

शहीद धर्मभक्त राष्ट्रिय प्रत्यारोपण केन्द्र
मानव अङ्ग प्रत्यारोपण विकास समिति, प्रविधिक सेवा, जनरल नर्सिङ्ग समूह, पाँचौ तह, स्टाफ नर्स पदको खुला
प्रतियोगितात्मक परीक्षाको 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	Nursing I	१००	४०	वस्तुगत	बहुवैकल्पिक प्रश्न (MCQ)	५० प्रश्न x २ अङ्क	४५ मिनेट
द्वितीय	Nursing II	१००	४०	विषयगत	छोटो आउने प्रश्न	१२ प्रश्न x ५ अङ्क	२ घण्टा ३० मिनेट
					लामो आउने प्रश्न	४ प्रश्न x १० अङ्क	

द्वितीय चरण (Second Phase) : अन्तर्वार्ता (Interview)

विषय	पूर्णाङ्क	परीक्षा प्रणाली
अन्तर्वार्ता	३०	मौखिक

द्रष्टव्य :

- लिखित परीक्षाको माध्यम भाषा नेपाली वा अंग्रेजी अथवा नेपाली र अंग्रेजी दुवै हुन सक्नेछ ।
- प्रथम र द्वितीय पत्रको लिखित परीक्षा छुट्टाछुट्टै हुनेछ ।
- लिखित परीक्षामा सोधिने **प्रश्नसंख्या र अङ्कभार** यथासम्भव सम्बन्धित पत्र/विषयमा दिईए 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 ।
- वस्तुगत बहुवैकल्पिक हुने परीक्षामा परीक्षार्थीले उत्तर लेख्दा अंग्रेजी ठूलो अक्षर (Capital letter) A,B,C,D मा लेख्नुपर्नेछ । सानो अक्षर (Small letter) a,b,c,d लेखेको वा अन्य कुनै सङ्केत गरेको भए सबै उत्तरपुस्तिका रद्द हुनेछ ।
- बहुवैकल्पिक प्रश्नहरू हुने परीक्षामा कुनै प्रकारको क्याल्कुलेटर (Calculator) प्रयोग गर्न पाइने छैन ।
- विषयगत प्रश्नहरूको हकमा 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 प्रश्न हुने पत्रमा प्रत्येक खण्डका लागि छुट्टाछुट्टै उत्तरपुस्तिकाहरू हुनेछन् । परीक्षार्थीले प्रत्येक खण्डको प्रश्नको उत्तर सोही खण्डको उत्तरपुस्तिकामा लेख्नुपर्नेछ ।
- यस पाठ्यक्रम योजना अन्तर्गतका पत्र/विषयका विषयवस्तुमा जुनसुकै कुरा लेखिएको भए तापनि पाठ्यक्रममा परेका कानून, ऐन, नियम, विनियम 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 स्वीकृत मिति :- २०८१/०८/०४

Paper I and II

Section (A): 50%

1. Fundamentals of Nursing & Applied science (10%)

1.1. Infection Prevention and Control in Hospital

- 1.1.1. Infection prevention and control in critical care unit, Hemodialysis, transplant ward and other general ward
- 1.1.2. Standard precautions and its components
- 1.1.3. Hospital acquired infections, CRBSI (Catheter Related Blood Stream Infection), CLABSI (Central Line Associated Blood Stream Infection, CAUTI (Catheter Associated Urinary Tract Infection), SSI (Surgical Site Infection), VAP (Ventilator Associated Pneumonia) and its prevention
- 1.1.4. Hospital waste management
- 1.1.5. Different methods of sterilization

1.2. Applied Science

- 1.2.1. Anatomy and physiology of all body systems
- 1.2.2. Body mechanisms, Fluid and electrolyte, Osmosis, Diffusion, Acid base balance
- 1.2.3. Common investigations and its significance
- 1.2.4. Process of urine formation, cardiac output, process of bile formation, secretion
- 1.2.5. Common drugs used in Chronic Kidney Disease (CKD), Chronic Liver Disease (CLD), Kidney Transplant, Liver Transplant, Diabetes Mellitus (DM), Sepsis its action and side effects (Cardiac emergency drugs, drugs used for patients with CKD, during dialysis, antihypertensive, Oral antihypoglycemic drugs, Insulin, Immunosuppressant, sedatives, common emergency drugs

