

# Question Paper

Exam Date & Time: 05-Jan-2021 (02:30 PM - 04:30 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - JANUARY 2021  
SUBJECT: BRES 301 - MECHANICAL VENTILATION I  
(2016 SCHEME)

Answer ALL questions.  
Draw diagrams as necessary

MECHANICAL VENTILATION I [BRES 301 - 2016]

Marks: 50

Duration: :

Long answer question.

- 1A) **Prone position ventilation**  
Indications, Contraindication and possible Complications during prone Position ventilation
- 1B) **Prone position ventilation**  
Explain the mechanism by which proning improves oxygenation in a patient with ARDS
- 2) Hemodynamic monitoring of mechanically ventilated patients

3. Short notes:

- 3A) Role of Permissive Hypercapnia during mechanical ventilation
- 3B) What are the different types of flow patterns? Name the commonly used flow pattern and why?
- 3C) How to set initial ventilatory setting during Pressure control ventilation ?
- 3D) List the different levels of alarms with an example for each

4. Very short notes:

- 4A) Mention the normal value of Compliance and Resistance in intubated and mechanically ventilated patients for male and female patients.
- 4B) What are Lower and Upper inflection points
- 4C) What is plateau pressure
- 4D) List four contra-indications for the use of HME's
- 4E) Ventilator graph for auto PEEP

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# Question Paper

Exam Date & Time: 07-Jan-2021 (02:30 PM - 04:30 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - JANUARY 2021  
SUBJECT: BRES 303 - HEALTHCARE MANAGEMENT AND LAW  
(2016 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

### 1. Long Essay Questions:

- 1A) Explain Henri Fayol's principles of management. (10)  
1B) Discuss on Disaster management protocol. Explain the triage process during disasters. (10)

### 2. Short Answer Questions:

- 2A) Explain Abraham Maslow's contribution to motivational theories. (5)  
2B) Discuss on types of Negligence in medical practise. What are its remedies? (5)  
2C) What are nosocomial infections? Discuss few ways of controlling them. (5)  
2D) Discuss on complaint handling procedure of a hospital. (5)

### 3. Short Questions :

- 3A) Define cybercrime. (2)  
3B) Name the types of maintenance programs of equipment. (2)  
3C) Mention ways of Social marketing in healthcare services. (2)  
3D) Expand TQM, CQI. (2)  
3E) What is Consumer Protection Act? Is it applicable to healthcare sector? (2)

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# Question Paper

Exam Date & Time: 09-Jan-2021 (02:30 PM - 04:30 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - JANUARY 2021  
SUBJECT: BRES 305 - NEONATAL RESPIRATORY CARE  
(2016 SCHEME)

All questions are compulsory  
Draw neat labelled diagram wherever required.

Marks: 50

Duration: 120 mins.

- 1) Write in detail about pathophysiology and management of meconium aspiration syndrome. (10)  
(5+5 = 10 marks)
- 2) A 28 weeks old is born by caesarean section to a primigravida mother. At birth, baby had a weak cry (10)  
with minimal respiratory effort.
  - i) What is the initial management in first 30 seconds of birth?
  - ii) What are the different techniques to measure Heart rate? Calculate the heart rate if you hear 8 beats.
  - iii) What will be the further management?  
(4+2+4 = 10 marks)
- 3A) Methods to assess oxygenation in NICU. (5)
- 3B) Classify RDS based on chest radiograph. (5)
- 3C) Discuss the management of congenital diaphragmatic hernia. (5)
- 3D) Explain the components of APGAR score (5)
- 4A) Define Apnea of Prematurity (AOP). (2)
- 4B) What is cold stress? (2)
- 4C) Mention TWO most commonly used non-invasive respiratory support systems in NICU. (2)
- 4D) Calculate the loading dose of curosurf for 1.5 kg neonate (2)
- 4E) List two complications of hyperoxia in neonate. (2)

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# Question Paper

Exam Date & Time: 12-Jan-2021 (02:30 PM - 04:30 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - JANUARY 2021  
SUBJECT: BRES 307 - CRITICAL CARE MONITORING AND MANAGEMENT  
(2016 SCHEME)

Marks: 50

Duration: 120 mins.

### Long Notes:

- 1) A 63-year-old patient was awaiting discharge at your hospital for a diabetes mellitus-related complication when she suddenly started to slur her speech and present facial asymmetry since past ten minutes. What is the most likely clinical condition? Describe the management for this patient. (10)  
(2+8 = 10 marks)
- 2) You are called to Cardiology ICU to assess a 60 year old patient experiencing chest pain and diaphoresis. Patient gives history of diabetes mellitus and IHD since 20 years. Heart rate: 170 bpm, BP: 110/60 mmHg, SPO<sub>2</sub>- 93% on room air. Patient started experiencing light headedness during detailed examination. What could be the possible clinical condition? Outline the management. (10)  
(2+8 = 10 marks)

### 3. Short Notes:

- 3A) Pathophysiology on cardiogenic shock. (5)
- 3B) Zeroing of PA Catheter. (5)
- 3C) Write a note on Adrenaline drug. (5)
- 3D) Write a note on renal replacement therapy. (5)

### 4. Very Short Notes:

- 4A) What does the pacemaker code VVI indicate? (2)
- 4B) Mention the NYHA classification for heart failure. (2)
- 4C) How do you calculate ICP? (2)
- 4D) Draw an ECG depicting Ventricular Fibrillation. (2)
- 4E) During your assessment on a patient being treated for pneumothorax, you note new bubbling in the ICD water seal chamber. What would you do to determine where this air leak is from? (2)

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