

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY

THIRD YEAR

PAPER II – CARDIOPULMONARY BYPASS & PERFUSION TECHNOLOGY

Q.P. Code: 801422

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Write in detail about alpha and ph stat and mention their pros and cons.
2. Distinguish Crystalloids vs. Colloids as priming solution for bypass.
3. Steps involved in oxygenator change out and reasons.

II. Write notes on:

(8 x 5 = 40)

1. Design your own perfusion data sheet which covers all essential documentation?
2. Heparin resistance and management.
3. Principle of level sensor.
4. Retrograde autologous priming - Techniques - pros – con.
5. Precaution for known cold agglutinins patient during bypass.
6. Characteristic features of an ideal pump.
7. Note on warm blood cardioplegia.
8. Note on Right ventricular assist device.

III. Short answers on:

(10 x 3 = 30)

1. Describe the uses of Bivalirudin in Cardiac surgery.
2. Write about the pros and cons of Roller pump.
3. Write about the role of Ringer Lactate solution as a priming solution.
4. Explain Respiratory Alkalosis with an example.
5. Write about Hyponatremia.
6. Write on the principle of Hemofiltration.
7. What are the causes of low Urine output during bypass?
8. How will you manage Gas Blender Failure during bypass?
9. Write the formula for correcting Hyperkalemia.
10. Write about the importance of arterial filter in the bypass circuit.