2. Medical Surgical Nursing (20%)

- 2.1. Respiratory problems: Pulmonary TB, Pleurisy, Pneumonia, Atelectasis, pneumothorax, acute respiratory distress syndrome (ARDS), Pulmonary edema, Pulmonary artery hypertension
- 2.2. Cardiovascular problems: Angina pectoris, Cardiac Arrest, Myocardial infarction, Shock, Anemia, Arrhythmias, Pericardial effusion, Congestive Heart Failure (CHF), Hypertension, Anemia, Surgeries (Coronary Artery Bypass Graft (CABG), valve replacement
- 2.3. Genitourinary problems: Urinary Tract Infection (UTI), Acute Kidney Injury (AKI), Chronic Renal Failure, Benign Prostatic Hypertrophy (BPH), Bladder stones, Pyelonephritis, Glomerulonephritis, Nephrotic syndrome, Renal Stone, Neurogenic bladder.
- 2.4. Hepatobiliary problems: Alcoholic liver disease, Acute fulminant hepatic failure, Cholelithiasis, Cholecystitis, Pancreatitis, Viral infection (Hepatis A, B, C, D, E), Cirrhosis of liver, Portal hypertension, Ascites, Hepatic Encephalopathy
- 2.5. Gastrointestinal problems: Peptic Ulcer Disease, Variceal bleeding, Peritonitis, Bowel obstruction
- 2.6. Endocrine problems: Diabetes mellitus, Diabetes ketoacidosis, Diabetes insipidus, Hypothyroidism, Hyperthyroidism, Nephrotic Syndrome

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- 2.7. Electrolyte disorder: Hypo/ Hyperkalemia, Hypo / Hyponatremia, Hypo/
Hypercalcemia, Hypo / Hypermagnesemia
- 2.8. Immunological: Systemic Lupus Erythematous (SLE), IgA Nephropathy

3. Behavioral Science, Leadership and Management and Community Health in Nursing (10%)

- 3.1. Behavioral Science in Nursing:
- 3.1.1. Nurse patient relationship
 - 3.1.2. Ethical and legal aspect in nursing
 - 3.1.3. Patients' rights
- 3.2. Leadership and Management in Nursing:
- 3.2.1. Management process: Supervision, motivation, implementation and evaluation
 - 3.2.2. Leadership style
 - 3.2.3. Organizational structure of Government health services
 - 3.2.4. Communication process
- 3.3. Community Health Nursing:
- 3.3.1. Epidemiological concepts and approaches
 - 3.3.2. Nutrition, deficiency diseases and management
 - 3.3.3. Non communicable diseases and its preventive measures
 - 3.3.4. Health teaching, Use of Audio Visual aids
 - 3.3.5. Screening of chronic kidney disease

4. Noninvasive and invasive procedures and Critical care: (10%)

- 4.1. Critical care:
- 4.1.1. Intubation tray preparation, drug drip calculation
 - 4.1.2. Chest tube drainage and its management
 - 4.1.3. Suctioning and Basic life saving techniques and use of incentive spirometry
 - 4.1.4. Nursing care of patients under ventilator
 - 4.1.5. Basic roles and responsibilities of nurses in Operation Theatre
 - 4.1.6. Immediate post-operative management of patient after surgery under general anesthesia, spinal anesthesia
- 4.2. Noninvasive and Invasive Procedures:
- 4.2.1. Biopsy (mainly Kidney and Liver)
 - 4.2.2. Body composition monitor (BCM)
 - 4.2.3. Tread Mill Test (TMT), Ambulatory Blood Pressure (ABP) monitoring
 - 4.2.4. Percutaneous Coronary Angioplasty (PCI), Coronary angiogram
 - 4.2.5. Holter, Electrocardiogram (ECG) and Echocardiogram (ECHO)
 - 4.2.6. Endoscopic procedures
 - 4.2.6.1. Gastroscopic procedures
 - 4.2.6.2. Cystoscopy, RIRS (Retrograde Intrarenal Surgery), URSL (Ureteroscopic Lithotripsy), PCNL (Percutaneous Nephrolithotomy)
 - 4.2.7. Fluid tapping: Paracentesis and thoracocentesis
 - 4.2.8. Peritoneal Equilibrium Test (PET)
 - 4.2.9. Suprapubic Catheterization
 - 4.2.10. Blood transfusion

