1) With regard to physical fitness, the overload principle can be defined as _____.
A) lifting too much weight during a weight-lifting procedure
B) stressing the body or a muscle group during exercise to improve physical fitness
C) overloading the body with prolonged exercise, which results in muscular damage
D) overuse of tendons during exercise to produce gains in strength
Answer: B
Diff: 1
Skill: Remembering
LO: 2.1
Section: 2.1

2) Which of the following is *not* involved in the principle of progression?
A) It is an extension of the overload principle.
B) It includes the concept of gradual increases in a fitness program.
C) It includes slowed progression until the fourth week of the program.
D) Overload should not be increased too quickly or too slowly.
Answer: C
Diff: 3
Skill: Understanding
LO: 2.1
Section: 2.1

3) The principle of recuperation is essential for maximal fitness benefits when having rest periods up to _____.
A) 24 hours after exercise
B) 12 hours after exercise
C) 12 hours or less after exercise
D) 24 hours or more after exercise
Answer: D
Diff: 2
Skill: Remembering
LO: 2.1
Section: 2.1

4) When choosing an optimal exercise shoe, you should _____.
A) shop for shoes late in the day
B) shop for shoes that are tight so the shoe does not slip
C) buy a shoe a half-size down when in doubt
D) allow for a break-in period
Answer: A
Diff: 1
Skill: Remembering
LO: 2.1
Section: 2.1

5) The overload principle can be utilized by _____.
A) increasing time of the exercise
B) using heavier weights and increasing the duration of the exercise
C) increasing the duration of the exercise only
D) using heavier weights only
Answer: B
Diff: 2
Skill: Understanding
LO: 2.1
Section: 2.1

6) Eight weeks after cessation of muscular endurance training, muscular endurance loss is typically around what percentage?
A) 50%
B) 30% to 40%
C) 10%
D) 10% to 40%
Answer: B
Diff: 1
Skill: Remembering
LO: 2.1
Section: 2.1

7) The principle of progression states that _____.
A) overload should be increased gradually during training
B) an exercise training session should be followed by a recovery period
C) an exercise training session should progress rapidly
D) overload should progress quickly in the first two weeks of training
Answer: A
Diff: 1
Skill: Remembering
LO: 2.1
Section: 2.1

8) The principle of training that states the body must be stressed in order to improve physical fitness is the _____.
A) principle of specificity
B) ten percent rule
C) principle of recuperation
D) overload principle
Answer: D
Diff: 1
Skill: Remembering
LO: 2.1
Section: 2.1

9) For a safe progression in training, it is recommended that the intensity or duration of exercise be increased no more than _____ per week.
A) 5%
B) 10%
C) 15%
D) 20%
Answer: B
Diff: 2
Skill: Understanding
LO: 2.1
Section: 2.1

10) An exercise routine designed to sustain a certain fitness level is called a(n) _____.
A) exercise prescription
B) sustaining schedule
C) principle of progression
D) maintenance program
Answer: D
Diff: 1
Skill: Remembering
LO: 2.1
Section: 2.1

11) The principle of _____ states that the effect of exercise training is specific to those muscles involved in the activity.
A) progression
B) reversibility
C) specificity
D) recuperation
Answer: C
Diff: 1
Skill: Remembering
LO: 2.1
Section: 2.1

12) The principle of _____ states that a period of rest between exercise training sessions is critical for maximal improvement in physical fitness.
A) progression
B) overload
C) recuperation
D) economy
Answer: C
Diff: 1
Skill: Remembering
LO: 2.1
Section: 2.1

13) The amount of rest recommended between vigorous bouts of exercise is generally _____.
A) 8 to 12 hours
B) 12 to 24 hours
C) 24 to 48 hours
D) 2 to 3 days
Answer: C
Diff: 2
Skill: Understanding
LO: 2.1
Section: 2.1

14) Failure to get adequate rest between workouts is referred to as _____.
A) general adaptation syndrome
B) rebounding
C) chronic fatigue syndrome
D) overtraining
Answer: D
Diff: 1
Skill: Remembering
LO: 2.1
Section: 2.1

15) Physical fitness can be lost due to inactivity; this outcome is described by the _____ principle.
A) overload
B) progression
C) recuperation
D) reversibility
Answer: D
Diff: 2
Skill: Understanding
LO: 2.1
Section: 2.1

16) Too much exercise can impair the body's _____ and increase the risk of infections such as a cold or the flu.
A) central nervous system
B) cardiovascular system
C) immune system
D) ability to excrete toxins
Answer: C
Diff: 2
Skill: Understanding
LO: 2.1
Section: 2.1

17) Establishing _____ is an important first step in designing an appropriate exercise training program.
A) weight-loss goals
B) a comfortable workout wardrobe
C) a firm workout schedule
D) short-term and long-term fitness goals
Answer: D
Diff: 2
Skill: Applying
LO: 2.2
Section: 2.2

