



THE COLLEGES OF MEDICINE OF SOUTH AFRICA

Incorporated Association not for gain
Reg No 1955/000003/08

Final Examination for the Fellowship of the College of Cardiothoracic Surgeons of South Africa

26 July 2018

Paper 1

(3 hours)

All questions are to be answered. Each question to be answered in a separate book (or books if more than one is required for the one answer)

- 1 Management of difficult aortic root. Discuss surgical options of small aortic root in
 - a) Neonates with and without sub-aortic stenosis. (30)
 - b) Children. (20)
 - c) Adults. (30)
 - d) Newer solutions for aortic root management. (20)[100]

- 2 Briefly discuss coagulopathies following/and its relation to cardiopulmonary bypass under the following headings
 - a) Surgical and pump prime causes. (20)
 - b) Damage to blood cell lines. (20)
 - c) Alterations in the coagulation and fibrinolytic system. (20)
 - d) Heparin rebound. (10)
 - e) Treatment. (30)[100]

- 3
 - a) Provide a detailed description of vascular lesions associated with airway compression in childhood with a brief discussion of their treatment. (30)
 - b) Discuss in detail the pre-operative workup of an infant with suspected congenital tracheal stenosis. (30)
 - c) Describe in detail the operative steps and considerations when repairing an infant with a long segment congenital tracheal stenosis. (40)[100]



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Paper 2

(3 hours)

All questions are to be answered. Each question to be answered in a separate book (or books if more than one is required for the one answer)

- 1 Congenital lung abnormalities
1. Classification of congenital lung abnormalities. (25)
 2. Discuss each type under clinical presentation, investigations and management options. (25)
 3. Differential diagnosis and management of hyperlucent lung in a new-born baby. (25)
 4. Discuss congenital diaphragmatic hernias and their embryological origin. (25)
- [100]
- 2
- a) Briefly discuss pulmonary embolism under the following headings
 - i) Acute pulmonary embolism and its management. (20)
 - ii) Chronic pulmonary embolism and its management. (30)
 - b) Briefly discuss acquired tracheal stenosis under the following
 - i) Causes and pathophysiology. (20)
 - ii) Management. (30)
- [100]
- 3 With regards to Tetralogy of Fallot
- a) Provide a detailed morphological and anatomical description of Tetralogy of Fallot. (30)
 - b) Discuss in detail the different palliative procedures for Tetralogy of Fallot. (30)
 - c) An 8kg patient with Tetralogy of Fallot presents for definitive correction. The child was previously palliated with a right sided modified systemic to pulmonary artery shunt. The pulmonary annulus is small, the branch pulmonary arteries are well developed and the left anterior descending coronary artery arises from the right coronary artery and crosses anteriorly at the level of the pulmonary valve annulus. Provide a detailed description of surgical correction for this patient. (40)
- [100]