Section (B): 50 %

- 5. Transplantation and Nursing Management (20%)**
- 5.1. Basic concept of organ donation and transplantation (Special focus on Kidney, Liver and heart Transplantation)
 - 5.2. Types of donors, Relationship list for organ donation, Type of organ donation
 - 5.3. Process of organ donation, List of documents required for organ donation
 - 5.4. Definition, Indications, Contraindications, Benefits, Complications of organ transplantation especially renal, liver and heart transplantation
 - 1.1 Concept of immunology and immunological tests – Human leucocyte antigen (HLA), Donor Specific Antibodies (DSA), Panel Reactive Antibodies (PRA) and Complement Dependent Cytotoxicity (CDC) cross match.
 - 5.5. Preoperative preparation and post-operative care of recipient and donor
 - 5.6. Post-transplant follows up and Counseling to the patient and family
 - 5.7. Post-transplant complication and management
 - 5.8. Concept of immunology and common infections after organ transplantation
 - 5.9. Diet and lifestyles to be followed after transplantation
 - 5.10. Special drugs used for patient before, during after transplantation
 - 5.11. Concept of brain death, Number of organs that can be recovered from brain death patient, Organ preservation time
 - 5.12. Brain death organ donation and its challenges and advocacy among medical professionals and general public
- 6. Hemodialysis and its nursing management (10%)**
- 6.1. Definition, indications, contraindications, complications, adequacy of hemodialysis
 - 6.2. Principles, adequacy and nurse's role in hemodialysis
 - 6.3. Diet, drugs and investigations during hemodialysis
 - 6.4. Vascular access and its care for hemodialysis
 - 6.5. Water treatment, hemodialysis machine preparation and disinfection
 - 6.6. Emergencies during hemodialysis
- 7. Peritoneal Dialysis, Continuous Renal Replacement Therapy and Plasmapheresis and its nursing management (10%)**
- 7.1. Definition, types, indications, contraindications, complications of peritoneal dialysis
 - 7.2. Principles, adequacy and nurse's role in peritoneal dialysis
 - 7.3. Diet, self-care and follow up of patients for peritoneal dialysis
 - 7.4. Types of catheters, fluids needed for peritoneal dialysis
 - 7.5. Definition, indications, principle
 - 7.6. Nurse's role in carrying out the therapy
- 8. General information (10 %)**
- 8.1. Human Organ Transplantation (Regulation and Prohibition) Act, 2055 with amendment.
 - 8.2. Human Organ Transplantation Regulations, 2073
 - 8.3. Guidelines on medical treatment of deprived citizens program, 2080

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- 8.4. Human Organ Transplant Development Committee Personnel Administration Rules, 2069 (मानव अंग प्रत्यारोपण विकास समिति कर्मचारी प्रशासन नियमवाली, २०६९)
- 8.5. Human Organ Transplant Development Committee Formation Order, 2068 (मानव अंग प्रत्यारोपण विकास समिति गठन आदेश, २०६८)
- 8.6. General knowledge about Shahid Dharmabhakta National Transplant Center

प्रथम र द्वितीय पत्रको लागि यथासम्भव निम्नानुसार प्रश्नहरू सोधिनेछ ।

प्रथम पत्र (वस्तुगत)								
खण्ड	A				B			
इकाई	1	2	3	4	5	6	7	8
प्रश्न संख्या	5	10	5	5	10	5	5	5

द्वितीय पत्र (विषयगत)					
पत्र	विषय	खण्ड	अङ्कभार	छोटो उत्तर	लामो उत्तर
द्वितीय	Technical subject	A	५०	६ प्रश्न × ५ अङ्क = ३०	२ प्रश्न × १० अङ्क = २०
		B	५०	६ प्रश्न × ५ अङ्क = ३०	२ प्रश्न × १० अङ्क = २०