18) Exercise prescription should be _____.
A) tailored to meet the needs of the individual including personal goals
B) based on age and gender along with personal goals
C) tailored to meet short-term and long-term goals
D) structured to meet personal needs and personal goals, and should include mode, warm-up, conditioning period and cool-down
Answer: D
Diff: 2
Skill: Applying
LO: 2.2
Section: 2.2

19) Exercise prescriptions include a combination of _____.
A) fitness goals and types of exercises only
B) fitness goals, types of activity, warm-up, conditioning period, and cool-down
C) goals, mode of activity, warm-up, and conditioning period
D) goals and conditioning period
Answer: B
Diff: 2
Skill: Understanding
LO: 2.2
Section: 2.2

20) The main purpose of a warm-up is to _____.
A) elevate muscle temperature and increase blood flow to muscles before a workout
B) aid in calorie expenditure
C) increase flexibility in joints
D) elevate core temperature
Answer: A
Diff: 1
Skill: Understanding
LO: 2.2
Section: 2.2

21) The FITT principle stands for _____.
A) frequency, intensity, time, and type
B) frequency, interval, time, and type
C) frequency, intensity, type, and tension
D) frequency, interval, time, and tension
Answer: A
Diff: 1
Skill: Remembering
LO: 2.2
Section: 2.2

22) Which of the following is *not* true of a cool-down?
A) It is a 5- to 15-minute period.
B) It involves low-intensity exercise.
C) It is usually directly after the workout period.
D) It maintains body temperature after a workout.
Answer: D
Diff: 2
Skill: Applying
LO: 2.2
Section: 2.2

23) The period of light exercise prior to the workout is called a _____.
A) flexibility test
B) warm-up
C) set of light reps
D) cool-down
Answer: B
Diff: 1
Skill: Remembering
LO: 2.2
Section: 2.2

24) The intensity level of a cool-down period following the workout should be _____.
A) low
B) moderate
C) high
D) the same intensity as the workout
Answer: A
Diff: 2
Skill: Applying
LO: 2.2
Section: 2.2

25) All of the following are major components of the exercise prescription that define the workout *except* _____.
A) duration
B) frequency
C) speed
D) intensity
Answer: C
Diff: 1
Skill: Remembering
LO: 2.2
Section: 2.2

26) The term "mode of exercise" describes the _____.
A) specific type of exercise performed
B) intensity with which an exercise is performed
C) duration of an exercise session
D) range of movement required by an exercise
Answer: A
Diff: 2
Skill: Remembering
LO: 2.2
Section: 2.2

27) Which of the following is an example of a low-impact activity?
A) kickboxing
B) running
C) volleyball
D) swimming
Answer: D
Diff: 2
Skill: Understanding
LO: 2.2
Section: 2.2

28) Which of the following statements is true about high-impact activities?
A) High-impact activities are less taxing on the body's bones.
B) High-impact activities place great stress on the body's joints.
C) High-impact activities are better for overall fitness than low-impact activities.
D) High-impact activities include swimming and cycling.
Answer: B
Diff: 3
Skill: Analyzing
LO: 2.2
Section: 2.2

29) The segment of time referred to as the "workout" is also known as the _____.
A) primary conditioning period
B) warm-up period
C) cool-down period
D) interval
Answer: A
Diff: 1
Skill: Remembering
LO: 2.2
Section: 2.2

30) During the cool-down, _____.
A) blood tends to pool in the muscles used during exercise
B) temperature drops and blood returns from the muscles to the heart
C) accumulated sweat is reabsorbed into the skin
D) temperature rises, allowing the body to readjust to normal body temperature
Answer: B
Diff: 2
Skill: Understanding
LO: 2.2
Section: 2.2

31) All exercise programs should be individualized. Therefore, an exercise prescription should consider the individual's age and _____.
A) gender
B) genetics
C) fitness status
D) weight
Answer: C
Diff: 2
Skill: Understanding
LO: 2.2
Section: 2.2

32) Which of the following are good methods of exercising that will help surpass the threshold of health benefits?
A) long workouts
B) high-intensity workouts only 4 days per week
C) 30 to 60 minutes of moderate activity 5 to 6 days per week
D) 30 to 60 minutes of moderate activity 3 to 5 days per week
Answer: D
Diff: 2
Skill: Understanding
LO: 2.3
Section: 2.3

33) Current physical activity guidelines recommended for adults include at least _____.
A) 60 minutes per week of moderate-intensity exercise
B) 150 minutes per week of high-intensity exercise
C) 100 minutes per week of moderate-intensity exercise
D) 150 minutes per week of moderate-intensity exercise
Answer: D
Diff: 3
Skill: Remembering
LO: 2.3
Section: 2.3

