BCRPA Fitness Theory Exam Breakdown

The breakdown of the Fitness Theory exam can be found below.

Where to find in your Fitness Theory Workbook	Category	Number of Questions	%
Chapter 1	Health-Related Benefits of Physical Activity	2	3.5
Chapter 1	Holistic Approach to Physical Activity and Lifestyle	2	3.5
Chapter 2-6	Anatomy	9	15
Chapter 2	Movement Mechanics	15	25
Chapter 2-6	Physiology	13	21.5
Chapter 4-7	Principles of Conditioning	6	10
Chapter 4 & 8	Exercise Analysis and Risk Management	5	8
Chapter 1 & 7	Basic Nutrition/Body Composition	4	7
Chapter 4-7	Program Planning	3	5
Chapter 9	Leadership Skills	1	1.5
	Total	60	100%

BCRPA and the National Fitness Leadership Association

Fitness Theory Prerequisite Knowledge Base

HEALTH-RELATED BENEFITS OF PHYSICAL ACTIVITY

KNOWLEDGE BENCHMARK

The Exercise Leader describes the benefits of physical activity and its relationship to health and wellness.

Competencies

1. Summarizes the health-related benefits of physical activity.
2. Describes the potential health impacts of physical inactivity and sedentary lifestyles.
3. Identifies modifiable lifestyle behaviours and non-modifiable risk factors and how they increase or decrease the risk of chronic disease.

LEADERSHIP AND COMMUNICATION

KNOWLEDGE BENCHMARK

The Exercise Leader defines principles of adult learning, communication skills, and leadership models.

Competencies

1. Defines and identifies the principles of adult learning and how they relate to an exercise environment.
2. Chooses effective communication strategies for work with a variety of participants.
3. Describes the principles of effective leadership styles.
4. Identifies intrinsic and extrinsic factors that may motivate adults to participate in physical activity.

PROGRAM PLANNING

KNOWLEDGE BENCHMARK

The Exercise Leader describes how to prepare an effective physical activity or exercise program using established training methods and principles.

Competencies

1. Describes how to provide exercise modifications based on clients' needs.
2. Describes the evidence-based principles of the *Canadian Physical Activity Guidelines*

PHYSICAL ACTIVITY AND LIFESTYLE

KNOWLEDGE BENCHMARK

The Exercise Leader describes and integrates a holistic (whole-person wellness) approach to physical activity and lifestyle, identifies the elements of the Active Living concept, physical activity and physical literacy, and discusses the implications for exercise leadership.

Competencies

1. Defines holism; describes the benefits as they relate to physical activity and discusses how to impart this knowledge in an exercise leadership setting.
2. Defines active living, physical activity, and physical literacy.
3. Identifies common barriers to physical activity.
4. Distinguishes between fundamental movement skills and physical literacy; illustrates physical literacy in particular movement patterns.
5. Describes and demonstrates physical literacy in leadership and program development practices.
6. Encourages participants in various ways to commit to exercise and take responsibility for their own health and wellbeing.

ANATOMY

KNOWLEDGE BENCHMARK

The Exercise Leader demonstrates knowledge of human anatomy.

Competencies

1. Identifies the major muscle or muscle groups and the movements they perform, including trapezius; erector spinae; deltoid (anterior, middle, and posterior); rhomboids; pectoralis major; rectus abdominis; internal and external obliques; transverse abdominis; biceps brachii; triceps brachii; the latissimus dorsi; iliopsoas; gluteus maximus, medius, and minimus; hip adductors; hamstrings; quadriceps (rectus femoris, vastus lateralis, vastus intermedius, vastus medialis); gastrocnemius; soleus; and tibialis anterior.
2. Identifies the types of joints, including fibrous, cartilaginous, and synovial, and describes how bone structure influence's joint function.
3. Identifies joint structures and connective tissues, including the joint capsule, synovial membrane, articular cartilage, joint cavity, ligaments, and tendons.

4. Identifies the major bones, including the cranium, vertebrae (cervical, thoracic, and lumbar areas), scapula, ribs, sternum, humerus, radius, ulna, clavicle, pelvic girdle, femur, tibia, fibula, and patella.

MOVEMENT MECHANICS

KNOWLEDGE BENCHMARK

The Exercise Leader demonstrates knowledge of basic biomechanics involved in human movement.

Competencies

1. Identifies the movements of the hip, elbow, shoulder girdle, spine, wrist, ankle, and knee.
2. Identifies the major joint actions, including flexion, extension, abduction, adduction, medial /internal and lateral/external rotation, circumduction, hyperextension, dorsiflexion, plantar flexion, pronation, supination, eversion, inversion, lateral flexion, protraction, retraction, elevation, depression, transverse (horizontal) abduction and transverse (horizontal) adduction.
3. For four exercises (push-up, squat, lunge, and abdominal curl), identifies the agonist, antagonist, and the type of contraction for each phase of the exercise.
4. Defines synergist.
5. Defines and describes muscle actions.
6. Describes how the following impacts stability: a) size of the base of support, b) height of the centre of gravity, and c) location of the centre of gravity in relation to the base of support.
7. Using the principle of length of levers, explains how they can be used to vary the intensity of an exercise.

