

**VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM**

**B.Sc(PERFUSION TECHNOLOGY) DEGREE EXAMINATIONS -August 2019**

**SECOND YEAR**

**INTRODUCTION TO PERFUSION TECHNOLOGY**

Three Hours

Maximum: 75 marks

**SECTION - A**

**I. Choose the Best Answer :**

**(10 x 1 = 10)**

1. Monkey lung was used by -----  
a) JohnLewis    b) Mustard    c)John Kirklin    d)Dr. John Gibbon
2. Normal value of potassium -----  
a) 3.5 – 5.0 mEq/L    b)3 to 4 mEq/l    c)5 to 5.5 mEq/l    d)5.5 to 6 mEq/l
3. Colour code for arterial line is -----  
a) greenb) blue    c) red    d) yellow
4. The bubble will burst and release its contents at -----  
a) oxygen chamber    b)arterial reservoir    c)pump    d) defoaming area
5. The double roller pump generates a relatively -----flow  
a) Non - Pulsatile    b) pulsatile    c)decreased    d)increased
6. Rapid cooling causes -----  
a)intravascular aggregation    b) blood cell damage  
c)coagulation    d) platelet activation
7. The left side of the heart receives blood during bypass from the -----  
a) Bronchial arteries and Thebesian veins    b) great cardiac vein  
c) brachial arteries and small cardiac vein    d) none of the above
8. Hb =-----  
a) HCT / 4    b) HCT / 3    C) HCT X 3    d) HCT X 4
9. -----removes air, micro emboli in the arterial blood  
a) Bubble trap    b) reservoir    c) tubing    d)hemoconcentrator
10. Systemic Vascular Resistance Index - -----  
a) 1000 - 1200 dynes /sec / cm-5    b) 1500 – 1800 dynes /sec / cm-5

**II. Write Short Answers on any FIVE of the following:**

**(5 x 5 = 25)**

11. Cardiopulmonary bypass
12. Pulsatile flow – its significance.
13. What are the different types of Hypothermia
14. What is ischemic period. When will this period occurs.
15. What is gas blender? Explain its clinical importance
16. Venous drainage
17. ACT machine

(p.t.o)

**III. Write Short Essays on any TWO of the following:**

**(2 x 10 = 20)**

18. Hemodilution – Its effect in CPB
19. What is the importance of perfusion flow rates and pressures.
20. Blood of heart with diagram
21. Biocompatible materials

**IV. Write Essays on any ONE of the following:**

**(1 x 20 = 20)**

22. Explain in detail the types of Oxygenator.
23. Explain the aseptic techniques to be followed in surgery.

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(S.No.M21799)



