

**CARDIOTHORACIC SURGERY**  
PAPER – III

CTS/J/17/04/III

Time : 3 hours

Max. Marks : 100

**Important instructions:**

- *Attempt all questions in order.*
- *Each question carries 10 marks.*
- *Read the question carefully and answer to the point neatly and legibly.*
- *Do not leave any blank pages between two answers.*
- *Indicate the question number correctly for the answer in the margin space.*
- *Answer all the parts of a single question together.*
- *Start the answer to a question on a fresh page or leave adequate space between two answers.*
- *Draw table/diagrams/flowcharts wherever appropriate.*

Write short notes on:

1. Pulmonary sequestration under following headings: 2+4+2+2
  - a) Definition and types.
  - b) Clinical features.
  - c) Treatment plan.
  - d) Pitfalls in surgery.
2. Aneurysm of ascending aorta under following headings: 2+2+3+3
  - a) Etiology.
  - b) Classification.
  - c) Role of surgery (indications).
  - d) Role of endovascular procedures.
3. Pectus excavatum under following headings: 1+3+2+4
  - a) Definition.
  - b) Clinical presentation.
  - c) Indications for surgery.
  - d) Methods of surgical treatment.
4. Massive hemoptysis: 2+2+(4+2)
  - a) Causes.
  - b) Investigations.
  - c) Treatment modalities & their results.
5. Robotic cardiac surgery: 2+3+2+3
  - a) Advantages.
  - b) Types of cardiac surgical procedures being performed.
  - c) Disadvantages.
  - d) Role in mitral valve surgery.

**P.T.O.**

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6. Gene therapy in cardiovascular diseases: 2+3+3+2  
a) Concept.  
b) Types of genes used.  
c) Modes of gene transfer.  
d) Results.
7. Extracorporeal membrane oxygenation under following headings: 2+2+2+2+2  
a) Indications.  
b) Types.  
c) Complications.  
d) Results.  
e) Type of oxygenator used.
8. Thoracic outlet syndrome under following headings: 2+2+4+2  
a) Definition and clinical presentation.  
b) Diagnosis.  
c) Treatment and indications for surgery.  
d) Results.
9. Results and implications in management of coronary artery disease of the following trials: 4+4+2  
a) CORONARY trial.  
b) ART trial.  
c) SYNTAX trial.
10. a) Confidential interval. 5+5  
b) Odds Ratio.

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