

BACHELOR OF PHYSIOTHERAPY (BPT)
SEMESTER -VIII EXAMINATION, SEPTEMBER- 2026

PHYSIOTHERAPY IN CARDIOVASCULAR, PULMONARY & INTENSIVE CARE

[Time allotted: Three Hours]

[Max Marks: 100]

Note: Read all the instructions carefully

Answer all questions in serial order. Draw suitable diagrams wherever necessary

Q. 1. Objective type questions: (Attempt All)**(10 x 02 = 20)**

(Very short/ short answer/ MCQ/ One liners/ Fill in the blanks/ True/False)

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| <p>a. Which of the following is commonly assessed during bedside respiratory physical examination?</p> <ol style="list-style-type: none"> i. Blood pressure ii. Chest expansion iii. Blood glucose level iv. GCS <p>b. ABG stands for:</p> <ol style="list-style-type: none"> i. Arterial blood gas ii. Arterial blood glucose iii. Airway blood gradient iv. Arterial breathing gauge <p>c. Which investigation measure lung volumes:</p> <ol style="list-style-type: none"> i. ECG ii. PFT iii. ABG iv. X-RAY <p>d. ECG is used primarily for:</p> <ol style="list-style-type: none"> i. Lung volume ii. Cardiac electric activity iii. Muscle strength iv. Oxygenation <p>e. Which technique is used for lung expansion?</p> <ol style="list-style-type: none"> i. Incentive spirometry ii. Massage iii. Cryotherapy iv. TENS <p>f. CPAP stands for:</p> <ol style="list-style-type: none"> i. Continuous positive airway pressure ii. Controlled pulmonary air pressure iii. Continuous pulmonary assistance iv. Controlled positive air pressure | <p>g. Which technique is used for airway secretion clearance?</p> <ol style="list-style-type: none"> i. Postural drainage ii. Joint mobilization iii. Stretching iv. Cryotherapy <p>h. ACBT stands for:</p> <ol style="list-style-type: none"> i. Active cycle of breathing technique ii. Assisted cycle breathing therapy iii. Active cardiac breathing iv. Airway clearance breathing technique <p>i. Which technique uses gravity to assist secretion drainage:</p> <ol style="list-style-type: none"> i. Postural drainage ii. Incentive spirometry iii. Pursed lip breathing iv. Deep breathing ex's <p>j. Which device provides positive expiratory pressure to help secretion clearance:</p> <ol style="list-style-type: none"> i. Flutter ii. Peak expiratory flow meter iii. Spirometer iv. Inspiratory muscle trainer |
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Q. 2. Short notes/ Short answer type questions (Attempt any Five)**(05 x 04 = 20)**

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| <p>a. Describe anatomical differences between adult and pediatric lung.</p> <p>b. Mention important components of bed side respiratory assessment.</p> <p>c. Write a short note on ABG (arterial blood gas) analysis and its components.</p> <p>d. Differentiate between flow and volume-based spirometry.</p> <p>e. Differentiate between obstructive and restrictive lung disease.</p> <p>f. Write components of pulmonary rehabilitation.</p> <p>g. Explain physiotherapy management of breathlessness.</p> | <p>CO1 PO1 PO5 PO8 PO9</p> <p>CO3 PO1 PO4 PO5 PO8 PO9</p> <p>CO2 PO1 PO5 PO8 PO9</p> <p>CO1 PO1 PO5 PO8 PO9</p> <p>CO1 PO1 PO5 PO8 PO9</p> <p>CO5 PO1 PO4 PO5 PO8 PO9</p> <p>CO1 PO1 PO4 PO5 PO8 PO9</p> |
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P.T.O.....

Q. 3. Structured questions (Attempt any Three)

(03 x 10 = 30)

- a. Explain respiratory assessment in terms of: CO 1 CO 2 PO1 PO2 PO5 PO8 PO9
- i. Define bedside respiratory assessment.
 - ii. Describe the importance components of respiratory assessment.
 - iii. Explain the importance of pulse oximeter and ABG in patient assessment.
- b. Explain lung expansion techniques: CO5 PO1 PO2 PO5 PO8 PO9
- i. Define lung expansion.
 - ii. Explain the technique and indication of incentive spirometry.
 - iii. Role of positioning and breathing ex's in improving lung expansion.
- c. Explain the following: CO5 PO1 PO2 PO5 PO8 PO9
- i. Define airway clearance.
 - ii. Explain postural drainage and percussion.
 - iii. Describe ACBT and its role in secretion clearance.
- d. Write the following: CO2 PO1 PO5 PO8 PO9
- i. Define dyspnea.
 - ii. Explain pursed lip breathing and breathing control
 - iii. Physiotherapy management for patient with SOB.

Q. 4. Long Answer/ Essay type questions (Attempt any Two)

(02 x 15 = 30)

- a. Write physiotherapy assessment in cardio-pulmonary conditions: CO3 PO1 PO4 PO8 PO9
- i. Describe in detail the subjective and objective assessment for cardio pulmonary disease.
 - ii. Explain importance and interpretation for PFT, ABG and X-ray.
- b. Write physiotherapy management of obstructive lung disease: CO5 PO1 PO2 P5 OP8 PO9
- i. Describe clinical features, assessment and physiotherapy management of COPD patient.
 - ii. Write role of exercise training and pulmonary rehabilitation pf COPD patient.
- c. Explain the following in terms of: CO4 PO1 PO2 P04 P6 PO8 PO9
- i. Describe mechanical ventilation in detail.
 - ii. Describe oxygen therapy in detail.