

[KZ 0811]

AUGUST 2011

Sub. Code: 1503

B.Sc., CARDIAC TECHNOLOGY

FIRST YEAR

**PAPER III – PATHOLOGY, MICROBIOLOGY, CLINICAL FEATURES AND
TREATMENT OF DISEASES PERTINENT TO CARDIAC TECHNOLOGY**

Q.P. Code: 801503

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Define atherosclerosis.
Describe the etiopathogenesis and consequences of atherosclerosis.
2. Define and classify hypertension.
Write in detail about pathogenesis, morphology and complications of hypertension.
3. What is cardiomyopathy?
Write in detail about the etiopathogenesis and clinical features of different types of cardiomyopathies.

II. Write notes on:

(8 x 5 = 40)

1. Aortic Dissection.
2. Medical treatment of Myocardial Infarction.
3. CorPulmonale.
4. Major causes of myocarditis.
5. Write about pericardial effusion and its types.
6. Complications of atherosclerosis.
7. Pathophysiology of Myocardial Infarction.
8. Hypertrophic Cardiomyopathy.

III. Short Answers on:

(10 x 3 = 30)

1. Lab investigations of Rheumatic Fever.
2. Minor criteria for Infective Endocarditis.
3. Aortic aneurysm.
4. Prinzmetal angina.
5. Enzyme studies done in myocardial infarction.
6. Ring abscess.
7. Complications of cardiac valve prosthesis.
8. Types of infective endocarditis and their causative agents.
9. Patent Ductus Arteriosus.
10. Chagas disease.

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Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on: **(3 x 10 = 30)**

1. Discuss in detail about etiopathogenesis, morphology, diagnostic criteria and clinical features of Infective Endocarditis.
2. Define Pulmonary Hypertension. Write about etiopathogenesis, types, morphology and complications of Pulmonary Hypertension.
3. Discuss about Rheumatic Fever, its diagnostic criteria, cardiac effects, complications and lab investigations.

II. Write notes on: **(8 x 5 = 40)**

1. Dilated Cardiomyopathy.
2. Aortic Stenosis.
3. Medical treatment for Pulmonary Hypertension.
4. Describe the treatment protocol for Infective Endocarditis.
5. Etiopathogenesis and clinical features of Myocarditis.
6. Constrictive Pericarditis.
7. Write about sudden cardiac death.
8. Tetralogy of Fallot.

III. Short Answers on: **(10 x 3 = 30)**

1. Unstable angina.
2. Name four Cyanotic Congenital Heart Diseases.
3. Major criteria for Infective Endocarditis.
4. Components of conduction system of heart.
5. Pseudo aneurysm.
6. Types of Ventricular Septal Defect.
7. Name five cardiotoxic drugs.
8. Viral causes of Myocarditis.
9. Role of rennin in hypertension.
10. Five important causes of Pericarditis.

[LB 0212]

AUGUST 2012

Sub. Code: 1503

B.Sc. CARDIAC TECHNOLOGY

FIRST YEAR

PAPER – III – PATHOLOGY, MICROBIOLOGY, CLINICAL
FEATURES AND TREATMENT OF DISEASES PERTINENT
TO CARDIAC TECHNOLOGY

Q.P. Code : 801503

Time : Three hours

Maximum : 100 marks

(180 Mins) Answer ALL questions in the same order

I. Elaborate on:

**Pages Time Marks
(Max.)(Max.)(Max.)**

- | | | | |
|--|---|----|----|
| 1. Etiology, clinical features, diagnosis and treatment of rheumatic fever. | 7 | 20 | 10 |
| 2. What is cardiomyopathy? Briefly describe the causes and clinical presentation of different types of cardiomyopathy. | 7 | 20 | 10 |
| 3. Briefly describe the various congenital heart diseases with left to right shunt. | 7 | 20 | 10 |

