प्रदेश निजामती सेवाको स्वास्थ्य सेवा, सवै समुह, सवै उपसमूह, अधिकृतस्तर नवौ तह वा सो सरहको खुला, अन्तर तह र आन्तरिक अन्तर समूह प्रतियोगितात्मक लिखित परीक्षाको पाठ्यक्रम र परीक्षा योजना

पाठ्यक्रमको रूपरेखाः- यस पाठ्यक्रम योजनालाई दुई चरणमा विभाजन गरिएको छ।

परीक्षाको चरण	परीक्षाको किसिम	पूर्णाङ्क
प्रथम चरण	लिखित परीक्षा (Written Examination)	२००
द्वितीय चरण	अन्तर्वार्ता (Interview)	30

Paper	Subject			Pass No. of marks question	Exam System	No question & and weightage	Time	
I	General Subject	Part I: Management	50	40	8	Short and Long Answer	6x5=30 (Short Answer) 2x10=20 (Long Answer)	3.00 hours
		Part II: General Health Issues	50		7	Short and Long Answer	4x5=20 (Short Answer) 3x10=30 (Long Answer)	
II	Technical Subject		100	40	6	Critical Analysis and Problem Solving	4x15=60 (Critical Analysis) 2x20=40 (Problem Solving)	3.00 hour
द्वितीय च	त्ररणः अन्तर्वा	र्ती (Interview)	)	I	1			
विषय				पूर्णाङ्क	परीक्षा प्रणाली			
अन्तर्वार्ता (Interview)			३०	बोर्ड अन्तर्वार्ता (Board Interview)				

## द्रष्ट्रव्य

- १. यस पाठ्यक्रम अनुसार दुई पत्रको लिखित परीक्षा लिईनेछ।
- २. स्वास्थ्य सेवा अन्तर्गतका सवै समूह, उपसमूहहरूको लागि प्रथमपत्रको पाठ्यक्रमको विषयबस्तु एउटै हुनेछ। द्वितीयपत्रको पाठ्यक्रम सम्बन्धित सेवा, समूह र उपसमूह अनुरुप फरक फरक हुनेछ।
- ३. खुला र समावेशी समूहको एउटै प्रश्नपत्रबाट परीक्षा सञ्चालन हुनेछ।
- ४. लिखित परीक्षाको माध्यम भाषा नेपाली वा अंग्रेजी वा नेपाली र अंग्रेजी दुवै हुन सक्नेछ।

- ५. प्रथमपत्रको लिखित परीक्षा सेवा, समूह र उपसमूहका लागि संयुक्त रुपमा एउटै प्रश्नपत्रबाट एकैदिन वा छुट्टाछुट्टै प्रश्नपत्रबाट छुट्टाछुट्टै दिन पनि हुन सक्नेछ। यसैगरी द्वितीयपत्रको परीक्षा सेवा, समूह, उपसमूह अनुसार अलग अलग दिन छुट्टाछुट्टै प्रश्नपत्रबाट हुनेछ।
- ६. परीक्षा हलमा मोवाइल फोन, स्मार्ट वाच, हेड फोन वा यस्तै प्रकारका विद्युतीय उपकरण, पुस्तक, नोटबुक, झोला लगायतका बस्तुहरु लैजान पाइने छैन।
- ७. लिखित परीक्षामा पाठ्यक्रमको जुनसुकै एकाईबाट पनि प्रश्नहरु सोध्न सिकनेछ।
- प्रथमपत्र Part I र Part II को लागि छुट्टाछुट्टै उत्तरपुस्तिका हुनेछ भने द्वितीयपत्रका प्रत्येक
   प्रश्नका लागि छुट्टाछुट्टै उत्तरपुस्तिकाहरु हुनेछन्।
- ९. यस पाठ्यक्रम अनुसारका पत्र/विषयका विषयवस्तुमा जुनसुकै कुरा लेखिएको भए तापिन पाठ्यक्रममा परेका कानून, ऐन, नियम तथा नीतिहरु परीक्षाको मिति भन्दा ३ महिना अगावै संशोधन भई कायम रहेका विषयवस्तुलाई यस पाठ्यक्रममा परेको समझनु पर्दछ।
- १०. प्रथम चरणको लिखित परीक्षाबाट छुनौट भएका उम्मेदवारहरुलाई मात्र द्वितीय चरणको अन्तर्वार्तामा सम्मिलित गराइनेछ।
- ११. लिखित परीक्षा र अन्तर्वार्ताको कुल प्राप्ताङ्कको आधारमा अन्तिम परीक्षाफल प्रकाशित गरिनेछ।
- १२. पाठ्यक्रम अध्यावधिक भई लागू हुने मितिः २०८०। ११। ०२

