



**MR-7796-N**

Seat No. \_\_\_\_\_

**First Year B. Physiotherapy Examination**

**July - 2016**

**Exercise Therapy - I**

Time : 3 Hours ]

[ Total Marks : 100

**SECTION - I**

- 1** Long notes : (any **two**) **2×10**
- (A) What are the assistive devices of gait. Explain in detail the types of crutches measurement and gait pattern with crutches. Add a note on pre crutch training.
  - (B) What is resisted exercise ? Explain in detail the various means of application of resistance with example for strengthening quadriceps muscle.
  - (C) What is posture ? What are its types ? Explain in detail postural reflex.
- 2** Short notes : (any **two**) **2×5**
- (A) Principles, uses and effects of passive movement.
  - (B) End feel
  - (C) Suspension for elbow flexion.
- 3** Short Answers : (any **five**) **5×2**
- (A) Effect of exercise on cardiovascular system
  - (B) Types of muscle work.
  - (C) Trick movement
  - (D) Axial and modified axial suspension.
  - (E) Friction massage
  - (F) Second order lever.
- 4** M.C.Q. : **10×1**
- (1) \_\_\_\_\_ is the prime muscle of expiration.
    - (A) Diaphragm
    - (B) External intercostals
    - (C) Scalani
    - (D) None of the above

- (2) \_\_\_\_\_ is not a component of postural reflex.
- (A) Joint proprioceptor
  - (B) Brain
  - (C) Skeletal muscle
  - (D) None of the above
- (3) \_\_\_\_\_ is not an effect of massage.
- (A) Improve circulation
  - (B) Induce relaxation
  - (C) Scar mobilization
  - (D) Strengthen muscles
- (4) Normal ROM of hip flexion with knee flexion is \_\_\_\_\_ degrees.
- (A) 120
  - (B) 150
  - (C) 90
  - (D) 180
- (5) Endurance is the ability of the muscle to ---
- (A) Produce full ROM
  - (B) Produce maximum force
  - (C) Generate maximum power
  - (D) To work for a long period of time.
- (6) \_\_\_\_\_ is a contraindication of massage.
- (A) Local infection
  - (B) Local edema
  - (C) Adhered scar
  - (D) Muscle spasm
- (7) Strength of a muscle can be measured by
- (A) Goniometer
  - (B) inch tape
  - (C) Knee hammer
  - (D) None of the above
- (8) Resistance to muscle work can be applied by
- (A) Altering lever arm
  - (B) Altering starting position
  - (C) Adding weight
  - (D) All of the above
- (9) \_\_\_\_\_ massage is used to mobilize lung secretions.
- (A) Efflurage
  - (B) Clapping
  - (C) Haking
  - (D) All of the above

- (10) Gutter crutch is used as an assistive devices of gait for
- (A) Non weight bearing gait
  - (B) Partial weight bearing gait
  - (C) Patients with rheumatoid arthritis
  - (D) For shadow walking.

## SECTION - II

- 1** Long notes : (any **two**) **2×10=20**
- (A) Explain different types of breathing exercise .its indications and contraindications.
  - (B) Massage, its classification, indications and contraindications. Write about therapist and patient preparation for massage.
  - (C) What is JROM ? What are the uses of measuring JROM ? Explain the methods of measurement of shoulder ROM using universal goniometer.
- 2** Short notes : (any **two**) **2×5=10**
- (A) Advantages and disadvantages of group exercise
  - (B) Fundamental starting position - list down the derived position from each.
  - (C) Massage for upper limb.
- 3** Short Answers : (any **five**) **5×2=10**
- (A) Axis and Planes
  - (B) Clapping and haking
  - (C) Pelvic tilt
  - (D) Massage for edema reduction
  - (E) Apparatus used in physiotherapy
  - (F) Phases of normal gait.
- 4** M.C.Q. : **10×1=10**
- (1) Lateral flexion of trunk takes place in
    - (A) Frontal plane
    - (B) Sagital plane
    - (C) Horizontal plane
    - (D) None of the above
  - (2) \_\_\_\_\_ order lever is lever of velocity.
    - (A) 1<sup>st</sup>
    - (B) 2<sup>nd</sup>
    - (C) 3<sup>rd</sup>
    - (D) None of the above

- (3) Suspension cage was designed by
  - (A) Margaret Holles
  - (B) Synthya Norkin
  - (C) Guthre Smith
  - (D) Dena Gardiner
- (4) Shadow walking is a type of
  - (A) Normal gait
  - (B) NWB gait
  - (C) FWB gait
  - (D) PWB GAIT
- (5) Anterior pelvic tilt is produced by
  - (A) Hip extensors and abdominals
  - (B) Hip flexors and lumbar extensor
  - (C) Hip abductors and trunk side flexors
  - (D) All of the above
- (6) In a patient with protruded abdomen \_\_\_\_\_ muscles / weak.
  - (A) Abdominals and gluteus maximus
  - (B) Iliopsoas and back extensors
  - (C) Gluteus medius and piriformis
  - (D) None of the above
- (7) \_\_\_\_\_ is not an effect of passive movement.
  - (A) Maintain ROM
  - (B) Induce relaxation
  - (C) Strengthen muscles
  - (D) None of the above
- (8) Empty end feel is due to
  - (A) Approximation of bone
  - (B) Approximation of soft tissue
  - (C) Tension of soft tissue
  - (D) Pain
- (9) In Adduction of shoulder from 90 degrees abduction in standing position is \_\_\_\_\_.
  - (A) Adductors work concentrically
  - (B) Adductors work eccentrically
  - (C) Abductors work concentrically
  - (D) Abductors work eccentrically
- (10) During free exercise, muscles work
  - (A) Against maximum resistance
  - (B) Against moderate resistance
  - (C) Against or towards gravity
  - (D) All of the above