EXERCISE PHYSIOLOGY

KNOWLEDGE BENCHMARK

The Exercise Leader describes exercise physiology underlying human movement.

Competencies

1. Identifies the average range for resting heart rate as well as the range for target exercise heart rate for an individual of a stated age using the Karvonen Method and “220 – age” max heart rate method.
2. States whether each of the following increases or decreases during a cardiovascular exercise session: heart rate, blood pressure, stroke volume, and respiratory rate.
3. Describes how oxygen enters and moves through the body and how carbon dioxide is removed from the muscles.
4. Describes venous pooling and how to prevent it.
5. Defines blood pressure and identifies normal resting values for diastolic and systolic.
6. Describes how blood pressure adapts to cardiovascular conditioning.
7. Summarizes the key elements (endurance, total time, power) of the three energy systems (aerobic, lactic acid and ATP-CP) and their primary fuel (glycogen/glucose, fats, ATP-CP)
8. Identifies the primary system used in various physical activities.
9. Describes the long-term training adaptations of the following fitness components: cardiovascular endurance, muscular endurance, muscular strength, and flexibility.

10. Identifies and describes how environmental factors can affect the body's response to physical activity.

PRINCIPLES OF EXERCISE CONDITIONING

KNOWLEDGE BENCHMARK

The Exercise Leader describes exercise conditioning principles.

Competencies

1. Defines the FITT Principle: frequency, intensity, time (duration), and type of exercise for improving each of the following health-related components of fitness: flexibility, cardiovascular endurance, muscular strength, and muscular endurance.
2. Describes how using the talk test, rating of perceived exertion, the Borg scale, and training heart rate can be used to monitor and adjust intensity.
3. Identifies the pros and cons associated with static, dynamic, and ballistic stretching and when each is most appropriate.
4. Describes the importance of developing a balanced muscle-conditioning program for the muscles surrounding the major joints.
5. Describes the anatomical limitations to joint range of motion (flexibility)
6. Describes established training methods and principles (i.e., SAID, progressive overload, maintenance, FITT, reversibility, ceiling effect, symmetry)

EXERCISE ANALYSIS AND RISK MANAGEMENT

KNOWLEDGE BENCHMARK

The Exercise Leader describes safety in all aspects of planning and delivering exercise programs as well as methods for preventing and managing injuries.

Competencies

1. Describes why and how to use the following pre-screening tools: PAR-Q+, ePARmed-X, and the ePARmed-X for pregnancy.
2. Analyzes exercises for purpose, potential risks to joint structures, and modifications or alternative exercises.
3. Describes the signs and symptoms of overtraining.
4. Recognizes the following signs and symptoms that would warrant modifying or stopping an exercise session:
    - Client’s request to stop.
    - Fatigue
    - Inability to maintain proper form or technique.
    - Suspicion of heart attack or angina.
    - Wheezing or severe on-set of shortness of breath.
    - Dizziness, confusion, pallor, cyanosis, dyspnea, nausea.
    - Cramps in the upper or lower body.

- CNS (central nervous system) symptoms, e.g., ataxia (failure of muscular coordination), vertigo (an illusion of dizzying movement), visual or gait problem (changes in pattern of walking or running)
- Other sudden changes in performance or behavior

5. Understands the importance and describes emergency procedures for a facility.
6. Explains the RICE principle as it relates to injury.
7. Describes and demonstrates neutral posture.

NUTRITION

KNOWLEDGE BENCHMARK

The Exercise Leader explains general healthy eating principles.

Competencies

1. Using Eating Well with Canada's Food Guide, identifies the primary food groups and describes the main principles of the guide.
2. Describes general guidelines for choosing a pre-workout or recovery snack.
3. Identifies professional limitations that may require a referral to a Registered Dietitian

BODY COMPOSITION

KNOWLEDGE BENCHMARK

The Exercise Leader identifies safe and effective strategies for obtaining and maintaining a healthy body composition.

Competencies

1. Explains the energy–in/energy–out concept.
2. Explain the concepts on the combination of food intake and physical activity in maintaining a healthy body composition.
3. Describes body mass index (BMI) and this measurement’s limitations.
4. Describes how waist girth circumference may be a predictor of health-related risks of obesity.
5. Explains how changes in body composition (lean and fat tissue changes) influence basal metabolic rate and subsequent energy balance.
6. Defines atrophy and hypertrophy.