

## Exam 1

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Part I Multiple-Choice Questions

1. The six dimensions of wellness do NOT include
  - a. Emotional wellness.
  - b. Environmental, or planetary, wellness.
  - c. Spiritual wellness.
  - d. Dietary wellness.
  
2. Optimism, trust, and self-confidence are components of
  - a. Physical wellness.
  - b. Emotional wellness.
  - c. Spiritual wellness
  - d. Interpersonal wellness.
  
3. Which of the following best describes spiritual wellness?
  - a. Participation in community work
  - b. Prevention of injuries
  - c. An ability to share feelings with others
  - d. Possession of a set of guiding beliefs that give meaning to life
  
4. Interpersonal and social wellness
  - a. Involves developing a network of caring people.
  - b. Requires a great degree of self-confidence.
  - c. Is not basic to physical or emotional health.
  - d. Requires an active, creative mind.
  
5. The most serious threat to one's health in the early 1900s was
  - a. Coronary heart disease.
  - b. Cancer.
  - c. Infectious disease.
  - d. Stroke.
  
6. In the "stages of change" model, the precontemplation stage is
  - a. Awareness of the problem.
  - b. Modification of behavior.
  - c. Belief that there is no need for change.
  - d. Planning for change.

7. According to the transtheoretical, or “stages of change,” model for making changes in your behavior, the stage where people may have begun to make small changes in their behavior but are not yet regular or consistent with the changes is the \_\_\_\_\_ stage.
  - a. Contemplation
  - b. Preparation
  - c. Maintenance
  - d. Action
  
8. Physical activity can be defined as
  - a. Movement carried out by the skeletal muscles that require energy.
  - b. Any condition that elevates the heart rate.
  - c. Aerobic exercise.
  - d. Strength training.
  
9. Exercise refers to physical activity that is
  - a. Discontinuous and unplanned
  - b. Planned, structured and repetitive.
  - c. Not a contributor to physical fitness.
  - d. Random or unstructured.
  
10. The latest version of the Physical Activity and Exercise Guidelines for Americans does NOT recommend
  - a. Getting at least 150 minutes of moderate-intensity aerobic exercise per week.
  - b. Increasing the volume and intensity of exercise for additional health benefits.
  - c. Getting at least 150 minutes of vigorously intense exercise per day.
  - d. Getting some type of resistance training at least two days per week.
  
11. The Physical Activity and Exercise Recommendations for Promoting General Health, Fitness, and Weight Management recommend the following for achieving or maintaining weight loss
  - a. Exercising moderately for 60-90 minutes per day on most days of the week.
  - b. Exercising 45-60 minutes per day on most days of the week.
  - c. Exercising 10-20 minutes per day on most days of the week.
  - d. Performing resistance exercise daily.
  
12. Which of the following is NOT a component of health-related fitness?
  - a. Muscular strength
  - b. Flexibility
  - c. Speed
  - d. Cardiorespiratory endurance

13. The ability of the body to perform prolonged, large-muscle, dynamic exercise at moderate to high levels of intensity is
- Anaerobic capacity
  - Adaptive capacity
  - Cardiorespiratory endurance
  - Muscular endurance
14. As a person's cardiorespiratory endurance increases, the
- Amount of blood pumped per heartbeat decreases.
  - Resting heart rate decreases.
  - Blood volume decreases.
  - Resting blood pressure increases.
15. Muscular strength is the
- Ability to sustain a given level of muscular tension over time.
  - Ability to move the joints through a full range of motion.
  - Amount of force a muscle can produce with a single maximum effort.
  - Amount of force a muscle can produce repeatedly over 60 seconds.
16. Muscular endurance is the
- Ability to resist fatigue and to sustain a given level of muscular tension over time.
  - Ability to move the joints through a full range of motion.
  - Amount of force a muscle can produce with a single maximum effort.
  - Amount of time required to contract a muscle completely.
17. Flexibility is best described as
- The ability to move without pain during exercise.
  - The ability to move the joints through their full range of motion.
  - Sustained motion without resistance.
  - The ability to move rapidly during exercise.
18. Which of the following is NOT considered a skill-related fitness component?
- Coordination
  - Flexibility
  - Balance
  - Agility
19. Specificity of training is best shown by which one of the following examples?
- Weight training to develop cardiorespiratory endurance.
  - Doing pushups to develop chest and shoulder endurance.
  - Running to develop flexibility.
  - Bicycling to develop back strength.

20. The body adapting to a gradual increase in the amount of exercise is the definition of
- Progressive overload.
  - Specificity of exercise.
  - The principle of reversibility.
  - The principle of assessment.
21. The amount of overload needed to maintain or improve one's fitness level is NOT determined by
- Time (duration).
  - Intensity.
  - Frequency.
  - Specificity.
22. The time component of the FITT principle for overload for a muscular strength program is
- Based on the amount of weight lifted.
  - Based on the number of training days per week.
  - More than for a cardiorespiratory fitness program.
  - Based on the number of sets and repetitions of specific exercises.
23. The recommended time (duration) for cardiorespiratory endurance exercise is \_\_\_\_\_ minutes.
- 5-10
  - 20-20
  - 20-60
  - 60-120
24. The Physical Activity Readiness Questionnaire (PAR-Q) is designed to
- Establish a proper exercise intensity level.
  - Identify potential exercise resources.
  - Determine exercise safety.
  - Help set exercise goals.
25. An exercise stress test can determine if you have
- Joint problems.
  - Excess body fat.
  - Excess emotional stress.
  - Symptoms of heart disease.
26. The first step in creating a successful fitness program is to
- Determine your training intensity.
  - Assess your current fitness goals.
  - Set specific fitness goals
  - Plan your fitness program.

