

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

September 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.

Long Essay (no choice)

2×10=20 Marks

1. Briefly explain risk factors, etiology, pathophysiology, clinical manifestation and diagnosis of RHD
2. Briefly explain the causes, pathophysiology and clinical presentation of AR

Short Essay (Answer any 10)

10×5=50 Marks

3. Duke score in the diagnosis of IE
4. Echocardiographic and severity assessment of AR
5. Classification and pathophysiology of MS
6. Clinical manifestation, physical examination, ECG and X-ray findings in AS
7. Explain the doppler findings in diastolic dysfunction
8. 2DE findings in the assessment of LV systolic function
9. Assessment of RV systolic function by echocardiography
10. Causes, risk factors, pathology and pathophysiology of IE
11. Echocardiographic findings of MR
12. Types of prosthetic valve
13. Diagnosis and severity assessment of PS
14. Etiology, pathology and clinical presentation of MVP

Short answer (Answer any 10)

10×3=30 Marks

15. Estimation of filling pressure in patients with normal EF
16. Pulmonary venous flow in the assessment of diastolic dysfunction
17. Causes of AS
18. Role of Dobutamine stress echo in patients with AS
19. Transmitral flow assessment of LV diastolic dysfunction
20. Assessment of LV diastolic dysfunction in patients with AF
21. Wall motion score index
22. Myocardial performance index
23. RV size assessment by echocardiography
24. Acute vs Subacute bacterial endocarditis
25. Hemolysis in prosthetic valve
26. Causes of TR



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(A DEEMED TO BE UNIVERSITY)

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

September 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 the causes and pathophysiology of restrictive cardiomyopathy
2. Briefly explain classification, clinical presentation, physical examination, ECG, X-ray and echocardiographic findings of VSD

Short Essay (Answer any 10)

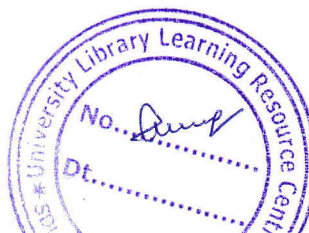
10×5=50 Marks

3. Explain the echocardiographic findings of TOF
4. ECG, X-ray and echocardiographic findings of Pulmonary hypertension
5. Explain pathophysiology, signs and symptoms, physical examination in cardiac tamponade
6. Differences between constrictive pericarditis and restrictive cardiomyopathy
7. Classification of PDA
8. Explain risk factors and echocardiographic findings of aortic dissection
9. Explain the echocardiographic findings of Hypertrophic cardiomyopathy
10. Explain the types of ASD with neat labelled diagram
11. Explain the two anatomical types, associated defects and pathology of CoA
12. Management of ASD
13. Causes and pathophysiology of CCP
14. Management of HCM

Short answer (Answer any 10)

10×3=30 Marks

15. Surgical management of aortic dissection
16. Define Cyanosis and clubbing
17. What are the differential diagnosis of acute pericarditis
18. Associated defects of TOF
19. Associated defects, ECG findings of Ostium secundum ASD
20. Systolic anterior motion of MV in HOCM
21. What are the ECG and x-ray findings of aortic dissection
22. Pathophysiology of ASD
23. Pericardiocentesis
24. Define ventricular interdependence and annular reverses in CCP
25. Signs and symptoms of HCM
26. Echocardiographic findings in PDA



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

September 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 pathophysiology, signs & symptoms, lab examination, diagnostic testing and management in patients with acute MI

Short Essay (Answer any 10)

10×5=50 Marks

3. Pulseless arrest algorithm for VF and pulseless VT
4. Write ECG criteria of VT
5. Automated external defibrillator
6. Mechanism, etiology, classification and clinical presentation in patients with atrial fibrillation
7. What are the causes, clinical presentation and ECG findings in multifocal atrial tachycardia
8. Pathophysiology, classification and ECG findings in patients with WPW syndrome
9. Explain primary benign cardiac malignancy
10. Explain ventricular septal rupture in detail
11. Explain the equipment's used in PTCA in detail
12. ECG changes in electrolyte imbalance of calcium
13. Indications of TEE
14. What are the different angiographic projections to view RCA and LCA

Short answer (Answer any 10)

10×3=30 Marks

15. Etiology of ventricular fibrillation
16. ECG and Echocardiographic findings of ventricular aneurysm
17. Mechanism of VT
18. Complications of TEE
19. Define and write ECG criteria of Hypothermia
20. Complications of PTCA
21. Mechanism of acute MR in acute MI
22. Classification and ECG criteria of AVNRT
23. Classification and ECG criteria of Type I/Typical atrial flutter
24. Prerequisites for the effective chest compression in child
25. What are the steps to use defibrillator
26. Classification and ECG criteria of AVRT

