

**B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY  
THIRD YEAR  
PAPER III – CARDIO PULMONARY BYPASS AND ITS COMPLICATIONS  
STERILE TECHNIQUES AND SURGICAL ASEPSIS MAINTENANCE**

*Q.P. Code: 801423*

**Time: Three Hours**

**Maximum: 100 Marks**

**Answer all questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Assembling and preparing circuits for heart lung machine.
2. Cardioplegia solution and its delivery.
3. Explain briefly on the following special investigations (a) Echocardiography (b) Angiography (c) Liver function test (d) Renal function test

**II. Write notes on:**

**(8 x 5 = 40)**

1. Indications and contra indications of the use of Intra-aortic Balloon counter pulsation.
2. Ph management during cardiopulmonary bypass.
3. Air lock and its solution.
4. Hemotherm.
5. Skin preparation for invasive procedures.
6. State the pediatric perfusion protocol and highlight its importance.
7. Draw rough diagram of an extracorporeal circuit.
8. Rewarming and Cooling.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Loss of electrical power during CPB.
2. Causes of poor venous return and management strategies.
3. Filters used in bypass.
4. Terminating bypass.
5. Hemoglobinuria.
6. Prevention of hematuria on bypass.
7. Retrograde cerebral perfusion and its uses.
8. Differences between Adult and Paediatric Cardiopulmonary bypass circuits?
9. Centrifugal pumps.
10. Membrane oxygenator.

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