

CARDIO THORACIC SURGERY

PAPER – I

Time : 3 hours

Max. Marks : 100

CTS/D/10/04/I

Attempt all questions in order.
Each question carries 10 marks.

Write short notes on:

1. Enumerate deleterious effects of hypothermia on organ systems during cardio pulmonary bypass.
2. Development of aortic arch with brief discussion on vascular ring.
3. Classification of mediastinum. Enumerate common tumors of each area.
4. Process and criteria of sample size selection for a clinical study.
5. Draw a labeled diagram and discuss the circulation changes that occur at the time of birth and their pathophysiological significance.
6. Discuss in brief with labeled diagrams various surgical modalities in the management of atrial fibrillation.
7. Enumerate neuroprotective strategies and their use in various surgical operations. Highlight use of one strategy of your choice.
8. Diagnosis and management of Heparin induced thrombocytopenia.
9. Development of left superior vena cava and its implications during cardiac surgery.
10. Diagnosis and cardiovascular manifestations of Marfan's disease.

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PAPER – II

Time : 3 hours
Max. Marks : 100

CTS/D/10/04/II

Attempt all questions in order.
Each question carries 10 marks

Write short notes on:

1. Aetiopathogenesis of thoracic outlet syndrome.
2. Presentation and surgical management of sequestration of lung.
3. Classification and surgical management (in brief) of Tricuspid atresia.
4. Classification and surgical management (in brief) of truncus arteriosus.
5. Pulmonary vascular disease and its investigation and grading.
6. Mitral Valve Replacement – advantages of total chordal preservation and comparison with other techniques.
7. Coronary artery bypass – comparison of radial, saphenous vein and internal thoracic artery in term of histopathology and long term outcome.
8. Classification of thoraco-abdominal aortic aneurysms and role of endovascular interventions in their management.
9. Explain with diagram different surgical procedures for the management of small aortic root and comparative chart of their advantages and disadvantages.
10. Basic component and modifications of myocardial protection.

CARDIO THROACIC SURGERY

PAPER – III

Time : 3 hours

Max. Marks : 100

CTS/D/10/04/III

**Attempt all questions in order.
Each question carries 10 marks**

Write short notes on:

1. Cell sources for cardiac tissue engineering.
2. Centrifugal pump: Advantages and disadvantages of its use in assisted circulation.
3. "No flow" phenomenon in myocardial ischemia.
4. Computed tomography in re-operative cardiac surgeries and its role in pre operative planning and surgical guidance.
5. Role of hybrid operative interventions in cardiovascular surgery.
6. Current status of Cardiac transplantation.
7. Power source, current status and future development of artificial heart.
8. Newer oral anticoagulants and their role in DVT, AF, and Cardiological interventions.
9. Advantages and disadvantages of Virtual bronchoscopy.
10. Percutaneous valve implantation – in various positions, evolutions and future direction.