[LL 0817] AUGUST 2017 **Sub. Code: 2618**

B.Sc. RESPIRATORY THERAPY
(New Syllabus 2014 - 2015)

THIRD YEAR
PAPER III – LIFE SUPPORT SYSTEM

Q.P. Code: 802618

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

Answer all questions

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

1. Write the steps of administering BLS by a single health care practitioner.
2. Symptomatic Bradycardia management algorithm.
3. Airway management and maintaining ventilation.

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

1. CPR in a patient with implanted pacemaker or defibrillator.
2. Automated external defibrillator.
3. Hazards and complications of CPR.
4. Describe the method of carotid artery palpation in a person found unresponsive in hospital corridor.
5. Treatment of foreign body airway obstruction in an adult.
6. Ventricular tachycardia.
7. Cardioversion.
8. Patient care following resuscitation.

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

1. Write the name of 3 types of supra ventricular tacchycardias.
2. Write the site and manner of hands placement while doing CPR in an adult.
3. What should be the compression to Ventilation ratio while providing CPR to an adult?
4. What should be the compression rate while providing CPR to an adult?
5. What should be the depth of chest compressions while providing CPR to an adult?
6. After how many minutes of providing chest compression, respiratory therapist should be changed to avoid fatigue?
7. While providing CPR, if there is a palpable pulse, but no spontaneous breathing, what should be the rescue breathing rate?
8. During CPR, with external chest compression, approximately what fraction of normal cardiac output can be usually produced?
9. During CPR, after delivering one shock with AED for Ventricular Fibrillation, what should be the next most appropriate step in patient management?
10. Write the dose of Epinephrine during ACLS.

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[LM 0218] FEBRUARY 2018 **Sub. Code: 2618**

B.Sc. RESPIRATORY THERAPY
(New Syllabus 2014 - 2015)

THIRD YEAR

PAPER III – LIFE SUPPORT SYSTEM

Q.P. Code: 802618

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

Answer all questions

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

1. Ethical aspects of CPR.
2. Shock assessment and management – ATLS perspective.
3. Congestive heart failure.

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

1. Compartment syndrome.
2. Central cord syndrome.
3. Cardioversion.
4. Criteria for termination and resuscitative efforts.
5. E-FAST.
6. Atrial fibrillation.
7. Lidocaine.
8. Contraindication to thrombolysis.

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

1. Damage control resuscitation.
2. E-CPR.
3. Wenckebach’s phenomenon.
4. Base of skull fracture.
5. Pericardiocentesis.
6. Tension pneumothorax.
7. Sodium bicarbonate.
8. Amiodarone.
9. Ventricular tachycardia.
10. Respiratory arrest algorithm.

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[LN 0818] AUGUST 2018 **Sub. Code: 2618**

B.Sc. RESPIRATORY THERAPY
(New Syllabus 2014 - 2015)

THIRD YEAR

PAPER III – LIFE SUPPORT SYSTEM

Q.P. Code: 802618

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

Answer all questions

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

1. Thoracic trauma – primary survey ATLS perspective.
2. Acute coronary syndrome – pathophysiology, clinical features, diagnosis and management.
3. Bradycardia and tachycardia algorithm.

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

1. Pericardiocentesis.
2. High quality CPR.
3. Defibrillation.
4. Pacing : types, indication and contraindication.
5. Streptokinase.
6. Pelvis fracture.
7. Withdrawal.
8. Cricothyrotomy.

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

1. Cardiac tamponade.
2. Pericardial thump.
3. Dobutamine.
4. ICD.
5. BLS – cardiac arrest algorithm.
6. Manual inline stabilization.
7. Mapleson D circuit.
8. Allen’s test.
9. Verapamil.
10. Cushings triad.

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[LO 0219] FEBRUARY 2019 **Sub. Code: 2618**

B.Sc. RESPIRATORY THERAPY
(New Syllabus 2014 - 2015)

THIRD YEAR

PAPER III – LIFE SUPPORT SYSTEM

Q.P. Code: 802618

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

Answer all questions

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

1. Primary survey.
2. Shockable and non shockable rhythm.
3. Pathophysiology and management of acute inferioposterior wall MI.

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

1. LMA.
2. Mild therapeutic hypothermia.
3. Invasive CPR.
4. C-spine injury.
5. Pulmonary artery catheter.
6. Monro kellie hypothesis.
7. Triage.
8. Beck's triad.

