

**PAEDIATRIC CARDIOLOGY****PAPER-I**Time: 3 hours  
Max. Marks: 100

PED.CARD/D/19/83/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. Discuss embryology of truncus arteriosus and describe its various subtypes. 5+5
2. Describe types of atrial isomerism and associated lesions with each. 10
3. What is base excess? Describe its importance in reference to acid base imbalance. 4+6
4. Discuss straddling and overriding of atrioventricular valves. 10
5. a) How is radiation dose quantified in the cardiac cath lab? 2+3+5  
b) Discuss effects of radiation on human body?  
c) Strategies to limit radiation to the operator and patient in cath lab?
6. Endothelin receptor antagonists used in pulmonary hypertension: 6+4  
a) Discuss the mechanism of action and evidence of clinical efficacy.  
b) Enumerate the doses and side effects.
7. Describe the anatomy of mitral valve in health and disease. 5+5
8. a) Pressure volume loop analysis of contractile function. 5+5  
b) Cardiac tumours.
9. a) Null hypothesis. 5+5  
b) Numbers to treat (NNT).
10. Discuss role of genetics in: 5+5  
a) Congenital cardiac septal defects.  
b) Pediatric cardiac arrhythmias.

\*\*\*\*\*