

शहीद धर्मभक्त राष्ट्रिय प्रत्यारोपण केन्द्र
नेपाल स्वास्थ्य सेवा, विविध समूह, छैठौं (६) 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 । परिक्षार्थीले 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 & 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
 - 1.3.1 Nursing Management
 - 1.3.2 Medical Management
 - 1.4 Holistic Health Care
 - 1.4.1 Components of holistic health care
 - 1.4.2 Methods of holistic care
 - 1.4.3 Alternative medicines
 - 1.5 Professional Development
 - 1.5.1 Nursing ethics
 - 1.5.2 Trends
 - 1.5.3 Professional and clients' right
 - 1.5.4 Legal Right
 - 1.5.5 ICN code of Nursing
 - 1.5.6 ICM code of Nursing
 - 1.5.7 Nursing Association of Nepal
 - 1.5.8 Nepal Nursing Council
2. **Behavioral Science and Applied Psychology**
 - 2.1 Factors affecting health of the people with special focus to organ failure
 - 2.1.1 Socio economic conditions
 - 2.1.2 Education
 - 2.1.3 Politics
 - 2.1.4 Gender
 - 2.1.5 Physical environment
 - 2.1.6 Occupation
 - 2.1.7 Nutrition
 - 2.2 Social problems in Nepal
 - 2.2.1 Organ trafficking
 - 2.2.2 Poverty
 - 2.2.3 Unemployment
 - 2.2.4 Substance abuse
 - 2.2.5 Violence
 - 2.2.6 Gender bias
 - 2.3 Applied Psychology
 - 2.3.1 Anxiety
 - 2.3.2 Depression
 - 2.3.3 Death and dying
 - 2.3.4 Behavioral change
 - 2.3.5 Disability

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- 2.3.6 Counseling
 - 2.3.7 Motivation
 - 2.3.8 Psychotherapy: Psychodynamic therapy, Cognitive and behavioral therapy, Humanistic therapy and Group and family therapy
- 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 Teacher.
 - 3.3 Teaching Methods and Media
 - 3.3.1 Teaching methods
 - 3.3.1.1 Microteaching problems
 - 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 Class room teaching
 - 3.4.4 Clinical Teaching
 - 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
 - 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

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- 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
- 5. Research & Statistics**
- 5.1 Research Terminology
 - 5.1.1 Variables
 - 5.1.2 Principles
 - 5.1.3 Hypothesis
 - 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
- 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

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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
 - 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

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- 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

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**