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

1. Adenosine.
2. Autonomy.
3. Neurogenic shock.
4. Open pneumothorax.
5. Diagnostic peritoneal lavage.
6. AED.
7. Digoxin.
8. Percussion pacing.
9. Hagen poiseuille's law.
10. Right ventricular failure.

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[LP 0819] AUGUST 2019 **Sub. Code: 2618**

B.Sc. RESPIRATORY THERAPY
(New Syllabus 2014 - 2015)

THIRD YEAR

PAPER III – LIFE SUPPORT SYSTEM

Q.P. Code: 802618

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

Answer all questions

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

1. Write in detail about CPR, science of CPR, complications of CPR and elaborate on alternative CPR techniques.
2. Management of VT with pulse and without pulse-explain in detail with algorithm.
3. Write in detail about Defibrillators, types of Defibrillators and give a detailed note on cardioversion.

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

1. Reversible causes following cardiac arrest.
2. Pulseless electrical activity and its causes.
3. Reperfusion therapy.
4. Tension pneumothorax-Clinical picture and management.
5. Targeted Temperature Management.
6. Primary survey in ATLS.
7. Steps employed for apnea testing for evaluation of brainstem functionality.
8. Rapid Response Team.

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

1. Amiodarone.
2. ETCO2 uses and recommendations in Cardiac arrest.
3. Compression ventilation ratio in infant single rescuer and double rescuer.
4. MILS.
5. MEWS score.
6. AMPLE.
7. Adenosine.
8. DNR.
9. Ventilatory goals of Traumatic Brain Injury patients.
10. Cushing's Triad.

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[LQ 0220] FEBRUARY 2020 **Sub. Code: 2618**

B.Sc. RESPIRATORY THERAPY
(New Syllabus 2014 - 2015)

THIRD YEAR

PAPER III – LIFE SUPPORT SYSTEM

Q.P. Code: 802618

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

Answer all questions

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

1. Write in detail about ATLS and briefly about c-spine injury and its management?
2. Define shock, classify and enumerate the causes. Write a detailed note on cardiogenic shock.
3. Note on role of respiratory therapist in in-hospital cardiac arrest and how will you monitor the quality of CPR? Write briefly on transport of cardiac arrest patient.

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

1. Acute coronary syndrome.
2. ETCO2 and its role in CPR.
3. Write a detailed note on pacemaker and various pacing modules.
4. Write a short note on combitube.
5. How to confirm the effectiveness of cardiac compression and artificial respiration?
6. What are the shockable rhythms and how will you administer a shock?
7. SELLICK'S maneuver, BURP.
8. CPR in pregnancy.

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

1. Why did they change ABC to CAB in cardiac resuscitation?
2. Thrombolytic agents.
3. Pericardiocentesis – indications.
4. Cricothyroidotomy.
5. I – gel.
6. PEA.
7. Complications of CPR.
8. Define STEMI and its criteria.
9. Amiodarone.
10. DNR (Do not resuscite) / DNI (Do not intubate).

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

[LR 1220] **DECEMBER 2020** **Sub. Code: 2618**
(AUGUST 2020 EXAM SESSION)

BACHELOR IN RESPIRATORY THERAPY
THIRD YEAR – (Regulation from 2014-2015)
PAPER III – LIFE SUPPORT SYSTEM
Q.P. Code: 802618

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

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

1. List various tachyarrhythmias and elaborate on ventricular tachycardia and its management?
2. BLS and steps for cardiopulmonary resuscitation in various age groups?
3. Assessment of trauma patients, and management of respiratory failure?

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

1. Chest compressions under special circumstances.(eg., near drowning)
2. One versus Two rescuer adult cardiopulmonary resuscitation.
3. Glasgow coma scale.
4. Evaluating effectiveness of foreign body removal.
5. Pharyngeal airways.
6. Heimlich Maneuver.
7. ACLS.
8. Goals of advanced airway.

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

1. Indications and contraindications of Atropine in ACLS.
2. Patients care after resuscitation.
3. Tension pneumothorax.
4. Cardiac arrest.
5. Basic respiratory care in bedridden trauma patients.
6. Flail chest.
7. Defibrillators and its types.
8. Dopamine.
9. Bradyarrhythmias.
10. Cardioversion.

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

[AHS 0122] JANUARY 2022 Sub. Code: 2618
(FEBRUARY 2021 & AUGUST 2021 EXAM SESSION)

B.Sc. RESPIRATORY THERAPY
THIRD YEAR (Regulation from 2014-2015)
PAPER III – LIFE SUPPORT SYSTEM
Q.P. Code: 802618

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

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

1. Algorithm for pulseless electrical activity.
2. Bag & mask devices & its design, uses, hazards.
3. Congestive heart failure.

