

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. in Perfusion Technology

[Time: 3 Hours]

[Max. Marks: 80]

Jan-26.

III SEMESTER

PAPER - I (Applied Anatomy, Physiology & Pharmacology)

QP CODE: 8360/8364

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Section 8360 (Anatomy & Physiology)

Long Questions

10X1 = 10 Marks

1. Describe the external features of heart in detail. Add a note on interior of right atrium.

Short Essays: (Any - 4)

5 X 4 = 20 Marks

2. Left coronary artery-origin, course, branches and areas of distribution.
3. Great saphenous vein- origin, course, termination, tributaries.
4. Pericardium.
5. Describe regulation of blood pressure
6. Define and write normal values of systolic and diastolic blood pressure

Short Answers (Any - 5)

2 X 5 = 10 Marks

7. Enumerate branches of Femoral artery
8. Tricuspid valve complex.
9. Physiology of coronary circulation
10. hypotension
11. Define shock, what are the different types of shock
12. Myocardial infarction (MI)

Section 8364 (Pharmacology)

Long Questions

10X1 = 10 Marks

1. Describe various routes of drug administration with advantages and disadvantages of each.

Short Essays: (Any - 4)

5 X 4 = 20 Marks

2. Therapeutic uses of Pencillins.
3. Mechanism of action and adverse effects of Insulin.
4. Mechanism of action and therapeutic uses of Spironolactone
5. Write pharmacological basis for use of atropine in the treatment of OP poisoning.
6. Therapeutic uses and adverse effects of Organic nitrates.

Short Answers (Any - 5)

2 X 5 = 10 Marks

7. Define Therapeutic Index with suitable example.
8. Write antidote for Morphine and Heparin.
9. Write four therapeutic uses of Beta - blockers.
10. Write four advantages of second generation antihistaminics.
11. Write first line anti -TB drugs.
12. Write four General Anaesthetic agents.

III SEMESTER

PAPER - II (Basic Electrocardiography & Echocardiography)

QP CODE: 8361

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Explain AV block

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Explain about ECG paper
3. Explain different views of echocardiography
4. Explain time duration and action representation of ECG waves
5. Explain IHD
6. Explain genesis of QRS complex
7. Explain Action Potential mechanism
8. What is Electrical Axis? Explain
9. What is Fractional Shortening? Explain
10. Explain 12 lead ECG

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. ECG changes in LVH.Explain
12. ECG changes in RVH.Explain
13. What is sick sinus syndrome
14. Write impulse generation capacity of each node
15. Explain intranodal conduction pathway
16. Explain why SA node is called as natural pace maker of heart
17. What is Heart Rate?
18. What is Einthoven's triangle?
19. What is LBBB& RBBB? Write ECG changes
20. What is arrhythmia?
21. What is atrial flutter? explain

III SEMESTER

PAPER - III (Introduction to Perfusion Technology)

QP CODE: 8362

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Write how to read chest X ray

Short Essays: (Any - 8)

5 X 8 = 40 Marks

2. Explain bubble traps
3. Explain about oxygenators
4. Explain heart lung machine
5. Write how to read chest X ray
6. Write the normal parameters of ABG
7. Explain different type of acidosis management
8. Discuss aseptic techniques in perfusion technology
9. Explain roller pumps
10. Explain Centrifugal pump

Short Answers: (Any - 10)

3 X 10 = 30 Marks

11. Write the normal parameters of ABG
12. What is oncotic pressure?
13. Write about reservoir
14. What are hemoconcentrators
15. What is heater cooler unit? explain its uses
16. How to select priming fluids ?explain
17. What is the role of perfusionist in cardiac surgery?
18. Write metabolic acidosis management
19. Write Methods to set occlusion
20. How to select priming fluids ?explain
21. What is circuit priming?

III SEMESTER

PAPER - IV (PT Directed Clinical Education - I)

QP CODE: 8363

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Explain Activated clotting time

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Explain aseptic technique in operation theater
3. Explain Intubation
4. Write a note on history of perfusion technology
5. Explain Accidents in CPB
6. Write a note on heparin
7. Explain Beta blockers
8. Write a note on intraoperative management of CPB
9. Explain Anesthesia work station
10. Explain Accidents in CPB

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Write a note on anticoagulants
12. What are premedication drugs? Give example
13. GFR
14. Draw a neat labeled diagram of heart
15. What are Inotropes?
16. What are Vacuum suctions?
17. Furosemide
18. Adrenaline
19. Explain Surface coting of tubes
20. What is cardioplagia delivery system? Give example
21. Protamine Sulphate