

# Question Paper

Exam Date & Time: 10-Dec-2018 (02:00 PM - 04:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

**THIRD SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - DECEMBER 2018**  
**SUBJECT: BRES 201 - PULMONARY DIAGNOSTICS**  
**(2016 SCHEME)**

**Monday, December 10, 2018 (14.00 - 16.00)**

**Answer all the questions.**

**Marks: 50**

**Duration: 120 mins.**

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| 1)  | With a help of a diagram explain about Nitrogen Washout Technique.<br>(4+6 = 10 marks) | (10) |
| 2)  | Stepwise Interpretation of Arterial blood gas sampling.                                | (10) |
| 3A) | List out the causes for High anion gap.  | (5)  |
| 3B) | Metabolic Acidosis   | (5)  |
| 3C) | Chest X-ray features of pneumonia  | (5)  |
| 3D) | Mention four indications for cardiopulmonary exercise testing.                         | (5)  |
| 4A) | List the difference between Anterior Posterior view and Posterior Anterior view.       | (2)  |
| 4B) | What is streak artefact?   | (2)  |
| 4C) | List any four causes of cavitating lung lesions.                                       | (2)  |
| 4D) | What are the contraindication for central venous catheterization?                      | (2)  |
| 4E) | Write the winters equation for metabolic acidosis.                                     | (2)  |

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# Question Paper

Exam Date & Time: 12-Dec-2018 (02:00 PM - 04:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

**THIRD SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - DECEMBER 2018**  
**SUBJECT: BRES 203 - PEDIATRIC RESPIRATORY CARE**  
**(2016 SCHEME)**  
**Wednesday, December 12, 2018 (14.00 - 16.00)**

**Marks: 50**

**Duration: 120 mins.**

### ESSAY QUESTION:

- 1) Discuss on pathophysiology and management of Acute Respiratory Distress Syndrome. (10)  
(5+5 = 10 marks)
- 2) Describe in detail about fetal circulation and fetal shunts with diagram. (10)  
(5+5 = 10 marks)

### 3) SHORT ESSAY QUESTION:

- 3A) Arterial blood gas sampling (5)
- 3B) Discuss on genetics and diagnosis of cystic fibrosis. (5)  
(1+4 = 5 marks)
- 3C) Congenital diaphragmatic hernia (5)
- 3D) What is Respiratory Acidosis and what are the causes of Respiratory Acidosis? (5)  
(1+4 = 5 marks)

### 4) SHORT NOTES:

- 4A) List four Iatrogenic injury in ICU. (2)
- 4B) List obstructive airway disease values (FEV1, FVC, FEV1/FVC) in PFT. (2)
- 4C) Mechanism of action of anticholinergic drugs (2)
- 4D) Define Flail chest. (2)
- 4E) List four factors affecting aerosol therapy in neonatal and pediatric ventilated patients. (2)

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# Question Paper

Exam Date & Time: 14-Dec-2018 (02:00 PM - 04:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

**THIRD SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - DECEMBER 2018**  
**SUBJECT: BRES 205 - PULMONARY DISEASES**  
**(2016 SCHEME)**  
**Friday, December 14, 2018 (14.00 - 16.00)**

**Marks: 50**

**Duration: 180 mins.**

- 1) Define ARDS. List out the pulmonary and extra pulmonary causes and the pathophysiological mechanisms. (10)  
(2+3+5 = 10 marks)
- 2) Enumerate on the cardiopulmonary and the clinical manifestation's associated with drowning and explain the general management. (10)  
(2+8 = 10 marks)

### 3. Write short notes on:

- 3A) Diagnostic tests used to detect Tuberculosis. (5)
- 3B) Discuss the GOLD criteria for COPD. (5)
- 3C) Pathophysiology of Guillain Barre syndrome. (5)
- 3D) Reid classification of Bronchiectasis. (5)

### 4. Very short answer questions:

- 4A) List any two opportunistic yeast pathogens causing lung infections. (2)
- 4B) List the major pathological changes associated with pulmonary air leak syndrome. (2)
- 4C) What is asbestosis? (2)
- 4D) What is Type II respiratory failure? (2)
- 4E) What is absorption atelectasis? (2)

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# Question Paper

Exam Date & Time: 06-Dec-2018 (02:00 PM - 04:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

**THIRD SEMESTER B.O.T./ B.Sc. P.F.T./ BPT/ B.Sc. C.V.T./B.Sc. R.T./ B.Sc. M.I.T./ B.Sc. RRT&DT  
DEGREE EXAMINATION - DECEMBER 2018  
SUBJECT : MICR 201 - MICROBIOLOGY  
(2016 SCHEME)  
Thursday, December 06, 2018 (14.00 - 16.00)**

**Answer ALL questions:**

**Marks: 50**

**Duration: 120 mins.**

- 1) With a labelled diagram explain the cell wall of gram positive and gram negative bacteria. (10)  
(5+5 = 10 marks)
- 2) Explain the etio-pathogenesis and laboratory diagnosis of cholera. (10)  
(1+4+5 = 10 marks)
- 3) **Write short notes on:**
  - 3A) Laboratory diagnosis of HIV infection (5)
  - 3B) Bacterial growth curve (5)
  - 3C) Pathogenesis of poliomyelitis (5)
  - 3D) Laboratory diagnosis of viral infections (5)
- 4) **Answer the following questions:**
  - 4A) Indirect immunofluorescence test (2)
  - 4B) Clinical features of urinary tract infections (2)
  - 4C) Types of vaccines with examples (2)
  - 4D) Classification of PUO (2)
  - 4E) Morphology of Entamoeba histolytica (2)

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## MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B.O.T./ B.Sc. P.F.T./ BPT/ B.Sc. M.R.T./B.Sc. C.V.T./B.Sc. R.T./ B.Sc. M.I.T./B.Sc.  
RRT&DT DEGREE EXAMINATION - DECEMBER 2018  
SUBJECT : PATH 201 - PATHOLOGY  
(2016 SCHEME)  
Monday, December 03, 2018 (14.00 - 16.00)

Answer ALL questions:

Marks: 50

Duration: 120 mins.

- 1A) Define necrosis. List any three types of necrosis with examples. (5)  
(2+3 = 5 marks)
- 1B) Define granuloma and illustrate it with a suitable diagram. Enumerate the causes of granulomatous inflammation. (5)  
(3+2 = 5 marks)
- 2A) Describe the predisposing factors and complications of atherosclerosis. (5)
- 2B) Describe the aetiology and clinical features of rheumatic heart disease. (5)
- 3A) Differentiate between healing by primary and secondary intention with suitable examples. (5)
- 3B) Define embolism. Enlist the types of embolism. Write a note on the clinicopathological consequences of pulmonary thromboembolism. (5)  
(1+3+1 = 5 marks)
- 3C) i) Write a short notes on: Emphysema (5)
- 3C) ii) Write a short notes on: Jaundice (5)
- 4A) Mention the confirmatory tests for iron deficiency anaemia and thalassaemia. (2)
- 4B) List four features of a malignant tumour. (2)
- 4C) List four complications of diabetes mellitus. (2)
- 4D) List four features of nephrotic syndrome. (2)
- 4E) List four causes of thrombocytopenia. (2)

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