

Printing Pages : 2

Paper Code : BPT (S)- 701

(C) SVSU 2024-25/R

Enrollment No.

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Program Name : BPT

VII Semester / 4TH Year Examination

Subject Code : BPT-701

Subject Name : Musculoskeletal Physiotherapy

[Time : 03:00 Hours]

[Max. Marks : 70]

Note : 1. Attempt all the questions as per given instructions.

1. Multiple Choice Questions (MCQs)

[1×15=15]

I. Common deformity in Osteoarthritis knee is:

A) Knock knee

B) Genu recurvatum

C) Genu varum

D) Genu valgum

II. PIVD commonly occurs at:

A) L5-S1

B) L4-L5

C) L3-L4

D) L1-L2

III. Painful Arc Syndrome occurs between:

A) 0-30°

B) 120-180°

C) 60-120°

D) 30-60°

IV. Osteoporosis is best diagnosed by:

A) CT scan

B) DEXA scan

C) MRI

D) X-ray

V. In Frozen Shoulder, the most restricted movement is:

A) Extension

B) Abduction

C) External rotation

D) Flexion

VI. Spondylolisthesis refers to:

A) Disc degeneration

B) Disc herniation

C) Vertebral slip backward

D) Vertebral slip forward

VII. Fracture of clavicle commonly occurs due to:

A) Road accident

B) Twisting

C) Fall on outstretched hand

D) Direct blow

VIII. Impingement syndrome involves:

A) Deltoid

B) Subscapularis

C) Biceps tendon

D) Supraspinatus tendon

IX. Ankylosing Spondylitis affects:

A) Small joints

B) Upper limbs

C) Axial skeleton

D) Peripheral joints

X. Taping techniques are used for:

A) All of these

B) Stability

C) Pain relief

D) Support

XI. Compartment syndrome is a complication of:

A) Colles' fracture

B) Clavicle fracture

C) Supracondylar fracture

D) Fracture shaft humerus

[P.T.O.]

XII. Rheumatoid arthritis is a:

- A) Metabolic disease
- C) Inflammatory

- B) Infective
- D) Degenerative

XIII. Colles' fracture involves:

- A) Humerus
- B) Ulna
- C) Scaphoid
- D) Distal radius

XIII. Osteoporosis is the best diagnosis done by

- A. CT SCAN
- B. DEXA SCAN
- C. MRI
- D. X Ray

XIV. Deformity of elbow is :

- A. Pes caves
- B. Genu valgum
- C. Genu varum
- D. none of above

2. Long Answer Questions (Attempt any three) [10×3=30]

1. Describe physiotherapy management of Rheumatoid Arthritis.
2. Explain rehabilitation of fracture of clavicle and humerus shaft.
3. Discuss Cervical and Lumbar Spondylitis – causes, signs, and management.
4. Explain taping techniques and their application in different joints.

3. Short Answer Questions (Attempt any five) [5×5=25]

1. Write short note on Ankylosing Spondylitis.
2. Define and classify fractures.
3. List complications of Colles' fracture.
4. Define Impingement Syndrome and mention its tests.
5. Write the rehabilitation protocol for PIVD.
6. Explain spondylolisthesis and its management.
7. List common preventive measures for Osteoporosis.

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Bachelor of Physiotherapy (BPT)

4th Year 7th semester Examination

Subject – Cardiopulmonary Physiotherapy

Max. Mark: 70,

Time: 3 hours

Note: Attempt the all question as per the instructions.

Section A (MCQ's)

MCQ's - Attempt all questions.

(20x1=20)

Q1- Which of the following is the medically acute inpatient cardiac rehabilitation phase?

- A. Phase 1 B. Phase 2 C. Phase 3 D. Phase 4

Q2- In which of the following diseases should target heart rate not be used as a guide for exercise tolerance?

- A. Heart transplant B. Diabetes
C. Post-myocardial infarction D. Gout

Q3- Which of the following is included in the goals of cardiac rehabilitation?

- A. Greater exercise tolerance B. Long-term exercise plan
C. Smoking cessation D. All of the above

Q4- How can cardiac rehabilitation benefit a patient with angina pectoris?

- A. Increase myocardial oxygen consumption
B. Decrease the maximum heart rate
C. Change angina threshold
D. Improve efficiency

Q5- Which of the following components shows an increase in response to exercise training?

- A. Heart rate
B. Myocardial oxygen capacity
C. Stroke volume
D. Peripheral resistance

Q6- Which of the following is considered to be the greatest single modifiable risk factor for cardiac disease?

