



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

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

October 2023 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 End stage renal disease, Describe the etiology, effects and role of dialysis and renal transplantation in its management.

Short Essay

3 X 5 = 15 Marks

2. Describe the etiology, pathogenesis, morphology and clinical features of Pulmonary congestion.
3. Obstructive uropathy – causes and clinical manifestations
4. Write the pathogenesis of Pneumoconiosis and write in brief about asbestosis

Short Answers

5 X 3 = 15 Marks

5. Describe briefly chronic bronchitis
6. Write 3 points to differentiate restrictive from obstructive lung diseases
7. List out 2 criteria for chronic renal failure
8. Write the histopathological findings in silicosis.
9. Causes of obstructive uropathy

Sec-B

Applied Microbiology(40 Marks)

Q.P Code:K4836

LONG ESSAY

1 X 10 = 10 Marks

1. Define the terms Sterilization and Disinfection. Classify Disinfectants and describe the working principle, uses, advantages, and disadvantages of Ethylene Oxide Sterilization. Add a note on its sterilization control.

SHORT ESSAY

3 X 5 = 15 Marks

2. Describe Spaulding's classification and mention the appropriate methods of disinfection.
3. Describe different methods of cold sterilisation with examples.
4. Describe the types, uses, advantages, and disadvantages of aldehydes used in hospitals.

SHORT ANSWERS

5 X 3 = 15 Marks

5. Mention the disinfectants used to disinfect the bed railing, floor and trolley.
6. List three Alcoholic disinfectants used in hospital and their uses.
7. List three methods of sampling for Microbiological surveillance of OT.
8. Mention six important steps to prevent bedsores in ICU.
9. Mention three articles sterilised by Hot air oven.



Medicine Relevant to RCT

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 Acute lung injury. Explain its etiology, pathophysiology, clinical features and its management.
2. Define Occupational lung disease. Brief about coal works lung and its, clinical manifestations diagnosis and management.

SHORT ESSAY

6 X 5 = 30 Marks

3. Prevention of community acquired pneumonia
4. Clinical features and management of common viral infections
5. Define toxic inhalation and its management.
6. Pathophysiology of Lung abscess
7. Management of non-cardiogenic pulmonary edema
8. Brief notes on pulmonary tuberculosis

SHORT ANSWERS

10 X 3 = 30 Marks

9. Name 3 occupational lung disease
10. Define tropical eosinophilia
11. Diagnosis of common viral infections
12. Clinical manifestations of pulmonary edema
13. Etiology of pleural disease
14. Management of chest wall disease
15. Preventive measures take in immune compromised host
16. Mention any 3 second line drugs used in pulmonary tuberculosis
17. Clinical manifestations of fungal infections
18. Diagnosis of lung abscess

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

October 2023 Examination

B.Sc. Respiratory Care Technology

Paper – I

[Max. Marks: 100]

Time: 3 Hrs.

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 :J4855

LONG ESSAY

2 X 10 = 20 Marks

1. Define and list the types of chronic obstructive diseases. Describe the etiopathogenesis, clinical features and morphology of chronic bronchitis
2. Classify renal diseases. Describe the etiology, clinical features and morphology of Acute renal failure (ARF)

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

3. Describe the etiology, clinical features and morphology of pulmonary edema
4. Describe the etiology, clinical features and morphology of Chronic pyelonephritis
5. List the types of pneumonia and describe the stages in lobar pneumonia
6. List the types of urinary stones and the etiology and gross appearance of the urinary stones
7. Describe the etiology, clinical features and morphology of bronchiectasis

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

8. List 06 causes of pleural effusion
9. Describe morphology of lung abscess
10. Classify stages of chronic kidney disease
11. List 03 differences between obstructive and restrictive lung diseases
12. List 06 functions of kidney
13. List 03 pneumoconiosis with their etiology
14. List 03 renal function test with normal range for an adult male

Section – B

Applied Microbiology (50 Marks)

Q.P Code : J4856

(Use separate answer booklet for Section-B)

LONG ESSAY

2x10= 20marks

1. Define sterilization. Enumerate the methods of sterilization by moist heat. Discuss the functioning of Autoclave and add a note on sterilization control. (2+2+4+2)
2. Define central Sterile Supply Department. Enumerate four zones and describe the various flow of activities in Central Sterile Supply Department (2+2+6)

SHORT ESSAYS (Answer any three).

3X5=15 marks

3. Describe the mechanism of action, advantages and disadvantages of Ethylene oxide sterilization
4. Importance of infection control in ICU
5. Describe the Spaulding's method of classification of disinfection with examples
6. Classification of patients care units based on the risk involved and the appropriate methods of disinfection
7. Enumerate Halogens used in disinfection. Describe the mechanism of action and uses of Halogens

SHORT ANSWERS (Answer any five).

5X3=15 marks

8. Mention three disinfectants used for surface cleaning
9. Mention the holding temperature and time in hot air oven
10. Mention three methods of gaseous disinfection
11. Mention the acceptable bio load in OT
12. Mention the methods used to sterilize heart lung machine, ventilator, endoscope
13. Mention six important steps to prevent bedsores in ICU
14. Define Disinfectants and Antiseptics