

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

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

March 2022 Examination

B.Sc. Respiratory Care Technology

Time: 3 Hrs.

Paper – I

[Max. Marks: 100]

Applied Pathology & Microbiology

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

(Use separate answer booklet for Section A & B)

Section – A

Applied Pathology (50 Marks)

Q.P Code :J3855

LONG ESSAY

2 X 10 = 20 Marks

1. Describe the etiopathogenesis, morphology of heart and laboratory findings in acute myocardial infarction?
2. Classify leukemia? Describe FAB Classification of Acute myeloid leukemia with its peripheral smear findings?

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

3. Define cardiac hypertrophy and list the etiology for right and left ventricular hypertrophy
4. Classify cardiomyopathies and describe the etiology and morphological features of primary cardiomyopathy?
5. Define and classify anemia
6. Classify aneurysms describe the etiopathogenesis and morphology of dissecting aneurysm
7. Describe the etiology and laboratory findings of megaloblastic anemia

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

8. List the types of pericardial effusions with their etiology?
9. List 06 causes of neutrophilic leucocytosis
10. Describe the morphological features of heart in hypertensive heart disease?
11. Define hemopericardium and list 02 causes of hemopericardium?
12. Classify hemolytic anemia
13. List the complications of atherosclerosis
14. List 03 causes for delayed clotting time

Section – B

Applied Microbiology (50 Marks)

Q.P Code : J3856

(Use separate answer booklet for Section-B)

LONG ESSAY

2 X 10 = 20 Marks

1. Types of HCAI, sources of infection and role of a health care worker in preventing Health care associated infections. (3+3+4)
2. Classify the types of waste generated in the hospital and write in detail about the Disposal of waste (3+7)

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

3. How will you prevent the spread of drug resistant E coli in the hospital?
4. Risk factors and preventive measures of catheter associated blood stream infection
5. MRSA, risk factors and its preventive measures
6. Clostridium difficile: Disease caused by, Risk factors and its preventive measures
7. Surveillance of infectious diseases

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

8. Five moments of hand hygiene
9. Name three blood borne viruses
10. Routes of transmission of infection in the hospital
11. Dos and don'ts in needle stick injury
12. Mention three diseases that spread by respiratory route
13. Name three PPE
14. Define health care associated infection



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Time: 3 Hrs.

Paper – II

[Max. Marks: 100]

Introduction to Respiratory care Technology

Q.P Code: J3860

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

1. Write the outline of the complete health history taking of a patient. Write a short note on professional conduct
2. A) list the major vital signs (2 marks)
B) What are the factors affecting body temperature? (2 marks)
c) Briefly describe the methods/ locations of recording body temperature (6 marks)

Short essay (Any ten)

10 X 5 = 50 Marks

3. What is the normal pulse rate in a human being? List the different sites for checking pulse. (1+4 marks)
4. Explain in detail the procedure of measuring Blood pressure. (5 marks).
5. Write a note on hand hygiene. Write the conditions/criteria when you need to wash hands in the hospital.
6. Write the sequence for donning PPE. How do you don a gown, mask and gloves?
7. Describe the imaginary planes in chest topography.
8. Write a note on abnormal breath sounds.
9. Discuss the assessment of respiratory system in brief.
10. Write a short note on needle stick injury.
11. Describe the topography of heart.
12. Describe the assessment of skin and extremities.
13. Add a note on auscultation of respiratory system.
14. Briefly describe the assessment of the sensorium in a patient.

Short Answers (Any ten)

10 X 3 = 30 Marks

15. Describe closed loop communication.
16. Give one example of open-ended question in patient communication.
17. Write the sequence for doffing PPE.
18. Write the normal range for pre hypertension and hypertension.
19. Add a note on palpation of chest
20. List the abnormal breath sounds.
21. List the various types of isolation in universal precautions.
22. Briefly describe the measurement of respiratory rate in a patient.
23. What are adventitious breath sounds?
24. Define tachycardia.
25. Define bradypnea.
26. Define hypotension.



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B.Sc. Respiratory Care Technology

Time: 2 Hrs.

[Max. Marks: 40]

Applied Pharmacology

Q.P Code: J3870

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

LONG ESSAY

1 X 10 = 10 Marks

1. List drugs used in hypertension. Explain the mechanism of action, uses and adverse effects of beta blockers (3+2+3+2)

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

2. Mention low molecular weight heparins. Explain the mechanism of action and uses (1+2+2)
3. Explain the mechanism of action, uses and adverse effects of frusemide (1.5+2+1.5)
4. Explain enzyme induction and inhibition with examples (2.5+ 2.5)
5. Mention four routes of drug administration with examples and write the advantages of sublingual route (4+1)

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

6. Write the treatment of myocardial infarction
7. Explain idiosyncratic reactions with three examples
8. Mention three crystalloids and write three uses
9. List three uses and three adverse effects of calcium channel blockers
10. Explain tolerance and dependence with examples
11. Mention the targets of drug action with examples



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B.Sc. Respiratory care Technology

Time: 2.30 Hrs.

[Max. Marks: 80]

PAPER-IV

Medicine Relevant to Respiratory care Technology

Q.P Code: J3880

*Your answers should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.*

Long Essay

2X10=20 Marks

1. Write in detail the pathophysiology of myasthenia gravis along with a neatly labelled diagram of the neuromuscular junction.
2. Define ARDS. Explain the pathophysiology, stages and management of ARDS.

Short Essay (Answer any Six)

6X5=30 Marks

3. Briefly describe the diseases associated with obesity.
4. Discuss ventilation-perfusion mismatch in Type I respiratory failure.
5. Explain the diagnosis of COPD.
6. Discuss the management of Gullian Barre Syndrome.
7. Define poliomyelitis. Mention the associated clinical features.
8. Describe the complications associated with pregnancy.
9. Describe the airway management in poisoning patient.
10. Define the criteria to determine respiratory failure in a patient. List the causes for type 2 respiratory failure.

Short Answers (Answer any ten)

10X3=30 Marks

11. Define type I respiratory failure.
12. Mention the chest Xray features of ARDS.
13. Define HIV AIDS.
14. Mention the clinical features of myasthenia gravis.
15. Mention the drugs used in management of HIV infection.
16. Mention the clinical features of COPD.
17. Mention the etiology of bronchial asthma.
18. Describe the clinical features of ARDS.
19. Mention obesity related disorders.
20. Define diabetes mellitus.
21. Mention the risk factors causing ischemic heart disease.
22. Describe the clinical features associated with hypertension.

