

**Domain 1: Advanced Knowledge** 20%

Task A: Respiration and ventilation

- I. Gas exchange
- II. Respiratory drive (i.e. neural control, ventilatory response)
- III. Breathing patterns (i.e. apneustic, ataxic)
- IV. Monitoring
  - a. End-tidal CO<sub>2</sub>
  - b. Transcutaneous CO<sub>2</sub>
  - c. Pulse oximetry
  - d. Arterial blood gas

**Domain 2: Pathophysiology and Clinical Presentation** 30%

Task A: Sleep-related breathing disorders

- I. Obstructive Sleep Apnea Syndrome
  - a. Adult
  - b. Pediatric
  - c. Infant
- II. Central Sleep Apnea Syndrome
  - a. Primary central apnea
  - b. Cheyne Stokes breathing
  - c. High altitude periodic breathing
  - d. Treatment-emergent central sleep apnea
  - e. Medication or substance induced central sleep apnea
  - f. Apnea of prematurity
  - g. Central sleep apnea due to a medical condition or disorder (i.e. renal failure, brainstem injury, neurodegenerative disorders)
- III. Hypoventilation Syndrome
  - a. Obesity Hypoventilation Syndrome
  - b. Congenital Central Hypoventilation Syndrome (CCHS)
  - c. Rapid-onset obesity with hypothalamic dysfunction, hypoventilation and autonomic dysregulation (ROHHAD)
  - d. Medication or substance induced hypoventilation
  - e. Hypoventilation due to a medical condition or disorder (i.e. restrictive chest wall, neurological, neuromuscular disorders)

**Domain 3: Evaluation and Treatment** 50%

Task A: PAP therapy

- I. CPAP/APAP
- II. Bilevel
- III. Adaptive servo-ventilation (ASV)
- IV. Volume-targeted ventilation

Task B: Oxygen therapy

- I. Supplemental oxygen delivery
- II. Indications and complications of oxygen administration
- III. Contraindications

Task C: Oral appliance therapy

- I. Oral appliance
- II. Combination PAP and dental therapy

Task D: Neurostimulator therapy

- I. Hypoglossal nerve stimulation
- II. Phrenic nerve stimulation
- III. Intraoral tongue stimulation

Task E: Other treatment options

- I. High-flow nasal cannula
- II. Surgical considerations (i.e. nasal procedures, pharyngeal procedures)
- III. Behavioral therapy (i.e. cognitive behavioral therapy, positional)