

Question Paper

Exam Date & Time: 15-Mar-2021 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH SEMESTER B.Sc. CARDIOVASCULAR TECHNOLOGY DEGREE EXAMINATION - MARCH 2021
SUBJECT: BCVT 303 - MYOCARDIAL, PERICARDIAL AORTIC AND ISCHEMIC HEART DISEASES
(2016 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Explain echocardiographic evaluation of RV anatomy and function. (20)
- 2) Explain genetic basis, pathophysiology, clinical presentation, diagnostic evaluation of HOCM. (20)

- 3) Describe classification, clinical evaluation of acute coronary syndrome. (10)
- 4) Explain the pathophysiology, clinical presentation, diagnosis of cardiac tamponade. (10)

- 5A) Enumerate the echocardiographic differences between CCP and RCM. (5)
- 5B) Explain the role of TDI in the evaluation of diastolic function. (5)
- 5C) Write a note on peri-partum cardiomyopathy. (5)
- 5D) Describe LV aneurysm. (5)
- 5E) Explain hypereosinophilic syndrome. (5)
- 5F) Write a note on rhabdomyoma. (5)

- 6A) Mention the complications of aortic dissection. (2)
- 6B) Define Dressler syndrome. (2)
- 6C) Write the role of LV dp/dt in the assessment of LV systolic function. (2)
- 6D) Define atrioventricular dyssynchrony. (2)
- 6E) Define normal LV and RV Tei index. (2)

-----End-----

Question Paper

Exam Date & Time: 17-Mar-2021 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH SEMESTER B.Sc. CARDIO VASCULAR TECHNOLOGY DEGREE EXAMINATION - MARCH 2021
SUBJECT: BCVT 307 - VALVULAR HEART DISEASE
(2016 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- | | | |
|-----|--|------|
| 1) | Explain pathophysiology, annular and valvular causes of chronic mitral regurgitation in detail | (20) |
| 2) | Describe clinical findings and echocardiographic evaluation of aortic stenosis. | (20) |
| 3) | Explain Jones criteria in the diagnosis of rheumatic fever. | (10) |
| 4) | Explain the etiology and pathophysiology of chronic aortic regurgitation | (10) |
| 5A) | Describe organic tricuspid valve disease in detail. | (5) |
| 5B) | Describe the echocardiographic evaluation of normally functioning prosthetic heart valves. | (5) |
| 5C) | Enumerate the ACC/AHA indications for aortic valve replacement in aortic regurgitation. | (5) |
| 5D) | Explain balloon pulmonary valvotomy in brief. | (5) |
| 5E) | Describe complications of infective endocarditis. | (5) |
| 5F) | Describe the pathophysiology of chronic decompensated MR. | (5) |
| 6A) | Write the clinical features of rheumatic carditis. | (2) |
| 6B) | Define Coanda effect in MR. | (2) |
| 6C) | What is Ross procedure? | (2) |
| 6D) | Write any two uses of bio prosthetic valve. | (2) |
| 6E) | Classify bio prosthetic valve. | (2) |

-----End-----

Question Paper

Exam Date & Time: 19-Mar-2021 (02:30 PM - 04:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH SEMESTER B.Sc. CARDIO VASCULAR TECHNOLOGY DEGREE EXAMINATION - MARCH 2021
SUBJECT: BCVT 301 - BASICS IN CARDIAC CATH AND HARDWARES
(2016 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Discuss the various national boards and their guidelines for radiation protection and management in cathlab setup. (10)
- 2) Explain the role of contrast agents in interventional cardiology, also discuss the complications and its management of contrast reactions. (10)
- 3A) Write a note on steroids. (5)
- 3B) Explain the thermodilution method of cardiac output measurement. (5)
- 3C) Write a note on Embolic Protection devices. (5)
- 3D) Explain the pitfalls and its corrective measures in pressure measurements. (5)
- 4A) Define an Image Intensifier. (2)
- 4B) Give the definition of fumigation and disinfection. (2)
- 4C) Define Quantum theory. (2)
- 4D) Draw a neat labelled diagram of coronary balloon. (2)
- 4E) Mention the various stents designs. (2)

-----End-----

Question Paper

Exam Date & Time: 23-Mar-2021 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH SEMESTER B.Sc. CARDIOVASCULAR TECHNOLOGY DEGREE EXAMINATION - MARCH 2021
SUBJECT: BCVT 305 - CONGENITAL HEART DISEASE II
(2016 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Explain the embryology, pathophysiology, clinical manifestations and diagnosis of complete transposition of great arteries (20)
- 2) Explain the various aorto-pulmonary and cavo-pulmonary palliative shunts in brief (20)
- 3) Explain the brief classification of tricuspid atresia (10)
- 4) Explain the embryologic basis and pathophysiology of Coarctation of aorta, Give an overview of clinical presentation of CoA during adulthood (10)
- 5A) Write a note on MAPCAS (5)
- 5B) Write a note on acquired pulmonary AV fistula (5)
- 5C) Explain the echocardiographic evaluation of ALCAPA (5)
- 5D) Write the classification of truncus arteriosus (5)
- 5E) Write the various ECG changes present in congenitally corrected TGA (5)
- 5F) Write a note on echocardiographic evaluation of cardiac loop (5)
- 6A) Define cyanosis (2)
- 6B) What are the ECG findings in TOF (2)
- 6C) Mention any TWO clinical findings of RSOV (2)
- 6D) Write the cardiac catheterization findings in DORV with sub pulmonic VSD (2)
- 6E) Give two examples for coronary anomaly associated with abnormal origin (2)

-----End-----