

Question Paper

Exam Date & Time: 25-Feb-2020 (02:00 PM - 04:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - FEBRUARY 2020
SUBJECT: BRES 301 - MECHANICAL VENTILATION - I
(2016 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) What is respiratory failure? What are the types of respiratory failure? Ventilator management of acute exacerbation of COPD. (2+3+5 = 10 marks) (10)
- 2) **Explain the following terms:** (10)
a) Compliance
b) Resistance
c) Time constant
d) Equal Pressure Point
- 3) **Write short essay on:**
- 3A) Name the phase variables in mechanical ventilation. Explain on any two. (5)
3B) Write a note on SIMV mode of ventilation. (5)
3C) Write briefly about humidification therapy during mechanical ventilation. (5)
3D) Ventilatory graphics for leak and auto-PEEP. Write the causes and management of auto-PEEP. (5)
- 4) **Write short notes on:**
- 4A) Write the formula for calculating static and dynamic compliance. (2)
4B) Write four indications for the use of closed suction system. (2)
4C) Ventilator related factors that affects aerosol delivery during mechanical ventilation (2)
4D) Write the formula and normal value of arterial oxygen content. (2)
4E) What is mean airway pressure? Write the formula to calculate mean airway pressure. (2)

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Question Paper

Exam Date & Time: 26-Feb-2020 (02:00 PM - 04:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - FEBRUARY 2020
SUBJECT: BRES 307 - CRITICAL CARE MONITORING AND MANAGEMENT
(2016 SCHEME)

Marks: 50

Duration: 120 mins.

Long notes:

- 1) A 58-year-old female with history of uncontrolled Hypertension, Type II DM since 30 years and impaired renal function; came to Emergency Triage with history of SOB and peripheral oedema. Patient is alert and oriented with BP 193/98 mmHg, Pulse 98 bpm. Laboratory investigations are: BUN 103 mg/dL, Creatinine 8 mg/dL, Potassium 6 mEq/L. What could be her likely diagnosis and explain the management. (2+8 = 10 marks) (10)
- 2) Discuss about any two inotropic agents used in treatment of Shock. (10)

3) Short notes:

- 3A) Management of stroke (5)
- 3B) Explain the pathophysiology of Congestive Heart Failure. (5)
- 3C) Write a short note on ICP monitoring. (5)
- 3D) Outline the management of Ventricular Tachycardia. (5)

4) Very short notes:

- 4A) Draw a CVP waveform. (2)
- 4B) What is pacemaker syndrome? (2)
- 4C) Mention four indications for ICD placement. (2)
- 4D) What is pendelluft movement? (2)
- 4E) What is Targeted Temperature Management? (2)

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Exam Date & Time: 27-Feb-2020 (02:00 PM - 04:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - FEBRUARY 2020
SUBJECT: BRES 303 - HEALTHCARE MANAGEMENT AND LAW
(2016 SCHEME)

Marks: 50

Duration: 120 mins.

Long Essay Questions:

- 1) Describe various Leadership styles adopted by managers in healthcare system. (10)
- 2) Discuss on documentation process in medico-legal case management of road traffic accident patient in Emergency department. (10)

3) Short Answer Questions:

- 3A) Explain Abraham Maslow's theory of motivation. (5)
- 3B) Classify Occupational hazards with one example each. (5)
- 3C) Discuss on the importance of Laboratory information systems. (5)
- 3D) Describe the advantages of accreditation to top management, Doctors, Patients. (5)

4) Short Questions:

- 4A) Define Healthcare associated Infections. (2)
- 4B) Differentiate between Authority and Power (2)
- 4C) Classify three types of Organisations (2)
- 4D) Explain two policies under Minimum Wages Act. (2)
- 4E) What is Budget? How is it a Planning tool? (2)

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Question Paper

Exam Date & Time: 28-Feb-2020 (02:00 PM - 04:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH SEMESTER B.Sc. RESPIRATORY THERAPY DEGREE EXAMINATION - FEBRUARY 2020
SUBJECT: BRES 305 - NEONATAL RESPIRATORY CARE
(2016 SCHEME)

ALL questions are compulsory.
Draw neat labelled diagram wherever required.

Marks: 50

Duration: 120 mins.

Long Answer Question:

- 1) Describe composition and functions of pulmonary surfactant. (10)
(5+5 = 10 marks)
- 2) Enlist acyanotic and cyanotic congenital heart defects. (10)

3) Short notes:

- 3A) Explain the components of Downe's Score. (5)
- 3B) Define Bronchopulmonary dysplasia (BPD). What are the differences between old BPD and New BPD? (5)
(3+2 = 5 marks)
- 3C) Principles of High Frequency Ventilation (5)
- 3D) T-Piece Resuscitator (5)

4) Very short notes:

- 4A) Types of congenital diaphragmatic hernia (2)
- 4B) Calculate the level of ET tube fixation for a 2 kg neonate. (2)
- 4C) Write the definition of neutral thermal zone. (2)
- 4D) List causes of Persistent pulmonary hypertension of the newborn (PPHN). (2)
- 4E) Formula for oxygenation index (2)

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