[LJ 0816] AUGUST 2016 **Sub.Code :1216**

B.Sc. CRITICAL CARE TECHNOLOGY
(New Syllabus 2014-2015)

SECOND YEAR

Paper I – APPLIED ANATOMY AND PHYSIOLOGY

Q.P Code : 801216

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

Answer All Questions

I. Elaborate on: **(3 x 10 = 30)**

1. Explain the anatomy of Lungs in detail with the bronchopulmonary segments.
2. Write in detail about the physiology of breathing.
3. Describe the Cardiac cycle in detail.

II. Write Notes on: **(8 x 5 = 40)**

1. Diaphragm.
2. Write in detail about the anatomy of Pleura.
3. Aorta.
4. Circle of Willis.
5. Explain about the Pneumonia.
6. Cerebrospinal fluid.
7. Bronchoscopy.
8. Write in detail about the storage of Oxygen.

III. Short Answers on: **(10 x 3 = 30)**

1. Enumerate the intercostal muscles and their nerve supply.
2. Explain the valves of heart.
3. Describe the external features of l iver.
4. Draw the thyroid gland and label the parts.
5. Nerve supply of tongue.
6. What is mean arterial pressure?
7. What are the factors affecting the oxygen transport?
8. Write about the features of nomal X-Ray.
9. What is gag reflex?
10. What are the steps to minimize the nosocomial infections?

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[LK 0217] FEBRUARY 2017 **Sub.Code :1216**

B.Sc. CRITICAL CARE TECHNOLOGY
(New Syllabus 2014-2015)

SECOND YEAR

Paper I – APPLIED ANATOMY AND PHYSIOLOGY

Q.P Code : 801216

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

Answer All Questions

I. Elaborate on: **(3 x 10 = 30)**

1. Write in detail about the laryngopharynx.
2. Write in detail about acid-base balance.
3. Describe about acute respiratory distress syndrome (ARDS). Add a note on its radiological features.

II. Write Notes on: **(8 x 5 = 40)**

1. Describe the features of pneumothorax and hemothorax.
2. 3rd cranial nerve.
3. Write in detail about the anatomy of left lung.
4. Anatomy of oropharynx.
5. Describe the anatomy of spinalcord.
6. Explain the anatomy of ureter with its blood supply and nerve supply.
7. What are the hazards of oxygen?
8. Explain the airway clearance techniques.

III. Short Answers on: **(10 x 3 = 30)**

1. Lobar pneumonia.
2. Explain the respiratory movements.
3. Write about sedation.
4. Circle of willis.
5. What are the branches of aorta?
6. What are the subdivisions of nervous system?
7. Draw a diagram showing the external features of heart and label the parts.
8. What is the blood supply of thyroid gland?
9. What is blood pressure?
10. Explain the light reflex.

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[LL 0817] AUGUST 2017 **Sub.Code :1216**

B.Sc. CRITICAL CARE TECHNOLOGY
(New Syllabus 2014-2015)

SECOND YEAR

Paper I – APPLIED ANATOMY AND PHYSIOLOGY

Q.P Code : 801216

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

Answer All Questions

I. Elaborate on: **(3 x 10 = 30)**

1. Describe the increased intracranial pressure in detail, the clinical features and management.
2. Describe pneumonia, types, clinical features and their managements.
3. Describe the myocardium in detail with its special characters.

II. Write Notes on: **(8 x 5 = 40)**

1. Planes and regions of the abdomen.
2. Diaphragm.
3. Tracheo bronchial tree.
4. Urethra.
5. Thyroid.
6. Lung volumes and capacities.
7. Extubation – indications and its procedure.
8. Cardiac output – Factors affecting cardiac output.

III. Short Answers on: **(10 x 3 = 30)**

1. Ceberospinal Fluid.
2. O_2 uptake in tissues.
3. Injury to chest cavity.
4. Nasogastric tube.
5. Relieving airway obstruction.
6. Coronary circulation.
7. Lungs – Broncho pulmonary segments.
8. Meaning of the following terms:- Lateral, Medial, Anterior, posterior, Inferior, Symmetrical.
9. Pericardium.
10. Larynx.

