

बी.पी. कोइराला मेमोरियल क्यान्सर अस्पताल  
प्राविधिक (स्वास्थ्य) सेवा, मेडिकल (चिकित्सक) समुह, इपिडेमियोलोजी/रोग रोकथाम र नियन्त्रण (पब्लिक हेल्थ) उपसमुह, अधिकृत  
नवौं तह, रजिष्ट्रार पदको खुला र आन्तरिक प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

यस पाठ्यक्रम योजनालाई दुई चरणमा विभाजन गरिएको छ :

प्रथम चरण :- लिखित परीक्षा (Written Examination)

पूर्णाङ्क :- २००

द्वितीय चरण :- अन्तर्वार्ता (Interview)

पूर्णाङ्क :- ३०

### परीक्षा योजना (Examination Scheme)

प्रथम चरण (First Phase) : लिखित परीक्षा

Paper	Subject	Full Marks	Pass Marks	No. Questions & Weightage	Time Allowed
I	General Subject	100	40	10 × 5 = 50 (Short answer) 5 × 10 = 50 (Long answer)	3.00 hrs
II	Technical Subject	100	40	6 × 10 = 60 (Long answer) 2 × 20 = 40 (Problem Solving)	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 ।
- विषयगत प्रश्नमा प्रत्येक खण्डका लागि छुट्टाछुट्टै उत्तरपुस्तिकाहरू हुनेछन् । परीक्षार्थीले प्रत्येक खण्डका प्रश्नहरूको उत्तर सोही खण्डका उत्तरपुस्तिकामा लेख्नुपर्नेछ ।
- यस पाठ्यक्रममा जे सुकै लेखिएको भएतापनि पाठ्यक्रममा परेका ऐन, नियमहरू, 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 उम्मेदवारहरूलाई मात्र द्वितीय चरणको परीक्षामा सम्मिलित गराइनेछ ।
- पाठ्यक्रम लागू मिति :- २०७८/०२/२१

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नवौ तह, रजिष्ट्रार पदको खुला र आन्तरिक प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

**Paper I: General Subject**

**Section (A): 40% Marks (4×5 marks, 2×10 marks)**

**1. Administration and Management**

- 1.1. Public Administration: concept, scope, functions and challenges
- 1.2. Management: concept, scope, functions, principles, and its practices
- 1.3. Contemporary management issues and challenges
- 1.4. Hospital Management : concept, scope, function, principle and its practices
- 1.5. Human resource management: concept, functions and different aspects
- 1.6. Basic managerial skills: coordination and public relation, communication and counselling, problem solving and decision making, leadership, team building, rapport building, planning, organizing, monitoring and evaluation
- 1.7. Emerging management concepts and their application in the Nepalese Public Management: Time management, Resource management (human, financial and physical), Technology management, Performance management, Stress management, Conflict management, Risk management and Participative management
- 1.8. Planning: concept, principles, nature, types, instrument and steps
- 1.9. Motivation, appreciative inquiry and social responsibility
- 1.10. Positive attitude and self-development
- 1.11. Group dynamic and organizational behavior
- 1.12. Grievance redressal and settlement
- 1.13. Financial Management: Concept, Approaches, Budget Formulation and Implementation, Auditing and topics related to Fiscal administration

**Section (B): 40% Marks (4×5 marks, 2×10 marks)**

**2. General Health Issues**

- 2.1. Present Constitution of Nepal (health and welfare issues)
- 2.2. National Health Policy
- 2.3. Health sector in current periodical plan
- 2.4. Health Service Act, 2053 and Health Service Regulation, 2055
- 2.5. Professional council related acts and regulations
- 2.6. Act Regulating Narcotics
- 2.7. NMC and National Health Agencies
- 2.8. Indigenous and traditional faith healing and health practices
- 2.9. International health agencies: Role and responsibilities of WHO, UNICEF, UNFPA and interagency relationships
- 2.10. Health and Human Right including Women's Right, Children's Right, Professional's Right, Client Right and Informed consent
- 2.11. Gender issues and health
- 2.12. Urbanization and health impacts
- 2.13. National health training system
- 2.14. Supervision, types and its usage in Health Sector
- 2.15. Monitoring and Evaluation System in Health

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- 2.16. Health Management Information System
- 2.17. Health economics - basic terms, health insurance and financing in Health Care
- 2.18. Federal governance and decentralization in health
- 2.19. Evidence Based Medicine / Critical Appraisal of Scientific Literature
- 2.20. Principles of Research Methodology and Scientific paper writing/publication
- 2.21. Professional and medical ethics
- 2.22. Informed Consent and Medico legal Issues
- 2.23. Medical Audit and Quality Assurance
- 2.24. Information technology and Tele medicine
- 2.25. Drug act and regulation
- 2.26. Rational use of drugs, national drug policy and importance of essential drug list
- 2.27. Ethics, Integrity and Accountability of health professionals
- 2.28. Private sector health institution its regulation and management
- 2.29. Health institution development and management
- 2.30. Patient safety & Breaking Bad News
- 2.31. Cancer Registry: Hospital and Community Based Cancer Registry
- 2.32. Preventive Oncology
  - 2.32.1. Epidemiology
  - 2.32.2. Primary prevention (Cancer Awareness, Cancer Education, Vaccination)
  - 2.32.3. Secondary Prevention (Screening, Screening Methods)
- 2.33. Multidisciplinary Approach in Cancer Management

