

KLE UNIVERSITY, BELGAUM, KARNATAKA.
Fellowship in Cardiac Anaesthesiology Examination 2009

SYLLABUS FOR PAPER I

1. Diagnosis, Pre-operative evaluation & Preparation for surgery.
2. Pathophysiology, pharmacology and clinical management of patients with cardiac disease including cardiomyopathy, heart failure, cardiac tamponade, ischemic heart disease, acquired and congenital valvular heart disease, congenital heart disease, electrophysiological disturbances and neoplastic and infectious cardiac diseases.
3. Pathophysiology, pharmacology, and clinical management of patients with respiratory disease including pleural, bronchopulmonary, neoplastic, infectious, and inflammatory diseases.
4. Pathophysiology, pharmacology, and clinical management of patients with thoracic vascular, tracheal, esophageal, and mediastinal diseases including infectious, neoplastic, and inflammatory processes.
5. Non-invasive cardiovascular evaluation: electro-cardiography, transthoracic echocardiography, transesophageal echocardiography (TEE), stress testing, and cardiovascular imaging.
6. Cardiac catheterization procedures and diagnostic interpretation; invasive cardiac catheterization procedures including angioplasty, stenting and transcatheter laser and mechanical ablations.
7. Non-invasive pulmonary evaluation: pulmonary function tests, blood gas and acid-base analysis, oximetry, capnography, and pulmonary imaging.
8. Pre-anesthetic evaluation and preparation of cardiothoracic surgical patients.
9. Pharmacokinetics and pharmacodynamics of medications prescribed for medical management of cardiothoracic surgical patients.
10. Peri-anesthetic monitoring: non-invasive and invasive (intra arterial, central venous, pulmonary artery, mixed venous saturation, cardiac output).
11. Pharmacokinetics and pharmacodynamics of anesthetic medications prescribed for cardiothoracic surgical patients.
12. Extracorporeal circulation including, myocardial preservation, effects of CPB on pharmacokinetics and pharmacodynamics, cardiothoracic, respiratory, neurological, metabolic, endocrine, hematological, renal and Thermo-regulatory effects of CPB and coagulation/anticoagulation before, during, and after CPB.
13. Pharmacokinetics and pharmacodynamics of medications prescribed for management of hemodynamic instability: inotropes, chronotropes, vasoconstrictors, and vasodilators.