

Third Year B.Sc Perfusion Technology Degree Regular/Supplementary Examinations February 2025**Perfusion Technology – Advanced****(2016 Scheme)****Time: 3 hrs****Max. Marks: 100**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw diagrams wherever necessary*

Essays:**(2x15=30)**

1. Discuss the physiological differences between adult and paediatric perfusion. Discuss the conduct of CPB in paediatric cardiac surgery
2. Discuss the conduct of CPB in thoraco- abdominal aortic aneurysm surgery. Describe the left heart bypass and spinal cord protection strategies.

Short notes:**(5x7=35)**

3. Evaluation and management of desaturation in Veno- arterial ECMO
4. Techniques and advantages of venting in cardiopulmonary bypass
5. Complications of intra aortic balloon pump.
6. Perfusion challenges in Minimally Invasive Cardiac Surgery (MICS)
7. Discuss the common CPB accidents and their management

Answer briefly:**(7x5=35)**

8. Hot shot cardioplegia
9. Milrinone
10. Artificial heart valves in cardiac surgery
11. Multi perfusion cardioplegia canula
12. Alpha stat vs pH stat
13. Indications and conduct of selective antegrade cerebral perfusion
14. Recirculation in V-V ECMO
