Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Cardiac Care Technology Degree Examination – SEP-2017

Time: Three Hours | Max. Marks: 100 Marks

INTRODUCTION TO CARDIAC CARE TECHNOLOGY (RS)

Q.P. CODE: 1245

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. What are the Types of A-V Block? What are underlying mechanisms of such a Block? Describe the ECG changes in various types of A-V Block. What are the Common causes? What is Junctional Rhythm? How do you recognize Junctional Rhythm in ECG?
2. What is the principle behind Doppler echocardiography, and their application in Echocardiography and its uses, and their limitations?
3. What are the indications for a treadmill exercise test? What instructions are given to the person undergoing treadmill exercise test? What are the ECG changes observed during exercise? What complications may occur during treadmill exercise test? What is a positive treadmill exercise test?

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Transesophageal echocardiography.
5. 2D Echocardiography in pulmonary embolism.
6. 2D Echocardiography-Methods and Various Views.
7. Define ECG. What cardiac information can be collected from a surface ECG?
8. Segments of Left Ventricle in 2D Echocardiogram.
9. ECG and the basic mechanisms underlying Atrial Fibrillation.
10. The QRS Complex –Basic mechanism behind its genesis.
11. Types of 2D Echocardiography Transducers-their mechanisms.
12. Draw the M-Mode echocardiographic tracing obtained by sweeping the transducer from Apex to wards Base and label it and the measurements that can be taken from the tracing.
13. Standard Limb leads of ECG and Eithoven's triangle.
14. Echocardiography in Acute MI
15. Pharmacological Stress Echocardiography.
16. Contrast Echocardiography.
17. Ventricular Ectopics, Ventricular tachycardia, Ventricular fibrillation.

SHORT ANSWERS (Answer any Ten) 10 x 2 = 20 Marks

18. ECG criteria of Left atrial enlargement.
19. M-mode Echo of Mitral Stenosis.
20. Left Anterior Hemiblock.
21. Right Ventricular hypertrophy.
22. Sinus Pauses.
23. EchoCardiography in pericardial diseases.
24. Pulmonary Artery in 2D Echocardiography.
25. Technical Dextrocardia in ECG.
26. Normal and Abnormal P-Wave in ECG.
27. Left atrial appendage in 2D Echocardiography.
28. Pulmonary viens in 2D Echocardiography.
29. Q-T interval and Q-Tc.

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Cardiac Care Technology Degree Examination – SEPT 2017

Time: Three Hours | Max. Marks: 80 Marks

MEDICINE RELEVANT TO CARDIAC CARE TECHNOLOGY (RS)
Q.P. CODE: 1246

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Discuss etiopathogenesis, clinical features, investigations and management of rheumatic fever.
2. Discuss, clinical features, investigations and management of acute pulmonary edema.
3. Discuss etiopathogenesis, clinical features, investigations and management of infective endocarditis

SHORT ESSAYS (Answer any Eight) 8 x 5 = 40 Marks

4. Diagnosis, complications and management of atrial fibrillation
5. Atrial septal defect
6. Acute pulmonary embolism
7. Dilated cardiomyopathy
8. Clinical features and management of unstable angina
9. Ventricular tachycardia
10. Aetiology and investigation for secondary hypertension
11. Cardiac tamponade
12. Investigations and treatment for DVT
13. Aortic stenosis-Aetiology and Diagnosis

SHORT ANSWERS (Answer any Ten) 10 x 2 = 20 Marks

14. complications of hypertension
15. Complete heart block
16. Aspirin
17. Echocardiogram in Emergency room
18. Clinical features of Mitra regurgitation
19. Cardiac defibrillation
20. Cyanosis – Etiology
21. Causes of haemoptysis
22. Causes of hypotension
23. Fallot’s tetrology – Clinical features
24. Clinical features of Cor Pulmonale
25. Apex beat

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Cardiac Care Technology Degree Examination – APRIL 2017

Time: Three Hours | Max. Marks: 100 Marks

INTRODUCTION TO CARDIAC CARE TECHNOLOGY (RS)
Q.P. CODE: 1245

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Electrocardiogram in detail
2. Doppler techniques used in Echocardiogram and its clinical applications
3. Exercise test – types, protocols to follow while doing exercise test and its complications

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Complete heart block
5. M – mode of mitral valve
6. ECG features in acute MI
7. When to terminate treadmill test
8. Color flow imaging
9. Different types of transducers
10. Precordial leads
11. different methods to obtain left ventricular ejection fraction
12. Fascicular blocks
13. PR interval
14. Different views in Trans Esophageal Echocardiography (TEE)
15. Nyquist limit
16. Importance of contrast echo
17. Bundle branch blocks

SHORT ANSWERS (Answer any Ten) 10 x 2 = 20 Marks

18. Unipolar limb leads
19. ECG in LV enlargement
20. Importance of U wave
21. Pulse wave Doppler
22. ECG paper
23. Diagnostic use of treadmill test
24. Define gain and its importance.
25. Voltage of QRS
26. R-R interval
27. Rhythms in ECG
28. Normal Doppler flow pattern
29. Electrical fields of heart

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Cardiac Care Technology Degree Examination – APRIL 2017

Time: Three Hours | Max. Marks: 80 Marks

MEDICINE RELEVANT TO CARDIAC CARE TECHNOLOGY (RS)
Q.P. CODE: 1246

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Discuss etiopathogenesis, clinical features, investigations and management of acute pulmonary embolism
2. Discuss, clinical features, investigations and management of congestive cardiac failure
3. Discuss etiopathogenesis, clinical features, investigations and management of infective endocarditis

SHORT ESSAYS (Answer any Eight) 8 x 5 = 40 Marks

4. Symptoms and signs of Mitral regurgitation
5. Etiology, evaluation and management of anaemia
6. Dilated cardiomyopathy
7. Clinical features and management of unstable angina
8. Supraventricular tachycardia
9. Aetiology and investigations for secondary hypertension
10. Metabolic syndrome
11. Investigations and treatment for COPD
12. Aortic stenosis-Aetiology and Diagnosis
13. Pericardial effusion

SHORT ANSWERS (Answer any Ten) 10 x 2 = 20 Marks

14. complications of hypertension
15. Sinoatrial node
16. Diuretics
17. Echocardiogram – Role in emergency medicine
18. Clinical features of mitral stenosis
19. Cardiac defibrillation
20. Cyanosis - Etiology
21. Sinus bradycardia
22. Causes of hypotension
23. Fallot’s tetrology
24. Clinical features of Cor Pulmonale
25. JVP- Jugular Venous Pulse