

2/1/26 (3)  
PM

# **BLDE (DEEMED TO BE UNIVERSITY)**

## **B.Sc. in Cardiac Care Technology**

[Time: 3 Hours]

[Max. Marks: 80]

### **VI SEMESTER**

### **PAPER - I (Cardiac Catheterisation)**

**QP CODE: 8635**

Your answer should be specific to the questions asked.  
Write Question No. in left side of margin.

#### **Long Questions**

**10X1 = 10 Marks**

1. Explain BMV

#### **Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. Explain BLS
3. Explain Foreign body retrieval
4. Explain patient preparation for CAG
5. Explain Atherectomy
6. Explain post-operative patient management
7. Explain complications of cardiac catheterization
8. Explain different types of cardiac catheterization
9. Explain TAVI
10. Explain Renal Artery Intervention

#### **Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. Write anatomy of mitral and aortic valve
12. What are snares?
13. Epinephrine
14. Technique of cardiac catheterization
15. What is Throbectomy
16. Write anatomy of artery and veins
17. What is Embolectomy?
18. What IABP? Write its uses
19. Classify renal artery aneurism depend upon shape
20. Write uses of sheet and guide wire
21. Causes for Hemorrhage during cardiac surgery

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### **VI SEMESTER**

### **PAPER - II (Pediatric Intervention)**

**QP CODE: 8636**

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

#### **Long Questions**

**10X1 = 10 Marks**

1. Write in detail about PDA closure procedure.

#### **Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. Briefly explain Congenital Heart Defects
3. Briefly explain VSD closure devices
4. Briefly explain Types of ASD
5. Explain Pediatric BLS
6. Explain complications after device closure procedure
7. Briefly explain pediatric patient examination for percutaneous procedures
8. Explain anesthesia management during device closure procedure
9. Briefly explain ASD closure procedure
10. What is PFO? Briefly explain

#### **Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. Write Signs and symptoms of ASD & VSD
12. Write rims of ASD
13. How do you confirm PDA in Echocardiography
14. Write Classification Of PDA
15. Name 3 ASD closure devices
16. What is the role of cardiac care technologist in percutaneous procedures
17. Write Methods of measuring temperature in pediatric patient
18. Write examination of thorax and heart in pediatric patient
19. Write steps of arterial septal aneurism
20. Write types of VSD
21. Write management of cyanotic heart disease

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### **VI SEMESTER**

### **PAPER - III (Cardiac Surgery and Bypass Techniques)**

**QP CODE: 8637**

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

#### **Long Questions**

**10X1 = 10 Marks**

1. Explain Components of CPB

#### **Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. Explain IABP in detail
3. Explain CABG procedure
4. Activated Clotting Time
5. Explain what are the indications to refer a patient for CABG procedure after CAG
6. Explain blood components with their normal range and uses
7. Heparin induced thrombocytopenia
8. Explain blood platelet plasma transfusion indication contraindication and uses
9. Explain Heart lung machine
10. Briefly lung transplant procedure

#### **Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. Indications of heart transplant
12. What is co-dominant system of heart
13. What are artificial valves
14. Write about pericardial valves
15. Define counter pulsation
16. Name clotting factors
17. Name venous and arterial cannulation sites
18. Name blood proteins
19. What are hallow graft valves? give example
20. What are the arteries and veins use for grafting in CABG procedure
21. What is extracorporeal circulation?

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9/1/26  
PM

[Time: 3 Hours]

[Max. Marks: 80]

**VI SEMESTER**

**PAPER - IV (CCT Directed Clinical Education IV)**

**QP CODE: 8638**

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

**Long Questions**

**10X1 = 10 Marks**

1. Draw neat and labelled diagrams of echocardiographic views.

**Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. Explain Holter Monitoring
3. Explain M –Mode
4. Explain Knobology in ECHO
5. How are strain measured from speckle tracking?
6. Explain strain rate
7. Write about ECG machine
8. What is tissue Doppler? Explain
9. Explain applications of AI in ECHO
10. Explain ECHO segments

**Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. Write the principal of Color Doppler
12. Write different probe positions in echo.
13. Write normal chambers pressure of the heart.
14. What is peak velocity in ECHO study
15. What are the methods of EF calculation in echo
16. Types of cardiac Transducers
17. What is diastolic dysfunction? mention types
18. Applications of tissue doppler
19. Pulse wave doppler
20. Continues wave doppler
21. TMT indications