

**SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH**

**(A DEEMED TO BE UNIVERSITY)**

**B.Sc. Allied Health Sciences Third Year (Semester-V)**

**March 2022 Examination**

**B.Sc. Cardiac Care Technology (CCT)**

**Time : 3 Hrs.**

**[Max. Marks: 100]**

**Cardiac Care Technology Clinical**

**Q.P Code: J5791**

*Your answers should be specific to the questions asked.  
Draw neat labelled diagrams wherever necessary.*

**I. Long Essay (no choice)**

**2×10=20 Marks**

1. Briefly explain the assessment of right ventricle by echocardiography
2. Explain the echocardiographic findings, Duke score, management and complications of infective endocarditis

**II. Short Essay (Answer any 10)**

**10×5=50 Marks**

3. Explain pathophysiology and causes of mitral regurgitation
4. Explain the assessment of pulmonary artery pressure by echocardiography
5. Causes, clinical presentation, physical findings of mitral stenosis
6. Signs & symptoms, physical examination and diagnosis of mitral valve prolapse
7. Explain the types of prosthetic valve
8. Explain the diagnosis and severity assessment of pulmonary stenosis
9. Wilkin's and Cormier score system in mitral stenosis
10. Echocardiographic findings and severity assessment of aortic regurgitation
11. Two-dimensional echocardiographic assessment of prosthetic valve
12. Risk factors, pathophysiology, and pathology of RHD
13. Classification and pathophysiology of aortic stenosis
14. Explain the treatment of RHD

**III. Short answer (Answer any 10)**

**10×3=30 Marks**

15. What are the m-mode findings of LV systolic dysfunction?
16. Assessment of RA pressure by echocardiography
17. Teicholz method in the assessment of LV systolic function
18. Biplane method of assessment of LV systolic function
19. Transmitral flow assessment of LV diastolic dysfunction
20. What are the causes for tricuspid stenosis?
21. Physical examination in infective endocarditis
22. Write a short note on Dehiscence
23. Wall motion score index
24. Prosthetic valve endocarditis
25. Pulmonary venous flow assessment of LV diastolic dysfunction
26. Etiology of infective endocarditis



**SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH**

**(A DEEMED TO BE UNIVERSITY)**

**B.Sc. Allied Health Sciences Third Year (Semester-V)**

**March 2022 Examination**

**B.Sc. Cardiac Care Technology (CCT)**

**Time : 3 Hrs.**

**[Max. Marks: 100]**

**Cardiac Care Technology Applied**

**Q.P Code: J5792**

*Your answers should be specific to the questions asked.  
Draw neat labelled diagrams wherever necessary.*

**Long Essay (no choice)**

**2×10=20 Marks**

1. Briefly explain classification, clinical presentation, physical examination, ECG, X-ray and echocardiographic findings of VSD
2. Briefly explain the anatomy, associated defects, pathology, clinical presentation, physical findings of TOF

**Short Essay (Answer any 10)**

**10×5=50 Marks**

3. Explain the management of DCM
4. Explain the causes of restrictive cardiomyopathy
5. Explain the echocardiographic findings of cardiac tamponade in detail
6. Explain DeBakey and Stanford classification of aortic dissection
7. Diagnosis of pulmonary hypertension
8. Pathophysiology of HCM
9. Explain the classification of atrial septal defect
10. Clinical presentation, ECG, X-ray in patients with CoA
11. Explain the diagnosis of DCM
12. Explain Krickenko classification of PDA with neat labelled diagram
13. Echocardiographic findings of CCP
14. Explain ECG, X-ray and Echocardiographic findings of aortic dissection

**Short answer (Answer any 10)**

**10×3=30 Marks**

15. Pathophysiology of ASD
16. Clinical presentation of pericardial effusion
17. Alcohol septal ablation
18. ECG and X-ray findings in atrial septal defect
19. Pericardiocentesis
20. Causes of aortic dissection
21. ECG changes in different stages of acute pericarditis
22. Pathophysiology of pericardial tamponade
23. Define drag effect and venturi effect
24. Risk factors and complications of PDA
25. Causes of pericardial effusion
26. Pathophysiology of PDA





**SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH**

**(A DEEMED TO BE UNIVERSITY)**

**B.Sc. Allied Health Sciences Third Year (Semester-V)**

**March 2022 Examination**

**B.Sc. Cardiac Care Technology (CCT)**

**Time: 3 Hrs.**

**[Max. Marks: 100]**

**Cardiac Care Technology Advanced**

**Q.P Code: J5793**

*Your answers should be specific to the questions asked.  
Draw neat labelled diagrams wherever necessary.*

**Long Essay (no choice)**

**2×10=20 Marks**

1. Briefly explain the equipment's, Angiographic Technique (Procedure), Indication and Contraindications for Coronary Angiography
2. Briefly explain the classification, and ECG criteria of ventricular tachycardia and write a note on Brugada algorithm in differentiation between SVT with aberrancy and VT

**Short Essay (Answer any 10)**

**10×5=50 Marks**

3. Management in patients with acute MI
4. Write indications of the following cardiovascular drugs used in ACLS
  - a. Adenosine
  - b. Adrenaline
  - c. Amiodarone
  - d. Atropine
  - e. Dopamine
5. Pulseless arrest algorithm for pulseless electrical activity and asystole
6. Automated external defibrillator
7. Mechanism, classification, etiology and clinical presentation of Atrial fibrillation
8. Explain clinical feature, pathophysiology, classification and ECG findings in AVNRT
9. Explain primary benign cardiac malignancy
10. Explain Ventricular septal rupture
11. Cardiogenic shock
12. What are the ECG changes and evolution during STEMI
13. ECG in electrolyte abnormalities of Calcium
14. Indications of TEE

**Short answer (Answer any 10)**

**10×3=30 Marks**

15. Pathophysiology of acute MI
16. Sgarbossa criteria
17. Prerequisites for effective chest compression in adults
18. Synchronized cardioversion
19. Role of echocardiography in patients with atrial fibrillation
20. Classification and ECG criteria of Typical atrial flutter (Types I)
21. ECG criteria of MAT
22. ECG criteria and types of WPW syndrome
23. Ventricular premature complex
24. Complications of PTCA
25. Define and write ECG criteria of Hypothermia
26. TIMI flow

