

August, 2015

STATE MEDICAL FACULTY OF WEST BENGAL

**Final Examinations
for Diploma in Cath-Lab Technician : DCLT Course**

**Paper – I
Radiology**

Question No. 1 & 2 are Compulsory.

Attempt any (Five) 5 Questions from Question No. 3 to 9

Time – 3 hours

Full Marks – 80

Q1 Choose the best answer for the following questions:-

5 X 1 = 5

- i) Figure of Eight in chest X-ray seen in:
 - a) TAPVC
 - b) D - TGA
 - c) ASD
 - d) PDA
- ii) Right border of heart is formed by:
 - a) RA
 - b) SVC
 - c) Both of the above
 - d) None of the above
- iii) Best view to see course of LAD alter:
 - a) LAO cranial
 - b) LAO caudal
 - c) RAO cranial
 - d) RAO caudal
- iv) Bat wing appearance in chest X-ray seen:
 - a) Pulmonary edema
 - b) Pulmonary hypertension
 - c) Pulmonary embolism
 - d) Right heart failure
- v) Peripheral pruning of pulmonary artery in chest X-ray seen:
 - a) Right heart failure
 - b) Left heart failure
 - c) Pulmonary hypertension
 - d) Infective endocarditis

Q2. Write **True (T)** or **False (F)**:-

5 x 1 = 5

- a) Echocardiography is helpful in diagnosis of constrictive pericarditis. (T/F)
- b) CT coronary Angiography is used in patients with intermediate risk factor for CAD. (T/F)
- c) Cardiac MRI is not used for diagnosis of myocardial viability. (T/F)
- d) Echo Cardiography is useful in assessing valvular disease. (T/F)
- e) Cardiomegaly is seen in chronic aortic regurgitation. (T/F)

Contd.....P2/

Paper – I

Radiology

ANSWER ANY FIVE (5) OF THE FOLLOWING QUESTIONS:

5 X 14 = 70

- Q3. Discuss Echocardiography features of mitral stenosis. 14
- Q4. Write short note on:
a) Chest X-ray feature of ASD, VSD and PDA
b) Chest X-ray of mitral stenosis 14
- Q5. Discuss indications, contraindications & complication of CT coronary angiography. 14
- Q6. Discuss Echocardiography features of RA, LA, LV, RV. 14
- Q7. Write short note on:
c) Chest X-ray feature of pulmonary embolism
d) Chest X-ray feature of Pulmonary hypertension 14
- Q8. Discuss indications & contraindications of Cardiac MRI. 14
- Q9. Discuss in detail about assessment of myocardial viability. 14

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**Paper – II
ECG**

Question No. 1 & 2 are compulsory.

Attempt any (Five) 5 Questions from Question No. 3 to 9

Time – 3 hours

Full Marks – 80

Q1 Choose the best answer from the following questions:-

5 X 1 = 5

- i) Irregularly irregular RR interval seen in:
 - a) VT
 - b) Sinus tachycardia
 - c) AF
 - d) Sinus bradycardia
- ii) Extensive Anterior wall MI is diagnosed in lead:
 - a) II, III, avf
 - b) I, avL
 - c) V1 to V6, I, avL
 - d) V5, V6
- iii) QT prolongation is seen in case of:
 - a) Hypokalemia
 - b) Hyperkalemia
 - c) None of the above
 - d) Both of the above
- iv) Complete Heart block is common in:
 - a) Inferior wall MI
 - b) Anterior wall MI
 - c) Lateral wall MI
 - d) NSTEMI
- v) Unstable angina – ECG findings:
 - a) 'T' inversion
 - b) ST depression
 - c) Dynamic changes
 - d) All of the above

Q2. Write **True (T)** or **False (F)**:-

5 x 1 = 5

- a) 'P' Pulmonable suggest RA enlargement. (T/F)
- b) Sine wave pattern is seen hypokalemia. (T/F)
- c) QRS duration more than 200 msec's is called wide QRS. (T/F)
- d) Short QT syndrome where QTc is less than 320 msec. (T/F)
- e) Sokolow – Lyon voltage criteria is diagnostic criteria for RVH. (T/F)

Contd.....P2/

Paper – II

ECG

ANSWER ANY FIVE (5) OF THE FOLLOWING QUESTIONS:

5 X 14 = 70

- Q3. Discuss the sequential ECG changes in AMI. 14
- Q4. Write short note on:
a) Types of PSVT
b) WPW syndrome 14
- Q5. Management of wide QRS tachycardias in cath lab. 14
- Q6. Write short note on:
a) ECG changes in RA & LA enlargement
b) ECG changes of RVH 14
- Q7. Write short note on:
c) ECG changes in unstable angina
d) Corrected QT interval (QTC) 14
- Q8. Describe about waveforms & intervals of normal ECG. 14
- Q9. Describe how to differentiate from SVT with aberrance with VT. 14

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**Paper – III
Defibrillation**

Question No. 1 & 2 are compulsory.