प्रदेश निजामती सेवाको स्वास्थ्य सेवा, सवै समुह, सवै उपसमूह, अधिकृतस्तर नवौ तह वा सो सरहको खुला, अन्तर तह र आन्तरिक अन्तर समूह प्रतियोगितात्मक लिखित परीक्षाको पाठ्यक्रम

# 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. Human resource management: concept, functions and different aspects
- 4. Health manpower, recruitment and development
- 5. Participative management: concept, advantages and disadvantages, techniques of participation
- 6. Time management: concept, advantages, and disadvantages
- 7. Conflict management: concept, approaches to conflict, levels of conflict, causes of conflict and strategies for conflict management
- 8. Stress management: concept, causes and sources of stress, techniques of stress management
- 9. Change management: concept, causes and sources and techniques of change management
- 10. Appreciative inquiry: concept, basic principles and management
- 11. Financial management: concept, approaches, budget formulation and implementation, auditing and topics related to fiscal management
- 12. Planning: concept, principles, nature, types, instrument and steps
- 13. Leadership: concept, functions, leadership styles, leadership and management effectiveness
- 14. Coordination: concept, need, types, techniques, and approaches of effective coordination
- 15. Communication: concept, communication process and barrier to effective communication, techniques for improving communication, Risk Communication and Community Engagement, Behavioural Change and Communication

# प्रदेश निजामती सेवाको स्वास्थ्य सेवा, सवै समुह, सवै उपसमूह, अधिकृतस्तर नवौ तह वा सो सरहको खुला, अन्तर तह र आन्तरिक अन्तर समूह प्रतियोगितात्मक लिखित परीक्षाको पाठ्यक्रम

#### Part II: General Health Issues

- 1. Present Constitution of Nepal (health and welfare issues)
- 2. National Health Policy, 2076
- 3. Karnali Province Health Policy, 2076
- 4. National and Karnali province health related plans and strategies
- 5. Public Health Service Act, 2075 and Regulation, 2077 and other health related acts
- 6. Karnali Province Civil Service Act, 2080 and Regulations, 2080
- 7. Karnali Province Health Service Act, 2078 and Regulations, 2080
- 8. Health service act 2053, health service regulation, 2055
- 9. Health related Organizational structure of Federal, Provincial and Local level.
- 10. International health agencies: role and responsibilities of WHO, UNICEF, WFP, UNFPA and interagency relationships
- 11. Health related professional councils and related acts and regulations
- 12. Medical ethics in general and its application
- 13. Indigenous and traditional health practices and faith healing
- 14. Supervision: types and its usage in health sector
- 15. Monitoring and evaluation system in health
- 16. Health related management information systems
- 17. Health insurance and financing in health care
- 18. Effects of environmental pollution in public health
- 19. Importance of water, sanitation and hygiene in public health
- 20. Disaster and its effect in public health
- 21. Health volunteers' involvement in health service delivery
- 22. Community involvement in health service delivery
- 23. Counseling: Concept, type, importance and its application in health service delivery
- 24. Emerging and re-emerging diseases including pandemic diseases
- 25. Major health issues of Karnali province and their management
- 26. GESI (Gender Equality and Social Inclusion)

# प्रदेश निजामती सेवाको स्वास्थ्य सेवा, एनेस्थेसियोलोजी समुह, अधिकृतस्तर नवौ तह वा सो सरहको खुला, अन्तर तह र आन्तरिक अन्तर समूह प्रतियोगितात्मक लिखित परीक्षाको पाठ्यऋम