- A. Obesity B. Hypertension C. Hyperlipidemia D. Smoking

Q7- The coronary arteries mostly perfuse the myocardium during which heart phase?

- A. Systole B. Diastole C. Mid-systole D. End-systole

Q8- What is the most prevalent lung disease in adults living in the United States?

- A. Asthma B. COPD C. Cystic fibrosis D. Sarcoidosis

Q9- What risk factor is associated with most cases of COPD in the United States?

- A. Chronic asthma B. Pneumonia
C. Smoking D. Occupational exposure to irritants

Q10- Which therapy has been shown to decrease mortality in (COPD)?

- A. Chest physiotherapy B. Pulmonary rehabilitation program
C. Supplemental oxygen therapy D. Noninvasive ventilation

11- Among the following, which represents primary respiratory muscle(s) during quiet respiration?

- A. Diaphragm B. External intercostal muscles
C. Abdominal muscles D. Trapezius

[P.T.O.]

Q12- What is the term for the volume of gas in the lungs at maximal inspiration?

- A. Functional residual capacity (FRC)
- B. Vital capacity (VC)
- C. Residual volume (RV)
- D. Total lung capacity (TLC)

Q13- The volume of gas in the lungs at the end of normal expiration is called:

- A. Functional residual capacity (FRC)
- B. Vital capacity (VC)
- C. Residual volume (RV)
- D. Expiratory reserve volume (ERV)

Q14- What nerve supplies the diaphragm?

- A. Long thoracic nerve
- B. Thoracodorsal nerve
- C. Lateral pectoral nerve
- D. Phrenic nerve

Q15- Pathologic dilation of the distal airways with destruction of alveolar walls best describes which condition?

- A. Asthma
- B. Cystic fibrosis
- C. Emphysema
- D. Bronchitis

Q16- Which nerve roots contribute to the phrenic nerve?

- A. C1-C3
- B. C5-C7
- C. C3-C5
- D. C7-T1

Q17- A monophasic, high-pitched sound usually caused by partial obstruction in the upper airway is called:

- A. Wheezing
- B. Ronchi
- C. Crepitus
- D. Stridor

Q18- Which oxygen delivery system provides close to 90% oxygen?

- A. Nasal cannula
- B. Nonrebreathing mask
- C. Venturi face mask
- D. Blow-by oxygen

Q19- Which condition will most likely cause restrictive impairment of ventilation?

- A. Chronic bronchitis
- B. Asthma
- C. Cystic fibrosis
- D. Guillain-Barré syndrome

Q20- Which lung volume increases in cervical spinal cord injury (SCI)?

- A. Residual volume
- B. Total lung capacity
- C. Vital capacity
- D. Tidal volume

Section – B (Short Answer questions)

Question 2 - Attempt any five questions

(5*2=10)

- (a) Autogenic drainage
- (b) Aerobic & anaerobic training
- (c) Chest therapy
- (d) Respiratory muscles training
- (e) Nebulizer
- (f) PEP therapy

Question 3 – Attempt any two questions

(2*5=10)

- (a) Explain nebulizer & types
- (b) PT management of cystic fibrosis
- (c) Explain pulmonary rehabilitation

Section – C (Long Answer questions)

Question 4 - Attempt any two questions

(2*15=30)

- (a) Define Tuberculosis. Causes, medical & PT management with its assessment?
- (b) Explain the cardiac rehabilitation. Phases, indication & contraindication?
- (c) Define asthma? Classification, causes, clinical feature, with its PT management?

Printing Pages : 2

Paper Code : BPT (S)- 703

(B) SVSU:2025-26/R

Enrollment No.

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Bachelor of Physiotherapy (BPT)**VIIth Semester Examination****Subject Code – BPT 703****Principles of Bioengineering****[Time : 1:30 Hours]****[Max. Marks : 35]****Note: Attempt the all question as per the instructions.****Section A (MCQ's)****Question 1- Attempt all questions.****(10*1=10)****1. The term *orthosis* refers to:**

- A. Artificial replacement of limb
- B. External device used to support or correct deformity
- C. Surgical removal of limb
- D. None of the above

2. Solid Ankle Foot Orthosis (AFO) is primarily used for:

- A. Knee instability
- B. Ankle stabilization and foot drop correction
- C. Hip dislocation
- D. Shoulder support

3. Articulated AFO allows movement at which joint?

- A. Knee joint
- B. Hip joint
- C. Ankle joint
- D. Elbow joint

4. KAFO stands for:

- A. Knee and Ankle Functional Orthosis
- B. Knee Ankle Foot Orthosis
- C. Knee Adjustment Foot Orthosis
- D. Knee Amputation Fixation Orthosis

