

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

[AHS 0321]

**MARCH 2021**

**Sub. Code: 1246**

**(AUGUST 2020 EXAM SESSION)**

**B.Sc. CRITICAL CARE TECHNOLOGY**

**SECOND YEAR (From 2018-2019 onwards)**

**PAPER I – ANATOMY+APPLIED ANATOMY AND PHYSIOLOGY**

***Q.P. Code : 801246***

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe Anatomy of Lungs, Root of Lungs, Pleura and Blood supply.
2. Describe the Structure, Anatomy and relations of Urinary Bladder. Write a note on Micturition.
3. Define Blood Pressure. Mention its normal values. Add a note on factors regulating it.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Homeostasis.
2. Diaphragm.
3. Functions of Liver.
4. Mechanism of hypoxia.
5. Artificial Airway.
6. Abnormal Hemoglobins.
7. Describe anatomy of Spinal cord.
8. Bronchoscopy.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Nose.
2. Parathyroid Gland.
3. Neural centers of respiration.
4. Ureter.
5. Muscle spindle.
6. Oxygen uptake by tissue.
7. Sternum.
8. Pleural Effusion.
9. Light Reflex.
10. Respiratory Rate.

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

**[AHS 0222]**

**FEBRUARY 2022  
(AUGUST 2021 EXAM SESSION)**

**Sub. Code: 1246**

**B.Sc. CRITICAL CARE TECHNOLOGY  
SECOND YEAR (From 2018-2019 onwards)  
PAPER I – ANATOMY+APPLIED ANATOMY AND PHYSIOLOGY  
*Q.P. Code : 801246***

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

[AHS 0922]

SEPTEMBER 2022

Sub. Code: 1246

(FEBRUARY 2022 & AUGUST 2022 EXAM SESSIONS)

**B.Sc. CRITICAL CARE TECHNOLOGY**  
**SECOND YEAR (Regulation from 2018-2019)**  
**PAPER I – ANATOMY + APPLIED ANATOMY & PHYSIOLOGY**  
*Q.P. Code : 801246*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe the heart under the following headings with suitable diagrams:  
a) Anatomical location b) External features c) Surface marking of cardiac valves and auscultatory areas d) Pericardium and its sinuses.
2. Define cardiac output. Mention its normal value. Add a note on factors regulating it.
3. Write in detail about Bronchopulmonary segments with a neat labelled diagram. Add a note on its applied anatomy.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Indications for Artificial airways.
2. Pleura.
3. Autonomic nervous system.
4. Applied anatomy of Thyroid gland.
5. Homeostasis.
6. Extubation.
7. Circle of Willis.
8. Cerebral autoregulation.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Anatomy of laryngopharynx.
2. Cardinal Anatomical planes.
3. Pain pathway.
4. Lung volume.
5. Hazards of oxygen.
6. Parts of excretory system.
7. Normal Blood pressure.
8. Cuff care.
9. Spinal Cord.
10. Arch of Aorta.

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

[AHS 0423]

APRIL 2023

Sub. Code: 1246

**B.Sc. CRITICAL CARE TECHNOLOGY**  
**SECOND YEAR (Regulation 2018-2019 onwards)**  
**PAPER I – ANATOMY + APPLIED ANATOMY & PHYSIOLOGY**  
*Q.P. Code: 801246*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe Coronary Circulation. Add a note on its Applied Anatomy.
2. Describe about Structure of Thyroid gland and its functions.
3. Discuss in detail about Oxygen therapy.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Indications for artificial airways.
2. Factors affecting Cardiac output.
3. ECG.
4. Pleura and Pleural Effusion.
5. Pain pathway.
6. Diaphragm.
7. How to maintain a normal blood pressure? Explain.
8. Circle of Willis.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Accommodation reflex.
2. Suprarenal gland.
3. Gag reflex.
4. Brain death.
5. V/Q mismatch
6. Laryngopharynx.
7. Ureters.
8. Stroke volume
9. Explain the terms : Medial, Lateral and Symmetrical.
10. Cerebrospinal fluid.

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