

Paper 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
- 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

लोक सेवा आयोग

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

- 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
