[LP 0819] AUGUST 2019 **Sub. Code: 1412**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY
SECOND YEAR
PAPER II – PRINCIPLES OF PERFUSION TECHNOLOGY – PART – I

Q.P. Code: 801412

Time: Three Hours **Maximum: 100 Marks**

Answer all questions

I. Elaborate on: **(3 x 10 = 30)**

1. Describe in detail about the ideals of Pump and explain principles of roller pump in detail.
2. Draw the circuit diagram and explain the assembling and priming techniques of a 65 year old patient admitted for CABG weighing 75Kgs with a height of 165 cms whose Hct is 30%.
3. Describe in detail about the Aorto atrio caval cannulation for CPB.

II. Write notes on: **(8 x 5 = 40)**

1. List the Perfusionist prebypass check list.
2. What are the advantages of a recirculation line?
3. Write a note on Bubble oxygenator.
4. Coronary circulation.
5. Write a note on various technique of Myocardial Protection.
6. Write a note on Diuretics.
7. What are the ideal properties of tubings.
8. Write a short note on Evolution of CPB.

III. Short answers on: **(10 x 3 = 30)**

1. Write a note on reaction time.
2. Correction of Hyperkalaemia and Bicarbonate.
3. Absolute and relative indication for femoral arterio-venous cannula.
4. Define rated blood flow.
5. Physiological effects of IABP counter pulsation.
6. Thermal conductivity values (k) of different heat exchanger material.
7. List the anti-hypertensive drugs.
8. Define α stat acid base management.
9. Draw on ECG wave form and label it.
10. a) Calibration for ½ inch 1RPM = ……ml.
    b) Cardiac output = ……. X ……..

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