द्वितीयपत्रः प्राविधिक विषय पूर्णीङ्कः १००

## A. Clinical Practice of Anaesthesia (Including relevant basic sciences)

- 1. History of Anaesthesia. From open to modern anaesthesia, balanced anaesthesia, dissociative anaesthesia and total intravenous anaesthesia.
- 2. Anaesthesia machines and circuits. Physics of pressure measurement, manometers and strain gauges.
- 3. Physiology of lung mechanics, compliance, resistance, surfactant. Physics of flow, laminar and turbulent, viscosity and density. Respirometers and rotameters.
- 4. Assessment of patients, effects on choice and technique of anaesthesia, Radiological assessment of lung disorders.
- 5. Pharmacokinetics of anaesthetic drugs.
- 6. Premedication, Pharmacology of premedicants.
- 7. Pharmacology of intravenous induction agents.
- 8. Inhalation anaesthetic agents. Vaporisers and humidification.
- 9. Oxygen therapy and toxicity. The physics of the gas laws.
- 10. Pharmacology of analgesics and opioids.
- 11. Neuromuscular blocking agents. Abnormal responses, pharmacogenetics.
- 12. Blood transfusion.
- 13. Pharmacology of local anaesthetic drugs. Nerve blocks. Epidural and spinal anaesthesia.
- 14. Resuscitation. Acid-base balance.
- 15. Blood gases. Pulse oximetry, capnography.
- 16. Emergency anaesthesia.
- 17. Drugs and the autonomic nervous system.
- 18. Drugs used in control of blood pressure.
- 19. Clinical trials. Use and misuse of statistics.
- 20. Airway Devices: Uses of different airway devices in the operation theatres, postoperative period and intensive care unit
- 21. Cardiovascular physiology: The cardiac cycle and the determinants of ventricular performance and effects of anaesthetic agents on cardiac physiology
- 22. Electrocardiography: Reading and monitoring

- 23. Physiology of Central Nervous System: Cerebral metabolism, cerebral blood flow and its regulation, Blood brain barrier, cerebrospinal fluid, Intracranial Pressure
- 24. Renal physiology and anaesthesia
- 25. Hepatic physiology and anaesthesia
- 26. Crisis management: Mortality in the operation table; Brain injury due to hypoxia in the intensive care unit

# B. Clinical practice of Anaesthesia (Combined with relevant basic sciences)

- 1. Adrenal, pituitary, thyroid function. Control of blood sugar. Abnormalities of function. anaesthesia in endocrine disease.
- 2. Glycolysis, protein binding, fat utilization, Stress, Nutrition.
- 3. Shock.
- 4. Acute and chronic pain control.
- 5. Anaesthesia for general surgery.
- 6. Obstetric anaesthesia/gynecological surgery.
- 7. Pediatric anaesthesia.
- 8. Geriatric anaesthesia.
- 9. Anaesthesia for thoracic surgery.
- 10. Anaesthesia for neurosurgery. Cerebral blood flow and factors affecting.
- 11. Anaesthesia for vascular surgery.
- 12. Anaesthesia for trauma and orthopedics.
- 13. Anaesthesia for burns and plastic
- 14. Anaesthesia for head and neck surgery.
- 15. Anaesthesia outside the operating theatre
- 16. Algorithm for the management of difficult airway
- 17. Postoperative pain management (WHO ladder)
- 18. Pregnancy with cardiac diseases undergoing non cardiac surgeries
- 19. Anaesthesia for otorhinolaryngologic surgeries
- 20. Anaesthesia for patients with endocrine diseases (Hypo/hyperthyroidism, Diabetes Mellitus)
- 21. Anaesthesia for genitourinary surgeries
- 22. Anaesthesia for patients with kidney diseases
- 23. Post anaesthesia care unit and discharge criteria
- 24. Different modes of ventilation used in intensive care unit for postoperative management
- 25. Anaesthesia for patients with liver disease

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