Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Cardiac Care Technology Degree Examination – 24-Aug-2020

Time: Three Hours | Max. Marks: 100 Marks

Clinical Cardiac Care Technology – I
Paper – I (RS2)
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. Echocardiographic evaluation of Cardiac tamponade
2. Brief note on morphological differences between right and left chambers of heart and how do you assess of LV function.
3. Echocardiographic evolution on (a) Hypertrophic cardiomyopathy (b) Restrictive cardiomyopathy.

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

4. Classify prosthetic valves in detail.
5. Indications and contraindications of coronary angiogram
6. Different types of catheters
7. Echocardiographic evaluation of Atrial Septal Defect (ASD)
8. Radiation hazards
9. Echo features of patent ductus arteriosus
10. Cardiac monitoring
11. Echo in coarctation of aorta
12. Wall motion scoring
13. ECHO in ST Elevation MI (STEMI)
14. Brief note on bundle branch blocks
15. Assessment of RV function
16. Echo features of TOF
17. Interpretation of normal ECG

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

18. Name some of contrast agents.
19. Material used in PTMC
20. Modes of cardiac imaging
21. Pacemaker – types
22. Echo features of AR
23. Importance of U wave
24. Echocardiographic features of Dextrocardia
25. Pacemaker contrast material
26. Echo features of mitral valve prolapse
27. Guide wires
28. Modified Simpson’s formula
29. ECHO in pericardial effusion

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. (Allied Health sciences) Examination – 26-Aug-2020

Time: Three Hours | Max. Marks: 100 Marks

Cardiac Care Technology
Applied Technology Paper – II (RS2)
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 indications for stress echocardiography. Describe how to conduct and interpret pharmacological stress echocardiography.
2. Define myocardial infarction. Enumerate ECG criteria for MI. mention ECG changes in anterior, posterior, interior and lateral wall MI.
3. Echocardiographic evaluation of Rheumatic mitral stenosis. How do you assess the suitability of the valve for percutaneous mitral balloon valvuloplasty? What are the complication of PTMC?

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

4. Blood pressure recording technique
5. Hemodynamic and echocardiographic features of TOF
6. Echocardiographic assessment of severity of aortic regurgitation
7. Peripheral arterial Doppler-indication and uses
8. Mention emergency equipment, Drugs and other materials to be used in cathlab procedures.
9. Radiographic contrast agents
10. Fetal echocardiography basic principles
11. Write a note on RVMI.
12. ECG changes in Hyperkalemia
13. Echocardiography in Dextrocardia
14. Fascicular blocks – ECG changes
15. Echocardiographic features in OStium secundum ASD. Describe briefly interventional procedure for ASD closure
16. Femoral arterial puncture – indication, uses and complication
17. Transradial coronary angiography

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

18. Mention hardwares while conducting coronary angiography.
19. VSD-ECG changes
20. Hyper acute ECG change in MI
21. How do recognize SVT in ECG?
22. Hemodynamic data in TAPVC
23. ECG criteria in ventricular hypertrophy
24. ECG in dexrocardia
25. WPW syndrome
26. Write a note on coronary stents.
27. How will you measure heart rate in atrial fibrillation?
28. What is QT-interval and its clinical significance?
29. Complications of acute MI

Rajiv Gandhi University of Health Sciences, Karnataka

Year B.Sc. Cardiac Care Technology Degree Examination – 28-Aug-2020

Time: Three Hours | Max. Marks: 100 Marks

ADVANCED CARDIAC CARE TECHNOLOGY – III (RS2)

Q.P. CODE: 2922

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. Mitral valvuloplasty – indications, contraindications and procedure in detail.
2. Name some exercise tests in detail and describe one of them in detail.
3. Pressure recording in various chambers in detail.

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

4. Nuclear cardiology in detail
5. Electrophysiological studies in detail
6. Name the drugs used in cardiac arrest.
7. How to setup Intensive Cardiac Care Unit (ICCU)?
8. Cardiac catheterization during pregnancy
9. Defibrillator
10. Indications and usefulness of Holter monitoring
11. Oximetry at various levels
12. Indications to do myocardial perfusion scan
13. Pressure tracing in Hypertrophic Obstructive Cardio Myopathy (HOCM)
14. Brief note on Patent Ductus Arteriosus (PDA) device closure
15. Pulmonary balloon valvuloplasty

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

16. Ventricular premature complex
17. Mitral valve prolapse
18. Atropine sulphate
19. Multipurpose catheter
20. Cardiogenic shock
21. Artificial respiration
22. Heart blocks
23. Drugs used during Holter monitoring
24. Indications for pacemaker implantation
25. Agents used in myocardial perfusion scan
26. Direct Current (DC) shock
27. Normal pressure tracings

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Cardiac Care Technology Degree Examination – 10-Dec-2020

Time: Three Hours | Max. Marks: 100 Marks

Clinical Cardiac Care Technology – I Paper – I (RS2)

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 echocardiographic features of
   a) Normal mitral valve b) Mitral regurgitation-its classification and degree of severity
2. Echocardiographic features of a) ASD b) Pulmonary stenosis
3. Describe in detail about indication, contra indication and procedure of coronary angiogram.