5. The main function of a KAFO is to:

- A. Support hip joint
- B. Control knee and ankle movement
- C. Correct scoliosis
- D. Support wrist and hand

6. HKAFO is used for:

- A. Wrist weakness
- B. Entire lower limb including hip, knee, ankle, and foot
- C. Only ankle deformity
- D. Shoulder subluxation

[P.T.O]

7. Lumbo-sacral orthosis (LSO) is used for:
 A. Shoulder dislocation B. Lower back support
 C. Wrist stabilization D. Foot drop
8. TLSO stands for:
 A. Thoraco-Lumbo-Sacral Orthosis
 B. Thoracic Lumbar Shoulder Orthosis
 C. Tibial Lumbo Spinal Orthosis
 D. Thoracic Lateral Support Orthosis
9. Cervical orthosis supports which region?
 A. Lumbar B. Thoracic
 C. Neck D. Shoulder
10. The Milwaukee brace is used for:
 A. Scoliosis B. Kyphosis
 C. Club foot D. Flat foot

Section – B (Short Answer questions)

Question 2 - Attempt any five questions (5*2=10)

1. Define prosthesis and classify types according to the level of amputation.
2. Write a short note on Syme's prosthesis.
3. Explain the alignment principles in Below Knee prosthesis.
4. Describe the functions of knee joint in Above Knee prosthesis.
5. Write a note on upper limb prosthesis.
6. List the biomechanical considerations in prosthetic fitting.

Question 3 – Attempt any three questions (3*5=15)

- (a) Write in detail about Amputation, its classification and treatment
- (b) Explain functions of spinal orthosis in postural deformity
- (c) Define Orthosis and classify types of Orthosis
- (d) Discuss the role of physiotherapist in orthotic and prosthetic rehabilitation

Printing Pages : 2

Paper Code : BPT (S)- 704

(C) SVSU:2025-26/R

Enrollment No.

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Bachelor of Physiotherapy (BPT)**7th Semester /4th Year Examination****ADVANCE PROFESSIONAL PRACTICE AND ETHICS****[Time : 1:30 Hours]****[Max. Marks : 35]****Note: 1. Attempt all the questions as per given instructions.****Section A – MCQ's****(10×1=10 Marks)****1. Which domain of Bloom's taxonomy involves creating new strategies in patient care?**

- a) Knowledge
- b) Application
- c) Evaluation
- d) Synthesis

2. Inter professional communication involves:

- a) Talking only with doctors
- b) Working independently
- c) Sharing knowledge among different health workers
- d) Limiting patient contact

3. The role of a physiotherapist as an educator includes:

- a) Auditing medical bills
- b) Teaching students and patients
- c) Hiring staff
- d) Prescribing medicines

4. One ethical challenge in clinical practice is:

- a) Academic excellence
- b) Patient confidentiality breach
- c) Research publications
- d) Exam pattern

5. Laws and regulations ensure:

- a) Free treatment for all
- b) Physiotherapy profession remains unregulated
- c) Safe and standardized practices
- d) No accountability

6. What is an example of a professional competency?

- a) Daily attendance
- b) Ethical decision-making
- c) Frequent breaks
- d) Delegating all work

[P.T.O.]

7. Ethics in teaching emphasizes:

- a) Fear-based learning
- b) Transparency and fairness
- c) Examinations only
- d) Student punishment

8. One major component of ethics in research is:

- a) Data falsification
- b) Informed consent
- c) Paid publication
- d) Bypassing peer review

9. Which is a psychosocial factor in medicine?

- a) Patient's blood type
- b) Heart rate
- c) Stress and anxiety levels
- d) Blood pressure

10. Professional development is essential for:

- a) Maintaining status quo
- b) Avoiding training
- c) Lifelong learning and excellence
- d) Memorizing rules only

Section B – Short Answer Questions (5×2=10 Marks)

(Attempt any five)

- a) List two components of professional competence.
- b) Mention any two laws regulating physiotherapy practice.
- c) Define W.C.P.T. and its purpose.
- d) State any two ethical concerns in teaching.
- e) Explain the relevance of psychosocial data in medicine.
- f) What is meant by critical inquiry?

Section C – Long Answer Questions (3×5=15 Marks)

(Attempt any three)

- a) Describe the role of ethics in clinical physiotherapy practice.
- b) Explain how professional development enhances physiotherapy care.
- c) Discuss inter professional communication with examples from patient management.
- d) Elaborate on ethics in research and teaching within physiotherapy education.

