SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

B.Sc. Allied Health Sciences Third Year (Semester-VI)

March 2024 Examination

B.Sc. Cardiac Perfusion Technology

Time : 3 Hrs. **[Max. Marks : 100]**

Cardiac Perfusion Technology-Applied

Q.P Code :J6842

Your answers should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.

Long Essay **2 X 10 = 20 Marks**

1. what are causes of emboli and explain in detail about filters used in CPB?
2. Describe in detail about VAD?

Short Essay(Answer any Ten) **10 X 5 = 50 Marks**

3. What is the beneficial effect of IABP?
4. Causes of particulate emboli and explain its prevention.
5. Write the complication of emboli.
6. Explain the biologic blood borne emboli.
7. Explain method of insertion of IABP?
8. Briefly explain various trigger modes in IABP?
9. Explain balloon Inflation and Deflation errors.
10. Write the indication and contraindication of IABP?
11. gaseous micro emboli and its prevention.
12. Explain leucocyte filters.
13. Short notes on Ideal characteristic of arterial line filters.
14. Principles and complications of IABP.

Short Answers (Answer any Ten) **10 X 3 = 30 Marks**

15. Types of emboli.
16. What are the types of filters?
17. Blood and gas filters and its uses.
18. Uses of Cardiotomy filter.
19. Leukocyte filters and its benefits.
20. Diagram of normal augmented arterial pressure waveform of IABP.
21. Position of Balloon catheter.
22. Write working principle of IABP.
23. Factors affecting diastolic augmentation.
24. Write the trigger modes of IABP
25. What are the IABP operative modes?
26. Write the Complication of counter pulsation

* * *

4SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

B.Sc. Allied Health Sciences Third Year (Semester-VI)

March 2024 Examination

B.Sc. Cardiac Perfusion Technology

Time: 3 Hrs. **[Max. Marks: 100]**

Cardiac Perfusion Technology-Advanced

Q.P Code: J6843

Your answers should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.

Long Essay **2 X 10 = 20 Marks**

1. Describe in detail about Minimally invasive cardiac surgery.
2. What are the causes of massive air embolism in CPB circuit? Explain its management.

Short Essay (Answer any Ten) **10 X 5 = 50 Marks**

3. Coronary or systemic air embolism.
4. What are the safety devices used in CPB.
5. Causes of massive air embolism and management.
6. Obstruction to venous return causes, recognition, and management.
7. Aortic dissection and its management.
8. Write the causes, recognition, and management of obstruction to venous return.
9. Describe the anaesthesia management of MICS.
10. Malignant hyperthermia.
11. Describe the management of false blood group transfusion.
12. Venous drainage in mics.
13. Arterial pump tube rupture Causes and management.
14. Clotted oxygenator circuit its Causes, recognition, and management.

Short Answers (Answer any Ten) **10 X 3 = 30 Marks**

15. Pump failure.
16. Signs of oxygenator failure and its management.
17. Causes of water to blood leak and its management.
18. Constitute of del nido solution.
19. Complications of distension of heart.
20. Contraindications to PACS.
21. Complications of PACS.
22. Heparin coated circuit and its benefits.
23. central gas failure.
24. Causes of high arterial line pressure.
25. Inadequate heparinisation.
26. Reversed connection of arterial and venous line to cannulas and its complications.

* * *