



SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

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

September 2022 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. Briefly explain about the ST-T changes, R wave and T wave changes that occur during TMT
2. Explain fetal circulation in detail with neat labelled diagram

Short essay (Any ten)

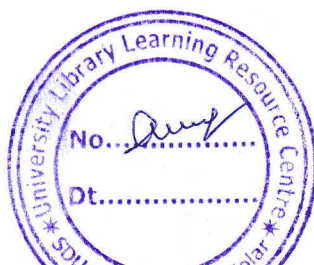
10 X 5 = 50 Marks

3. Explain the structures of RA and RV
4. Explain the adult pulmonary and systemic circulation in detail
5. Explain the parts of aorta with neat labelled diagram
6. Define cardiac cycle and mention its phases
7. Explain the arterial and venous end of the heart tube with neat labelled diagram
8. Explain the formation of IVS
9. Write a note on absorption of pulmonary veins during embryology
10. What are the ECG waves and intervals and what it indicates?
11. Explain the genesis of QRS complex and write a note on Cardiac axis
12. ECG criteria of RVH
13. What are the coronary indications of TMT?
14. Explain the components of cardiac conduction system with neat labelled diagram

Short Answers (Any ten)

10 X 3 = 30 Marks

15. Explain the structures of LA and LV
16. Sokolow Lyon ECG criteria of LVH
17. ECG criteria of RBBB
18. Describe morris index
19. ECG criteria of complete LAFB and LPFB
20. ECG criteria of pressure and volume overloaded conditions of LVH
21. Explain Mason-like ECG modification system in TMT
22. List the steps involved in the pretest preparation of TMT
23. Define rate pressure product and its significance
24. ECG criteria of 3rd degree AV block
25. List absolute contra indications of TMT
26. Non-ECG observations in TMT





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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. List anticoagulants. Explain the mechanism of action, uses and adverse effects of heparin

(2+2+3+3)

SHORT ESSAY (Answer any three)

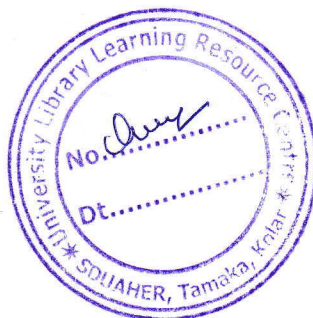
3 X 5 = 15 Marks

2. Explain the mechanism of action, uses and adverse effects alpha blockers (1+2+2)
3. Explain the mechanism of action, uses and adverse effects of nitrates (1.5+2+1.5)
4. Explain drug antagonism with examples
5. Explain the mechanism of action and uses of anticholinesterases (1.5+ 3.5)

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

6. Write the mechanism of action and three uses of enalapril
7. Write three uses and three adverse effects of frusemide
8. Write the treatment of anaphylactic shock
9. Explain bioavailability and plasma half-life with examples
10. Explain tolerance and dependence with examples
11. List three differences between oral and 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 cause, risk factors, pathophysiology, clinical manifestation and diagnosis of rheumatic heart disease
2. Explain the WHO classification of cardiomyopathy and explain Etiology, pathophysiology and clinical presentation of DCM

Short Essay (Answer any Six)

6X5=30 Marks

3. Explain ASD in detail
4. Pathophysiology of heart failure
5. Management of patients with STEMI
6. Explain classification of anemia in detail
7. Cardiogenic pulmonary edema
8. Causes and Risk factors of Hypertension
9. Pulmonary function test and its interpretation
10. Classification of Aortic aneurysm and its management

Short Answers (Answer any ten)

10X3=30 Marks

11. Pathophysiology of patent ductus arteriosus
12. Write a note on BP measurement
13. Etiology of non-cardiogenic pulmonary edema
14. Management of PVD
15. What are the stages of normal coagulation?
16. Jones criteria in RHD
17. Write a note on RBC
18. Cardiac amyloidosis
19. What are stages of normal coagulation?
20. Antithrombotic therapy
21. Obstructive and restrictive lung disease
22. Complications and differential diagnosis of pulmonary edema

