1. Describe coagulation pathways and indicate where the anticoagulants interfere.  
   5+5

2. Describe the anatomy of triangle of Koch's. Explain the mechanism of paroxysmal junctional reciprocating tachycardia. How is it treated?  
   3+4+3

3. What are hypercoagulable states? What are the laboratory tests for their diagnosis? Outline management of hypercoagulable state.  
   3+3+4

4. Describe invasive and non-invasive evaluation of pulmonary arterial hypertension. How will you assess reversibility?  
   3+3+4

5. What is coronary flow reserve? Describe its clinical significance.  
   5+5

6. Discuss genetics & manifestation of ventricular non-compaction.  
   5+5

7. Describe embryogenesis of conotruncal anomalies. Classify double outlet right ventricle and correlate with manifestations.  
   4+3+3

8. Describe Fick principle and estimation of cardiac output by this principle.  
   5+5

9. Discuss the principles and cardiovascular applications of Optical Coherence Tomography (OCT).  
   5+5

10. Discuss genetics of long QT syndrome & its clinical relevance.  
    5+5

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1. Outline the manifestation, evaluation, diagnosis and management of HFNEF (Heart Failure with Normal Ejection Fraction). 2+3+3+2
2. Describe etiopathogenesis and evaluation of left main coronary disease. What is the current status of its management? 3+3+4
3. Describe in brief the role of left atrial appendage in thromboembolism. Outline current status of left atrial appendage occluder devices. 4+6
4. Describe general principles, indications and regimens for infective endocarditis prophylaxis. 3+3+4
5. What are the causes and manifestation of loss of capture in cardiac pacing? Describe its diagnosis and management. 2+2+3+3
6. What is the etiopathogenesis, manifestation and management of ARVC (Arrhythmogenic Right Ventricular Cardiomyopathy)? 2+4+4
7. Describe anti-thrombotic therapy for non-cardiac surgery in post coronary stenting. 10
8. What is peripartum cardiomyopathy? Discuss its risk factors, treatment and prognosis. 3+3+3+1
9. Discuss etiology and management of pacemaker implant infection. 5+5
10. What is stent thrombosis? Discuss its etiopathogenesis and diagnostic criteria. 2+4+4

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POSSESSION/USE OF CELL PHONES OR ANY SUCH ELECTRONIC GADGETS IS NOT PERMITTED INSIDE THE EXAMINATION HALL
1. Describe ‘COURAGE Trial’. What is the contribution of the trial to clinical practice? 4+6
2. Discuss the role of MRI in ischemic cardiomyopathy, hypertrophic cardiomyopathy & arrhythmogenic right ventricular dysplasia. 3+3+4
3. What are bioabsorbable stents? Outline their current status. 3+7
4. What is micro T wave alterations? What is their role in cardiac arrhythmogenesis? 3+7
5. Discuss current status of fetal cardiac intervention. 10
6. Discuss current status of PFO (patent foramen ovale) in cardiovascular disease and PFO closure. 6+4
7. Discuss indications and current status of tissue heart valves. 3+7
8. What are drug eluting balloons? What is their present status in interventions? 5+5
9. What are leadless pacemakers? What is the current status of leadless permanent cardiac pacing devices? 5+5
10. Discuss the role of renal denervation in treatment of hypertension 10

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