Attempt any (FIVE) 5 Questions from Question No. 3 to 9

Time – 3 hours

Full Marks – 80

Q1 Choose the best Answer for the following questions:-

5 X 1 = 5

- i) AF is diagnosed with:
 - a) Irregular RR interval
 - b) Absent 'P' wave
 - c) Both of the above
 - d) None of the above
- ii) Defibrillation is required in all, except:
 - a) VT with hemodynamic compromise
 - b) AF with high ventricular rate
 - c) VF
 - d) Sinus tachycardia
- iii) Treatment of choice for torsades de pointes:
 - a) IV magnesium
 - b) Oral amiodarone
 - c) IV amiodarone
 - d) IV sotalol
- iv) Asynchronised DC shock is given in:
 - a) VT
 - b) Ventricular fibrillation
 - c) AF
 - d) AT
- v) Temporary pacing done in:
 - a) CHB with syncope
 - b) Sinus bradycardia
 - c) Sinus Tachycardia
 - d) All of the above

Q2. Write **True (T)** or **False (F)**:-

5 x 1 = 5

- a) CRT done ideally when LBBB with duration more than 140 msec's. (T/F)
- b) Injection Atropine is given in AV block during PCI. (T/F)
- c) Advanced CPR includes defibrillation in cases of ventricular fibrillation. (T/F)
- d) Rate control method of treatment is used in VT treatment. (T/F)
- e) ICD is implanted in DCM with VT. (T/F)

Contd.....P2/

Paper – III

Defibrillation

ANSWER ANY FIVE (5) OF THE FOLLOWING QUESTIONS:

5 X 14 = 70

- Q3. Write short note on:- 14
a) β blocker
b) Amiodarone
- Q4. Write short note on:- 14
a) ICD
b) CRT
- Q5. Discuss steps of CPR & advanced CPR. 14
- Q6. Discuss etiology of VT & management of VT in cath lab. 14
- Q7. Write short note on:- 14
a) Parts of defibrillator
b) Complication of permanent pacing
- Q8. Describe types of AV block. Write treatment of the same. 14
- Q9. Write indications of permanent pacing. Write types of permanent pacing. Write steps of dual chamber pacing.

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Paper – IV
Diseases of Heart

Question No. 1 & 2 are Compulsory.

Attempt any (FIVE) 5 Questions from Question No. 3 to 9

Time – 3 hours

Full Marks – 80

Q1 Choose the best Answer for the following questions:-

5 X 1 = 5

- i) All of the following drugs used in Heart failure, except:
 - a) Spironolactone
 - b) Frusemide
 - c) Remipril
 - d) Amlodipine
- ii) Cyanosis is seen in all, except:
 - a) TOF
 - b) Tricuspid atresia
 - c) d-TGA
 - d) ASD
- iii) Moderator band is feature of:
 - a) Right ventricle
 - b) Left ventricle
 - c) Right Atrium
 - d) Left Atrium
- iv) Infective endocarditis is diagnosed by:
 - a) Duke's criteria
 - b) Jones's criteria
 - c) Both of the above
 - d) None of the above
- v) All are causes of Aortic Regurgitation, except:
 - a) RHD
 - b) IE
 - c) Trauma
 - d) Acute MI

Q2. Write **True (T)** or **False (F)**:-

5 x 1 = 5

- a) Troponin T is positive in NSTEMI. (T/F)
- b) ASPIRIN is given in acute MI. (T/F)
- c) Most common cause of mitral stenosis is congenital MS. (T/F)
- d) Early diastolic murmur is heard in chronic Aortic Regurgitation. (T/F)
- e) PTMC is done in severe mitral stenosis. (T/F)

Contd.....P2/

Paper – IV

Diseases of Heart

ANSWER ANY FIVE (5) OF THE FOLLOWING QUESTIONS:

5 X 14 = 70

- Q3. Discuss clinical features of management of Acute MI. 14
- Q4. Discuss etiology, clinical features and management of pulmonary hypertension. 14
- Q5. Discuss diagnosis and management of infective endocarditis. 14
- Q6. Discuss about ASD. 14
- Q7. Discuss clinical features, diagnosis and management of mitral stenosis. 14
- Q8. Discuss etiology and management of pericardial effusion. 14
- Q9. Discuss clinical features and management of Heart failure. 14

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Paper – V
Catheters and Instruments

Question No. 1 & 2 are Compulsory.

Attempt any (FIVE) 5 Questions from Question No. 3 to 9

Time – 3 hours

Full Marks – 80

Q1 Choose the best Answer for the following questions:-

5 X 1 = 5

- i) All of the following are antiplatelet, except:
 - a) Aspirin
 - b) Clopidogrel
 - c) Ticagrelor
 - d) Heparin
- ii) Catheter used to engage RCA all, except:
 - a) JR
 - b) AL
 - c) AR
 - d) JL
- iii) All of these given intracoronary in slow flow phenomenon in PCI, except:
 - a) Adenosine
 - b) Diltiazem
 - c) GP2B3A
 - d) Atropine
- iv) All of the following have side hole, except:
 - a) Tiger catheter
 - b) Pigtail catheter
 - c) JL
 - d) None of the above
- v) Rotablator is used for:
 - a) Thrombus containing lesion
 - b) Diffuse lesion
 - c) Focal lesion
 - d) Highly calcified lesion

Q2. Write **True (T)** or **False (F)**:-

5 x 1 = 5

- a) Radial route has less vascular complications. (T/F)
- b) Pulmonary balloon valvuloplasty is done for congenital MS. (T/F)
- c) ICD is used in survivors of SCD. (T/F)
- d) Pneumothorax is a complication in permanent pacing. (T/F)
- e) Spider view is to see for mid part of LAD. (T/F)

Contd.....P2/

Paper – V

Catheters and Instruments

ANSWER ANY FIVE (5) OF THE FOLLOWING QUESTIONS:

5 X 14 = 70

- Q3. Discuss indications and contraindications of PCI 14
- Q4. Write short note on:- 14
- a) Peripheral angiography
 - b) Management of cardiac arrest in cath lab
- Q5. Discuss comparison between BMS and DES. 14
- Q6. Write the steps of PTMS (Percutaneous transvenous mitral commissurotomy) and complication of PTMC. 14
- Q7. Write short note on:- 14
- a) PDA device closure
 - b) ASD device closure
- Q8. Write short note on:- 14
- a) Pre PCI patient preparation
 - b) Management of hemostasis in post PCI patient
- Q9. Write steps in CRT procedure and complications during CRT. 14
