



**GOVERNMENT OF KERALA
DIRECTORATE OF MEDICAL EDUCATION
DIPLOMA IN CARDIOVASCULAR TECHNOLOGY COURSE REGULAR
EXAMINATION
MAY 2023**

MAY-2023
Time -3hrs.

DCVT-I-

Max.marks: 100

**PAPER-I
BASIC SCIENCE ANATOMY & PHYSIOLOGY OF
CARDIOVASCULAR SYSTEM**

- I. Essays (2x14=28)
- a. With the aid of a diagram, explain the phases of the cardiac cycle, and briefly describe the conduction system of the heart.
- b. Classify contrast agents. What are the advantages and disadvantages of each? Enumerate the complications of contrast agents and methods of minimizing complications.
- II Short notes (6 marks – Answer all questions) (12X6=72)
- a. ST segment in health and disease.
- b. Responses in Treadmill Test.
- c. Dobutamine stress echocardiography
- d. Branches of aortic arch.
- e. Diagnosis and management of PSVT
- f. Echo assessment of diastolic dysfunction
- g. Cardiac aliasing
- h. Normal pressures in right heart and pulmonary artery.
- i. Types of ASD and echo assessment.
- j. Stroke Volume
- k. Nitroglycerine
- l. Semilunar valves.

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Time -3hrs.

DCVT-II-

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PAPER-II

Applied Sciences Applied Physics and Electronic Principles and practice of ECG, TMT,
Holter Echocardiography and Cardiac Catheterisation

I. Essays (2x14=28)

- a. Discuss coronary angiography under: indications, contraindications, view, contrast media, complications.
- b. Discuss the echocardiographic evaluation of ASD, VSD and PDA.

II Short notes (6 marks – Answer all questions) (12X6=72)

- a. Radiation protection in cath lab
- b. PTMC balloon preparations
- c. Electrophysiology intervals
- d. Pharmacological management of hypotension in the cath lab
- e. Use of semi compliant balloons in coronary angioplasty
- f. Management of coronary artery perforation.
- g. Indications to terminate TMT
- h. Cardiopulmonary resuscitation
- i. M mode of mitral valve
- j. Hydrophilic coronary wires
- k. Fractional flow reserve
- l. Holter monitoring

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