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

4. Oximetry at various levels of cardiac chambers
5. Echocardiographic features of aortic stenosis
6. Echo assessment of diastolic dysfunction
7. ECG finding of TOF
8. Write a brief note on guide wires.
9. Echo features of cardiac tamponade
10. Temporary pacemaker
11. Discuss AV block.
12. Acute complication of MI
13. Discuss about radiation hazards.
14. LV angiogram
15. Wilkin's score assessment
16. Tissue Doppler imaging
17. Cardiac resynchronization therapy

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

18. Difference between 2D echo and 3D echocardiogram
19. ECG anterior wall MI
20. LAO cranial view in angiogram
21. Angioplasty balloons
22. Echo evaluation of PAH
23. Echo features in constrictive Pericarditis
24. TAPSE and MAPSE
25. Discuss normal ECG.
26. Normal variants in cardiac chambers
27. Echo features of coarctation of aorta
28. Angioplasty balloons
29. Echo features of vegetation

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. (Allied Health sciences) Examination – 14-Dec-2020

Time: Three Hours | Max. Marks: 100 Marks

CARDIAC CARE TECHNOLOGY - APPLIED TECHNOLOGY PAPER – II (RS2)
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. How will you evaluate a patient planned for coronary angioplasty? Describe PTCA hardware and steps in brief.
2. Evaluation of a patient with Rheumatic Mitral Regurgitation
3. Evaluation of a patient with Ventricular septal defect with Pulmonary hypertension

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

4. Contrast Echocardiography – procedure, indications and uses
5. Echo-cardiographic features in A-V canal defect
6. Echo-cardiographic features of Pulmonic stenosis
7. How will you assess the severity of Aortic Regurgitation?
8. Radial arterial puncture – indication, uses and complications
9. ECG and Echocardiography in Aortic Stenosis
10. ECG criteria for Right ventricular Hypertrophy
11. ECG features of Ventricular premature complex
12. Hardware required for Aortic Balloon Valvoplasty
13. Cardioversion in Arrhythmias – indications and precautions
14. Echocardiography in Patent Ductus Arteriosus
15. Invasive Blood pressure Monitoring
16. ECG monitoring in Acute Myocardial Infarction
17. Aortic angiogram – methods, indication and uses

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

18. Describe the ECG changes in Hyperkalaemia
19. ECG in Acute Pericarditis
20. Haemodynamic data in Pulmonary stenosis at various levels
21. WPW syndrome
22. ECG in acute anterior wall MI
23. Fetal echocardiography
24. What is P-R interval? Normal and Abnormal
25. ECG in Complete Heart Block
26. ECG in inferior wall and RV MI
27. Components of Tetralogy of Fallot
28. ECG in COPD
29. Echo in Tubercular Pericardial effusion

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Cardiac Care Technology Degree Examination – 16-Dec-2020

Time: Three Hours | Max. Marks: 100 Marks

ADVANCED CARDIAC CARE TECHNOLOGY – III (RS2)

Q.P. CODE: 2922

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 VSD? Discuss in detail about device closure of VSD, Procedure, indications and complications.
2. Discuss about ECHO in bicuspid aortic valve, aortic measurements. Write in detail about balloon aortic valvuloplasty.
3. Describe holter monitoring procedure and uses in diagnosing Brady arrhythmias. What is an event recorder?

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

4. Thrombus aspiration
5. Eptifibatide
6. TAVR / TAVI
7. ECG in VT
8. Pressure tracing in HOCM
9. Myocardial perfusion scan
10. Cardiac MRI
11. Heparin
12. NIH catheter
13. FFR
14. Prenatal diagnosis of CHD by fetal ECHO
15. RV pressure tracing

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

16. ICD
17. PCWP
18. Pericardioenteris
19. Bicaval view
20. Advantages of 3D ECHO
21. LV noncompaction
22. AMBU bag
23. Cutting balloon
24. Advantages of radial artery Coronary angiography
25. CT Coronary angiogram
26. Conduction system of heart
27. Cardiac asystole

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