



SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH

(A DEEMED TO BE UNIVERSITY)

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

March 2024 Examination

B.Sc. Cardiac Care Technology (CCT)

Time : 3.00 Hrs.

[Max.Marks : 100]

Introduction to Cardiac Care Technology

Q.P Code: J4760

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

Long Essay

2 X 10= 20 Marks

1. Discuss the identification of various Echocardiography segments of left ventricle with labelled diagram.
2. Trans Esophageal Echo (TEE)- indications, contraindications and views in TEE

Short Essay(any ten)

10 X 5= 50 Marks

3. M mode echocardiography
4. Importance of gain in echocardiography
5. Aliasing and Nyquist limit
6. Parasternal short axis views with appropriate diagrams
7. Role of contrast echo
8. Uses of Doppler Echocardiography
9. Explain transducer with neat labelled diagram
10. Doppler artifacts in detail
11. Clinical applications of pulse wave, continuous wave and Tissue Doppler imaging
12. Draw neat labelled diagram of M-Mode at LV cavity level
13. Explain the detection of intracardiac shunts in contrast echocardiography
14. Explain Doppler effect in detail

Short Answers (any ten)

10 X 3= 30 Marks

15. Ultrasound artifacts
16. Piezoelectric effect
17. Types of transducers
18. Structures seen in apical five chamber view
19. Doppler principle
20. Laminar and non laminar flow pattern in Doppler
21. Types of resolution
22. Complications of Transesophageal echocardiography
23. Mention normal variants in echocardiography
24. Basic principles of ultrasound
25. TAPSE and MAPSE by M-mode echocardiography
26. Write a note on limitation and safety in contrast echocardiography



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

March 2024 Examination

B.Sc. Cardiac Care Technology

Time : 2 Hrs.

[Max. Marks : 40]

Applied Pharmacology

Q.P Code : J4770

LONG ESSAY

1 X 10 = 10 Marks

1. Classify insulin preparations. Explain the mechanism of action and adverse effects of insulin

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

2. Classify corticosteroids with examples
3. Define and classify anti-tubercular drugs with examples
4. Explain mechanism of action, uses and adverse effects of theophylline
5. Explain mechanism of action, uses and adverse effects of any of aminoglycosides

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

6. List three immunosuppressive agents and write its uses
7. List three anti tussives and write three uses
8. Classify tetracyclines
9. List three uses and adverse effects of prednisolone
10. Write uses and adverse effects of doxycycline
11. Uses and adverse effects of succinyl apnea

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