

2/2/26
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. Describe diagnostic cardiac catheterization, including indications, procedure, and possible complications.
3. Explain atherectomy procedure, its components, and complications.
4. Explain drugs used in thrombolysis
5. Describe the AngioJet Throbectomy device and its use in thrombus removal.
6. Explain foreign body retrieval.
7. Discuss renal artery interventions, including indications, procedure, and post-procedure care.
8. Explain different types of cardiac catheterization
9. Explain TAVI.
10. Discuss the emergencies in the cardiac catheterization laboratory, including common complications and the application of ACLS and BLS algorithms.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. List the key components of a cardiac catheterization lab.
12. Post-operative management of PTCA
13. Name any complications associated with rotational atherectomy.
14. What is Cardiac index and stroke volume?
15. Define hypertension.
16. Define IABP.
17. What is the role of ACLS in cardiac catheterization emergencies?
18. Name three coronary atherectomy complications.
19. What precautions are needed to maintain asepsis during catheterization?
20. Describe the anatomy of coronary artery.
21. Uses of sheath and guide wire.

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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. Discuss the tools to diagnose cardiac conditions in children, including history taking, physical examination, and relevant laboratory investigations.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Explain the device closure procedures for Patent Foramen Ovale (PFO) and Atrial Septal Defect (ASD).
3. Explain ventricular septal defect (VSD) Closure procedure
4. Discuss PDA closure.
5. Explain pediatric BLS
6. Describe Acyanotic congenital Heart Disease.
7. Explain general anesthesia versus sedation and analgesia in pediatric interventional cardiology.
8. Explain Lab examinations for CHD.
9. Explain Complications post device closer procedures.
10. Explain QP/QS ratio.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. List the vital signs evaluated during pediatric cardiac examination.
12. Define cardiac malposition.
13. State the indications for PFO device closure.
14. List common complications of ASD device closure.
15. ASD Rims.
16. How do you confirm PDA in Echocardiography?
17. Write methods of measuring temperature in pediatric patient
18. Write different types of shunts in CHD.
19. Mention steps involved in atrial septal aneurism
20. What is the role of diagnostic catheterization in children?
21. Pathology of TR

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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 blood components with their uses

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Briefly explain blood, platelet, plasma transfusion indication contraindication and uses
3. Briefly explain Heart Transplant procedure
4. Explain components of CPB
5. Explain IABP
6. Heparin induced thrombocytopenia
7. Explain CABG procedures in detail
8. Briefly explain artificial valves
9. Briefly explain what are the indications to refer a patient for CABG procedure after CAG
10. Activated Clotting Time

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. What is Triple Vessel Disease? Give Example
12. Name Causes for IHD
13. What are bio prosthetic valve? Give Example
14. Name blood proteins
15. Write Indications for fresh frozen plasma transfusion
16. Define cardiopulmonary bypass
17. Indications for lung transplant
18. Define counter pulsation
19. What are the arteries and veins used for grafting in CABG procedure?
20. Complications of artificial valves
21. Name clotting factors

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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. Explain M –Mode. Definition, Types with neat diagrams

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Explain LV segments
3. Explain Speckle Tracking in ECHO
4. Explain strain and strain rate imaging
5. Draw neat labeled diagram of echo views
6. What is tissue Doppler? Explain
7. Explain Knobology in ECHO
8. Explain Holter Monitoring
9. Explain applications of AI in ECHO
10. What is peak velocity in ECHO study

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. What is diastolic dysfunction? mention types
12. How are strain measured from speckle tracking?
13. What is EF? Write methods of EF calculation
14. ECHO probe position
15. Types of ECHO probe
16. Applications of strain
17. Color doppler principle
18. Write hearts normal chambers pressure
19. Continuous wave doppler
20. TMT indications
21. Indications to Terminate the TMT test