After reading this chapter, you will know:

- about the Written Component;
- what kinds of questions will be on the Written Component

**Note:** See Chapter 1: The Physiotherapy Competency Examination (PCE) and Chapter 5: Exam Day: Maximize Your Performance for strategies for taking the Written Component.
Written Component

About 90 percent of the questions on the Written Component accompany vignettes. A vignette provides information about a client; for example, age and diagnosis. The series of questions that follow are based on the information in the vignette.

The remaining 10 percent of the questions on the Written Component are stand-alone questions - they do not accompany vignettes.

The CAPR transitioned from a paper and pencil format to a computer-based test (CBT) format in July 2015. The benefits of a computer-based test are:

- Keeps up with technology
- Point and click format
- Toolbar with increased features
- Increase in the number of exam sites offered
- Onsite Assistance with trained CBT proctors

About the Written Exam

1. All items are equally weighted. Correct responses are worth 1 mark; incorrect responses are worth zero marks.
2. There is no penalty for guessing.
3. If you do not mark an answer for an item, we will score this as incorrect.
4. If you think that an item is incorrect, answer the item to the best of your ability with the information provided. We will review these items during scoring. These items may be deleted from scoring.

Frequently Asked Questions (FAQs)

Please refer to the FAQs on the CAPR website for information on the Written Component; for example-

- What must I bring to the CBT exam?
- What am I not permitted to bring to the CBT exam?
- What happens if there is an internet outage?
SAMPLE QUESTIONS

Vignette for Items 1 - 3

A 3-month-old baby boy with a diagnosis of congenital muscular torticollis requires physiotherapy in an out-patient department.

1. On palpation, the physiotherapist finds tightness of the left sternocleidomastoid muscle. Which of the following positions would the baby most probably maintain his head in?
   A. Right lateral flexion and rotation to the right.
   B. Right lateral flexion and rotation to the left.
   C. Left lateral flexion and rotation to the left.
   D. Left lateral flexion and rotation to the right.

2. The physiotherapist teaches a home program to the baby's parents. Which of the following instructions should be emphasized?
   A. Incorporating the exercises into the child's daily routine.
   B. Pursuing the exercises intensively at frequent intervals during the day.
   C. Carrying out the exercises only when the child is awake and can participate.
   D. Doing the exercises only when the child is asleep.

3. The baby's torticollis improves with physiotherapy treatment. However, follow-up assessment at 8 months of age reveals a motor delay. Which of the following assessment tools should the physiotherapist use to determine the child's motor performance in relation to his peers?
   A. Alberta Infant Motor Scale (AIMS).
   B. Gross Motor Function Measure (GMFM).
   C. Ashworth Scale.
   D. Functional Independence Measure (FIM).

Vignette for Items 4 – 5

A 50-year-old man received full thickness burns to his face, upper body, and arms at work. He is admitted to an acute care facility. He has also been diagnosed with a restrictive pulmonary complication secondary to the burn.

4. What results would the physiotherapist expect to find on assessment with respect to the client's restrictive pulmonary complication?
   A. Decreased vital capacity and increased pulmonary resistance.
   B. Decreased vital capacity and decreased pulmonary resistance.
   C. Increased vital capacity and increased pulmonary resistance.
   D. Increased vital capacity and decreased pulmonary resistance.
5. The physiotherapist's caseload has doubled today because of the illness of a colleague. What should the physiotherapist do?

A. Complete full treatment for all clients before leaving work.
B. Shorten all treatments in order to see all clients within work hours.
C. See only the clients who were not seen yesterday.
D. Prioritize the clients who would deteriorate without treatment.

**Vignette for Items 6-8**

A 60-year-old man with post-polio syndrome is experiencing deterioration of his physical status. He is attending a rehabilitation centre as an out-patient for physiotherapy treatment.

6. During assessment, the physiotherapist notes weakness of the erector spinae muscle group. Which of the following postures is the physiotherapist likely to observe?

A. Decreased thoracic kyphosis.
B. Increased lumbar lordosis.
C. Decreased lumbar lordosis.
D. Thoracic scoliosis.

7. The client has greater paralysis of his left lower extremity. This may be contributing to right knee and ankle pain secondary to overuse. Which one of the following devices should the physiotherapist recommend for the left lower extremity?

A. Neoprene knee sleeve.
B. Ankle splint (air-cast splint).
C. Hinged knee brace.
D. Knee-ankle-foot orthosis.

8. The client has used crutches for eight years. He states that his ambulation has slowed and longer distances are more fatiguing. Which one of the following aids should the physiotherapist recommend for longer distances in the community?

