



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

28 January 2021

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
 - a) Provide a morphological and anatomical description of Tetralogy of Fallot. (20)
 - b) Discuss briefly the anatomy of the aortic root and the surgical relevant relational anatomy of the left ventricular outflow tract. (20)
 - c) Discuss in brief the different palliative procedures for Tetralogy of Fallot. (25)
 - d) An 8 kg 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 step by step description of your surgical correction of this patient. (35)

[100]

- 2 Discuss the:
 - a) Pre-operative assessment and surgical management of a patient undergoing pericardiectomy for constrictive pericarditis. (40)
 - b) Surgical management of a patient with critical left main stenosis and severe aortic regurgitation. (40)
 - c) Management of a patient who is bleeding post open cardiac surgery. (20)

[100]

- 3
 - a) Discuss the different conduit options when doing a coronary artery bypass operation under the following headings: Indication for use, harvesting technique, patency rates, complications. (40)
 - b) Discuss the surgical management of a 68-year-old male patient who presents with triple vessel coronary artery disease and severe ischaemic mitral regurgitation (Carpentier classification Type IIIb). Ejection fraction 55%, Left ventricular end diastolic diameter 60mm. (30)
 - c) Discuss briefly the treatment strategies for a 70-year-old female patient with triple vessel disease and a porcelain aorta (calcified ascending aorta). (30)

[100]



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

29 January 2021

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
 - a) Discuss the management of a 70-year-old patient who requires cardiac surgery and has an incidental finding of a solitary pulmonary nodule. (40)
 - b) Discuss surgical management of delayed oesophageal injuries. (30)
 - c) Discuss surgical management of a patient with bilateral pulmonary hydatid cysts. (30)

[100]

- 2
 - a) Describe the symptoms, clinical signs, diagnosis and management of a young adult who presents with a right main bronchus rupture after a motor vehicle accident. (30)
 - b) Describe the T-descriptors (Tumor descriptors) of the 8th lung cancer TNM classification. (20)
 - c) List the primary chest wall tumors and describe briefly the principles of chest wall tumor resection and reconstruction. (20)
 - d) Discuss the management of a 63-year-old male patient with a persistent air leak and a left apical air space one week after a left upper lobectomy for squamous carcinoma. (30)

[100]

- 3
 - a) Provide a description of vascular lesions associated with airway compression in childhood together with a brief discussion of their treatment. (25)
 - b) Classify congenital tracheal stenosis. Discuss the pre-operative workup of an infant with suspected congenital tracheal stenosis. (25)
 - c) With reference to a slide tracheoplasty describe the operative steps and considerations when repairing an infant with a long segment congenital tracheal stenosis, with and without an associated congenital cardiac defect. (25)
 - d) Provide a brief outline, classification and treatment options for congenital malformations of the lungs. (25)

[100]