Printing Pages : 2

Paper Code : BPT (S)- 705

(A) SVSU:2025-26/R

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Bachelor of Physiotherapy (BPT)**7th Semester /4th Year Examination****ICU EVALUATION & MANAGEMENT****[Time : 1:30 Hours]****[Max. Marks : 35]****Note: 1. Attempt all the questions as per given instructions.****Section A (MCQ's)****Question 1- Attempt all questions.****(10*1=10)****1- What is the most appropriate initial step in the management of a patient in shock?**

- A. Administer antibiotics B. Perform ECG
C. Ensure airway and provide oxygen D. Give diuretics

2 -Guillain-Barré Syndrome is primarily a disorder of which part of the nervous system?

- A. Central nervous system B. Autonomic nervous system
C. Peripheral nervous system D. Enteric nervous system

3- Which of the following is an early sign of increased intracranial pressure (ICP)?

- A. Bradycardia B. Hypertension
C. Altered level of consciousness D. Fixed, dilated pupils

4-Neurogenic shock is most commonly associated with injuries at which level?

- A. Below L2 B. Thoracic region
C. Cervical and upper thoracic levels D. Sacral region

5-Which device provides mechanical ventilation to patients who cannot breathe adequately?

- a) Defibrillator b) Ventilator
c) Nebulizer d) Suction machine

6-Which sign indicates the need for suctioning in an intubated patient?

- a) Silent chest b) Sudden increase in airway pressure or coughing
c) Low temperature d) Decreased heart rate

7-Suctioning may cause bradycardia because of:

- a) Increased oxygen levels b) Stimulation of vagus nerve
c) High suction pressure d) Hyperventilation

[P.T.O]

8-Frequent change of patient position prevents:

- a) Pressure ulcers and lung collapse
- b) Sleep
- c) Heart disease
- d) Fever

9- Which of the following is *not* a basic vital sign monitored in ICU?

- a) Blood pressure
- b) Respiratory rate
- c) Temperature
- d) Blood sugar

10- The normal heart rate range in adults is:

- a) 40–60 bpm
- b) 60–100 bpm
- c) 100–120 bpm
- d) 120–140 bpm

Section – B (Short Answer questions)

Question 2 - Attempt any five questions (5*2=10)

- (a) What is the role of a physiotherapist in a mechanically ventilated patient?
- (b) What is the difference between complete and incomplete spinal cord injury?
- (c) What is SIMV mode?
- (d) Name the different types of shock.
- (e) Write short notes on indications, techniques, and adverse effects of suctioning.
- (f) Discuss the role of physiotherapy in patients with ARDS.

Section – C

Question 3 – Attempt any three questions (5*3=15)

- (a) Describe the steps, precautions, and complications of suctioning.
- (b) Describe the preventive measures and long-term complications of head injury.
- (c) Explain the pathophysiology and clinical features of stroke.
- (d) Explain the pathophysiology and clinical features of spinal cord injury.
- (e) Explain the role of physiotherapy in patients with neuromuscular diseases.

Printing Pages : 2

Paper Code : BPT (S)- 706(PTH)

(B) SVSU:2025-26/R

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Bachelor of Physiotherapy (BPT)
VII Semester / 4th Year Examination
(BPT 706 (S) (PTH))

Choice Based Course- PT in Hand Conditions

[Time: 1:30 Hours]

[Max. Marks: 35]

Note: 1. Attempt all the questions as per given instructions.

Section A (MCQ's)

Question 1- Attempt all questions.

(10*1=10)

- 1- Which of the following tests is used to assess fine touch and tactile gnosis?
 - A) Monofilament test
 - B) Two-point discrimination
 - C) Vibration sense
 - D) Pinprick sensation
- 2- Boutonnière deformity is due to injury of:
 - A) Central slip of the extensor tendon
 - B) Lateral bands
 - C) Extensor retinaculum
 - D) Flexor digitorum profundus
- 3- The "crush syndrome" primarily occurs due to:
 - A) Blood loss
 - B) Muscle ischemia followed by reperfusion
 - C) Infection
 - D) Nerve injury
- 4- The typical posture of the arm in Erb's palsy is:
 - A) Elbow flexed, wrist flexed
 - B) Shoulder adducted, arm internally rotated, elbow extended
 - C) Shoulder abducted, elbow flexed
 - D) Hand clawed
- 5- CRPS is most commonly triggered by:
 - A) Viral infection
 - B) Trauma or surgery
 - C) Autoimmune disease
 - D) Hypothyroidism

[P.T.O.]

