BEE CCT, March-2025

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. in Cardiac Care Technology

[Time: 3 Hours]

[Max. Marks: 80]

IV SEMESTER

PAPER - I (Development of Cardiovascular System, Cardiovascular Pathology) QP CODE: 8435

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 various steps involved in Basic life support and significance of it.

Short Essays: (Any - 8)

 $5 \times 8 = 40 \text{ Marks}$

- 2. Risk factors of Atherosclerosis.
- 3. Dilated Cardiomyopathy.
- 4. Causes and diagnosis of Hypertension.
- 5. Stages of development of embryo.
- 6. Clinical features of pericarditis.
- 7. Name different Acyanotic Heart diseases and explain.
- 8. Clinical features of Aortic Regurgitation.
- 9. Explain circulatory system with diagram.
- 10. Types of ASD and VSD.

Short Answers: (Any – 10)

- 11. Causes of chest pain.
- 12. Describe basic life support.
- 13. Shunts involved in fetal circulation.
- 14. What is cardiac Failure?
- 15. Features of Rheumatic heart disease.
- 16. Explain absorption of pulmonary veins.
- 17. Write the Components of tetralogy of Fallot.
- 18. Cardiac biomarkers.
- 19. Name the Different Cyanotic heart diseases.
- 20. Name three types of Cardiomyopathies.
- 21. Explain formation of interatrial septum.

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IV SEMESTER

PAPER - II (Advanced Electrocardiography) QP CODE: 8436

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

Long Questions

10X1 = 10 Marks

1. Classify Atrioventricular blocks and Explain in detail.

Short Essays: (Any - 8)

 $5 \times 8 = 40 \text{ Marks}$

- 2. Radiofrequency Ablation
- 3. Pace maker
- **4.** Describe the three different types of RVH on ECG.
- 5. ECG features of Ventricular Tachycardia.
- 6. Write ECG changes in electrolyte imbalance
- 7. ECG evaluation of acute Anterior Myocardial Infarction
- 8. Characteristics of complete LBBB
- 9. Typical ECG findings in atrial fibrillation and atrial flutter.
- 10. ECG features of LVH and RVH

Short Answers: (Any - 10)

- 11. Indications for termination of TMT.
- 12. List out the causes of low voltage QRS Complex.
- 13. Various ST patters described in Treadmill Test.
- 14. Draw Einthoven's triangle.
- 15. ECG features of ventricular premature complex.
- 16. Define Tachycardia and Bradycardia.
- 17. How to calculate Target Heart Rate.
- 18. ECG in mitral stenosis.
- 19. 2:1 second degree AV Block.
- 20. ECG changes in Pericarditis.
- 21. Causes of T wave inversion in ECG.

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IV SEMESTER PAPER - III (Advanced Echocardiography) OP CODE: 8437

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

Long Questions

10X1 = 10 Marks

1. Write Indications, Contraindications and procedure of Dobutamine stress echocardiography.

Short Essays: (Any - 8)

 $5 \times 8 = 40 \text{ Marks}$

- 2. Draw neat labelled diagram of different echo views of the heart.
- 3. What is bubble contrast echocardiography and why it is used?
- 4. Echocardiographic assessment of Aortic Stenosis.
- 5. Echocardiographic evaluation of Mitral stenosis in detail.
- 6. Explain echo features of cardiac tamponed.
- 7. Echocardiographic features of Tetralogy of Fallot.
- 8. How to Calculation of EF by echocardiography?
- 9. Assessment of pulmonary hypertension by echocardiography
- 10. Echo features in Patent Ducts Arteriosus

Short Answers: (Any - 10)

- 11. Dilated Cardiomyopathy.
- 12. Coarctation of Aorta.
- 13. Teichholz method.
- 14. Classify Aortic Stenosis based on echocardiographic gradients (peak & mean).
- 15. Different types of Stress Echocardiography.
- 16. Echo findings in pericardial effusion.
- 17. Stroke volume calculation by echocardiography.
- 18. Segments of LV by echocardiography- ASE model.
- 19. Flail Mitral valve.
- 20. Mitral valve prolapse.
- 21. Calculation of LV mass.

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IV SEMESTER

PAPER - IV (CCT Directed Clinical Education - II) QP CODE: 8438

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

Long Questions

10X1 = 10 Marks

1. What is fluid therapy? Explain different types of IV fluids.

Short Essays: (Any – 8)

 $5 \times 8 = 40 \text{ Marks}$

- 2. Write physical methods of sterilization.
- 3. Explain effects of Radiation.
- 4. Explain Basic Life Support.
- 5. What can be and cannot be sterilizes in an autoclave.
- 6. How and when to use defibrillator?
- 7. Indications and contraindications of TMT.
- 8. Name different types of radiations. Briefly explain them.
- 9. Biochemical waste management.
- 10. Write principle of Ultrasound.

Short Answers: (Any - 10)

- 11. ECG in acute Myocardial Infarction.
- 12. Write uses and types of ventilators.
- 13. Write about IV fluids.
- 14. What are the steps of intubation?
- 15. What are gamma rays?
- 16. Write Uses of Radiation.
- 17. Write the process of pasteurization.
- 18. What is the use and temperature of Hot Air Oven?
- 19. Uses and side effects of Antibiotics.
- 20. Write uses of DNS
- 21. Write difference between colloid and crystalloid.