A. Four-wheeled walker.
B. Two-wheeled walker.
C. Manual wheelchair.
D. Power scooter.

**Vignette for Items 9-10**
A 29-year-old right hand dominant construction worker attends physiotherapy at a rehabilitation centre. He fell onto his right elbow four weeks ago. The client reports symptoms of pain and numbness in the ring finger and little finger of the right hand and difficulty using this hand.

9. When examining the right upper extremity, which one of the following sustained movements should the physiotherapist expect to exacerbate the client's symptoms?

A. Elbow flexion.
B. Elbow extension.
C. Wrist flexion.
D. Forearm supination.

10. The physiotherapist performs the test for a Tinel's sign on this client. Which of the following locations would be most likely to test positive?

A. Carpal tunnel.
B. Lateral epicondyle.
C. Cubital tunnel.
D. Cubital fossa.

Vignette for Items 11-14

A 54-year-old woman fell on an outstretched right hand while at work. She experienced immediate hand and wrist pain. A Colles’ fracture was confirmed on x-ray. After six weeks in a cast, her x-rays showed poor callus formation and she was reporting right shoulder and elbow pain. She was recasted and referred to a private physiotherapy clinic.

11. Before initiating treatment, the physiotherapist describes the proposed treatment and possible outcomes to the client. Why should the physiotherapist do this?

A. To allow the client to make an informed decision about her treatment.
B. To allow the physiotherapist to justify the treatment intervention.
C. To prevent the client from asking too many questions during treatment.
D. To allow the physiotherapist to avoid litigation.

12. The physiotherapy assessment of this client reveals pain and muscle guarding in the shoulder, pain from the shoulder to the elbow, and restricted elbow extension. The pain is disturbing the client’s sleep. The physiotherapist is concerned that the client may be developing adhesive capsulitis of the shoulder. Limitation in which movements would indicate that the client has a capsular pattern of restriction?

A. External rotation > adduction > internal rotation.
B. External rotation > abduction > internal rotation.
C. Flexion > abduction > external rotation.
D. Flexion > abduction > internal rotation.
13. Which of the following treatments should be included in the physiotherapist's initial treatment for the client's shoulder?

A. A sling for the arm, joint traction, and glides (grade III).
B. Active-assisted range of movement, joint traction, and glides (grade I).
C. Passive range of movement, joint traction, and glides (grade III).
D. Complete shoulder immobilization, with elbow and finger exercises.

14. Six weeks later, the client has had her cast removed. She has had a bone density study and has been diagnosed with osteoporosis. Which one of the following intervention should the physiotherapist use with caution in the treatment of this client's wrist and hand?

A. LASER.
B. Interferential current.
C. Joint mobilization.
D. Soft tissue manipulation.

Vignette for Items 15-17

A 50-year-old man comes to a private physiotherapy clinic for an aerobic exercise program. He has a 10-year history of insulin-dependent diabetes.

15. Which signs and symptoms of hypoglycemia should the physiotherapist be aware of that the client may demonstrate while participating in an aerobic exercise program?

A. Manic mood, increased energy level.
B. Increased temperature, flushed face.
C. Weakness, excessive sweating.
D. Nystagmus, ringing in the ears.

16. In designing the aerobic cycling program for this client, which of the following parameters of exercise should the physiotherapist recommend?

A. 4 - 7 days a week for 20 - 60 minutes’ duration.
B. Daily at 20 - 40% of maximum heart rate.
C. Daily at 80 - 90% of maximum heart rate.
D. 3 - 5 days a week for 60 - 90 minutes’ duration.

17. What part of this client's intervention could the physiotherapist assign to the physiotherapist assistant?

A. Progression of the exercise program.
B. Examination of the feet.
C. Assessment of the fitness level.
D. Monitoring of the exercise program.
Vignette for Items 18-21

A 38-year-old man attends an out-patient physiotherapy clinic seeking treatment for insidious onset of right ankle and shin pain of two weeks’ duration. The client states that the pain is now unrelenting, even at night, and has spread from the ankle into the shin. He is a regular jogger and has not changed his training regime. He thinks his pain is related to running. He has not seen his family physician about this problem because his physician is away for two weeks. He reports no past leg injuries and that he is in excellent health except for a recent tooth infection. The physiotherapist suspects the client may have osteomyelitis.

