

Question Paper

Exam Date & Time: 10-Dec-2021 (02:30 PM - 04:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER BPT / BOT / B.Sc. CVT / B.Sc. RRT & DT / B.Sc. BAOTT / B.Sc. RT / B.Sc. PFT / B.Sc. MIT DEGREE
EXAMINATION - DECEMBER 2021
SUBJECT: MICR 201 - MICROBIOLOGY
(2016/2019 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Define and classify sterilization. Explain in detail on autoclave. (10)
(1+2+7 = 10 marks)
- 2) Describe the pathogenesis of poliomyelitis. Explain the prophylactic measures employed for this infection. (10)
(5+5 = 10 marks)

3. Write short notes on:

- 3A) Contributions of Louis Pasteur. (5)
- 3B) Anaphylaxis. (5)
- 3C) Laboratory diagnosis of enteric fever. (5)
- 3D) Morphological classification of fungi. (5)

4. Answer the following:

- 4A) Name TWO bacteria causing acute meningitis. (2)
- 4B) Mention the causative agent of tetanus and its prevention. (2)
- 4C) Write TWO modes of transmission of infection. (2)
- 4D) Name TWO bacteria causing skin infection. (2)
- 4E) Write TWO organisms causing sexually transmitted diseases. (2)

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Question Paper

Exam Date & Time: 13-Dec-2021 (02:30 PM - 04:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B.Sc. MIT / B.Sc. RTT / B.Sc. EMT / B.Sc. RRT & DT / B.Sc. AOTT / B.Sc. RT / B.Sc. PFT / BOT / BPT /
B.Sc. CVT DEGREE EXAMINATION - DECEMBER 2021
SUBJECT: PATH 201 - PATHOLOGY
(2016 / 2016 RV / 2019 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Define inflammation. Mention types of inflammation with examples. Describe the cellular events of inflammation. (10)
(1+3+6 = 10 marks)
- 2) Classify anaemia. List four clinical features of anaemia. Describe the laboratory findings in megaloblastic anaemia. (10)
(3+2+5 = 10 marks)
- 3A) Write a note on steps of fracture healing. (5)
- 3B) What are the modes of transmission of HIV/AIDS? List the opportunistic infections in HIV/AIDS. (5)
(2+3 = 5 marks)
- 3C) Illustrate the mechanism of metastasis with a flowchart. (5)
- 3D) Describe the types and causes of emphysema. (5)
(3+2 = 5 marks)
- 4A) Define metaplasia. Give an example. (2)
- 4B) List the differences between dry gangrene and wet gangrene. (2)
- 4C) List the complications of acute myocardial infarction. (2)
- 4D) Mention the etiology of peptic ulcer. (2)
- 4E) Mention the complications of diabetes mellitus. (2)

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Question Paper

Exam Date & Time: 15-Dec-2021 (02:30 PM - 04:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - DECEMBER 2021
SUBJECT: BRES 201 - PULMONARY DIAGNOSTICS
(2016 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Explain in detail about the technique of insertion of central venous catheter. Also, enlist the indications and insertion sites of central venous catheter. (10)
(5+5 = 10 marks)
- 2) Elaborate on forced expiratory (FVC) maneuver and explain briefly the stepwise interpretation of pulmonary function testing. (10)
(5+5 = 10 marks)
- 3A) Write a note on single breath DLCO test. (5)
- 3B) Write a note on pulse oximetry. (5)
- 3C) Enlist the differences in chest x ray features of pneumothorax and atelectasis. (5)
- 3D) Write a note on the indications and techniques of indirect calorimetry. (5)
- 4A) Enlist the causes of anion gap and non-anion gap metabolic acidosis. (2)
- 4B) Define sniff nasal inspiratory pressure (SNIP). (2)
- 4C) Enlist the chest x-ray features of acute respiratory distress syndrome (ARDS). (2)
- 4D) Mention four indications for cardiopulmonary exercise testing. (2)
- 4E) Enlist the types of flow sensing spirometers. (2)

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Question Paper

Exam Date & Time: 17-Dec-2021 (02:30 PM - 04:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - DECEMBER 2021
SUBJECT: BRES 203 - PEDIATRIC RESPIRATORY CARE
(2016 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Enlist the variable and fixed oxygen delivery devices. Write a note on the non-rebreathing mask. (10)
(5+5 = 10 marks)
- 2) Explain in detail about the fetal circulation. (10)
- 3A) Write a note on the diagnostic method used in cystic fibrosis. (5)
- 3B) Explain the pathophysiology of Asthma. (5)
- 3C) Write a note on the indications and complications of pediatric flexible bronchoscopy. (5)
- 3D) Enlist the causes and explain the management of a pediatric patient with hypovolemic shock. (5)
- 4A) Write the principle of incentive spirometry. (2)
- 4B) Enlist the drugs under adrenergic bronchodilators. (2)
- 4C) Enlist two complications of Inhaled nitric oxide therapy. (2)
- 4D) Enlist the components of APGAR score. (2)
- 4E) Enlist two indication and contraindication for oropharyngeal airway devices. (2)

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Question Paper

Exam Date & Time: 20-Dec-2021 (02:30 PM - 04:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - DECEMBER 2021
SUBJECT: BRES 205 - PULMONARY DISEASES
(2016 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Briefly explain the pathophysiology of Chronic obstructive pulmonary disease (COPD). Describe the management and treatment strategies of COPD. (10)
(5+5 = 10 marks)
- 2) A patient's ABG report revealed the following: pH: 7.19, PCO₂: 89mmHg, PO₂: 88mmHg, HCO₃⁻: 22mmol/L. (10)
Provide a stepwise interpretation of oxygenation and acid base status for the given ABG values.
- 3A) Define Berlin's definition of ARDS. (5)
- 3B) Describe the management of tuberculosis. (5)
- 3C) Define all four lung volumes with their normal values. (5)
- 3D) Explain the classification of bronchiectasis. (5)
- 4A) Define Myasthenia Crisis. (2)
- 4B) List the different types of atelectasis. (2)
- 4C) Define flail chest. (2)
- 4D) What are the clinical features of Asthma? (2)
- 4E) Enlist the different degrees of thermal injuries. (2)

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