II. Write Notes on:

- | | | | |
|---|---|----|---|
| 1. Pathophysiology of acute coronary syndrome. | 4 | 10 | 5 |
| 2. Causes of secondary hypertension. | 4 | 10 | 5 |
| 3. Drug treatment of systemic hypertension. | 4 | 10 | 5 |
| 4. Causes of heart failure. | 4 | 10 | 5 |
| 5. Etiology and clinical features of constrictive pericarditis. | 4 | 10 | 5 |
| 6. Etiology and treatment of ventricular tachycardia. | 4 | 10 | 5 |
| 7. Clinical features and diagnosis of primary pulmonary hypertension. | 4 | 10 | 5 |
| 8. Briefly describe the clinical features of aneurysm of aorta at different levels. | 4 | 10 | 5 |

III. Write Answers on:

- | | | | |
|---|---|---|---|
| 1. Common organisms causing infective endocarditis. | 2 | 4 | 3 |
| 2. Thrombolytic therapy – Agents and complications. | 2 | 4 | 3 |
| 3. Silent myocardial ischaemia. | 2 | 4 | 3 |
| 4. Cardiac resynchronisation therapy. | 2 | 4 | 3 |
| 5. Digoxin. | 2 | 4 | 3 |
| 6. Sinus node dysfunction. | 2 | 4 | 3 |
| 7. Preexcitation syndrome. | 2 | 4 | 3 |
| 8. Indications for cardioversion. | 2 | 4 | 3 |
| 9. Amiodarone. | 2 | 4 | 3 |
| 10. Ebstein anomaly. | 2 | 4 | 3 |

[LC 0212]

FEBRUARY 2013

Sub. Code: 1503

B.Sc. CARDIAC TECHNOLOGY

FIRST YEAR

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FEATURES AND TREATMENT OF DISEASES PERTINENT
TO CARDIAC TECHNOLOGY**

Q.P. Code : 801503

Time : Three hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3X10=30)

1. Pathophysiology, Microbiology and clinical features of Infective endocarditis.
2. What are the causes and medical management of heart failure?
3. Classify the acyanotic heart diseases – Describe the clinical presentation of diseases presenting with left to right shunt.

II. Write Notes on:

(8X5=40)

1. Pathophysiology of acute coronary syndrome.
2. Investigations for ruling out secondary hypertension.
3. Hypertrophic cardiomyopathy.
4. Causes & clinical features of myocarditis.
5. Clinical features & diagnosis of cardiac tamponade.
6. Enumerate supraventricular tachyarrhythmias with their ECG features.
7. Describe with diagram different types of atrial septal defect. Name the treatment options.
8. Clinical features & diagnosis of patent ductus arteriosus.

III. Write Answers on:

(10X3=30)

1. Enumerate non modifiable coronary risk factors.
2. List the thrombolytic agents and complications.
3. Ambulatory ECG monitoring.
4. Carvedilol.
5. Clonidine.
6. Maze procedure.
7. Sinus arrhythmia.
8. Sildenafil.
9. Prevention of deep vein thrombosis.
10. Diagnosis of dissection of aorta.

[LD 0212]

August 2013

Sub.code: 1503

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Q.P. Code : 801503

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Define Aneurysm.
Write in detail about pathogenesis, morphology and complication of Aneurysm.
2. Define atherosclerosis'
Write in detail about the etiopathogenesis and consequences.
3. Discuss in detail about Acyanotic heart disease.

II. Write Notes on:

(8 x 5 = 40)

1. Antineutrophil cytoplasmic antibodies
2. Polyarteritis nodosa
3. Raynaud Phenomenon
4. Kaposi sarcoma
5. Causes of pericarditis
6. Restrictive cardiomyopathy
7. Libman- sacks disease
8. Complications of myocardial infarction

III. Write Notes on:

(10 x 3 = 30)

1. Angina pectoris
2. Patent ductus arteriosus
3. Changes in aging heart
4. Angioplasty
5. Thromboangitis obliterans
6. Treatment of ventricular tachycardia
7. Types of cyanotic congenital heart disease
8. Vegetative endocarditis
9. Chagas disease
10. Unstable angina

[LE 0212]

FEBRUARY 2014

Sub. Code: 1503

**B.Sc. CARDIAC TECHNOLOGY
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TO CARDIAC TECHNOLOGY**

Q.P. Code : 801503

Time : Three hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3X10=30)

1. Clinical features, diagnosis and complications of acute myocardial infarction.
2. Cardiac tamponade in cardiac catheterisation laboratory causes, clinical recognition and management.
3. Classify the various cyanotic heart diseases and briefly describe the morphology and clinical features of any **Five** of them.