18. Which one of the following clinical findings from the history most supports the physiotherapist's diagnosis of osteomyelitis in this client?
   
   A. Pain at night.
   B. Recent history of infection.
   C. Lack of mechanism of injury.
   D. Pattern and location of painful area.

19. After completing an assessment of the client, what would be the most appropriate course of action for the physiotherapist?

   A. Commence treatment and closely monitor his symptoms.
   B. Recommend immediate review by a physician.
   C. Suggest that the client contact his physician in two weeks.
   D. Contact the client's physician in two weeks to review the client's condition.

20. After completion of the assessment the physiotherapist has decided to treat the client's pain symptoms as part of his/her treatment plan. Which of the following modality treatments would be the most appropriate?

   A. Ice.
   B. Superficial heat.
   C. Short wave diathermy.
   D. Thermal dose of ultrasound.

21. In addition to the findings noted above, the physiotherapist finds that the client is lacking active and passive dorsiflexion range of motion in his right ankle. Which of the following manual therapy treatments would be most appropriate for this client?

   A. Posterior manipulation of talus on tibia.
   B. Grade 4 anterior glide mobilizations of talus on tibia.
   C. Grade 4 posterior glide mobilizations of talus on tibia.
   D. Mobilizations would be contraindicated with this patient.
Vignette for Items 22-27

A 76-year-old man fell and sustained a sub-capital fracture of his left hip. He was admitted to an acute care facility for a total hip replacement using a posterolateral surgical approach.

22. In the immediate post-operative period, which movement of his left hip should the physiotherapist instruct the client to avoid?
   A. Flexion to 60 degrees.
   B. Medial rotation to neutral.
   C. Adduction across midline.
   D. Extension beyond neutral.

23. Post-operative day one, the physiotherapist visits the client to assess his respiratory status. The client is confused and pulls up his hospital gown several times. What should the physiotherapist do?
   A. Report the client's behaviour to the health team.
   B. Defer the assessment until the client's confusion clears.
   C. Drape the client appropriately and continue with the assessment.
   D. Inform the client that he will not receive treatment if the behaviour does not stop.

24. On post-operative day two, the physiotherapist visits the client in his room to continue mobilization. The client seems fearful, reports tiredness, and refuses to get up. Which of the following is the most appropriate course of action for the physiotherapist to take?
   A. Discuss with nursing staff the need for anti-depressants.
   B. Acknowledge the client's complaints and initiate treatment.
   C. Refer him to a geriatrician for psychological evaluation.
   D. Acknowledge the client's wishes and agree to come back later.

25. During the first few days post-operatively, the client is allowed partial weight bearing on the operative side. Which of the following activities should the physiotherapist teach the client how to do?
   A. Transfer to a chair and toilet.
   B. Ambulate with two canes.
   C. Propel a wheelchair with his feet.
   D. Bear weight evenly on both feet.

26. When the physiotherapist measures a cane for the client, which of the following markers should be used to determine the height of the cane?
   A. Result in full elbow extension.
   B. Result in 50° of elbow flexion.
   C. Be at the level of the greater trochanter.
   D. Be at the level of the anterior superior iliac spine (ASIS) of the pelvis.
27. When the physiotherapist is instructing the client in negotiating stairs using a cane, which statement is correct?

A. The right leg will lead when descending.
B. The left leg will lead when descending.
C. The left leg will lead when ascending.
D. The cane will lead when ascending and descending.

Vignette for Items 28-33

A 48-year-old woman with Guillain-Barré syndrome had a tracheostomy two weeks ago and is no longer ventilated. The client is unable to clear thick secretions independently and requires suctioning. Her arterial blood gases on room air are: PaO₂ 90, PaCO₂ 35, pH 7.4, HCO₃⁻ 22.6, SaO₂ 95%.

28. When assessing this client, which of the following should the physiotherapist expect to observe?

A. A decreased respiratory rate due to muscle weakness.
B. A decreased respiratory rate due to respiratory acidosis.
C. An increased respiratory rate due to respiratory alkalosis.
D. An increased respiratory rate due to a decreased tidal volume.

29. The client has difficulty coughing. Which of the following explanations should the physiotherapist provide to the client's family as the most likely cause?

A. Pain.
B. Thick secretions.
C. Muscle weakness.
D. A depressed respiratory centre.

30. When this client is ready to be taught how to cough, which of the following techniques should the physiotherapist teach the client?

