

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

B.Sc. Allied Health Sciences Second Year (Semester-III)

September 2021 Examination

B.Sc. Cardiac care Technology (CCT)

Time : 3 Hrs.

Paper – II

[Max. Marks : 100]

Introduction to Cardiac care Technology

Q.P Code : J3760

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

1. Describe the ECG changes that can occur in TMT, their clinical significance and enumerate the indications for stopping TMT
2. Explain fetal circulation in detail with neat labelled diagram

Short essay (Any ten)

10 X 5 = 50 Marks

3. Explain the ECG manifestation in Bi-fascicular block
4. Write ECG criteria of RBBB and LBBB
5. List the cause and ECG criteria of LAE
6. Describe the ECG manifestation in LVH due to pressure and volume overload
7. List any 5 relative and absolute contra indications of TMT
8. What are ECG criteria of RVH
9. Describe non-ECG observation in TMT
10. Development of IVS in detail with neat labelled diagram
11. Explain the formation of AV valve
12. Describe the anatomy of coronary artery with neat labelled diagram
13. Write a note on Bruce protocol
14. What are the causes of AV block and write ECG criteria of third degree AV block

Short Answers (Any ten)

10 X 3 = 30 Marks

15. Define Rate pressure product and what its clinical significance
16. List any 4 coronary indication of TMT
17. Mention 3 components that form LA
18. What is counterclockwise rotation of heart and mention its causes
19. Explain ECG intervals and what it indicates
20. What is the positioning of chest leads in ECG?
21. Describe the anatomic group of ECG
22. List the cardinal features of sinus rhythm
23. What are the ECG criteria of dextrocardia?
24. Write a note on first degree AV block
25. How do you calculate HR for irregular and regular rhythm in ECG?
26. Write ECG criteria of RAE

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B.Sc. Cardiac Care Technology

Time : 2 Hrs.

[Max. Marks : 40]

Subject : Applied Pharmacology

Q.P Code : J3770

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

LONG ESSAY

1 X 10 = 10 Marks

1. Classify adrenergic receptor blockers. Explain the mechanism, uses and contraindications of beta blockers (3+2+3+2)

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

2. Explain the mechanism of actions, uses and adverse effects of thiazide (1.5+2+1.5)
3. Explain the mechanism of action, uses and adverse effects of streptokinase (1+2+2)
4. Explain drug antagonism with examples (5)
5. Explain the mechanism, uses and adverse effects of enalapril (1+2+2)

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

6. Mention three low molecular weight heparins and write three uses
7. List three uses and three adverse effects of nitrates
8. Write the treatment of anaphylactic shock
9. Define side effect, toxic effect, teratogenicity with examples
10. List three antiplatelet agents and write three uses
11. List the advantages and disadvantages of intravenous route of drug administration

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B.Sc. Cardiac care Technology (CCT)

Time : 2.30 Hrs.

[Max. Marks : 80]

PAPER-IV

Medicine Relevant to Cardiac care Technology

Q.P Code :J3780

Your answers should be specific to the questions asked.

Long Essay

2X10=20 Marks

1. Explain risk factors, pathophysiology, clinical presentation and diagnosis of acute coronary syndrome in detail
2. Explain cause, risk factors, pathophysiology, clinical manifestation and diagnosis of rheumatic heart disease

Short Essay (Answer any Six)

6X5=30 Marks

3. Management of rheumatic heart disease in detail
4. Explain ASD in detail
5. Explain TOF in detail
6. What are the effects of HTN on cardiovascular system and renal system?
7. Management of thoracic aortic aneurysm in detail
8. Explain the clinical presentation and management of patients with dilated cardiomyopathy
9. Explain the classification and pathophysiology of pulmonary edema in detail
10. Explain the different patterns of restrictive cardiomyopathy in detail

Short Answers (Answer any ten)

10X3=30 Marks

11. Pathophysiology of patent ductus arteriosus
12. Causes of dilated cardiomyopathy
13. Describe systolic anterior motion in HCM
14. Explain the stages involved in normal coagulation
15. Differentiate between obstructive and restrictive pulmonary disease
16. Pathophysiology of peripheral vascular disease
17. Describe the stages of pulmonary edema based on degree of fluid accumulation
18. Describe acute HF
19. Write a note on BP measurement
20. Classification of ventricular septal defect
21. Classification of anemia
22. Classification of HTN