



SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)

B.Sc. Allied Health Sciences Second Year (Semester- 4th)

September 2024 Examination

B.Sc. Respiratory Care Technology (RCT)

Time: 2.30 Hrs.

[Max. Marks:80]

Applied Pathology & Microbiology
(Use Separate answer booklet for Section A & B)
(SECTION A)

APPLIED PATHOLOGY (40 Marks)

Q.P Code: K4835

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

Long Essay

1 X 10 = 10 Marks

1. Define acute renal failure (ARF) and list the causes, pathogenesis and effects of acute renal failure.

Short Essay

3 X 5 = 15 Marks

2. Describe etiopathogenesis, clinical features, morphology, treatment of Asbestosis.
3. End stage renal disease- discusses the causes and effects.
4. Write the differences between restrictive and obstructive lung diseases

Short Answers

5 X 3 = 15 Marks

5. Name three uses of renal dialysis.
6. Briefly describe chronic bronchitis.
7. Briefly describe chronic pyelonephritis
8. Pulmonary edema
9. List the various lesions under pneumoconiosis

Sec-B

Applied Microbiology(40 Marks)

Q.P Code:K4836

LONG ESSAY

1 X 10 = 10 Marks

1. Enumerate the source and factors contributing to infection and describe the infection control measures in ICU.

SHORT ESSAY

3 X 5 = 15 Marks

2. Mention the significant activities and describe the sterilisation methods in detail in Central Sterile Supply Department.
3. Enumerate Halogens used in disinfection. Describe the mechanism of action and uses of
4. Describe the gaseous methods of disinfection.

SHORT ANSWERS

5 X 3 = 15 Marks

5. Mention the disinfection method of the Heart-lung machine, Blood pressure cuff and glucometer.
6. Mention three indications of microbiological surveillance in OT.
7. Name three chemical sterilants.
8. Mention the holding temperature and time of Autoclave
9. Mention three articles sterilised by Hot air oven.

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Sri Devaraj Urs ACADEMY OF HIGHER EDUCATION & RESEARCH

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

September 2024 Examination

B.Sc. Respiratory Therapy

Time: 2.30 Hrs.

[Max. Marks: 80]

Paper II

Introduction to Respiratory care Technology

Q.P Code: K4840

Your answers should be specific to the questions asked.

Draw neat, labelled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

1. Describe Humidity Therapy, its indication, contraindication and types - Active & Passive humidifiers
2. Explain in detail about aerosol therapy, its indication, contraindication and types with neat, labelled diagram.

SHORT ESSAY

6 X 5 = 30 Marks

3. Draw a neat diagram of MDI and explain the optimal technique to use this device
4. Explain in detail about provocation tests used in PFT
5. Add a note on huff-cuff technique and deep controlled coughing technique.
6. Explain in detail about Gas Administration devices
7. Write about Alarms & Safety Devices in Medical gas supply
8. Write a short note on ECG & its Abnormalities

SHORT ANSWERS

10 X 3 = 30 Marks

9. Add a note on Bag mask valve device
10. Define pMDI and mention optimal use of the device
11. Draw a neat diagram of Passover humidifier
12. Enumerate the Complication of suctioning
13. Explain the mechanism of Pulse oximetry
14. Explain Boyle's law in relation to respiration
15. What do you understand by Rationale of oxygen Therapy
16. Define Dry powder inhaler and mention optimal use of the device
17. Draw a neat, labelled diagram of ECG graph
18. Add a note ultrasonic nebulizer

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Medicine Relevant to Respiratory Care Technology

Q.P Code : K4850

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

1. Define pulmonary edema. Explain its pathophysiology, clinical manifestations, diagnosis and management.
2. Define Lung abscess. Explain its etiology, clinical features, investigations and management.

SHORT ESSAY

6 X 5 = 30 Marks

3. Pathophysiology of Acute lung injury.
4. Clinical manifestations of pulmonary tuberculosis
5. Define occupational lung disease and brief about silicosis
6. Management of toxic inhalation
7. Pathophysiology of community acquired pneumonia
8. Write a note on VAP bundles

SHORT ANSWERS

10 X 3 = 30 Marks

9. Name 3 disease which is related to pleura
10. Etiology of cardiogenic pulmonary edema
11. Name 3 disease which is related to chest wall
12. What are the toxic inhalations
13. Define tropical eosinophilia
14. Management of non- cardiogenic pulmonary edema
15. Name 3 occupational lung diseases
16. What is the causative organism of tuberculosis
17. Clinical manifestations of common viral infections
18. Definition immunocompromised host

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