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

1. Mouth – Stoma ventilation.
2. Hazards & Complications of CPR.
3. E-FAST.
4. Type I hypoxemic respiratory failure.
5. Advantages & Disadvantages of SIMV.
6. Ventilation perfusion mismatch.
7. Causes of sudden respiratory distress.
8. 3 types of electrical therapy used in emergency cardiac care.

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

1. Heimlich maneuver.
2. Mention 3 chronic causes of non invasive ventilation.
3. Adenosine.
4. Contra indications for CPR.
5. Amiodarone.
6. Techniques of hand positions for chest compression.
7. Wenckebach’s phenomenon.
8. Ventricular Tachycardia.
9. Dobutamine.
10. Mapleson ‘D’ circuit.

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

[AHS 0922] SEPTEMBER 2022 Sub. Code: 2618
(FEBRUARY 2022 & AUGUST 2022 EXAM SESSIONS)

B.Sc. RESPIRATORY THERAPY
THIRD YEAR (Regulation from 2014-2015)
PAPER III – LIFE SUPPORT SYSTEM
Q.P. Code: 802618

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

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

1. ACLS Algorithm to approach Narrow complex QRS tachycardia.
2. Complications of Mechanical Ventilation.
3. Write in details about Defibrillators, types of defibrillators and note on cardioversion.

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

1. Steps of BLS by single health practitioner.
2. Wrap around technique.
3. Chest compression procedure for Near Drowning and Electrical shock.
4. Airway opening maneuvers for children and adult.
5. Mouth – nose ventilation.
6. How do you evaluate effectiveness of CPR?
7. Drugs for ACLS.
8. Chronic respiratory failure.

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

1. CPAP.
2. Three clinical objectives of Ventilator support.
3. Equipments for NIV.
4. Back blow and chest thrust.
5. DNR.
6. Three causes for acute non invasive ventilation.
7. Indications for ECMO.
8. Cushing’s triad.
9. Adrenaline.
10. Cardiac tamponade.

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

[AHS 0423] **APRIL 2023** **Sub. Code: 2618**

B.Sc. RESPIRATORY THERAPY
THIRD YEAR (Regulations 2014-2015 & 2018-2019 onwards)
PAPER III – LIFE SUPPORT SYSTEM
Q.P. Code: 802618

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

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

1. Describe Cardiac Arrest and Management of Pulseless Arrest.
2. Describe steps to manage an Obstructed Airway and the Airway Adjuncts used in the management.
3. Describe steps and management of Adult Basic Life Support (Adult BLS).

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

1. Steps and management of Infant Basic Life Support (BLS in an infant).
2. What is Defibrillation? Describe the types of Defibrillators.
3. AED and steps to operate an AED.
4. What is Respiratory Arrest and describe the management of Respiratory Arrest.
5. Laryngeal Mask Airway (LMA).
6. Mild Therapeutic Hypothermia.
7. Invasive CPR.
8. C-spine injury.

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

1. Tension pneumothorax.
2. Diagnostic Peritoneal Lavage.
3. Cardioversion.
4. Atropine.
5. Adenosine.
6. Ventricular fibrillation.
7. Neurogenic shock.
8. Focused Abdominal Sonography in Trauma (FAST).
9. Rapid Response Team (RRT).
10. Choking.

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

[AHS 1123] **NOVEMBER 2023** **Sub. Code: 2618**

B.Sc. RESPIRATORY THERAPY
THIRD YEAR (Regulations 2014-2015 & 2018-2019 onwards)
PAPER III – LIFE SUPPORT SYSTEM
Q.P. Code: 802618

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

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

1. Algorithm for Pulseless Electrical Activity.
2. Acute Coronary Syndrome - pathophysiology, clinical features and management.
3. Airway management and maintain Ventilation.

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

1. Hyper capnic respiratory failure.
2. Causes of sudden respiratory distress.
3. Advantages and Disadvantages of pressure controlled ventilation.
4. Ventilator Associated Pneumonia.
5. Three types of electrical therapy used in emergency cardiac care.
6. Atelectasis.
7. Pacing types and contra indications.
8. Cervical spine injuries.

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

1. Intermittent mandatory ventilation.
2. Digoxin.
3. Right ventricular failure.
4. ICD.
5. Streptokinase.
6. Sellick’s maneuver.
7. Glasgow coma scale.
8. Base of skull fracture.
9. Flail chest.
10. Atrial fibrillation.

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