

Total number of printed pages-8

34 (4) CRCP 4-3

2018

**CARDIORESPIRATORY  
PHYSIOTHERAPY**

Full Marks : 100

Time : Three hours

***The figures in the margin indicate  
full marks for the questions.***

- I. Essay Type : (*any two*) 10×2=20
1. What is pulmonary rehabilitation ? What are its benefits ? Explain the stages of pulmonary rehabilitation.
  2. A 52 year old male underwent CABG for his triple vessel disease; he stayed in CCU for 3 days, now he is shifted to cardiology ward. Write the PT management for the patient.
  3. For a 43 year old female, with a known case of COPD, cholecystectomy was done. What will be the PT management for the patient after her operation from Day 1 ?

*Contd.*

II. Short Essay Type : **(any ten)** 5×10=50

1. What is an incentive spirometer ? Explain.
2. How is endotracheal suctioning performed ? What are its indications ?
3. What is ARDS ? Discuss the causes and symptoms of ARDS.
4. Write a short note on flutter device.
5. Discuss the PT management for a patient with grade 3 breathlessness (mMRC grading system).
6. Write the physiotherapist's role with regard to chest tube.
7. What are the different apparatus, airways and tubes used in the ICU ?
8. Describe the process of humidification.
9. How to care for a leprosy patient ? Write the prosthetic and orthotic devices used by a leprosy patient.
10. Discuss the PT Management for acyanotic heart disease.
11. Explain neonatal CPR (cardiopulmonary resuscitation).
12. Write the PT management following lobectomy.

III. Short Answer : **(any five)** 2×5=10

1. What is a metered dose inhaler ?
2. Explain briefly the stages of autogenic drainage.
3. What are the different lung volumes and their normal values (with diagram)?
4. Describe Allen's test.
5. Which UVR therapy is useful in case of hair loss ? Mention the dosage.
6. Explain briefly the function of a nebuliser.
7. How to drain the superior and inferior lingula of a lung ?

IV. Multiple Choice Questions : 20×1=20

1. Mediastinal shift to contralateral side is associated with :
  - (a) Atelectasis
  - (b) Pleural Effusion
  - (c) Lobectomy
  - (d) Pneumonectomy.

2. Inferior wall ischemia produces changes in leads :

- (a) II
- (b) III
- (c) aVF
- (d) All of the above.

3. The classic FCG changes in MI (myocardial infarction) are —

- (a) T-wave inversion
- (b) ST-segment elevation
- (c) Development of an abnormal Q-wave
- (d) All of the above.

4. Restrictive lung disease is best defined by which of the following parameters ?

- (a) A reduced diffusion capacity
- (b) A reduced forced expiratory flow for 1 sec. (FEV1)
- (c) A reduced forced vital capacity (FVC)
- (d) A reduced total lung capacity (TLC)

5. X-Ray of chest in empyema includes all of the following concept :

- (a) Shift in mediastinum
- (b) Cardiomegaly
- (c) Obliteration of costophrenic angle
- (d) Varying degree of specification.

6. The goal of cardiac rehab is to help you :

- (a) Regain strength
- (b) Prevent future heart events
- (c) Have greater control over your health
- (d) All of the above.

7. Which of the following is not true about breathing exercises ?

- (a) Diaphragmatic breathing is used to increase ventilation
- (b) Improve gas exchange
- (c) Increase work of breathing (WOR)
- (d) Improve mobility of chest.

8. Bronchodilators —

- (a) Open your airways
- (b) Close your airways
- (c) Narrow your airways
- (d) Block your airways.

9. The maximum volume of air contained in the lung by a full forced inhalation is called —

- (a) Vital capacity (VC)
- (b) Tidal volume (TV)
- (c) Total lung capacity (TLC)
- (d) Inspiratory capacity (IC)

10. A person was admitted in a hospital in coma. Analysis of ABG gave the following values :

pH = 7.50,  $\text{HCO}_3^- = 40 \text{ m mol/L}$ ,  
 $\text{PCO}_2 = 32 \text{ mmHg}$

What is the underlying acid base disorder ?

- (a) Metabolic acidosis
- (b) Respiratory acidosis
- (c) Metabolic alkalosis
- (d) Respiratory alkalosis.

11. Name the anti-inflammatory drug amongst them :

- (a) Diclofenac
- (b) Ramipril
- (c) Salbutamol
- (d) Terbutaline.

12. Wound healing is worst at :

- (a) Sternum
- (b) Anterior neck
- (c) Eye lids
- (d) Lips.

13. Keloid scar is made up of —

- (a) Dense collagen
- (b) Loose fibrous tissue
- (c) Granulomatous tissue
- (d) Loose areolar tissue.

14. Normal percentage of oxygen at room air :

- (a) 21%
- (b) 15%
- (c) 18%
- (d) 30%

15. Contra-indications for flutter device use are :

- (a) Pneumothorax
- (b) COPD
- (c) Atelectasis
- (d) Cystic fibrosis.

16. Components of a metered dose inhaler are :

- (a) Canister
- (b) Propellant
- (c) Plastic holder
- (d) All of the above.

17. The following are commonly used modes of ventilation concept —

- (a) Volume controlled
- (b) Pressure controlled
- (c) Pressure support ventilation (PSV)
- (d) High frequency oscillatory ventilation.

18. Intercostal drainage is indicated in all of the following except —

- (a) Empyema
- (b) COPD .
- (c) Hydropneumothorax
- (d) Chylothorax.

19. The cardiac output (CO) in adult is approximately about per minute —

- (a) 5.3 litres
- (b) 4.5 litres
- (c) 6.0 litres
- (d) 5.8 litres

20. Airway clearance therapy is contraindicated in —

- (a) COPD
- (b) Asthma
- (c) Acute bronchiectasis
- (d) Rib fracture.