

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

**[AHS 1022]**

**OCTOBER 2022**

**Sub. Code: 1731**

**M.Sc. CRITICAL CARE TECHNOLOGY  
THIRD YEAR (Candidates admitted from 2017-2018 onwards)  
PAPER I – ADVANCED CRITICAL CARE PART I  
BRANCH II – GENERAL CRITICAL CARE AND CARDIAC**

***Q.P.Code:281731***

**Time: Three hours Answer All Questions**

**Maximum: 100 Marks**

**I. Elaborate notes on:**

**(2 X 20 = 40)**

1. Rheumatic fever
  - a) Incidence and pathogenesis of acute rheumatic fever
  - b) Elaborate Jones criteria
  - c) Investigations of acute rheumatic fever
  - d) Management of acute rheumatic fever
2. Define shock. Write in detail about:
  - a) Types of Shock
  - b) Haemodynamic pattern of shock
  - c) Management of shock
  - d) A 45-year-old male was stung by a bee on golf course and collapses. Her skin was warm and flushed and the systolic blood pressure was 60mm Hg. Write a note on the diagnosis.

**II. Write Short Notes on:**

**(10 X 6 = 60)**

- 1) Bronchoscopy.
- 2) Euthanasia.
- 3) Mobile critical care unit.
- 4) Coronary circulation.
- 5) A 31-year-old female patient, with a known case of epilepsy for 10 years on irregular treatment, was brought to emergency department with recurrent generalized tonic clonic seizures and not regaining consciousness for half an hour. How will you treat her?
- 6) Cardiac rehabilitation.
- 7) Anti-hypertensive agents.
- 8) Preoperative assessment and preparation of cardiac surgery patient.
- 9) Management of tension pneumothorax.
- 10) Burn out syndrome.

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THIRD YEAR (From 2020-2021 onwards)  
PAPER I – ADVANCED CRITICAL CARE PART - I  
BRANCH II – GENERAL CRITICAL CARE AND CARDIAC**

***Q.P. Code: 281731***

**Time: Three hours**

**Answer All Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 X 20 = 40)**

1. Discuss in detail about Cardiac tamponade its causes, clinical features and management.
2. Define Angina pectoris and explain etiology, pathophysiology, clinical manifestations, diagnosis and treatment.

**II. Write Short Notes on:**

**(10 X 6 = 60)**

1. Pulmonary fibrosis- Definition, pathogenesis, clinical features, diagnostic criteria and management.
2. Describe the various methods of cardiac output determination in detail. List their advantages and disadvantages.
3. Fick's principle.
4. Postural drainage and chest physiotherapy in bronchiectasis.
5. Oximetry findings in a Patent ductus arteriosus indication of coronary angioplasty.
6. Swan Ganz catheter.
7. Complications of diagnostic cardiac catheterization.
8. Hypoventilation – definition, causes and management.
9. Pulmonary angiogram.
10. Cardiac pressure monitoring in lab.

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