- 6- Which of the following is a functional splint?
 A) Volar wrist splint B) Thomas splint
 C) Air splint D) Cock-up splint
- 7- Orthoplast is a type of:
 A) Metal splint B) Thermoplastic material
 C) Fiberglass cast D) Elastic bandage
- 8- De Quervain's tenosynovitis, taping is used to:
 A) Limit thumb abduction and extension
 B) Support the wrist in full flexion
 C) Restrict finger flexion
 D) Immobilize the elbow joint
- 9- The "Grip strength" of the hand is most commonly measured using a:
 A) Sphygmomanometer B) Dynamometer
 C) Goniometer D) Manometer
- 10- Carpal Tunnel Syndrome results from compression of the:
 A) Ulnar nerve B) Radial nerve
 C) Median nerve D) Musculocutaneous nerve

Section – B (Short Answer questions)

Question 2 - Attempt any five questions (5*2=10)

- (a) What are the sensory symptoms of cubital tunnel syndrome?
- (b) Which areas of the hand are supplied by the median, ulnar, and radial nerves?
- (c) What are the clinical features of a flexor tendon injury?
- (d) Write the common hand deformities.
- (e) Explain pronator teres syndrome
- (f) Write a note on Orthoplast

Question 3 – Attempt any three questions (5*3=15)

- (a) Write the PT Management of Brachial Plexus injury.
- (b) Explain Pulley System of hand
- (c) Write the Motor Examination of hand
- (d) What are the Outcome measures of assessing hand?

Printing Pages : 2

Paper Code : BPT (S)- 706 (PTS)

(C) SVSU:2025-26/R

Enrollment No.

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Bachelor of Physiotherapy (BPT)
7th Semester /4th Year Examination
CHOICE BASED COURSE PT IN SPORTS

[Time : 1:30 Hours]

[Max. Marks : 35]

Note: 1. Attempt all the questions as per given instructions.

Section A(MCQ's)

Question 1- Attempt all questions.

(10*1=10)

1. **The most accurate test for body fat is:**
 - a) BMI
 - b) Skin fold
 - c) Underwater weighing
 - d) Measuring waist
2. **BMI formula is:**
 - a) $\text{Weight} \div \text{Height}^2$
 - b) $\text{Height} \div \text{Weight}^2$
 - c) $\text{Weight} \times \text{Height}$
 - d) $\text{Weight} \div \text{Height}^3$
3. **Skinfold caliper measures:**
 - a) Fat under the skin
 - b) Bone density
 - c) Muscle strength
 - d) Height
4. **Bioelectrical impedance analysis measures:**
 - a) Muscle tone
 - b) Body fat percentage
 - c) Reaction time
 - d) Flexibility
5. **The test used to measure flexibility is:**
 - a) Sit and reach test
 - b) Step test
 - c) Cooper's test
 - d) Push-up test
6. **VO max indicates:**
 - a) Fat percentage
 - b) Maximum oxygen consumption
 - c) Heart rate
 - d) Body temperature

[P.T.O.]

7. **Cross-training means:**
 - a) Using same muscles repeatedly
 - b) Training different muscles using different exercises
 - c) Avoiding exercise
 - d) Only resting
8. **During aerobic exercise, the heart becomes:**
 - a) Weaker
 - b) Stronger and more efficient
 - c) Smaller
 - d) Slower permanently
9. **Dynamic Stabilizer shoulder joint :**
 - a) Supraspinatus
 - b) Pronator Teres
 - c) Triceps
 - d) None
10. **Maitland Technique have :**
 - a) 5 GRADE
 - b) 3 GRADE
 - c) 4 GRADE
 - d) 6 GRADE

Section – B (Short Answer questions)

Question 2 - Attempt any five questions

(5*2=10)

- a) Define cross-training and its benefits.
- b) Write a short note on acute and chronic sports injuries.
- c) Describe the principle of cryotherapy.
- d) Explain the role of tape in joint stabilisation.
- e) Define body mass index and write its formula.
- f) Describe assessment methods for lower limb strength.

Question 3 – Attempt any three questions

(5*3=15)

- a) Discuss physiological responses and adaptations of pulmonary, cardiovascular, and neuromuscular systems to exercise.
- b) Describe the principles and techniques of taping with examples.
- c) Explain different methods of assessing body composition.
- d) Write a detailed note on the management of sporting emergencies.
