Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Cardiac Care Technology Degree Examination – SEPTEMBER 2015

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. Define exercise test in detail and discuss its indications and contraindications.
2. Echocardiogram – basic principles and its modalities
3. ECG features in Bundle branch blocks

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

4. Transducer and its design
5. ECG features of left ventricular hypertrophy
6. Discuss Axis deviation in detail.
7. Normal ECG waves
8. M-mode echocardiogram
9. Various views of echocardiogram
10. Various echo segments of LV-ASE model
11. Atrial enlargement by ECG criteria
12. ST segment response in Treadmill test
13. Principles and applications of conventional Doppler
14. Protocols of exercise test
15. Rotation of the heart
16. Indications to stop exercise test
17. Hemi blocks

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

18. Ultrasound principles
19. Flow pattern of Doppler
20. 'P' wave
21. Calculation of heart rate by ECG
22. Pulse wave Doppler
23. Use of TEE
24. Pathological Q waves
25. ECG strips
26. Rate – pressure product
27. Different types of Cardiac Rhythms
28. SA node
29. Electrical field of the heart

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Cardiac Care Technology Degree Examination – SEPTEMBER 2015

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. Acute Pulmonary Embolism-Causes, Presentation, ECG, Diagnosis and Management.
2. Angina Pectoris-Symptoms, Presentation, Investigations, Diagnosis, Management.
3. Hypertension-Classification, causes, relevant investigations, Diagnosis, Complications.

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

4. Primary pulmonary hypertension-presentation, investigations, Diagnosis, Management.
5. Cor pulmonary-presentation, causes, ECG, Echo, pathophysiology, Diagnosis.
6. Atrial Septal defect – diagnosis and management
7. Causes of cardiac failure in infancy.
8. Mention the Effects of Alcohol on the cardiovascular system-Acute and chronic.
9. Aortic aneurisms-Types, locations, Complications.
10. Thyrtoxicosis and the heart.
11. Dilated cardiomyopahy, Etiology, presentation, Diagnosis, Management.
12. Complications of Inferior wall myocardial Infarction with Right ventricular infarction-Diagnosis and management.
13. Mitral regurgitation –Causes, presentation, investigations, Diagnosis.

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

14. Atrial fibrillation
15. Complications of acute MI
16. Paradoxical embolism.
17. Bacterial Endocarditis.
18. Diuretics
19. Metabolic syndrome.
20. Complications of hypertension
21. Peripheral cyanosis.
22. Vasovagal Syncope.
23. Renal function in cardiac failure.
24. Pregnancy and heart disease.
25. Effect of A-V fistula on cardiovascular function.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Cardiac Care Technology Degree Examination – APRIL - 2015

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 principles and clinical applications
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 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 eave
21. Pulse wave Doppler
22. ECG paper
23. Diagnostic use of treadmill test
24. Define Gain in echocardiographic settings 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 2015

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. What are the complications of hypertension?
2. Discuss aetiology, clinical features, diagnosis and management of Ischaemic Heart Disease.
3. Discuss the management of left ventricular failure.

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

4. Rheumatic mitral valve disease
5. Pericardial effusion
6. Chronic renal failure
7. Treatment of hypertension
8. Aortic aneurysms – etiology and treatment
9. List the causes of anemia.
10. Name the tests used to diagnose bleeding disorders.
11. Cardiac tamponade
12. Autonomic nervous system
13. Pulmonary function test

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

14. Sphygmomanometer
15. Rheumatic aortic valve disease
16. Location of pain in angina pectoris
17. Hypoxic spells in congenital heart disease
18. Mitral stenosis
19. Types of cardiomyopathy
20. Prevention of RHD
21. Infective endocarditis
22. Dextrocardia
23. Hypertension in pregnancy
24. List causes of irregular pulse.
25. Causes of and diagnosis of peripheral vascular disease