

शहीद धर्मभक्त राष्ट्रिय प्रत्यारोपण केन्द्र
नेपाल स्वास्थ्य सेवा, विविध समूह, सातौं (७) तहको ट्रान्सप्लान्ट कोर्डिनेटर पदको 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)

पत्र	विषय	पूर्णाङ्क	उतीर्णाङ्क	परीक्षा प्रणाली		प्रश्नसंख्या X अङ्क	समय
प्रथम	Technical Subject	१००	४०	वस्तुगत	बहुवैकल्पिक प्रश्न	५० प्रश्न x २ अङ्क	४५ मिनेट
द्वितीय		१००	४०	विषयगत		१० प्रश्न x १० अङ्क	३ घण्टा

द्वितीय चरण (Second Phase)

विषय	पूर्णाङ्क	परीक्षा प्रणाली
अन्तर्वार्ता	३०	मौखिक

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 पत्रको विषयवस्तु एउटै हुनेछ ।
- प्रथम र द्वितीय पत्रको लिखित परीक्षा छुट्टाछुट्टै हुनेछ ।
- परीक्षामा सोधिने प्रश्नसंख्या, अङ्क र अङ्कभार यथासम्भव सम्बन्धित पत्र/विषयमा तोकिए अनुसार हुनेछ ।
- वस्तुगत बहुवैकल्पिक (Multiple Choice) प्रश्नहरूको गलत उत्तर दिएमा प्रत्येक गलत उत्तर बापत २० प्रतिशत अङ्क कट्टा गरिनेछ । तर उत्तर नदिएमा त्यस बापत अङ्क दिइने छैन र अङ्क कट्टा पनि गरिने छैन ।
- बहुवैकल्पिक प्रश्नहरू हुने परीक्षामा कुनै प्रकारको क्याल्कुलेटर (Calculator) प्रयोग गर्न पाइने छैन ।
- विषयगत प्रश्नका लागि तोकिएका १० अङ्कका प्रश्नहरूको हकमा १० अङ्कको एउटा लामो प्रश्न वा एउटै प्रश्नका दुई वा दुई भन्दा बढी भाग (Two or more parts of a single question) वा एउटा प्रश्न अन्तर्गत दुई वा बढी टिप्पणीहरू (Short notes) सोध्न सकिने छ ।
- विषयगत प्रश्नमा प्रत्येक पत्र/विषयका प्रत्येक खण्डका लागि छुट्टाछुट्टै उत्तरपुस्तिकाहरू हुनेछन् । परीक्षार्थीले प्रत्येक खण्डका प्रश्नहरूको उत्तर सोही खण्डका उत्तरपुस्तिकामा लेख्नुपर्नेछ ।
- यस पाठ्यक्रम योजना अन्तर्गतका पत्र/विषयका विषयवस्तुमा जेसुकै लेखिएको भए तापनि पाठ्यक्रममा परेका कानून, ऐन, नियम तथा नीतिहरू परीक्षाको मिति भन्दा ३ महिना अगाडि (संशोधन भएका वा संशोधन भई हटाईएका वा थप गरी संशोधन भई) कायम रहेकालाई यस पाठ्यक्रममा परेको सम्झनु पर्दछ ।
- प्रथम चरणको परीक्षाबाट छनौट भएका उम्मेदवारहरूलाई मात्र द्वितीय चरणको परीक्षामा सम्मिलित गराइनेछ ।
- पाठ्यक्रम लागू मिति :-

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Paper I and II: Technical subject

