Rajiv Gandhi University of Health Sciences, Karnataka

III year B.Sc. Cardiac Care Technology Degree Examination – MARCH 2018

Time: Three Hours | Max. Marks: 100 Marks

Clinical Cardiac Care Technology – I Paper – I (RS Scheme)

Q.P. CODE: 2920

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. Describe in detail the M-mode, two-dimensional and Doppler echocardiographic features of Aortic regurgitation.
2. Describe the procedure for oximetry run during assessment of left to right shunt by cardiac catheterization. What are the criteria for significant step-up at atrial, ventricular and great artery level?
3. Draw neat labelled diagrams of normal pressure tracings during cardiac catheterization for following chambers: left and right atria, left and right ventricles, Aorta, pulmonary artery. Mention normal ranges in the diagrams.

SHORT ESSAYS (Answer any Ten) 10 x 5 = 50 Marks

4. ECG in PAH
5. Echocardiographic features of Mitral regurgitation
6. Echocardiographic features of infective endocarditis
7. ECG findings in hyper-acute anterior wall infarction
8. Echocardiographic features of PDA
9. ECG findings in VSD
10. Echocardiographic in dilated cardiomyopathy
11. RV function assessment by echocardiography
12. Echocardiographic features of left and right ventricles
13. Draw neat, labelled diagrams of all routine echocardiographic views.
14. Name methods used for assessment of systolic function by echocardiography.
15. Safety measures during contrast exposure in renal dysfunction
16. Assessment of PAH by Echocardiography
17. Draw labelled diagrams of echocardiography in different types of ASD.

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

18. Enumerate catheters used in cath-lab.
19. Normal ranges of cardiac chamber measurements
20. Types of stents
21. Types of balloons used in angioplasty
22. Draw diagram of normal M-mode of LV.
23. Draw diagram of left coronary artery in LAO-cranial and RAO-caudal views.
24. Draw diagrams of LA Myxoma in echocardiography.
25. Hardware used in peripheral angiogram
26. Draw labelled diagram of normal pulmonary capillary wedge pressure.
27. ECG in left and right atrial enlargement
28. TAPSE
29. Aortogram

Rajiv Gandhi University of Health Sciences, Karnataka

III year B.Sc. (Allied Health sciences) Examination – MARCH 2018

Time: Three Hours | Max. Marks: 100 Marks

Cardiac Care Technology
Applied Technology Paper – II (RS)
Q.P. CODE: 2921

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. Echocardiographic features of atrial septal defects. Describe briefly the interventional procedure for secundum ASD closure.
2. Stress echocardiography preparation, procedure, indications and interpretation
3. Define hypertension. Classify hypertension. Briefly discuss methods of recording blood pressure.

SHORT ESSAYS (Answer any Ten) 10 x 5 = 50 Marks

4. Echocardiographic assessment of severity of MR
5. Hardware required for permanent pacemaker implantation
6. Femoral arterial puncture-indication, uses and complication
7. Pulmonary embolism, definition, risk factors and ECG changes
8. Acute ST elevation AWMI-ECG changes
9. ECG and ECHO features of WPW syndrome, bundle branch blocks
10. Fetal echocardiography
11. Myocardial contrast echocardiography
12. Echocardiographic and hemodynamic features of constrictive Pericarditis
13. Echocardiographic features of congenital PS. Add a note on Balloon Pulmonary Valvotomy.
14. Describe various treatment of SVT.
15. Echo and hemodynamic features of TOF
16. Peripheral arterial Doppler – indication and uses
17. Briefly discuss a) Intra – Aortic Balloon Pump (IABP), Debrillators.

