

**शहीद धर्मभक्त राष्ट्रिय प्रत्यारोपण केन्द्र**  
**नेपाल स्वास्थ्य सेवा, विविध समूह, सातौं (७) तहको डाइटिसियन 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 सम्भन्नु 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): 40 %**

**1. Nutrition and Nutrients**

- 1.1 Introduction to nutrition
- 1.2 Nutrients (Macro and Micro Nutrients) (Functions, sources, classification, composition, requirements, deficiency and excess effects of nutrition)
- 1.3 Balanced diet, Principles of balanced diet Nutritive value of different food, cereals, pulses, nuts and oil seed vegetables, Fruits, milk, meat, fish, egg, spices, sugar and fats
- 1.4 Minimum Nutritional Requirements and RDA. Formulation of RDA and Dietary Guidelines – Reference Man and Reference Woman.
- 1.5 Energy requirements, Recommended daily energy requirement, Basal metabolic rate, BMR, factors affecting BMR
- 1.6 Nutritional considerations for planning meals for:
  - 1.6.1 Adults – male and female, different levels of physical activity.
  - 1.6.2 Pregnancy and Lactation
  - 1.6.3 Feeding of young children 0 -3 years
  - 1.6.4 Old ages

**2. Nutrition Education and Dietetic Counseling**

- 2.1 Dietitian as part of the Medical Team and Outreach Services.
- 2.2 Clinical Information – Medical History and Patient Profile Techniques of obtaining relevant information, Retrospective information, Dietary Diagnosis, Assessing food and nutrient intakes, Lifestyles, Physical activity, Stress, Nutritional Status. Correlating Relevant Information and identifying areas of need.
- 2.3 Motivating Patients
- 2.4 Working with
  - 2.4.1 Hospitalized patients (adults, pediatric, elderly, and handicapped), adjusting and adopting to individual needs.
  - 2.4.2 Outpatients (adults, pediatric, elderly, handicapped), patients' education, techniques and modes.
  - 2.4.3 Follow up, Monitoring and Evaluation of outcome, Home visits
  - 2.4.4 Maintaining records, reporting findings, applying findings, Resources and Aids for education and counselling, Terminating counselling, Education for individual patients, Use of regional language, linguistics in communication process, Counselling and education.

**Section (B): 40 %**

**3. Nutritional Assessment and Intervention**

- 3.1 Therapeutic diets, Types and Need of Therapeutic Diets
- 3.2 Nutritional Intervention – Diet Modifications
- 3.3 Assessment and Therapy in Patient Care
- 3.4 Nomenclature of Diet Adequacy of Standard Hospital Diets
- 3.5 Psychological factors in feeding the sick person
- 3.6 Nutritional Care in Disease
- 3.7 The Nutritional Care Process

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- 3.8 Implementation of Nutritional Care
  - 3.9 Adequate normal diet as a basis for therapeutic diets
  - 3.10 Diet Prescription
  - 3.11 Diet counseling
  - 3.12 Special feeding methods, tube feeding and parenteral feeding, pre and post-operative diet
- 4. Nutritional Implications and Diseases**
- 4.1 Pathogenesis of Obesity, Malnutrition and Starvation.
  - 4.2 Pathophysiology of GI tract diseases – anatomic, physiologic and functional changes, impact on nutritional status and nutritional implications, post-surgical complications and management, malabsorption syndrome.
  - 4.3 Pathophysiology of liver diseases – Progression of liver disease metabolic and nutritional implications, role of specific nutrients and alcohol.
  - 4.4 Diseases of the Gall Bladder and Pancreas – Pathophysiologic changes – metabolic and nutritional implications, Dyslipidemias.
  - 4.5 Cardio-vascular Diseases – Pathogenesis, role of nutrients in prevention – metabolic and nutritional implications, Dyslipidemias.
  - 4.6 Diseases of the renal system – etiology and pathogenesis – changes in function with progression of diseases, metabolic and nutritional implications, water and electrolyte balance.
  - 4.7 Organ transplantation: Chronic renal failure medical treatment, Renal transplants. Dialysis and types hemodialysis, Peritoneal Dialysis & Continuous Ambulatory Peritoneal Dialysis. Dietary Management in conservative treatment, dialysis and after renal transplantation.
  - 4.8 Use of Sodium and Potassium Exchange lists in Renal (diet planning).
    - 4.8.1 Chronic renal failure in patients with diabetes mellitus
    - 4.8.2 Chronic renal failure in children
  - 4.9 Metabolic Disorders, Diseases of Endocrine Glands and Inborn Errors of Metabolism. Diabetes, Hyper and Hypothyroidism, Inborn errors of carbohydrate and protein metabolism.
  - 4.10 Cancer – carcinogenesis – pathogenesis and progression of cancer, role of nutrients, foodstuffs and food additives in cancer. Therapies and their clinical and metabolic implications.
  - 4.11 Immunity & infection – diarrhea, HIV/AIDS, Respiratory problems. Burns, Fevers
  - 4.12 Musculo-skeletal problems, arthritis, osteoporosis.

**Section (C): 20 %**

- 5. Basic concept of solid organ donation and transplantation**
- 6. Human Organ Transplant Act and Regulations**
  - 6.1 Human Organ Transplantation (Regulation and Prohibition) Act- 2055
  - 6.2 Human Organ Transplantation (Regulation and Prohibition) Act- 2072
  - 6.3 Human Organ Transplantation Regulations- 2073
- 7. Diet after kidney, liver and pancreas transplantation**
- 8. General knowledge on Shahid Dharmabhakta National Transplant Center**