

Question Paper

Exam Date & Time: 19-Apr-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc. CARDIAC CATH AND INTERVENTION TECHNOLOGY DEGREE EXAMINATION - APRIL 2022
SUBJECT: CVT5101 - CLINICAL CARDIOLOGY
(2021 SCHEME)

Clinical Cardiology [CVT5101]

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Explain the various causes, pathology and evaluation of patients with palpitation. (20)
- 2) Describe the mechanism, components and factors affecting the intensity of S1 heart sound. Write the causes for abnormal S1 heart sound. (20)
- 3A) Explain the normal and abnormal pattern of arterial pulse characteristics with example. (10)
- 3B) Explain the various methods of blood pressure assessment. (10)
- 3C) Describe the diastolic heart sound in brief. (10)
- 3D) Discuss the various ECG diagnostic criteria in the identification of ventricular tachycardia. (10)
- 4A) Write a note on evaluation of pulmonary venous hypertension in Chest X-Ray. (5)
- 4B) Write the classification, mechanism of action, clinical use and adverse effects of Diuretics. (5)
- 4C) Explain the pathophysiology of native valve infective endocarditis. (5)
- 4D) Explain the ACLS algorithm in the management of pre cardiac arrest rhythm with bradycardia. (5)

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Question Paper

Exam Date & Time: 21-Apr-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc. CARDIAC CATH AND INTERVENTION TECHNOLOGY DEGREE EXAMINATION - APRIL 2022
SUBJECT: CCI5101 - BASICS IN CARDIAC CATHETERIZATION AND INTERVENTION
(2021 SCHEME)

Answer ALL questions.

Marks: 100

Duration: 180 mins.

- 1) Discuss the different types of designs and modules in the stent manufacture, also explain the advantages of drug eluting stents over bare metal stents. (20)
- 2) Explain the stages in the development of atherosclerosis and write a note on coronary lesion classifications. (20)
- 3A) Explain the functioning of physiological recorders in cathlab. (10)
- 3B) Discuss the functioning of X Ray tube in C- arm. (10)
- 3C) Explain the identification of the cardiac chamber anatomy with fluoroscopic orientations. (10)
- 3D) Discuss the importance and management of environmental safety in cathlab. (10)
- 4A) Give a note on understanding computed tomography of coronaries. (5)
- 4B) Define Type C coronary lesion and mention the interventional plan for it. (5)
- 4C) Write a note on thrombolytic therapy. (5)
- 4D) Write a note on endomyocardial biopsy. (5)

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Question Paper

Exam Date & Time: 23-Apr-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc. ECHOCARDIOGRAPHY DEGREE EXAMINATION - APRIL 2022
SUBJECT: CVS5102 - DIAGNOSTIC IMAGING MODALITIES
(2021 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Explain the indications, mechanics and applications of single photon emission computerized tomography in the diagnosis of Ischemic heart disease. (20)
- 2) Explain the role of Computed Tomography in the diagnosis of aortic and peripheral artery diseases. (20)
- 3A) Discuss briefly the indications of cardiovascular magnetic resonance imaging in the diagnosis of pericardial diseases. (10)
- 3B) Explain coronary CT angiography. Write a note on coronary calcium scoring. (10)
- 3C) Discuss the radio nuclear tracers used in positron emission tomography scan and explain the protocols in detail. (10)
- 3D) Explain the role of intra cardiac echocardiography in the assessment of valvular heart diseases. (10)
- 4A) Explain sequential and spiral mode in Computed Tomography. (5)
- 4B) Write a note on artifacts of Single photon emission computerized tomography. (5)
- 4C) Explain contrast induced nephropathy. (5)
- 4D) Explain hibernating and stunning myocardium. (5)

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