

**CARDIO THORACIC SURGERY**

**PAPER – I**

Time : 3 hours  
Max. Marks : 100

CTH/D/17/D/04/I

**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. a) Embryology of vascular (aortic) arches. 4+(3+3)  
b) Anomalies in development of double arch and patent ductus arteriosus
2. a) Anatomical boundaries of the mediastinum 4+3+3  
b) Various structures present in posterior mediastinum.  
c) Enumerate various lesions of posterior mediastinum
3. a) Deleterious effect of cardio-pulmonary bypass 4+3+3  
b) Prevention of complement activation  
c) Prevention of systemic inflammatory response.
4. Discuss anti-arrhythmic drugs under the following headings: 4+3+3  
a) Classification  
b) Digoxin  
c) Amiodarone
5. Describe native valve endocarditis: 3+3+4  
a) Organisms  
b) Presentation (signs & symptoms)  
c) Management.
6. a) Enumerate coagulation factors. 3+4+3  
b) Briefly describe the coagulation pathways.  
c) Point out the exact step of action of heparin, warfarin & apixaban
7. Retrograde aortic perfusion via femoral artery: Indications, 4+3+3  
advantages and disadvantages.
8. a) What is Virchow's triad? 4+6  
b) Management of acute & chronic complications of deep vein thrombosis.
9. a) Enumerate various bronchopulmonary segments. 4+6  
b) Lymphatic drainage of lungs
10. a) Swan Ganz catheter: its uses and complications. 5+5  
b) Method of cardiac output calculations.

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