YJ—8101

# M.P. T. DEGREE EXAMINATION, 2004

## BASIC SCIENCES

Time : Three Hours  Maximum : 100 Marks

*Your answers shall be specific to the questions asked.*
*Draw neat and labelled diagrams wherever necessary.*

*Answer* **all** *questions.*

I. Long Essays :

1 Neurophysiology of skeletal muscle and its responses to manual strengthening and electrical stimulation. Discuss.

2 Biomechanical properties of bone and soft tissues, effects due to immobilisation and aging. Discuss.

(2 × 20 = 40 marks)

II. Short Essays :

3 Pain modulation.

4 Anthropometric measurements.

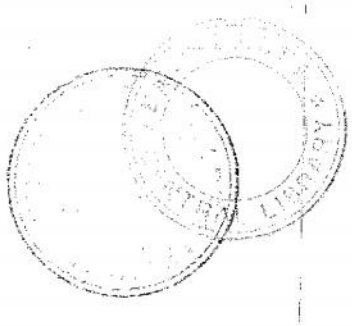
5 Measurement and scaling techniques in research.

6 Processing and analysis of data in research.

7 Biomechanics of respiration.

8 Obesity.

(6 × 10 = 60 marks)



YJ—8102

# M.P. T. DEGREE EXAMINATION, 2004

## PHYSICAL AND FUNCTIONAL DIAGNOSIS
## PART I AND II

Time : Three Hours  Maximum : 100 Marks

*Your answers shall be specific to the questions asked.*
*Draw neat and labelled diagrams wherever necessary.*

*Answer* **all** *questions.*

I. Long Essays :

1 Rationale for performing voluntary control assessment. Compare old and recent trends in evaluation of the same.

2 Discuss the principles underlying, the battery of tests, ordered in a patient of chest pain with the interpretations.

(2 × 20 = 40 marks)

II. Short Essays :

3 Fitness tests for atheletes.

4 Nerve conduction studies.

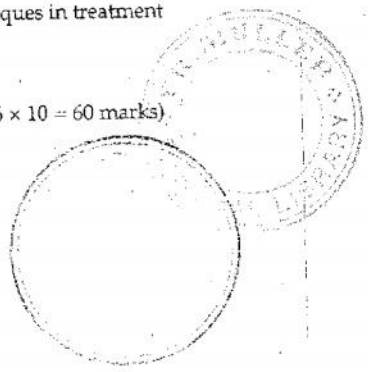
5 Pulmonary function tests.

6 Aids and appliances used in peripheral nerve injuries of the upper extremity.

7 Inhibitory and facilitation techniques in treatment of stroke patients.

8 Psycho-physiological tests.

(6 × 10 = 60 marks)



YJ—8103

# M.P. T. DEGREE EXAMINATION, 2004

## Paper III—PHYSIOTHERAPEUTICS I AND II

Time : Three Hours Maximum : 100 Marks

*Your answers shall be specific to the questions asked.*
*Draw neat and labelled diagrams wherever necessary.*

*Answer* **all** *questions.*

I. Long Essays :

1 List the various theories of motor learning. Justify their basis using neuroanatomy and neuro-physiological principles.

2 Identify the need for exercise prescription, giving the principles of training and describe the components of exercise program.

(2 × 20 = 40 marks)

II. Short Essays :

3 Parameters of an artificial ventilator.

4 Physiotherapy management for two common gynecological disorders.

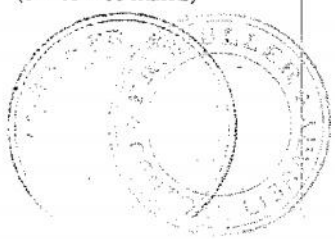
5 Role of bio-feedback techniques following tendon transfers.

6 Identify two pain relieving modalities used in physiotherapy and give evidence of their effectiveness.

7 Describe exercise program for peripheral vascular disease.

8 Kriyas and their physiological significance.

(6 × 10 = 60 marks)



YJ—8104

# M.P. T. DEGREE EXAMINATION, 2004

## P.T. IN CARDIO RESPIRATORY DISORDERS AND INTENSIVE CARE

Time : Three Hours Maximum : 100 Marks

*Your answers shall be specific to the questions asked.*
*Draw neat and labelled diagrams wherever necessary.*

*Answer* all *questions.*

I. Long Essays :

1 What are the current trends in respiratory therapy in COPD patients with reference to blood gas analysis ?

2 Discuss mechanical ventilator. How will you assess and plan the treatment for a patient on mechanical ventilator.

(2 × 20 = 40 marks)

II. Short Essays :

3 Analysis of chest radiogram in patient with bronchiectasis.

4 Incentive spirometry.

5 Define cardiac rehabilitation. Enumerate two goals of cardiac rehabilitation. Discuss the different types of protocol used for exercise testing.

6 Review : "Breathing exercise" as a treatment approach in patients with pulmonary disorders.

7 Oxygen therapy.

8 Inspiratory muscle training. Discuss the recent trends.

(6 × 10 = 60 marks)