Section (A): 30 %

1. Nursing Concept and Principles

1.1 Nursing Theory

1.1.1 V. Henderson

1.1.2 D. Orem

1.1.3 Roy's

1.1.4 Florence Nightingale

1.2 Nursing Process

1.2.1 Steps of Nursing process

1.3 Pain and Stress management in Renal diseases (Acute and Chronic)

1.3.1 Nursing Management

1.3.2 Medical Management

1.4 Holistic Health Care

1.4.1 Components of holistic health care to renal failure

1.4.2 Methods of holistic care

1.5 Creativity in Nursing related to organ transplantation

1.5.1 Methods of creativity

1.5.2 Barriers of creativity

1.6 Professional Development

1.6.1 Nursing ethics in caring for the patient with organ failure

1.6.2 Trends in the areas of organ transplantation

1.6.3 Professional and client's right

1.6.4 Legal Right

1.6.5 ICN code of Nursing

1.6.6 ICM code of Nursing

1.6.7 Nursing Association of Nepal

1.6.8 Nepal Nursing Council

2. Behavioral Science and Psychology applied in Nursing

2.1 Major cultural groups and their health seeking behavior.

2.2 Factors affecting health of the people with special focus to organ failure

2.2.1 Socio economic conditions

2.2.2 Education

2.2.3 Politics

2.2.4 Gender

2.2.5 Physical environment

2.2.6 Occupation

2.2.7 Nutrition

2.3 Social problems in Nepal

2.3.1 Organ trafficking

2.3.2 Poverty

2.3.3 Unemployment

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- 2.3.4 Substance abuse
- 2.3.5 Violence
- 2.3.6 Gender bias related to organ donation
- 2.4 Psychology applied to Nursing
 - 2.4.1 Characteristics of human behavior
 - 2.4.2 Causes of behavioral changes
 - 2.4.3 Emotional development
 - 2.4.4 Control of emotion
 - 2.4.5 Counseling of the patient with chronic diseases
- 3. **Education Science in Nursing**
 - 3.1 Teaching and Learning
 - 3.1.1 Principles
 - 3.1.2 Factors which affect Teaching / Learning
 - 3.2 Roles and Responsibilities of a Hemodialysis and post Transplant nurse
 - 3.3 Teaching Methods and Media
 - 3.3.1 Teaching methods
 - 3.3.1.1 Microteaching
 - 3.3.1.2 Evidenced based learning
 - 3.3.1.3 Self directed learning
 - 3.3.1.4 Seminar/Symposium exhibition
 - 3.3.1.5 Case study presentation
 - 3.3.2 Media
 - 3.3.2.1 Audio Aids
 - 3.3.2.2 Video Aids
 - 3.3.2.3 Audio - Video Aids
 - 3.4 In-service Education
 - 3.4.1 Need Assessment
 - 3.4.2 Planning, organizing & conducting
 - 3.4.3 Micro teaching to patients visiting a transplant center
 - 3.4.4 Clinical Teaching to nurses working in a transplant center
 - 3.4.5 Evaluation and Feedback
 - 3.5 Components of Curriculum Development
 - 3.6 Evaluation
 - 3.6.1 Types
 - 3.6.2 Characteristics of evaluation tools
- 4. **Health Care Management**
 - 4.1 Trends of Health Care delivery system in Nepal
 - 4.2 Management:
 - 4.2.1 Concept, principles, theories
 - 4.2.2 Resource management
 - 4.3 Planning:
 - 4.3.1 Elements, process
 - 4.3.2 Benefits and Limitation

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- 4.4 Organization
 - 4.4.1 Types, Principles, elements
- 4.5 Organizational behavior
 - 4.5.1 Group Dynamic
 - 4.5.2 Communication
 - 4.5.3 Organizational conflict and management (Problem solving)
- 4.6 Organizational structures of Health Care Delivery system in Nepal
- 4.7 Leadership
 - 4.7.1 Theories
 - 4.7.2 Types
 - 4.7.3 Functions
 - 4.7.4 Characteristics
- 4.8 Supervision and monitoring
 - 4.8.1 Concept
 - 4.8.2 Purpose
- 4.9 Personnel development
 - 4.9.1 Motivation
 - 4.9.2 Morale
 - 4.9.3 Leadership and decision making
- 4.10 Human Recourse Development
 - 4.10.1 Elements, steps
 - 4.10.2 Production/distribution
- 4.11 Health Economics
 - 4.11.1 Concepts
 - 4.11.2 Demand and supply
 - 4.11.3 Cost benefit and cost effectiveness in Nursing Management
 - 4.11.4 Application in Nursing service
- 4.12 Health Information Management
- 4.13 Disaster Management
- 4.14 Quality Assurance Management
- 4.15 Job description
- 4.16 National Policies
 - 4.16.1 National Health Policy
 - 4.16.2 Strategy
 - 4.16.3 Priority
- 4.17 Current periodic plan
 - 4.17.1 Sustainable development goal
 - 4.17.2 Second long-term health plan
- 5. Research & Statistics**
 - 5.1 Research Terminology
 - 5.1.1 Variables
 - 5.1.2 Principles
 - 5.1.3 Hypothesis

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- 5.1.4 Operational definitions
- 5.1.5 Limitations & Delimitations
- 5.1.6 Validity & Reliability
- 5.2 Ethics & Regulations in Health & Nursing Research
 - 5.2.1 Ethics in Research.
 - 5.2.2 National Ethical guidelines in Health research in Nepal (NHRC)
- 5.3 Methodology
 - 5.3.1 Types of research
 - 5.3.2 Sampling Techniques
 - 5.3.3 Method of data collection
 - 5.3.4 Development of Instrumentation
 - 5.3.5 Statistical Data analysis
 - 5.3.6 Report writing & Dissemination
- 5.4 Importance of Research in Nursing services
- 6. **Applied health Sciences: Anatomy, Physiology, Pathology and Microbiology**
 - 6.1 Genito-urinary system
 - 6.2 Cardiovascular system
 - 6.3 Gastrointestinal system
 - 6.4 Hepatobiliary system
 - 6.5 Endocrine system
 - 6.6 Neurological system
 - 6.7 Respiratory system
- 7. **Medical Surgical Nursing: Management of clients suffering with diseases related to following systems**
 - 7.1 Genito-urinary problems
 - 7.2 Cardiovascular problems
 - 7.3 Neurological problems
 - 7.4 Hepatobiliary problems
 - 7.5 Endocrine problems
 - 7.6 Gastrointestinal problems
 - 7.7 Respiratory problems