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[LM 0218] FEBRUARY 2018 **Sub. Code: 1216**

B.Sc. CRITICAL CARE TECHNOLOGY
(New Syllabus 2014-2015 & 2015-2016)

SECOND YEAR

Paper I – APPLIED ANATOMY AND PHYSIOLOGY

Q.P Code : 801216

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

Answer All Questions

I. Elaborate on: **(3 x 10 = 30)**

1. Describe the anatomy of Lungs, root of lungs, pleura and blood supply
2. Describe the urinary bladder - the anatomy, relations, structure and Micturition.
3. Describe the various activities take place in cardiac cycle.

II. Write Notes on: **(8 x 5 = 40)**

1. Brain Death.
2. Circle of Willis.
3. Pancreas.
4. Chambers of the Heart.
5. Chest Cavity.
6. Homeostasis.
7. Mechanism of Hypoxia.
8. Normal ECG.

III. Short Answers on: **(10 x 3 = 30)**

1. Intercostal Muscles.
2. Oral Cavity.
3. Pericardium.
4. Coronary Circulation.
5. Ureter.
6. Oxygen – Transport, Factors affecting the transport.
7. Mention 3 artificial airways.
8. Haemothorax.
9. Blood Pressure.
10. Cranial Nerves.

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[LN 0818] AUGUST 2018 **Sub. Code: 1216**

B.Sc. CRITICAL CARE TECHNOLOGY
(New Syllabus 2014-2015 & 2015-2016)

SECOND YEAR

Paper I – APPLIED ANATOMY AND PHYSIOLOGY

Q.P Code : 801216

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

Answer All Questions

I. Elaborate on: **(3 x 10 = 30)**

1. Describe the mechanism and control of respiration.
2. Describe the conducting system of Heart and the cardiac failure.
3. Describe Acute Respiratory Distress Syndrome in detail

II. Write Notes on: **(8 x 5 = 40)**

1. Structure of Nephron and Formation of Urine.
2. Pulmonary oedema.
3. Endotracheal tubes – intubation.
4. Prevention of Nosocomial infections.
5. Vertebral Column.
6. Cardiac Cycle.
7. Autonomic nervous system.
8. Pleura and Pleural Effusion.

III. Short Answers on: **(10 x 3 = 30)**

1. Carbon di oxide transport.
2. Homeostasis.
3. Cardiac output.
4. Pupil: Accommodation reflex, light reflex.
5. Coma.
6. Aorta.
7. Hazards of Oxygen.
8. Valves of Heart.
9. Bronchoscopy.
10. Lung volume and capacities.

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[LO 0219] FEBRUARY 2019 **Sub. Code: 1216**

B.Sc. CRITICAL CARE TECHNOLOGY
(New Syllabus 2014-2015 & 2015-2016)

SECOND YEAR

Paper I – APPLIED ANATOMY AND PHYSIOLOGY

Q.P Code: 801216

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

Answer All Questions

I. Elaborate on: **(3 x 10 = 30)**

1. Describe the larynx under the following- cartilages, muscles, interior and nerve supply.
2. Describe the lung volumes and capacities.
3. Define cardiac output. Describe the factors affecting cardiac output.

II. Write Notes on: **(8 x 5 = 40)**

1. Right coronary artery.
2. Draw a labeled diagram of circle of Willis.
3. Internal features of kidney.
4. Pain pathway.
5. Typical intercostal space.
6. Extubation.
7. Describe normal Electrocardiogram.
8. Cerebrospinal fluid.

III. Short Answers on: **(10 x 3 = 30)**

1. Pleural recesses.
2. Semilunar valves.
3. Sympathetic nervous system.
4. Inferior vena cava.
5. Thyroid gland.
6. V/Q mismatch.
7. Airway clearance.
8. Hazards of oxygen.
9. Cough reflex.
10. Arrhythmias.

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[LP 0819] AUGUST 2019 **Sub. Code: 1216**

B.Sc. CRITICAL CARE TECHNOLOGY
(New Syllabus 2014-2015 & 2015-2016)

SECOND YEAR

Paper I – APPLIED ANATOMY AND PHYSIOLOGY

Q.P Code : 801216

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

Answer All Questions

I. Elaborate on: **(3 x 10 = 30)**

1. Draw a labeled diagram of circle of Willis. Describe the flow of cerebrospinal fluid. Describe the factors responsible for maintenance of intracranial tension.
2. Describe in detail the blood supply of the heart.
3. Describe oxygen transport. Explain the factors affecting oxygen transport. Add a note on oxygen dissociation curve.

