# प्रदेश लोक सेवा आयोग, प्रदेश नं २ स्वास्थ्य सेवा, रेडियोलोजी समूह, रेडियो डाइगनोसिस उपसमूह, नवौ तहको खुला र अन्तर सेवा प्रतियोगितात्मक परीक्षाका लागि पाठ्यक्रम

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)

| Paper | Subject            |                                      | Marks | Full<br>Marks | Pass<br>Marks | No. Questions & Weightage  | Time<br>Allowed |
|-------|--------------------|--------------------------------------|-------|---------------|---------------|--|-----------------|
| I     | General<br>Subject | Part I:<br>Management                | 50    | - 100         | 40            | $6 \times 5 = 30$<br>(Short answer)<br>$2 \times 10 = 20$<br>(Long answer)           | - 3.00 hrs      |
|       |                    | Part II:<br>General<br>Health Issues | 50    |               |               | $4 \times 5 = 20$ (Short answer) $3 \times 10 = 30$ (Long answer)                    |                 |
| II    | Technical Subject  |                                      |       | 100           | 40            | $4 \times 15 = 60$<br>(Critical Analysis)<br>$2 \times 20 = 40$<br>(Problem Solving) | 3.00 hrs        |

द्वितीय चरण (Second Phase)

| Paper     | Subject | Full<br>Marks |      | Time<br>Allowed |
|-----------|---------|---------------|------|-----------------|
| Interview |         | 30            | Oral |                 |

#### द्रष्टव्य :

- लिखित परीक्षाका माध्यम भाषा नेपाली वा अंग्रेजी अथवा नेपाली र अंग्रेजी द्वै हुन सक्नेछ ।
- २. नेपाल स्वास्थ्य सेवा अन्तर्गतका सवै समूह/सव उपसमूहहरुका लागि प्रथम पत्रका पाठ्यक्रमका विषयवस्तु एउटै हुनेछ । तर द्वितीय पत्र Technical Subject का पाठ्यक्रम समूह/उपसमूह अनुरुप फरक फरक हुनेछ ।
- 3. प्रथमपत्र का लिखित परीक्षा समूह/उपसमूहका लागि संयुक्त रुपमा एउटा प्रश्नपत्रवाट एकैदिन वा छुट्टाछुट्टै प्रश्नपत्रवाट छुट्टाछुट्टै दिन पनि हुन सक्नेछ । यसैगरी द्वितीय पत्रका परीक्षा पनि समूह/उपसमूह अनुसार अलग अलग दिन छुट्टाछुट्टै प्रश्नपत्रवाट हुनेछ ।
- ४. प्रथम पत्रका Part I र Part II को लागि छुट्टाछुट्टै (Part I का लागि एउटा र Part II का लागि एउटा) उत्तरपुस्तिका हुनेछ भने द्वितीय पत्रका लागि प्रत्येक प्रश्नका उत्तरपुस्तिकाहरु छुट्टाछुट्टै हुनेछन ।
- ५. यस पाठ्यक्रममा जेसुकै लेखिएको भएतापिन पाठ्यक्रममा परेका ऐन, नियमहरु, परीक्षाका मिति भन्दा ३ मिहना अगाडी (संशोधन भएका वा संशोधित भइ हटाईएका वा थप गरी संशोधित भइ कायम रहेका) लाई यस पाठ्यक्रममा परेका सम्भन पर्दछ ।
- ६. पाठ्यक्रम लाग मिति: २०७८।०२।२५ गते देखि ।

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# Paper I: General Subject (Management and General Health Issues)

## Part I: Management

- 1. Management: concept, principles, functions, scope, role, level and skills of managers
- 2. Hospital management
- 3. Health manpower recruitment and development
- 4. Participative management: concept, advantages and disadvantages, techniques of participation
- 5. Time management: concept, advantages, and disadvantages
- 6. Conflict management: concept, approaches to conflict, levels of conflict, causes of conflict and strategies for conflict management
- 7. Stress management: concept, causes and sources of stress, techniques of stress management
- 8. Appreciative inquiry: concept, basic principles and management
- 9. Financial management: concept, approaches, budget formulation and implementation, auditing and topics related to fiscal management
- 10. Human resource management: concept, functions and different aspects
- 11. Planning: concept, principles, nature, types, instrument and steps
- 12. Leadership: concept, functions, leadership styles, leadership and management effectiveness
- 13. Coordination: concept, need, types, techniques, and approaches of effective coordination
- 14. Communication: concept, communication process and barrier to effective communication, techniques for improving communication
- 15 Three level government coordination for health sector development

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## **Part II: General Health Issues**

