

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

[AHS 1123]

NOVEMBER 2023

Sub. Code: 1423

**B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY
THIRD YEAR – (Regulations 2010-2011, 2014-2015 & 2018-2019 onwards)
PAPER III – CARDIO PULMONARY BYPASS AND ITS COMPLICATIONS
STERILE TECHNIQUES AND SURGICAL ASEPSIS MAINTENANCE
*Q.P. Code: 801423***

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Types of Cardioplegia and describe methods of Delivery.
2. Complications during Cardiopulmonary Bypass.
3. Causes and management of Inadequate Systemic Pressure during Cardiopulmonary Bypass.

II. Write notes on:

(8 x 5 = 40)

1. Management of pH during Cardiopulmonary Bypass.
2. Alternate sites for Cannulation in a porcelain (calcified) Aorta.
3. Management of Air entry into venous line.
4. Complications while initiating the bypass.
5. What is Hypothermia and describe deep Hypothermia.
6. How do you remove air from the Oxygenator?
7. Common investigation used before CPB.
8. Sterile method of assembling the circuit.

III. Short answers on:

(10 x 3 = 30)

1. Fundamentals of Pace makers.
2. Surgical asepsis for invasive procedure.
3. Pulsatile perfusion.
4. Auto transfusion.
5. Hemodilution.
6. Hemoglobinurea.
7. ECMO maintenance.
8. Method to monitor Cerebral Oxygen Delivery.
9. Ventricular assist device
10. Drugs used to increase systemic vascular resistance.
