Write short notes on:

1. What is the importance of genetics in etiopathogenesis and management of hypertropic cardiomyopathy (HCM)? 7+3
2. ECG criteria for diagnosis of myocardial infarction in LBBB. 10
3. What is VO₂ max? How is it measured? What are its clinical applications? 2+4+4
4. Echo-doppler evaluation of mitral regurgitation (MR). 10
5. Embryology, etiopathogenesis and management of AV canal defect. 3+3+4
6. Physiological and hemodynamic basis of second heart (S₂) sound in health and disease. 10
7. Importance of biomarkers in acute myocardial infarction. 10
8. Anatomy, imaging and flow patterns of left atrial appendage. 4+3+3
9. What is duct dependant circulation? Outline its management. 5+5
10. Assessment of reversibility of PAH in left to right shunts. 10
Write short notes on:

1. What are the manifestations of cardiac sarcoidosis? Outline its diagnosis and management. 3+(3+4)

2. Describe briefly about pathogenesis, clinical features, diagnostic imaging and management of abdominal aortic aneurysms. 2+2+2+4

3. Outline a clinical approach to orthostatic intolerance. What is postural tachycardia syndrome? 6+4

4. Discuss etiopathogenesis and management of upper limb venous thrombosis. 10

5. Evolution and management of thrombocytopenia in the setting of percutaneous coronary interventions. 10

6. Define contrast induced nephropathy. Outline its management. 2+8

7. Diagnosis and treatment of inappropriate shock from ICD. 10

8. Role of CHA(2) DS(2) VASc, HAS-BLED scores in thromboprophylaxis. 10

9. What are the types of mechanical ventricular assist devices? Outline their indications and physiological impact. 4+(3+3)

10. Follow up, complications and management of post operative TOF. 10
Write short notes on:

1. Design & result of FAME trial. Outline its clinical applications. 2+3+5
2. What is Bayes' theorem? Discuss sensitivity and specificity of exercise electrocardiography in coronary artery disease. 3+7
3. Current status of DFT testing and its utility in ICD implantation. 4+6
4. Discuss hemodynamic and echocardiographic differentiating features of chronic constrictive pericarditis and restrictive cardiomyopathy. 5+5
5. Pathophysiology and management of ventricular remodeling. 5+5
6. Diagnosis and treatment of epicardial VT. 4+6
7. What is the syntax score? What is its impact on coronary revascularization? 4+6
8. What are the electrocardiographic changes in electrolyte balance? 10
9. What are intermediate coronary lesions? How are they evaluated? 3+7
10. Describe briefly the methods of intravascular imaging? How do they help in assessment of complications after PCI? 5+5