II. Write Notes on: **(8 x 5 = 40)**

1. Intercostal muscles.
2. Piriform fossa.
3. Urinary bladder.
4. Pain pathway.
5. Chemical control of respiration.
6. Conduction system of heart.
7. Accommodation reflex.
8. Selection and establishing an artificial airway.

III. Short Answers on: **(10 x 3 = 30)**

1. Bicuspid valve.
2. Typical rib.
3. Parasympathetic nervous system.
4. Superior vena cava.
5. Suprarenal gland.
6. Dead space.
7. Vital capacity.
8. Gag reflex.
9. Brain death.
10. Pneumonia.

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[LQ 0220] FEBRUARY 2020 **Sub. Code: 1216**

B.Sc. CRITICAL CARE TECHNOLOGY
(New Syllabus 2014-2015 & 2015-2016)

SECOND YEAR

Paper I – APPLIED ANATOMY AND PHYSIOLOGY

Q.P Code : 801216

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

Answer All Questions

I. Elaborate on: **(3 x 10 = 30)**

1. Define blood pressure. Describe the factors responsible for maintenance of normal blood pressure.
2. Name the muscles of respiration. Describe the regulation of respiration.
3. Describe the kidney under the following- coverings, external features and internal features.

II. Write Notes on: **(8 x 5 = 40)**

1. Major openings of diaphragm.
2. Bronchopulmonary segments.
3. Left coronary artery.
4. Autonomic nervous system.
5. Name the parts of pleura. Describe the pleural recesses.
6. Airway maintenance.
7. Light reflex.
8. Describe normal electrocardiogram.

III. Short Answers on: **(10 x 3 = 30)**

1. Pericardial sinuses.
2. Tricuspid valve.
3. Coronary sinus.
4. Arch of aorta.
5. Pancreas.
6. Hypoxia.
7. Tidal volume.
8. Indications for artificial airway.
9. Oxygen delivery system.
10. Intra cranial tension.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0321] MARCH 2021 Sub. Code: 1216

(AUGUST 2020 EXAM SESSION)

B.Sc. CRITICAL CARE TECHNOLOGY

SECOND YEAR (From 2014-2015 and 2015-2016 onwards)

PAPER I – APPLIED ANATOMY AND PHYSIOLOGY

Q.P. Code : 801216

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(3 x 10 = 30)**

1. Write in detail about Cardiac Cycle.
2. Enumerate the anatomy, relations and Structure of Urinary Bladder.
3. Write in detail about the physiology of breathing.

II. Write Notes on: **(8 x 5 = 40)**

1. Chambers of the Heart.
2. Pulmonary Edema.
3. Normal ECG.
4. IVth Cranial Nerve.
5. Oxygen Delivery System.
6. Diaphragm.
7. Pneumonia.
8. Factors Affecting BP.

III. Short Answers on: **(10 x 3 = 30)**

1. Indication of Extubation.
2. Features of Normal X-Ray.
3. Hazards of Oxygen.
4. Explain the Light Reflex.
5. Spinal Cord.
6. IVC.
7. Basic Arrhythmias.
8. Nerve Supply of Tongue.
9. Inter-Costal Muscles.
10. Homeostasis.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0222] **FEBRUARY 2022** **Sub. Code: 1216**
(AUGUST 2021 EXAM SESSION)

B.Sc. CRITICAL CARE TECHNOLOGY
SECOND YEAR (From 2014-2015 & 2015-2016 onwards)
PAPER I – APPLIED ANATOMY AND PHYSIOLOGY
Q.P. Code : 801216

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(3 x 10 = 30)**

1. Describe Pneumonia types, clinical features and their management.
2. Describe various activities take place in cardiac cycle.
3. Write in detail about Acid Base Balance.

II. Write notes on: **(8 x 5 = 40)**

1. Cranial Nerves.
2. Pancreas.
3. Bronchopulmonary Segments.
4. Pulmonary oedema.
5. Neural regulation of Respiration.
6. Urethra.
7. Autonomic Nervous System.
8. Intubation.

III. Short answers on: **(10 x 3 = 30)**

1. Oral Cavity
2. Pericardium.
3. Nephrons
4. External features of Liver.
5. Acute Respiratory Distress Syndrome (ARDS).
6. Heart Sounds.
7. Nasogastric tube.
8. Haemothorax.
9. Blood Pressure.
10. Clubbing and its causes.

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