

7/24

# BLDE (DEEMED TO BE UNIVERSITY)

## B.Sc. in Cardiac Care Technology

[Time: 3 Hours]

[Max. Marks: 80]

### III SEMESTER

#### PAPER - I (Applied Anatomy, Physiology & Pharmacology)

QP CODE: 8335/8338

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

#### Section 8335 (Anatomy & Physiology)

##### Long Questions

10X1 = 10 Marks

1. Explain Heart under following heading  
a) Location, b) Surfaces, c) Borders, d) Chambers and e) Valves of the Heart

##### Short Essays: (Any - 4)

5 X 4 = 20 Marks

2. Hypertension
3. Myocardium
4. Endocardium
5. Semilunar valve
6. Formation of Inferior Vena cava

##### Very Short Essay (Any - 5)

2 X 5 = 10 Marks

7. Azygous system
8. Anterior Internal Thoracic artery
9. Portal vein
10. Jugular vein
11. Middle cerebral artery
12. Femoral Artery

#### Section 8338 (Pharmacology)

##### Long Questions

10X1 = 10 Marks

1. Describe mechanism of action, therapeutic uses and adverse effects of B-Blockers.

##### Short Essays: (Any - 4)

5 X 4 = 20 Marks

2. Therapeutic uses and adverse effects of Beta - blockers
3. Digoxin - mechanism of action and Therapeutic uses of Digoxin.
4. Mechanism of action and Therapeutic uses of Penicillins.
5. Mechanism of action and Therapeutic uses of Morphine.
6. Mechanism of action and Therapeutic uses of Aspirin.
7. Write pharmacological basis for combining Adrenaline with local anesthetic.

##### Short Answers (Any - 5)

2 X 5 = 10 Marks

8. Write three drugs useful in atrial fibrillation.
9. Write three drugs useful in glaucoma.
10. Three uses & three contraindications for use of Morphine.
11. Three advantages of second generation Anti-histaminics.
12. Name three hepatic microsomal inducers.
13. Write three uses of Prazosin.

3/7/24

**BLDE (DEEMED TO BE UNIVERSITY)**

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

[Time: 3 Hours]

[Max. Marks: 80]

**III SEMESTER**

**PAPER - II (Basic Electrocardiography)**

**QP CODE: 8336**

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

**Long Questions**

**10X1 = 10 Marks**

1. Exercise Stress Test: Protocol, Procedure, Indications, Contraindications, Complications

**Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. What are U waves and what is their significance
3. What is the R wave progression in chest leads and why?
4. Precordial leads
5. SI, SII, SIII syndrome.
6. Cardiac rotation
7. Normal ECG wave Front
8. Right chest leads, when to record?
9. Right Bundle Branch Block
10. Normal P wave

**Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. Discuss the Augmented leads
12. Normal ECG
13. First degree AV block
14. QT interval
15. Placement of leads
16. Heart rate determination
17. LA enlargement
18. Explain RBBB pattern in ECG
19. Transition zone
20. Romhit and Estes point score System
21. QRS complex

**BLDE (DEEMED TO BE UNIVERSITY)**

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

5/07/2024

[Time: 3 Hours]

[Max. Marks: 80]

**III SEMESTER**

**PAPER - III (Basic Echocardiography)**

**QP CODE: 8337**

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

**Long Questions**

**10X1 = 10 Marks**

1. Contrast echocardiography- indication, contraindication, procedure & interpretation.

**Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. Murmurs
3. M Mode Echocardiography
4. Color Doppler
5. Heart Sounds
6. Basic Principles Of Ultrasound
7. Transducer: Basic Principles
8. Piezoelectric Crystals And Its Effect
9. Various Knobs On Echo Machine And Its Function
10. Placement Of Transducer , Various Views

**Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. Color Doppler
12. Principles of Doppler effect
13. Transducer
14. 5 chamber view
15. What is Aliasing
16. Placement of transducer
17. Write in short about Tissue Doppler imaging
18. Normal Variants
19. Mention various modes used in Echo.
20. Continuous wave Doppler
21. What murmur is present in mitral stenosis

7/24

**BLDE (DEEMED TO BE UNIVERSITY)**

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

[Time: 3 Hours]

[Max. Marks: 80]

**III SEMESTER**

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

**QP CODE: 8339**

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

**Long Questions ,**

**10X1 = 10 Marks**

1. Management of Cardiac arrest

**Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. Explain Emergency Situations and its management
3. Actions of heart
4. Explain patient care and management in ICU.
5. Pathophysiology of tachycardia & bradycardia
6. Write Anatomy of heart
7. Explain conduction system of heart
8. Management of Hypertension
9. Briefly Explain about cath lab
10. Explain role and responsibilities of cardiac care technologist

**Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. What is hypoxemia?
12. Beta Blockers
13. How to calculate hemoglobin from hematocrit?
14. Repolarization
15. Lead aprons
16. What are cardiomyocytes?
17. Contrast media
18. C arm machine
19. Circulatory system of heart
20. Calcium channel blockers
21. What is Hypotension?