A. Inhale deeply, then relax the abdominal muscles.
B. Inhale deeply, then contract the abdominal muscles.
C. Inhale shallowly, then relax the abdominal muscles.
D. Inhale shallowly, then contract the abdominal muscles.

31. When should the physiotherapist suction this client?

A. Routinely, every 2 hours.
B. Following administration of bronchodilators.
C. When respiratory rate is noticeably decreased.
D. When coarse upper airway sounds are present.
32. When suctioning the client, the physiotherapist notices blood-tinged secretions. Which of the following is the most likely cause?

A. Epistaxis.
B. Haemothorax.
C. Lung contusion.
D. Tracheal trauma.

33. Yesterday the client was able to tolerate the head of the bed being raised to 45°. Today the physiotherapist notes a pressure sore on the client's sacrum, despite regular position changes. What is the most probable cause?

A. Stress loading.
B. Poor nutrition.
C. Shearing forces.
D. Exposure to moisture.

Vignette for items 34 - 36

A 62-year-old man presents to the emergency room at an acute care facility with chest pain and shortness of breath. An electrocardiogram (ECG) reveals that he has sustained a myocardial infarction. Once the client has been medically stabilized and transferred to the cardiac care unit, the physiotherapist is asked to assess him and provide treatment.

34. As a part of the treatment process the physiotherapist discusses risk factor reduction with the client. The client explains that he is unwilling to consider quitting smoking or changing his diet. How should the physiotherapist respond?

A. Discuss the need for change with the client’s family.
B. Discuss the client’s reluctance to change with the physician.
C. Explain the risks of these behaviours, but respect the client’s decision.
D. Explain to the client that change is essential, or his health will deteriorate.

35. The client is concerned about the effect of his myocardial infarction on his planned vacation in six months’ time. Which of the following factors should the physiotherapist discuss that might affect the client’s exercise tolerance on his vacation?

A. Altitude and change in diet.
B. Altitude and cold temperature.
C. Change in diet and time change.
D. Cold temperature and time change.
36. After five days of successful treatment in the acute care facility, the client is ready to be discharged home. Prior to the discharge, which of the following should the physiotherapist complete?

A. Graded exercise testing and complete VO₂ Max test.
B. Review home exercise program and complete VO₂ Max test.
C. Graded exercise testing and complete a referral to occupational therapy.
D. Review home exercise program and encourage participation in an out-patient rehabilitation program.

Vignette for items 37-38

A 22-year-old woman presents to an out-patient physiotherapy clinic after developing anterior left knee pain. She states that the pain began gradually about one month ago while training to run a half-marathon. Training has included running, weight-lifting, and swimming. She has not been able to increase her training lately due to increased pain. The physiotherapist suspects patellofemoral pain syndrome.

37. When taking the client’s history, which of the following would the physiotherapist most likely expect the client to report?

A. Increased knee pain with ascending stairs, significant knee swelling, and occasional “clicking” in the knee.
B. Increased knee pain with ascending stairs, mild knee swelling, and locking of the knee.
C. Increased knee pain with descending stairs, mild knee swelling, and occasional “clicking” in the knee.
D. Increased knee pain with descending stairs, significant knee swelling, and locking of the knee.

38. When assessing the client, what should the physiotherapist expect to find?

A. Pain reproduced with patellar compression and decreased lateral glide of the patella.
B. Pain reproduced with patellar compression and decreased medial glide of the patella.
C. Decreased quadriceps angle (Q angle) and decreased medial glide of the patella.
D. Increased quadriceps angle (Q angle) and decreased lateral glide of the patella.
Vignette for items 39-40

A 49-year-old female truck driver is referred to a private physiotherapy clinic for assessment and treatment of left arm and neck pain. The client reports a gradual onset of paraesthesia in the left upper extremity. The physiotherapist suspects thoracic outlet syndrome.

39. One test the physiotherapist could use to evaluate for thoracic outlet syndrome is to rotate the client’s head towards the left shoulder. The client then extends the head and neck while the physiotherapist passively laterally rotates and extends the left shoulder. The client is then instructed to take a deep breath and hold it. What is the most likely positive finding for thoracic outlet syndrome using this test?

B. Presence of strabismus.
C. Decrease in the radial pulse.
D. Deep ache in the cubital fossa.

40. The physiotherapist determines that the client has thoracic outlet compression. Which of the following interventions should be emphasized during the first visit?

