

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0122]

JANUARY 2022

Sub. Code: 1422

(FEBRUARY 2021 & AUGUST 2021 EXAM SESSION)

**B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY
THIRD YEAR – (Regulations from 2010-2011 & 2014-2015)
PAPER II – CARDIOPULMONARY BYPASS & PERFUSION TECHNOLOGY
Q.P. Code: 801422**

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Principles of myocardial protection.
2. Distinguish Crystalloids vs. Colloids as priming solution for bypass.
3. Describe Extracorporeal life support (ECLS) - indications, contraindications and placement.

II. Write notes on:

(8 x 5 = 40)

1. Add a Note on Hematuria in the Perioperative Period.
2. Anticoagulation for Cardio Pulmonary Bypass.
3. Principle of centrifugal pump.
4. Pre Cardiopulmonary Bypass check list.
5. Venous drainage of the heart.
6. Oxygen Toxicity.
7. Monitoring during Cardiopulmonary Bypass.
8. Methods of Cardioplegia administration.

III. Short answers on:

(10 x 3 = 30)

1. Heparin reversal.
2. Hemostasis.
3. Hematocrit.
4. ECG changes in Hyperkalemia.
5. Protamine.
6. Low urine output.
7. Cardiotomy suckers.
8. Biomedicus pump.
9. Ventricular arrhythmia and its management.
10. Tubings in CPB.