- 1. Present Constitution of Nepal (health and welfare issues)
- 2. National Health Policy, 2071
- 3. Second long term health plan (1997-2017)
- 4. Health services act 2053, health service regulation, 2055
- 5. Organizational structure of Ministry of Health at National, Province and District and Local level, Province government, Province no.2, Health related Acts, Rules and Regulations.
- 6. International health agencies: role and responsibilities of WHO, UNICEF, UNFPA and interagency relationships
- 7. Professional council and related regulations
- 8. Medical ethics in general and its application
- 9. Indigenous and traditional faith healing and health practices
- 10. Supervision, types and its usage in health sector
- 11. Monitoring and evaluation system in health
- 12. Health management information system
- 13. Health insurance and financing in health care
- 14. Effects of environment in public health: air pollution, domestic pollution, noise pollution
- 15. Importance of water, sanitation and hygiene in public health
- 16. Effects of disaster in public health: deforestation, land slide, flood, earthquake and fire
- 17. Health volunteers involvement in health service delivery
- 18. Community involvement in health service delivery
- 19. Counseling: concept, type, importance and its application in health service delivery
- 20. Province no.2, Province level health related infrastructure and statistics.
- 21. Province no.2, Province Public Service Commission Act, 2077
- 22. Province no.2, Health related Act, Rule and Regulations.

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## प्रदेश लोक सेवा आयोग, प्रदेश नं.२

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## Paper II: Technical Subject

#### 1. Basic Science

## A. Anatomy

- 1. Respiratory system
- 2. Coardiovascular system
- 3. Gastrointestinal system
- 4. Hepatobiliitary System
- 5. Genito urinary system
- 6. Skeletal System
- 7. Cross sectional anatomy
- 8. Central Nervous system

## **B.** Radiation Physics

- 1. Electromagnetic radiation & its properties
- 2. Radiation measurement and units
- 3. Production and properties of X-ray
- 4. Interaction of Radiation with matter
- 5. Properties of X-ray film, film processing
- 6. Intensifying and fluorescent screens.
- 7. X-ray absorption on the radiographic image.
- 8. Gird & filter.
- 9. Principles of Fluroscopy and IIT.
- 10. Principle of Diagnosttic ultrasound
- 11. Principle of CT
- 12. Principle of MRI
- 13. Principle of Nuclear Medicine and Imaging
- 14. Radiation Hazards and its effects

#### 2. Radiology

#### A. Cardiovascular

- 1. Normal heart and pericardium
- 2. Pulmonary circulation
- 3. Acquired heart diseases
- 4. Congenital heart diseases

## B. Respiratory

- 1. Normal Chest
- 2. Tumors of the lung
- 3. Inflammatory diseases of the lung
- 4. Remaining diseases of lung, pleura and soft tissue and bony thoracic cage of chest
- 5. Chest Trauma
- 6. Chest Childereen

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#### C. Gastrointestinal tract and abdomen

- 1. Diseases of Pharynx, esophagus, stomach and duodenum
- 2. Diseases of small bowel and large bowel Acute abdomen
- 3. Diseases of biliary tract
- 4. Diseases of Liver, spleen & pancreas

## **D.** Urogenital Tracts

- 1. Congenital lesions
- 2. Cystic diseases of the kidney
- 3. Tumours of the kidney and ureter
- 4. Renal calculi and Nephrocalcinosis
- 5. Renal Vascular diseases
- 6. Diseases of Bladder and prostate
- 7. Gynaecoloical diseases and obstetrical study

# E. Diseases related to ENT, Eye, Teeth and soft tissues

## F. Central Nervous System

- 1. Normal and abnormal skull
- 2. Diseases of brain and spine
- 3. Congenital diseases
- 4. Brain and spinal tumor

#### G. Bone & Joints

- 1. Congenital skeletal anomalies
- 2. Diseases of bone and joints
- 3. Tumors and tumors like conditions of bone
- 4. Skeletal disorders of metabolic and endocrine diseases
- 5. Skeletal trauma

#### H. Endocrine and metabolic diseases

- 1. Ultrasound imaging of the whole body
- 2. CT Imaging of the whole body
- 3. MRI Imaging of the whole body
- 4. Radiological Procedures
  - 1) Urinary tract
    - a) IVI
    - b) MCU
    - c) RGP and RGU
    - d) Nephrotomography
  - 2) Billary tract and pancreas
    - a) OCG

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- b) T-toube cholangiography
- c) ERCP, PTC and PTBD
- 3) GIT
- a) Barium swallow, barium meal, barium follow through, small bowel enema, barium enema, sinogram, loopograme fistulogram.
  - 4) Reproductive system- HSG
  - 5) Vascular system
    - a) Angiography
    - b) Venography
    - c) Lymphangiography
  - 6) CNS- Mylography
  - 7) Interventional procedures