II. Write Notes on:

(8X5=40)

1. Etiology and clinical features of rheumatic fever.
2. Complications of infective endocarditis.
3. Etiology and clinical presentation of dilated cardiomyopathy.
4. Causes and clinical features of myocarditis.
5. Clinical features and treatment of complete heart block.
6. Diagnostic tests for pulmonary embolism.
7. Clinical features and diagnosis of acute dissection of aorta.
8. Diagnostic tests for peripheral vascular disease.

III. Short Answers on:

(10X3=30)

1. Symptoms and signs of mitral stenosis.
2. X ray chest and Echo findings in aortic regurgitation.
3. Betablockers.
4. ACE inhibitors.
5. Calcium channel blockers.
6. Surgical treatment of heart failure.
7. Radiofrequency ablation – Technique and indications.
8. Prophylaxis of deep vein thrombosis.
9. Coarctation of aorta.
10. Device closure of congenital defects.

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Q.P. Code : 801503

Time: Three hours

Maximum: 100 Marks

Answer All Questions

I. Elaborate on:

(3x10=30)

1. Discuss the risk factors for atherosclerosis. What are the consequences of atherosclerotic disease?
2. What are the clinical syndromes with Ischemic Heart Disease? Discuss the pathogenesis and clinical features of the three types of angina pectoris.
3. What are the two clinical types of Infective Endocarditis. Discuss their etiopathogenesis, morphological features and clinical features.

II. Write Notes on:

(8x5=40)

1. Types and causes of hypertension.
2. Draw and label the structure of atheromatous plaque.
3. Abdominal aortic aneurysm.
4. Giant cell arteritis.
5. Treatment of arrhythmias.
6. Right heart failure.
7. Atrial septal defect.
8. Cardiomyopathy

III. Write Notes on:

(10x3=30)

1. Dressler syndrome.
2. Name any 3 infectious causes for myocarditis.
3. Biochemical changes in acute Myocardial Infarction.
4. Name 3 vascular tumors.
5. Cardiac tamponade.
6. Thrombolytic drugs.
7. Pulmonary atresia.
8. Name three changes that can be noted in an aging heart.
9. Valvuloplasty.
10. Name any 3 causes of secondary hypertension.

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Q.P. Code : 801503

Time: Three Hours

Maximum: 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe the Jones criteria for the diagnosis of Rheumatic Fever. Mention in brief the key pathological features of Acute Rheumatic Fever.
2. Explain in detail the pathogenesis and morphology of aortic aneurysms and aortic dissection.
3. Discuss the morphological changes of the heart in Myocardial Infarction. Enumerate the consequences and complications of Myocardial Infarction.

II. Write Notes on:

(8 x 5 = 40)

1. Pericardial effusion.
2. Takayasu arteritis.
3. Hypertensive heart disease.
4. Treatment for Infective Endocarditis.
5. Left heart failure.
6. Hypertrophic cardiomyopathy.
7. Conduction system of the heart.
8. Risk factors for atherosclerosis.

III. Write Notes on:

(10 x 3 = 30)

1. Aortic regurgitation.
2. Coarctation of aorta.
3. Percutaneous interventions in Coronary Artery Disease.
4. Name any three Congenital Heart Disease's.
5. Ebstein anomaly.
6. Give three treatment options for arrhythmias.
7. Ambulatory ECG monitoring.
8. Complications of Pulmonary Hypertension.
9. Name any three diseases characterized by cardiac hypertrophy.
10. Sudden cardiac death.
