

बी.पी. कोइराला मेमोरियल क्यान्सर अस्पताल
प्राविधिक (स्वास्थ्य) सेवा, मेडिकल (चिकित्सक) समुह, सर्जिकल अंकोलोजी (ब्रेस्ट सर्जरी) उपसमूह, अधिकृत दसौं
तह, जुनियर कन्सल्टेन्ट 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 उत्तरपुस्तिकाहरु हुनेछन् । परीक्षार्थीले प्रत्येक खण्डका प्रश्नहरुको उत्तर सोही खण्डका उत्तरपुस्तिकामा लेख्नुपर्नेछ ।
- यस पाठ्यक्रममा जे सुकै लेखिएको भएतापनि पाठ्यक्रममा परेका ऐन, नियमहरु, 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 उम्मेदवारहरुलाई मात्र द्वितीय चरणको परीक्षामा सम्मिलित गराइनेछ ।
- माथी परीक्षा योजनामा उल्लिखित प्रथम चरणको लिखित परीक्षामा प्रथम चरणको विषयवस्तु स्वास्थ्य सेवाका सबै समूह / उपसमूहका लागि एउटै हुनेछ । तर द्वितीय पत्रको पाठ्यक्रमको विषयवस्तु सम्बन्धित समूह/ उपसमूह अनुरूप फरक फरक हुनेछ ।
- पाठ्यक्रम लागू मिति :- २०७९/०९/०२

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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

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- 2.15. Monitoring and Evaluation System in Health
- 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. Physiology of the breast

- 1.1. Development, proliferation during pregnancy, involution after lactation, involution during menopause
- 1.2. Abnormalities in breast development including hypoplasia, hyperplasia, tubular breast, accessory breast and nipples

2. Surgical anatomy of the breast and the axilla

- 2.1. Muscles and fascias of the thoracic wall and axillary region
- 2.2. Blood supply to the breast, overlying skin and nipple-areola complex as well as vascular anatomy of the axilla
- 2.3. Neural anatomy of the breast, thoracic wall, axillary area and the upper arm
- 2.4. Lymphatic drainage patterns to ipsilateral axilla, sub- and supraclavicular nodal basins, internal mammary nodal basin and contralateral axilla
- 2.5. General human anatomy and physiology

3. Diagnostic work-up of breast conditions

- 3.1. History and clinical examination
- 3.2. Breast imaging
 - 3.2.1. Mammography- indications, sensitivity and specificity, factors influencing sensitivity and specificity
 - 3.2.2. Breast ultrasound- indications, sensitivity and specificity, factors influencing sensitivity and specificity
 - 3.2.3. Ultrasound and stereotactic guided breast biopsies, how performed, indications and contraindications
- 3.3. Breast MRI
- 3.4. Percutaneous needle cytology and biopsies

4. Breast cancer

- 4.1. Symptoms of benign or malignant breast diseases or conditions
- 4.2. Breast cancer: incidence, aetiology and risk factors
- 4.3. Breast cancer : staging, biology, and prognosis

5. Surgical treatment of breast cancer

- 5.1. Breast conservation- indications and contraindications
- 5.2. The technique of breast conservation
- 5.3. Breast conservation- margins and local recurrences
- 5.4. Methods to correct poor aesthetic outcome after breast conservation
- 5.5. Mastectomy and total breast reconstruction
- 5.6. Sentinel node biopsy (SNB) in invasive cancer
- 5.7. Axillary lymph node dissection (ALND) in invasive cancer
- 5.8. Treatment of locally advanced and disseminated (stage IV) breast cancer
- 5.9. Axillary metastases with unknown primary

Section (B) – 50 % Marks

6. Breast cancer in young women
7. Breast cancer in elderly
8. Male breast cancer
9. **Adjuvant and neoadjuvant treatment in breast cancer**
 - 9.1. Systemic treatment
 - 9.2. Radiotherapy- breast, thoracic wall and regional nodal basins
10. **Breast cancer:** Psychosocial and follow-up care
11. **Other breast malignancies**
 - 11.1. Incidence, diagnosis and treatment modalities
 - 11.2. Malignant and borderline phyllodes tumour
 - 11.3. Sarcomas
 - 11.4. Metastases from other malignancies
 - 11.5. Lymphoma in the breast or axilla
12. Quality assurance in diagnosis and treatment of breast diseases
13. **Cancer Diagnostics**
 - 13.1. Role of radiological interventions
 - 13.2. Molecular and cytogenetics
 - 13.3. Tumor markers, IHC (Immunohistochemistry), Flowcytometry
 - 13.4. Nuclear and radionuclear imaging
 - 13.5. Interventional radiology
 - 13.6. Basics of radiation oncology
 - 13.7. Basics of surgical oncology
 - 13.8. Basics of medical oncology
14. **Recent Advances in cancer management**
 - 14.1 Essentials of Molecular Biology
 - 14.2 Molecular Biology of cancer
 - 14.3 Newer approaches in cancer; Immunotherapy, Biotherapy, Gene therapy
15. **General Surgical Principles**
 - 15.1 Shock
 - 15.2 Surgical infection
 - 15.3 Fluid and electrolyte imbalance
 - 15.4 Preoperative and post operative patient care
 - 15.5 TNM classification of cancers
16. WHO TNM and other cancer staging systems