

**CARDIO THORACIC SURGERY**

**PAPER-I**

Time: 3 hours  
Max. Marks:100

CTS/J/19/04/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:**

- Embryology of atrial septum. 4+3+3
  - Classification of atrial septal defects.
  - Management of superior vena cava type of ASD.
- Draw oxygen dissociation curve and discuss its clinical importance in cardiac surgery 5+5
  - Discuss various modes of ventilation.
- Describe in brief various parts of cardiac cycle with the help of a diagram. 5+5
  - Describe echocardiographic and catheterization findings of constrictive pericarditis.
- Describe various types of pumps used in cardiopulmonary bypass and their merits and demerits. 5+5
  - Different pH management strategies during hypothermic circulatory arrest and their merits and demerits.
- Embryology of diaphragm. 4+6
  - Definition, diagnosis and management of Morgagni hernia.
- Anatomy of aortic root. 5+5
  - Classification and management of ruptured Sinus of Valsalva Aneurysm.
- Development of aortic arches. 6+4
  - Diagnosis and management of double aortic arch.

**P.T.O**

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| 8.  | a) Histopathological classification of pulmonary arterial hypertension (PAH).                            | 5+5   |
|     | b) Classify Drugs used for management of PAH and their mechanism of action.                              |       |
| 9.  | a) Heparin: Origin, mechanism of action, doses for cardiopulmonary bypass.                               | 5+5   |
|     | b) Enumerate various coagulation factors and describe role of vitamin K antagonists as an anticoagulant. |       |
| 10. | a) Etiopathogenesis of acute rheumatic fever.  | 3+3+4 |
|     | b) Clinical and laboratory diagnosis of acute rheumatic fever.   |       |
|     | c) Prophylaxis for rheumatic carditis.   |       |

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