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

18. Types of AV block
19. Junctional rhythm
20. ECG and X-ray finding of dextrocardia
21. Physiological and pathological Q waves
22. Coronary stents
23. Typical ECG findings in Apical HCM
24. ECG criteria for RVH
25. ECG manifestation in Hyperkalemia
26. ECG changes in atrial enlargements
27. PR interval normal range, clinical significance
28. Echo in chronic obstructive pulmonary disease
29. Low gradient aortic stenosis

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Rajiv Gandhi University of Health Sciences, Karnataka

III year B.Sc. Cardiac Care Technology Degree Examination – SEP-2018

Time: Three Hours | Max. Marks: 100 Marks

Clinical Cardiac Care Technology – I
Paper – I (RS Scheme)
Q.P. CODE: 2920
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. 2D echocardiography in rheumatic mitral stenosis.
2. What are the common echocardiographic measurements taken? What are the ASE guidelines? What are the normal values? How do you asses the Function of the heart?
3. How will you recognize cardiac catheter positions in various chambers as RA,RV,LV,LA,SVC,IVC, Coronary sinus, Pulmonary artery and pulmonary Veins. On fluoroscopic screen?

SHORT ESSAYS (Answer any Ten) 10 x 5 = 50 Marks

4. Doppler study of peripheral vessels and Ankle/Brachial Index.
5. Assessment of prosthetic valve function by echocardiography.
6. 2D Echo in Aortic dissection and the importance.
7. Echocardiography assessment of Aortic stenosis.
8. Echocardiography of IVC-How does it help in the diagnosis of diseases.
9. Contrast sgents. In Angiography-Types, Dose, side effects, reactions, Complications.
10. Haemodynamic parameters monitored during cardiac catheterisation.
11. Echocardiography in the assessment of Aortic regurgitation.
12. Echocardiography evaluation of Functional/Ischaemic/Degenerative Mitral regurgitation.
13. Echocardiography in Chronic Ischaemic heart disease.
14. 2D echocardiography in COPD
15. 2D Echo in VSD.
16. 2D Echo in restrictive cardiomyopathy.
17. Complications of coronary angiography

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

18. Paradoxical movement of IVS-Causes.
19. Guide wires.
20. Types of PTCA balloons.
21. Snares.
22. Inoe Baloon.
23. Seldinger Technique.
24. TAPSE.
25. E-point Septal separation (EPSS).
26. ECG and 2D Echo in Hypertension.
27. Contrast induced Nephropathy.
28. ECG in Hypokalaemia.
29. ECG in complete heart block.

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Rajiv Gandhi University of Health Sciences, Karnataka

III year B.Sc. (Allied Health sciences) Examination – SEP-2018

Time: Three Hours | Max. Marks: 100 Marks

CARDIAC CARE TECHNOLOGY
APPLIED TECHNOLOGY PAPER – II (RS)
Q.P. CODE: 2921

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 stress ECHO procedure, indications and complications.
2. ECG and ECHO evaluation of a patient with aortic regurgitation
3. Describe the indications and contraindications for Tread Mill Test. Discuss criteria for positive TMT.

SHORT ESSAYS (Answer any Ten) 10 x 5 = 50 Marks

4. ECHO features of HOCM. Mention hardware for PTSMA.
5. ECHO assessment for device closure of ASD
6. Left ventricular segments involved in occlusion of left circumflex artery
7. Role of IVC in assessing pulmonary hypertension
8. ECHO in various types of ASD
9. ECHO features of acute rheumatic fever
10. ECHO features of severe mitral stenosis
11. LV apical thrombus
12. VPCs
13. Hardware for PTCA
14. Temporary pacemaker implantation
15. Define and classify hypertension
16. Cardiogenic shock
17. Echo in AF

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

18. ECG in WPW
19. ECG in Hyperkalemia
20. ECG in left atrial enlargement
21. Sinus pause
22. ECG in technical dextrocardia
23. Measure heart rate in ECG of Atrial Fibrillation Methodology
24. ECG in CHB
25. Pathological Q wave
26. Hardware in PTMC
27. ECG in CHB
28. ECG in PWMI
29. ECG in Right atrial enlargement

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