

**CARDIOLOGY**  
**PAPER-I**TIME: 3 HOURS  
MAX. MARKS: 100

CARD/J/20/05/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:**

- a) Sample size determination. 5+5
  - b) Pitfalls of meta-analysis.
- a) Embryological development of Left Ventricular Outflow Tract. 5+5
  - b) Embryogenesis of Inter-Atrial Septum.
- a) Genesis of U wave & its clinical implications. 5+5
  - b) Heart rate variability.
- a) Principles of iFR & FFR. 5+5
  - b) Genetic basis of Long QT Syndrome.
- a) Biomarkers in Acute Coronary Syndrome. 5+5
  - b) Cardiac bio-markers for cardiac fibrosis.
- a) Anatomy & functions of various components of Mitral Valve Apparatus. 5+5
  - b) Anatomy of pericardium and its nerve and blood supply.
- a) Odds Ratio. 5+5
  - b) Kaplan Meier Estimates.
- a) Embryogenesis of Ascending aorta, Aortic arch and its branches. 5+5
  - b) Congenital anomalies due to faulty embryogenesis of Ascending aorta, Aortic arch and its branches.
- What is Neo-atherosclerosis? How is it different from neo-intimal hyperplasia? How will you diagnose and manage neo-atherosclerosis? 3+3+4
- a) Briefly describe the coagulation pathway. 5 +5
  - b) Discuss the sites of actions of various anti-coagulants.

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