

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. in Cardiac Care Technology

July - 2023

[Time: 3 Hours]

[Max. Marks: 80]

V SEMESTER

PAPER - I (Medical Instrumentation Relevant to Cardiac Care)

QP CODE: 8535

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Explain Fluoroscopy and C-Arm.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Explain modes of Ventilators.
3. Explain Counter pulsation.
4. Pressure Transducers.
5. Explain Pulse Oximetry.
6. Explain Defibrillator.
7. Explain MRI.
8. Explain spirometer.
9. Explain Counter Pulsation.
10. Explain Stress ECHO.

Indications contraindications and Procedure of TMT.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Views and positions of Fluoroscopy.
12. What is C-PAP and Bi-PAP?
13. Indications of IABP.
14. What is CT scanning? Write its uses.
15. What is manual ventilation?
16. Write control variables of ventilators.
17. Safety measurements used in Cath lab.
18. What is weaning in IABP and ventilator?
19. Sterilization of equipment's.
20. Write normal hemodynamic pressures of heart.
21. Write normal lung volumes.

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## B.Sc. in Cardiac Care Technology

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### V SEMESTER

#### PAPER - II (Cardiovascular Diseases Pertinent to Cardiac Care Technology)

QP CODE: 8536

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

#### Long Questions

10X1 = 10 Marks

1. Explain Peripheral Vascular Diseases

#### Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Explain cardiac cycle
3. COPD
4. Explain Etiology of heart failure
5. Explain cardiac compensatory mechanism
6. What is cardiac arrest? Write its management
7. Explain Aneurism
8. Explain Tricuspid Regurgitation
9. Discuss about Mitral Valve
10. Explain left heart failure

#### Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. What is PFT?
12. What is I: E ratio? Write normal value
13. Draw a neat labeled diagram of heart
14. Write about circulatory system of heart
15. Write intranodal conduction pathway
16. What is Tidal Volume? Write its normal value
17. What is lung capacity? Write normal value
18. Pharmacological management of COPD
19. Write difference between obstructive and restrictive pulmonary diseases
20. What is compliance mechanism of vessels
21. What is diastolic heart failure?

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**V SEMESTER**

**PAPER - III (Invasive Cardiology)**

**QP CODE: 8537**

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

**Long Questions**

**10X1 = 10 Marks**

1. Contrast Media.

**Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. What is the aim of ABG? Write all normal values of ABG.
3. Explain coronary artery anomalies.
4. Explain CT coronary angiography.
5. Explain LV segments with echocardiographic diagrams.
6. Write about drug filled stent technology.
7. Explain Catheters used in coronary angiography.
8. Explain carotid angiography.
9. Explain dominance system of heart.
10. Draw neat labeled diagrams of different ECHO views.

**Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. Name the factors affecting the image quality in angiography.
12. How to calculate catheter size from French to Millimeter?
13. Write volume and rate of contrast administration.
14. How does negative contrast agent work?
15. What is double contrast agent? Name them.
16. What is power injector?
17. Draw a neat labeled diagram of different types of catheters.
18. What is bovine aortic arch?
19. What is Seldinger Technique?
20. Name different types of catheters.
21. Name the catheters used in balloon angioplasty.

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V SEMESTER

PAPER - IV (CCT Directed Clinical Education III)

QP CODE: 8538

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Antihypertensive drugs

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Explain colloids

3. Explain Vasopressors

4. Write about heart sounds

5. Explain BLS

6. Explain Sterilization

7. Explain IV cannulas

8. Explain and classify anticoagulants

9. ~~Explain Sterilization~~

10. What are vital signs? Write management of and pathology of tachycardia

*Explain hygiene maintenance in Hospital*

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Heparin

12. Protamine Sulfate

13. Nitroglycerine

14. Adrenalin

15. Noradrenalin

16. Color coding system in biomedical waste management

17. Write about safety measurement used in Cath lab against radiation

18. Actions of Heart

19. ECHO Probe

20. Anatomy of Heart (Borders, Surfaces, Position)

21. Lignocaine