

# Question Paper

Exam Date & Time: 06-Dec-2019 (02:00 PM - 04:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - DECEMBER 2019

SUBJECT: BRES 201 - PULMONARY DIAGNOSTICS

(2016 SCHEME)

Friday, December 06, 2019 (14.00 - 16.00)

Marks: 50

Duration: 120 mins.

### Long Answers:

- 1) A 22-year-old female brought to Emergency department presented with a 5-day history of vomiting and lethargy. You are asked to perform an Arterial Blood Gas sampling for the patient on the advice of your physician. The results of the ABG showed - pH: 7.20, PaCO<sub>2</sub>: 40 mm Hg, PaO<sub>2</sub>: 131 mm Hg (patient not on oxygen), HCO<sub>3</sub>: 13 mEq/L, BE: - 8 mEq/L. How would the respiratory therapist assess this acid-base condition and manage the scenario? Write a note on Anion gap. (7+3 = 10 marks) (10)
- 2) What are the indications and contraindications for pulmonary function testing? Discuss briefly about Broncho-provocation test. (6+4 = 10 marks) (10)
- 3) **Write short notes on:**
- 3A) What are the indications, sites of insertion and complications for pulmonary artery catheterization? (5)
- 3B) Short note on post bronchodilator test. (5)
- 3C) Write in detail about respiratory acidosis and its management. (5)
- 3D) Cardiopulmonary exercise testing (5)
- 4) **Very Short Notes:**
- 4A) **Describe the radiological features of:**  
i) ARDS (2)  
ii) PNEUMOTHORAX
- 4B) List two techniques used to measure Total Lung Capacity. (2)
- 4C) Mention any two views taken for radiological chest examination. (2)
- 4D) Describe CVP tracing with help of a diagram. (2)
- 4E) Write the anatomical locations for arterial blood gas sampling. (2)

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# Question Paper

Exam Date & Time: 07-Dec-2019 (02:00 PM - 04:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - DECEMBER 2019

SUBJECT: BRES 203 - PEDIATRIC RESPIRATORY CARE

(2016 SCHEME)

Saturday, December 07, 2019 (14.00 - 16.00)

Marks: 50

Duration: 120 mins.

### Essay Question:

- 1) A 12 yr old child met with a road traffic accident on admission child had multiple rib fracture, auscultation right side diminished breath sounds, pulse oximeter reading showing 81%. What can be the possible diagnosis? What all diagnostic test you want to do? How will you manage the case? (2+3+5 = 10 marks) (10)
- 2) Discuss in detail on low flow and high flow oxygen therapy devices. (10)
- 3) **Short Essay Question:**
- 3A) Indication and contraindication for bronchoscopy (5)
- 3B) Discuss in detail fetal shunts with diagram. (5)
- 3C) Ventilator associated pneumonia (5)
- 3D) Diagnosis and management of pleural effusion (5)
- 4) **Short Notes:**
- 4A) List four factors affecting aerosol therapy in neonatal and pediatric ventilated patients. (2)
- 4B) What is the X-ray feature of epiglottitis and Croup? (2)
- 4C) Which gene mutation causes cystic fibrosis? (2)
- 4D) Mechanism of inhaled nitric oxide Principle of Incentive spirometry (2)
- 4E) (2)

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# Question Paper

Exam Date & Time: 09-Dec-2019 (02:00 PM - 04:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

**THIRD SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - DECEMBER 2019**

**SUBJECT: BRES 205 - PULMONARY DISEASES  
(2016 SCHEME)**

**Monday, December 09, 2019 (14.00 - 16.00)**

**Marks: 50**

**Duration: 120 mins.**

### Long answer questions:

- 1) Define ARDS. List out the etiological factors and the pathophysiological mechanisms. (10)  
(2+3+5 = 10 marks)
- 2) 25-year-old male patient presents to emergency department after sustaining a gunshot wound. On arrival, the patient's vitals were worse. On examination, there was left side tracheal shift, no breathing sound on right side with auscultation, and on percussion he has hyper-resonant sound on right side. Identify the case, and discuss on appropriate management of this situation. (10)  
(2+8 = 10 marks)
- 3) **Write short notes on:**
- 3A) Diagnostic tests used to detect Tuberculosis (5)
- 3B) Pathophysiologic sequence in drowning (5)
- 3C) Diagnosis of asthma (5)
- 3D) Pathophysiology of lung abscess (5)
- 4) **Very short answer questions:**
- 4A) List any two opportunistic yeast pathogens causing lung infections. (2)
- 4B) List any four bronchodilators used in managing COPD patients. (2)
- 4C) What is asbestosis? (2)
- 4D) What is Type II respiratory failure? (2)
- 4E) What is premenstrual asthma? (2)

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