

**VINAYAKA MISSIONS UNIVERSITY, SALEM**

**B.Sc. (PERFUSION TECHNOLOGY) DEGREE EXAMINATION**

**August 2017**

**Third Year**

**PERFUSION TECHNOLOGY - ADVANCED**

Time: Three hours

Maximum: 75 marks

**I. Write an essay on any ONE of the following: (1 x 20 = 20)**

1. What is ECMO and its different types?
2. Explain alpha stat and pH stat.

**II. Write short notes on any TWO of the following: (2 x 10 = 20)**

3. Perfusion management in minimal invasive surgery.
4. What is deep hypothermic circulatory arrest (DHCA)?
5. Graphically explain the oxy-haemoglobin dissociation curve and the factors that move the curve to the right.
6. Mention some recent advances in perfusion technology.

**III. Write short answers on any SEVEN of the following: (7 x 5 = 35)**

7. How are safety devices useful in CPB?
8. Choice of oxygenators in paediatric cases.
9. Use of CPB in non-cardiac cases.
10. Some major accidents that could occur during CPB.
11. Describe the role of a perfusionist in the cathlab at present.
12. Describe the cannulation techniques in aortic surgeries, e.g., aortic aneurysm.
13. How can CPB circuits contribute to coagulopathy?
14. Write few lines about experimental perfusion.
15. Invasive cardiology done in the cath lab.
16. What is the function of albumin in priming fluids?