A. Cervical traction.
B. Posture correction.
C. Neck range of motion exercises.
D. Neural mobilization.

Vignette for items 41-42

A 51-year-old man has a history of ALS (amyotrophic lateral sclerosis) and frequent falls. He is in an acute care hospital with aspiration pneumonia.

41. The physiotherapist recognizes that ALS primarily affects which of the following components of the nervous system?

A. Upper motor neurons and peripheral nerves.
B. Lower motor neurons and peripheral nerves.
C. Peripheral nerves and cranial nerve nuclei.
D. Both upper and lower motor neurons.

42. Which of the following should the physiotherapist recognize as the most likely cause of this client’s aspiration pneumonia?

A. Impaired cough.
B. Impaired inspiratory effort.
C. Dysphagia.
D. Dysphasia.

Vignette for items 43-44
A 40-year-old woman who has rheumatoid arthritis is referred to out-patient physiotherapy at a rehabilitation centre. She has a long-standing history of extensive joint involvement and has an acute exacerbation of her symptoms.

43. The physiotherapist decides to use ice on this client's inflamed joints. Which of the following assessments should the physiotherapist perform prior to application of ice?

A. Proprioception and light touch.
B. Temperature sensation and circulation.
C. Pin prick sensation and light touch.
D. Vibration and temperature sensation.

44. The client is having an exacerbation of inflammation in her knees and wrists. Which of the following walking aids should the physiotherapist recommend?

A. Axillary crutches.
B. A four-wheeled walker.
C. A forearm-support wheeled walker.
D. Two standard canes.

Stand Alone Items

45. A 15-year-old football player sustained a knee injury. He attends a private physiotherapy clinic the next day. The physiotherapist’s assessment shows that the coronary ligaments in his knee have been completely torn. Which structure would be directly affected by this tear?

A. Medial meniscus.
B. Patella.
C. Fibular shaft.
D. Head of fibula.

46. A 38-year-old woman is referred to physiotherapy following a fracture of the proximal shaft of the humerus with traumatic paralysis of the axillary nerve. During assessment, which of the following would the physiotherapist find?

A. Paralysis of biceps, and anaesthesia in the territory of C6 nerve root.
B. Paralysis of deltoid and teres minor, and anaesthesia at the tip of the shoulder.
C. Paralysis of serratus anterior and pectoralis minor, and anaesthesia of the superior aspect of the scapula.
D. Weakness of rotator cuff, and anaesthesia of the medial aspect of the arm.

47. An 8-month-old baby girl is referred to a physiotherapy out-patient clinic for treatment of her poor head control. Physiotherapy evaluation demonstrates abnormal muscle tone and strong
primitive reflexes. When asked by the parents about her diagnosis, what should the physiotherapist reply?
   A. The child has symptoms of cerebral palsy.
   B. The child has symptoms of Werdnig-Hoffmann disease.
   C. It is too early to discuss a diagnosis for this child.
   D. They should seek this information from the treating doctor.

48. A physiotherapist is assessing a 46-year-old woman with systemic lupus erythematosus. On examination of the client, what should the physiotherapist expect to find?
   A. Skin thickening.
   B. Symmetrical joint inflammation.
   C. Discolouration and pitting of nails.
   D. Butterfly rash on face.

49. A 56-year-old female has been admitted to the intensive care unit with multiple trauma following a motor vehicle accident. The physiotherapy referral requests incentive spirometry and deep breathing. On assessment, the physiotherapist observes that the client is dyspneic, has severe chest pain, and has decreased breath sounds on the right. The chest x-ray reveals failure of the vascular markings to extend to the right chest wall, and mediastinal shift to the left. The physiotherapist suspects that the client has a tension pneumothorax. What should the physiotherapist do?
   A. Provide treatment for the client as requested.
   B. Discuss clinical findings with the physician.
   C. Reposition the client in high Fowler’s for comfort.
   D. Delay the treatment until the client’s pain is better managed.

50. A volunteer in an acute care facility reports to the physiotherapist that a 73-year-old man who has rheumatoid arthritis and who is receiving physiotherapy has been crying, is not eating well, and is worried about his family. The volunteer asks if the client is seeing a psychologist for counselling. How should the physiotherapist respond?
   A. With a description of the psychological supportive care that the client is receiving.
   B. That it is not possible to discuss the client’s treatment.
   C. By offering to discuss the matter after consulting the psychologist.
   D. That the volunteer should concentrate on her assigned responsibilities.

**Answer Key**
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