**Appendix 3**

Study Questionnaire:

1. In s volume-controlled ventilation

A. Tidal volume is given according to a pre-set pressure target

B. If the inspiratory time is fixed, the peak and mean airway pressure is independent of pulmonary compliance

C. If the minute volume and frequency iset, it is not possible to adjust the tidal volume

D. If tidal volume and minute volume is set, the ventilator frequency must be set between 10 and 20 breaths per minute

2. Which is/are correct statements regarding the inspiratory time (Ti)

A. At the end-inspiratory time, the expiration phase always starts

B. If Ti is set by the Inspiration: Expiration ratio, the Ti is independent of ventilator frequency

C. If Ti is directly set, the expiratory time decreases with increasing ventilator frequency

D. Normal Ti is in the range of 3-4 seconds

3. Ventilation-induced lung injury may be minimised by the following:

A. Volume-controlled ventilation mode

B. Tidal Volume restriction to 6 ml/kg

C. Limit plateau pressure below 35 cmH2O

D. Limitation of PEEP below 5 cm/H2O

4. Regarding the I:E ratio (all true except)

A. Is normal set between 1:3 and 1:4

B. Should be lowered to decrease intrinsic PEEP

C. Increase I:E ratio may improve alveolar recruitment and oxygenation in ARDS

D. Adjustment of I:E ratio must be matched with respiratory frequency

5. Various methods to set optimal PEEP at the bedside include:

A. Arterial PaO2

B. Analysis of the pressure-volume curve (lower inflection point)

C. Recording of the oesophageal pressure to estimate transpulmonary pressure

D. Measurement of end-expiratory lung volume variations EDIC-style Type A

E. All the previous

6. Effective methods to decrease an elevated PaCO2 may include all of the following EXCEPT:

A. Increase tidal volume

B. Increase frequency

C. Decrease circuit dead space

D. Increase PEEP

E. Increase inspiratory pressure

7. Adverse effects of PEEP include the following EXCEPT:

A. Over distension of normal alveoli

B. Barotrauma

C. Decreased cardiac output

D. Increased intracranial pressure

E. Increased cyclic collapse of unstable alveoli

7. To increase oxygenation during IPPV all of the following are useful EXCEPT:

A. Increase FiO2

B. Increase PEEP

C. Decrease I:E ratio

D. Increase peak inspiratory pressure

E. Alveolar recruitment

8. Titrating PEEP levels in life-threatening asthma should include:

A. Limitation of PEEP below 5 cm/H2O

B. Zero PEEP level

C. Analysis of the pressure-volume curve (lower inflection point)

D. The analysis of static compliance

9. Expiratory pause allow to calculate:

A. Intrinsic PEEP

B. Plateau Pressure

C. Driving Pressure

D. Flow resistance

E. Peak Pressure

10. In volume-controlled ventilation, the peak inspiratory pressure increases when the patient’s:

A. compliance or airway resistance is increased.

B. compliance or airway resistance is decreased.

C. compliance is increased or airway resistance is decreased.

D. compliance is decreased or airway resistance is increased.