QP Code: 213378 **Reg. No……**

Second Year MPT Degree Supplementary Examinations June 2025

Paper III – Cardio Respiratory Physiotherapy

(2016 Scheme)

Time: 3 hrs **Max. Marks: 100**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***

Answer all parts of a single question together • Leave sufficient space between answers

Essays (2x20=40)

1. A 48 year old accountant has developed chest pain and diagnosed to have stable angina is admitted in the ICU. He is conscious and responsive. ECG reveled abnormal Q waves and T waves. X ray shows no apparent changes. He is on supplementary oxygen with a FiO2 of 0.25. ABG results are within normal limits His resting heart rate is 86 beats/min, BP is 160/93 mm of Hg, and SpO_2 is 96%
   a) Write the type of graded exercise test he will have to undergo
   b) Explain the phase II cardiac rehabilitation
   c) Mention the life style changes he has to undergo (4+10+6)
2. A 60 year old lady was admitted in the ICU post an acute asthma attack. She is being treated with noninvasive ventilation with CPAP. A peak pressure of 8 cm H_2O, tidal volume of 450 ml, FiO_2 of 30%. Her respiratiory rate is 20 b/min. Her ABG shows PaO_2 of 80 mm of Hg $paCO_2$ of 52 mm of Hg,pH of 7.31 and H_2CO_3 of 24 mEq/L
   Her resting heart rate is 98 beats/m, BP is 129/86 mm of Hg and SpO_2 IS 98%
   a) Interpret the ABG results
   b) Explain the physiotherapy management of the patient in ICU
   c) What strategies will you chose to teach the patient to manage breathlessness (5+7+8)

Short Notes: (10x6=60)

3. Describe the neurophysiological techniques for improving breathing
4. Describe the normal features seen in a posterioanterior chest X ray
5. What is intermittent claudication. Write an exercise program that can increase the time of occurrence of intermittent claudication (3+7)
6. What is echocardiogram. Write the features which can be detected from echocardiogram
7. A 20-year-old boy is overweight by 20 kgs. His resting heart rate is 89 b/min, BP is 124/84 mm of Hg. Design an exercise program for weight loss and prevention of cardiovascular complications
8. Write the physiological and mechanical changes that are likely to occur in 25-year-old kyphoscoliosis patient's lung and chest wall
9. Describe the assessment and plan of care for restrictive lung disease
10. What are oscillatory positive pressure devices. Describe the acapella
11. Write the indications and uses of body position changes
12. Describe the technique of auscultation oh lungs and heart

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