(LN 481) AUGUST 2018 **Sub. Code: 1481**

D.M. – CRITICAL CARE MEDICINE

Paper I – APPLIED BASIC MEDICAL SCIENCES ETHICS, COMMUNICATION / COUNSELLING

Q.P.Code: 161481

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Describe the implications of the physiological changes in pregnancy for the intensive care physician. How would you manage cardiac arrest in a 30 weeks pregnant mother?
2. How would you go about designing a phase three clinical trial of a drug in the intensive care unit?

II. Write notes on: **(10 x 7 = 70)**

1. What is the role of surrogates in the ICU?
2. What is the mechanism of oxygenation in a high frequency oscillator ventilator?
3. Give an overview on Starling's equation. Discuss briefly about role of glycocalyx in a critically ill patient.
4. What is oxygenation index and ventilation index? Discuss alveolar gas equation? What is the best way to quantify oxygenation in a critically ill patient?
5. What is "Conflict resolution"? How would you implement this in your clinical practice as an Intensivist?
6. What are the cardiopulmonary effects of Continuous positive airway pressure? How would you use this technique for the benefit of the patient with cardiogenic shock?
7. What do you mean by dead space in respiratory physiology? What factors in mechanical ventilation increases dead space? How would you calculate dead space?
8. Enumerate the approach of management of the airway of a 5 years old child who needs mechanical ventilation for hypoxemic respiratory failure. What is the difference in the airway between an adult and a 5 years old child?
9. Discuss the aetiology, diagnosis and management of clinically important Dyshaemoglobinemias.
10. Write a brief notes on the methods of cycling available in mechanical ventilators? What is SIMV period and spontaneous period?

****

(LP 481) AUGUST 2019 **Sub. Code: 1481**

D.M. – CRITICAL CARE MEDICINE

Paper I – APPLIED BASIC MEDICAL SCIENCES, ETHICS, COMMUNICATION / COUNSELLING

Q.P. Code: 161481

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Describe the principles and practices of post ICU care, follow-up and assessment and evidence based recommendations for the same.
2. Describe the conduct, relevant issues and practical limitations of conducting an institution sponsored randomized controlled trial in an India ICU.

II. Write notes on: **(10 x 7 = 70)**

1. What are the tools available for monitoring the central nervous system in an ICU setting?
2. What are the limitations of anatomical based approaches of vascular cannulation?
3. Draw and describe the normal arterial waveform and the changes which can be seen with the development of haemorrhagic shock in a young adult.
4. Describe pathophysiological diagnosis which can be made by utilizing the alveolar gas equation at the bedside.
5. Describe the effect of PEEP on work of breathing in normal and diseased states.
6. Describe common medications used in ICU which do not need dose modification in renal failure?
7. Discuss the causes and implications of thrombocytopenia in the second week of ICU stay in patients with no previous co-morbidities.
8. Discuss the statistical multi-variate methods commonly employed in ICU studies.
9. Discuss differences in perception of autonomy in Indian patients and care givers.
10. Discuss the correlation between clinical presentation and CSF findings in patients who present with fever and altered sensorium in your ICU.

****

(LQ 481) FEBRUARY 2020 **Sub. Code: 1481**

D.M. – CRITICAL CARE MEDICINE

Paper I – APPLIED BASIC MEDICAL SCIENCES, ETHICS, COMMUNICATION / COUNSELLING

Q.P. Code: 161481

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Detail the physiological interaction between abdominal pressure and its effects on circulatory and respiratory physiology. How do these interactions affect hemodynamics, ventilation and weaning in the clinical setting?

2. Describe in brief the four basic principles of healthcare ethics.

II. Write notes on: **(10 x 7 = 70)**

1. Glycaemic variability in critically ill.
2. Breaking bad news.
3. FOUR score in neuro critical care.
4. Briefly describe the types of hypoxia.
5. Cohort studies.
6. Air transport of critically ill patients.
7. Pharmacological basis of choice of vasoactive therapy in shock.
8. Pre-renal causes of renal injury with focus on a critically ill patient.
9. Lipid sink.
10. Time dependent killing.

****