34) The minimum level of exercise required to achieve some health benefits is called the _____.
A) minimum fitness target
B) minimum daily requirement
C) threshold for weight loss
D) threshold for health benefits
Answer: D
Diff: 3
Skill: Remembering
LO: 2.3
Section: 2.3

35) U.S. Government physical activity guidelines recommend that adults perform at least _____ minutes of moderate-intensity exercise each week to improve health and reduce risk of illness.
A) 60
B) 100
C) 150
D) 175
Answer: C
Diff: 2
Skill: Understanding
LO: 2.3
Section: 2.3

36) Evidence indicates that 30 to 60 minutes of _____ exercise performed 3 to 5 days per week will provide major health benefits and reduce the risk of all causes of death.
A) low-intensity
B) moderate-intensity
C) moderate-to-high-intensity
D) high-intensity
Answer: C
Diff: 2
Skill: Understanding
LO: 2.3
Section: 2.3

37) Which of the following is *not* a barrier to physical activity?
A) lack of technology
B) lack of resources
C) lack of motivation
D) lack of time
Answer: A
Diff: 2
Skill: Understanding
LO: 2.4
Section: 2.4

2.2 Essay Questions

1) How does the principle of progression apply to the exercise prescription?
Answer: The principle of progression is an extension of the overload principle. It states that overload should be increased gradually during the course of a physical fitness program.
Diff: 3
Skill: Understanding
LO: 2.1
Section: 2.1

2) Why is the Ten Percent rule important in regard to the progression of exercise training?
Answer: The Ten Percent rule states that the training intensity or duration of exercise should be increased by no more than 10% per week. This is a standard guideline for improving physical fitness and avoiding overuse injuries.
Diff: 3
Skill: Understanding
LO: 2.1
Section: 2.1

3) Define the following terms: *overtraining* and *principle of recuperation*.
Answer: Overtraining is the failure to get adequate rest between exercise sessions, which results in fatigue and can lead to injuries. A common symptom is sore and stiff muscles or a feeling of general fatigue the morning after an exercise session, sometimes called a "workout hangover." The principle of recuperation states that the body requires recovery periods between exercise training sessions to adapt to the exercise stress. Therefore, a period of rest is essential to achieve maximal benefit from exercise.
Diff: 2
Skill: Understanding
LO: 2.1
Section: 2.1

4) What happens to physical fitness if you stop training?
Answer: Physical fitness will gradually decline. This loss of fitness due to inactivity is an example of the principle of reversibility.
Diff: 2
Skill: Understanding
LO: 2.1
Section: 2.1

5) List the essential components of an exercise prescription.
Answer: Components of an exercise prescription include fitness goals, mode of exercise (type of activity), a warm-up, a primary conditioning period, and a cool-down.
Diff: 1
Skill: Remembering
LO: 2.2
Section: 2.2

6) What is the general purpose of the warm-up and cool-down?
Answer: The purpose of a warm-up is to elevate muscle temperature and increase blood flow to those muscles that will be engaged in the workout. The primary purpose of a cool-down is to allow blood to be returned from the muscles back to the heart.
Diff: 3
Skill: Understanding/Applying
LO: 2.2
Section: 2.2

7) What modality of physical activity is optimal to obtain health benefits for you?
Answer: This question has no definitive answer. However, it is clear that any one or more of the many types of exercise (e.g., running, swimming, cycling, walking, strength training, sports) can be used to achieve exercise-related health benefits. It is up to individuals to choose activities that they enjoy so they are motivated to maintain their exercise program.
Diff: 3
Skill: Applying
LO: 2.2
Section: 2.2

8) Explain why individualizing the workout is important.
Answer: Although the same general principles of exercise training apply to everyone, no two people are the same. Therefore, the exercise prescription should consider such factors as the individual's general health, age, fitness status, musculoskeletal condition, and body composition.
Diff: 3
Skill: Understanding/Applying
LO: 2.2
Section: 2.2

9) Explain the difference between exercise training to improve sport performance and exercising for health benefits.
Answer: Exercise training for sport performance usually involves long workouts and high-intensity exercise. These workouts are focused on improving specific skills such as agility, speed, or power in playing a particular sport. Exercising for health benefits does not require excessive time or intensity to be beneficial. Any increase in activity level can provide benefits; current U.S. Government guidelines recommend at least 150 minutes of moderate-intensity exercise per week to experience health benefits.
Diff: 3
Skill: Understanding/Analyzing
LO: 2.3
Section: 2.3

10) List some common barriers to physical activity.
Answer: The most common barriers to engaging in physical activity are lack of time, social and environmental influences, inadequate resources, and lack of motivation and commitment.
Diff: 2
Skill: Understanding
LO: 2.4
Section: 2.4