Section (B): 40 %

- 8. **Role of Transplant Coordinator**
 - 8.1 History and Current Practice
 - 8.1.1 History of Transplant Coordinator role development
 - 8.1.2 Role in the transplant team
 - 8.1.3 Challenges and limitations of the role
 - 8.1.4 Global differences in the role
 - 8.2 Pre and Post-transplant counseling
 - 8.2.1 Steps of counseling
 - 8.2.2 Pre- requisites for counseling
 - 8.2.3 Assessment of level of understanding of the patients
 - 8.2.4 Important aspects in pre and post organ transplant counseling
 - 8.2.5 Counseling of the bereaving families for cadaveric organ donation

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- 8.2.6 Challenges in dealing with patients and families with chronic diseases and roles and responsibilities of a coordinator in their management
- 8.3 Evaluation and Management of the Transplant Candidate
 - 8.3.1 Indications/Contraindications for Transplantation
 - 8.3.2 Evaluation and management
 - 8.3.3 Elements of evaluation
 - 8.3.3.1 Tests
 - 8.3.3.2 Imaging
 - 8.3.3.3 Legal aspects
 - 8.3.4 Decision-making
 - 8.3.5 Patient and family education
 - 8.3.6 Psychosocial issues: pre-transplant
 - 8.3.6.1 Substance abuse
 - 8.3.6.2 Support systems
 - 8.3.6.3 Post-opt management
 - 8.3.6.4 Financial assessment
- 8.4 Immediate Post Transplant Care
 - 8.4.1 Immediate Post Transplant Management
 - 8.4.1.1 ICU management
 - 8.4.1.2 Surgical and Medical Complications
 - 8.4.1.3 Prophylactic Regimen
 - 8.4.1.4 Immunosuppression therapy
 - 8.4.2 Management of Acute Cellular Rejection and Antibody Mediated Rejection
 - 8.4.2.1 Definitions of acute cellular rejection and antibody mediated rejection
 - 8.4.2.2 Management strategies of acute cellular rejection
 - 8.4.2.3 Management strategies of antibody mediated (humoral) rejection
 - 8.4.3 Post-operative Patient Education
 - 8.4.3.1 Medication teaching
 - 8.4.3.2 Signs and symptoms of infection and rejection
 - 8.4.3.3 Monitoring for infection, rejection and changes in medical status
 - 8.4.3.4 Follow up care post discharge
- 8.5 Long Term Follow-up
 - 8.5.1 Follow up Surveillance program (include common complications diabetes, HTN, hypercholesterolemia)
 - 8.5.2 Current recommendations
 - 8.5.3 Role of the surveillance biopsy
 - 8.5.4 Non-transplant complications, frequencies, and treatment strategies
 - 8.5.5 Return to Work, School and Quality of Life
 - 8.5.6 Infection and Malignancy
 - 8.5.6.1 Common infections and their timing in the post-transplant period
 - 8.5.6.2 Prevention and treatment of infections
 - 8.5.6.3 Malignancy Risk
 - 8.5.6.4 Prevention and treatment of malignancy
 - 8.5.7 Chronic Rejection
 - 8.5.7.1 Signs and symptoms
 - 8.5.7.2 Current treatment strategies
 - 8.5.7.3 Re-transplantation

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Section (C): 30 %

9. **Organ donation and transplantation (Kidney, Liver, Pancreas and others)**
 - 9.1 Basic concept of immunology and opportunistic infections after organ transplantation
 - 9.2 Basic concept of organ failure, global and national scenario, complications and treatment modalities
 - 9.3 Concept of organ donation and transplantation
 - 9.4 Pharmacology
 - 9.4.1 Principles of pharmacokinetics and pharmacodynamics
 - 9.4.2 Important drugs used in organ transplantation, brief mechanism of action and adverse reactions
 - 9.5 Microbiology
 - 9.5.1 Classification of micro-organisms common among transplant recipients
 - 9.5.2 Different methods and types of sterilization
10. **Laws related to health, nursing**
 - 10.1 Medico-legal case
 - 10.2 Disposal of dead body
 - 10.3 Narcotic drugs
11. **Human Organ Transplant Act and Regulations**
 - 11.1 Human Organ Transplantation (Regulation and Prohibition) Act- 2055
 - 11.2 Human Organ Transplantation (Regulation and Prohibition) Act- 2072
 - 11.3 Human Organ Transplantation Regulations- 2073
12. **General knowledge about Shahid Dharmabhakta National Transplant Center**