाली र अंग्रेजी दुवै हुनेछ ।
- प्रथम र द्वितीय पत्रको लिखित परीक्षा छुट्टाछुट्टै हुनेछ ।
- परीक्षामा सोधिने प्रश्नसंख्या, अङ्क र अङ्कभार यथासम्भव सम्बन्धित पत्र/विषयमा तोकिए अनुसार हुनेछ ।
- प्रथम पत्रको Part I, Part II र Part III को लागि छुट्टाछुट्टै (Part I को लागि एउटा, Part II को लागि एउटा र Part III को लागि एउटा) उत्तरपुस्तिका हुनेछ भने द्वितीय पत्रको लागि प्रत्येक खण्डका लागि छुट्टाछुट्टै उत्तरपुस्तिकाहरु हुनेछन् । परीक्षार्थीले प्रत्येक खण्डका प्रश्नहरुको उत्तर सोही खण्डका उत्तरपुस्तिकामा लेख्नुपर्नेछ ।
- यस पाठ्यक्रममा जे सुकै लेखिएको भएतापनि पाठ्यक्रममा परेका ऐन, नियमहरु, परीक्षाको मिति भन्दा ३ महिना अगाडी (संशोधन भएका वा संशोधित भई हटाईएका वा थप गरी संशोधित भई कायम रहेका) लाई यस पाठ्यक्रममा परेको सम्झनु पर्दछ ।
- प्रथम चरणको परीक्षाबाट छनौट भएका उम्मेदवारहरुलाई मात्र द्वितीय चरणको परीक्षामा सम्मिलित गराइनेछ ।
- पाठ्यक्रम लागू मिति :-

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Paper I: General Subject

(Management, General Health Issues, Human Organ Donation & Transplantation)

Part I: Management

1. Management: - concept, principles, functions, scope, role, level and skills of managers
2. Hospital management
3. Participative management: concept, advantages and disadvantages, techniques of participation
4. Time management: concept, advantages, and disadvantages
5. Conflict management: concept, approaches to conflict, levels of conflict, causes of conflict and strategies for conflict management
6. Stress management: concept, causes and sources of stress, techniques of stress management
7. Leadership: concept, functions, leadership styles, leadership and management effectiveness
8. Coordination: concept, need, types, techniques, and approaches of effective coordination
9. Communication: concept, communication process and barrier to effective communication, techniques for improving communication

Part II: General Health Issues

1. Present Constitution of Nepal (health and welfare issues)
2. National Health Policy, 2071
3. International health agencies: role and responsibilities of WHO, UNICEF, UNFPA and interagency relationships
4. Medical ethics in general and its application
5. Indigenous and traditional faith healing and health practices
6. Supervision, types and its usage in health sector
7. Monitoring and evaluation system in health
8. Health management information system
9. Health insurance and financing in health care
10. Effects of environment in public health: air pollution, domestic pollution, noise pollution
11. Importance of water, sanitation and hygiene in public health
12. Effects of disaster in public health: deforestation, land slide, flood, earthquake and fire
13. Health volunteers involvement in health service delivery
14. Counseling: - concept, type, importance and its application in health service delivery

Part III: Human Organ Donation and Transplantation

1. General concept of solid organ donation and transplantation
 - 1.1 History of organ transplantation in Nepal
 - 1.2 Immunology and immunosuppressant drugs used in organ transplantation
 - 1.3 Complications among organ transplant recipients and management
2. Human Organ Transplant Act and Regulations
 - 2.1 Human Organ Transplantation (Regulation and Prohibition) Act- 2055
 - 2.2 Human Organ Transplantation (Regulation and Prohibition) Act- 2072
 - 2.3 Human Organ Transplantation Regulations- 2073
 - 2.4 Concept and practice of international rules and regulations on organ donation and transplantation
3. General knowledge about Shahid Dharmabhakta National Transplant Center

Paper II: Technical subject

Section (A): 40 %

1. **General Nephrology**
 - 1.1 Anatomy of the kidney and urinary tract
 - 1.2 Physiology of the kidney and urinary tract
 - 1.3 Immunological basic of kidney damage
 - 1.4 Fluid and electrolytes balance
 - 1.5 Acid and base balance
 - 1.6 Investigations related to kidney diseases
 - 1.6.1 Urine analysis
 - 1.6.2 Assessment of Renal function
 - 1.6.3 Imaging
 - 1.6.4 Renal biopsy
2. **Glomerular diseases**
 - 2.1 Glomerulonephritis
 - 2.1.1 Primary and secondary Glomerulonephritis
 - 2.1.2 Systematic disease causing glomerulonephritis
 - 2.1.2.1 SLE
 - 2.1.2.2 Renal Vasculitis and TMA (Thrombotic Microangiopathy)
 - 2.2 Good pasture syndrome
 - 2.3 Wegener's Granulomatosis
 - 2.4 Churg'sstrauss syndrome
3. **Systematic diseases affecting kidney**
 - 3.1 DiabetesNephropathy
 - 3.2 Hypertension
 - 3.3 Amyloidosisand Fibrillary GN, Monoclonal gammopathy
 - 3.4 Renal vascular disease causing hypertension
4. **Pregnancy and Renal diseases**
5. **Obstruction of the urinary tract**
 - 5.1 Calculus disease of the kidney and urinary tract
6. **Tubulointerstitial disease**
 - 6.1 Analgesics nephropathy
 - 6.2 Interstitial Nephritis
7. **Malignant disease of the Kidney**
 - 7.1 Hypernephroma

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7.2 Renal Cell Carcinoma

8. **Renal dysfunction**

8.1 Acute renal failure (Acute Kidney disease)

8.2 Chronic renal failure

9. **Infectious diseases and kidney**

9.1 Urinary Tract Infection

9.2 Pyelonephritis

9.3 Tuberculosis of Kidney

9.4 HIV

9.5 Infective endocarditis

9.6 PSGN

9.7 Hepatitis B and C associated renal disease

Section (B): 30 %

10. **Renal replacement therapy**

10.1 Principles of renal replacement therapy

10.2 Haemodialysis

10.3 Vascular access for hemodialysis- pre-operative evaluation of patients, techniques for complicated access

10.4 Peritoneal dialysis

10.4.1 Intermittent peritoneal dialysis

10.4.2 Continuous ambulatory peritoneal dialysis

10.5 Evaluation of patients for peritoneal catheter placement

10.6 PET

10.7 Indication for removal of PD catheter

11. **Diet in renal diseases**

12. **Congenital diseases of the kidney**

12.1 Hereditary nephritis

12.2 Adult polycystic kidney disease

12.3 Medullary cystic kidney disease

12.4 Medullary sponge kidney

12.5 Alport's and other familial kidney disease

13. **Prescribing drugs in renal failure**

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Section (C): 30 %

14. **Organ donation (Kidney, liver, pancreas, heart etc) and Kidney transplantation**
 - 14.1 Basic concept of organ donation and transplantation
 - 14.2 Assessment and investigations of the donor and recipient undergoing renal transplantation
 - 14.3 Acute Tubular Necrosis and acute rejection of the transplanted kidney
 - 14.4 Concept of immunology and commonly used drugs used in renal transplantation with their side effects
 - 14.5 Complications and their management in a renal transplant recipient

15. **Human Organ Transplant Act and Regulations**