

लोक सेवा आयोग
नेपाल स्वास्थ्य सेवा, सर्जरी समूह, कार्डियोथोरासिक उपसमूह, नवौं (९) तहको खुला र आन्तरिक
प्रतियोगितात्मक लिखित परीक्षाको पाठ्यक्रम

Paper II

Part I: General Subject

1. Institutional Management
2. Organization of faculty/department
3. Prevention/Risk for non-communicable diseases
4. Financing planning
5. Scientific paper writing
6. Research methodology/ Research activities
7. National Health Statistics, analysis particular in relation to non-communicable diseases
8. Information technology, Tele medicine etc

Part II: Technical subject

1. Cardiothoracic and Vascular Surgery

- 1.1. Applied basic medical sciences relevant to the field: Anatomy, Biochemistry, Microbiology, Pathology, Pharmacology and Immunology pertaining to the Cardiovascular and Thoracic organs and systems
- 1.2. Evidence based for cardiovascular and thoracic surgery
- 1.3. An ability to understand and evaluate surgical reports from literatures
- 1.4. Mortality, morbidity and survival following surgical treatment of common thoracic malignancies
- 1.5. Principles of intensive care
- 1.6. Insertion of monitoring lines
- 1.7. Complication of Cardiovascular and Thoracic surgeries.
- 1.8. Clinical investigations including cardiac catheterization, echocardiography, nuclear medicine and imaging including thoracic imaging technique
- 1.9. Vascular Doppler and angiography
- 1.10. Cardiopulmonary Resuscitations

2. Thoracic

- 2.1. Chest trauma and its management
- 2.2. Staging for common thoracic malignancies
- 2.3. Bronchoscopy: Rigid and Fibreoptic
- 2.4. Tracheostomy
- 2.5. Technique of pleural aspiration and drainage including rib resection and intercostal drainage
- 2.6. Thoracotomy and Sternotomy – Open and close
- 2.7. Pulmonary vascular disease
- 2.8. Lung resection for benign and malignant disease
- 2.9. Empyema and Decortication
- 2.10. Correction of pectus deformities
- 2.11. Mediastinal Mass
- 2.12. Mediastinal exploration by cervical mediastinoscopy and anterior Mediastinotomy
- 2.13. Thymectomy for Myasthenia Gravis and tumours
- 2.14. Thoracic Outlet Syndrome
- 2.15. Pulmonary Metastasectomy
- 2.16. Oesophageal Surgery for benign and malignant conditions
- 2.17. Tracheal resection for benign and malignant disease

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- 2.18. Principle of management of pleural collection such as pneumothorax, effusions, chyle and pus
- 2.19. Pleurodesis
- 2.20. Congenital Diaphragmatic Lesions
- 3. Cardiac (Adult)**
 - 3.1. Principles and management of cardiopulmonary bypass and deep hypothermic circulatory arrest
 - 3.2. Insertion of IABP and mechanical circulatory support
 - 3.3. Principles of Myocardial protection
 - 3.4. Pericardiectomy
 - 3.5. Surgery for ischemic heart disease and its complications
 - 3.6. Coronary Artery Bypass Graft Surgery (CABG)
 - 3.7. Rheumatic Heart Disease
 - 3.8. Mitral valve repair and Valve Replacement
 - 3.9. Aortic valve replacement
 - 3.10. Surgical management of endocarditis, prosthetic valve endocarditis
 - 3.11. Aortic dissection
 - 3.12. Aortic aneurysms
 - 3.13. Cardiac tumors
- 4. Cardiac (Pediatric)**
 - 4.1. Embryology of Heart, Lungs and Blood vessels
 - 4.2. Circulatory change at birth
 - 4.3. Management Principles of common congenital cardiac conditions like ASD, VSD, Tetralogy of Fallot, Coarctation of Aorta, Patent Ductus Arteriosus, Transposition of Great Arteries, Atrioventricular Septal Defect
 - 4.4. Palliative Operations of Congenital Heart Disease
 - 4.5. Extracorporeal Life Support (ECMO)
 - 4.6. Percutaneous catheter interventions in congenital heart disease
 - 4.7. Vascular conduits: autograft, homograft, xenograft and prosthetic grafts.
- 5. Vascular**
 - 5.1. Diagnosis, evaluation and treatment of arterial, venous and lymphatic disease.
 - 5.2. Peripheral arterial and venous cannulation technique
 - 5.3. Angiograms, venography
 - 5.4. Exposure of named arteries and veins
 - 5.5. Knowledge on great vessel disease including aneurysm and dissections
 - 5.6. Abdominal aortic and iliac artery surgery
 - 5.7. Lower extremity bypass surgeries
 - 5.8. Fundamental techniques of endovascular surgery
 - 5.9. Knowledge and technical skills in carotid artery disease and carotid body tumor.
 - 5.10. Knowledge on atherosclerotic arterial disease
 - 5.11. Knowledge of vascular and trauma and its management
 - 5.12. Technical skills on exposure of arteries, vascular anastomosis, embolectomy, thrombectomy, endarterectomy, fasciotomy, amputation
 - 5.13. Hemodialysis access creation
 - 5.14. Recognition and management of Deep Venous Thrombosis
 - 5.15. Varicose vein and vascular malformations

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