**Section (C): 20% Marks (2×5 marks, 1×10 marks)**

**3. Organizational Knowledge**

- 3.1. B.P.Koirala Memorial Cancer Hospital : History, organizational structure, functions, roles, services, possibilities, problems and challenges
- 3.2. Service provided by B.P.Koirala Memorial Cancer Hospital-service types, quality, technology, citizen engagement in service design
- 3.3. Relations between Government and other national and international related organizations
- 3.4. Health manpower recruitment and development in B.P.Koirala Memorial Cancer Hospital
- 3.5. B.P.Koirala Memorial Cancer Hospital related act and regulations

**Paper II : Technical Subject**  
**Section (A) – 50 % Marks**

**1. Epidemiology and Diseases Control**

- 1.1 Definition and commonly accepted concepts, approaches, methods, incidence, prevalence, association and causation, disease prevention and control
- 1.2 Aim and use of epidemiology
- 1.3 Epidemiology of diseases (Infectious and non-communicable disease)
- 1.4 Emerging and reemerging diseases
- 1.5 Dynamics of disease transmission-source of reservoir, Mode of transmission susceptible host, immunity and immunizing agents
- 1.6 Investigation of an epidemic
- 1.7 Screening of diseases
- 1.8 Health Indicators
- 1.9 Epidemics and outbreak management
- 1.10 Health care delivery system of Nepal

**2. Health Statistics and Research**

- 2.1 Definitions of statistics and role of statistics in health and medicine
- 2.2 Importance and limitation of statistics
- 2.3 Source of health information
- 2.4 Methods and tools for data collection
- 2.5 Classification, analysis and presentation of data
- 2.6 Measures of central tendency, dispersion, skewness, correlation and Regression
- 2.7 Probability and distribution, sampling and sampling methods, sampling errors, statistical tests of significance : t-test, Z test,  $\chi^2$  test (Chi- square Test) and F- test
- 2.8 Confidence interval and hypothesis testing, type I and type II error
- 2.9 Methods of estimation
- 2.10 Health research: Operational, health system, behavioral, diagnostic, evaluation, cost benefit, effectiveness research and its steps, design and applications
- 2.11 Qualitative and quantitative research
- 2.12 Analytical study, control study, cohort study and descriptive study in cancer research
- 2.13 Recording reporting of different diseases - EWARS, surveillance activities
- 2.14 Health Management Information System

**3. Demography**

- 3.1 National population policy
- 3.2 Population trends – World and Nepal
- 3.3 Measure of population dynamics
- 3.4 Factors affecting fertility, mortality and migration
- 3.5 Life expectancy
- 3.6 National Demographic Health Survey

**4. Infection**

- 4.1 Basic of infection
- 4.2 Major manifestations of infections
- 4.3 Principles of management of infection, including different antimicrobial agent and prevention of infection.
- 4.4 Diseases due to different organism like virus, bacteria, protozoa, helminthes

**Section (B) – 50 % Marks**

- 5. Cancer Registry**
  - 5.1 Definition and importance of cancer registry
  - 5.2 History of cancer registry in the world and Nepal
  - 5.3 Hospital based cancer registry and population based cancer registry
  - 5.4 National cancer registry programme Nepal
  - 5.5 Challenges of cancer registry in Nepal
  - 5.6 WHO, UICC, IACR, INCTR, IARC, HUB of cancer registry
  - 5.7 European cancer registry
  - 5.8 Importance of software in cancer Registry (Canreg 5 )
- 6. Indicators of cancer**
  - 6.1 Cancer incidence and its importance
  - 6.2 Statistical methods for cancer incidence
  - 6.3 Age specific incidence
  - 6.4 Age standardized incidence
  - 6.5 Barriers of cancer incidence in Nepal
- 7. Cancer Survival**
  - 7.1 Cancer Survival and its importance
  - 7.2 Statistical methods for cancer survival
  - 7.3 Barriers of cancer survival in Nepal
  - 7.4 Cancer Survival analysis method
  - 7.5 Influence factors of cancer survival and methods to calculate it
  - 7.6 Life table and Kaplan- Meir method
- 8. Cancer Prevention and Control**
  - 8.1 Components of cancer control
  - 8.2 Breast screening and its importance
  - 8.3 Cervix screening and its importance
  - 8.4 Risk factors of lung cancer, cervix cancer, breast cancer and stomach cancer
- 9. Cancer Diagnostics**
  - 9.1 Role of radiological interventions
  - 9.2 Molecular and cytogenetics
  - 9.3 Tumor markers, IHC (Immunohistochemistry), Flowcytometry
  - 9.4 Nuclear and radionuclear imaging
  - 9.5 Interventional radiology
  - 9.6 Basics of radiation oncology
  - 9.7 Basics of surgical oncology
  - 9.8 Basics of medical oncology
- 10. Non-communicable diseases and cancer related conditions**
  - 10.1 Control of cancers: HIV/EBV/HCV/HTLV
  - 10.2 HIV and cancer
  - 10.3 TB and cancer
  - 10.4 Management of anaemia in cancer
  - 10.5 Diet and nutrition in cancer patients
- 11. General Surgical Principles**
  - 11.1 Shock
  - 11.2 Surgical infection
  - 11.3 Fluid and electrolyte imbalance
  - 11.4 Preoperative and post operative patient care
  - 11.5 TNM classification of cancers