27. Cardiorespiratory endurance is developed best by activities that
- Involves continuous rhythmic movements of large muscle groups.
  - Alternate between brief periods of maximal exertion and rest.
  - Gently extend joints beyond their normal range of motion
  - Involve working with weights or against resistance.
28. Muscular strength and endurance are developed best by activities that
- Involves continuous rhythmic movements of large muscle groups.
  - Gently extend joints beyond their normal range of motion.
  - Involve working with resistance such as weights or performing callisthenic exercises.
  - Decrease body fat.
29. Flexibility is best developed by
- Stretching only when muscles feel tight.
  - Stretching only once a month.
  - Stretching only a few muscles.
  - Stretching major muscle groups regularly.
30. Which one of the following statements about cooling down is true?
- It restores circulation to its normal resting condition.
  - It extends the duration of the cardiorespiratory endurance portion of the workout.
  - It increases the chance of overtraining.
  - It is most effective for workouts of less than 20 minutes in duration.
31. The two upper chambers of the heart in which blood collects before passing it to the lower chambers are called
- Ventricles.
  - Atria.
  - Septum.
  - Valves.
32. The largest artery in the body is the
- Carotid.
  - Atria
  - Aorta.
  - Coronary.
33. During systole, the heart is
- At rest.
  - Contracting.
  - Suffering an attack.

- d. Filling with blood.
34. Adenosine triphosphate (ATP) is defined as
- a. The building block of proteins.
  - b. The stored form of glucose.
  - c. The stored form of fats.
  - d. The basic form of energy used by cells.
35. An example of an activity that primarily uses the immediate energy system is
- a. Running a marathon.
  - b. Weight lifting.
  - c. Walking.
  - d. In line skating.
36. The nonoxidative energy system typically provides energy for
- a. 3 or fewer seconds.
  - b. 10-120 seconds.
  - c. 3-5 minutes.
  - d. 5-60 minutes.
37. The oxidative energy system produces ATP in structures called
- a. Alveoli.
  - b. Capillaries.
  - c. Mitochondria.
  - d. Atria.
38. Maximal oxygen consumption ( $VO_{2max}$ ) is
- a. The highest rate of oxygen consumption an individual is capable of during maximum physical effort.
  - b. The velocity of oxygen flowing through the blood.
  - c. Solely determined by genetics.
  - d. Very difficult to predict.
39. Which one of the following statements about monitoring exercise heart rate is true?
- a. Count your pulse for one minute.
  - b. Press firmly on the carotid artery.
  - c. Use your thumb, not one or more of your fingers.
  - d. Count your pulse immediately after stopping exercise.
40. An appropriate exercise heart rate for an average individual is \_\_\_\_\_ of
- a. 35%

- b. 55%
- c. 75%
- d. 95%

41. In addition to pulse counting, one may also monitor exercise intensity by using
- a. Ratings of perceived exertion.
  - b. Time of exercise.
  - c. Heart rate reserve.
  - d. Frequency of training.
42. Which of the following statements about a warm-up session is FALSE?
- a. It can enhance performance and reduce injuries.
  - b. Warm-up activities are usually of high intensity.
  - c. Muscles work better when their temperature is slightly above resting level.
  - d. It helps spread protective fluid throughout joints and protect joint surfaces.
43. Cooling down after exercise is important to
- a. Boost oxygen consumption.
  - b. Spread protective fluid within the joints.
  - c. Restore circulation to its normal resting condition.
  - d. Maintain blood flow to the extremities.
44. During the initial phase of an exercise program, a beginner should
- a. Exercise at the low end of the target heart rate range.
  - b. Exercise at the high end of the target heart rate range.
  - c. Perform short but intense bouts of activity.
  - d. Exercise 5-7 days per week.
45. Muscular strength is assessed by measuring
- a. The maximum amount of force a muscle can produce in a single maximal effort.
  - b. The maximum amount of force a muscle can produce in 10 repetitions.
  - c. The ability to exert a submaximal force repeatedly over time.
  - d. The ability to exert force rapidly.
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47. A motor unit is made up of
- a. A tendon and muscle fiber.

- b. Fast- and slow-twitch muscle fibers.
  - c. A motor nerve connected to muscle fibers.
  - d. A motor nerve connected to a tendon
48. A muscle fiber is
- a. A motor nerve attached to muscle cells
  - b. A protein structure within muscle cells.
  - c. An enzyme that facilitates metabolism within muscle cells.
  - d. An individual muscle cell.
49. Hypertrophy is defined as
- a. an increase in muscle fiber size
  - b. a decrease in muscle fiber size
  - c. an increase in muscle fiber number
  - d. a decrease in muscle fiber number
50. Slow twitch muscle fibers are NOT characterized by
- a. Use in endurance activities
  - b. Fatigue resistance
  - c. Rapid contraction
  - d. Oxidative energy system
51. Fast twitch muscle fibers are NOT characterized by
- a. Rapid contraction
  - b. Fatigue resistance
  - c. Anaerobic energy system
  - d. Use in sprinting
52. Activities that would predominantly use slow-twitch muscle fibers are
- a. Walking and jogging
  - b. Jumping and sprinting
  - c. Weight training
  - d. Shot putting
53. Activities that would predominantly use fast-twitch muscle fibers are
- a. Walking and jogging
  - b. Bike riding
  - c. Sprinting
  - d. Hiking
54. Strength training improves body composition primarily by

- a. Decreasing body weight
- b. Increasing muscle mass
- c. Increasing fat weight
- d. Decreasing muscle mass

55. Metabolic rate increases if

- a. Fat mass increases
- b. Fat mass decreases
- c. Muscle mass decreases
- d. Muscle mass increases

56. Isometric exercise is best described as applying force

- a. With movement
- b. At a constant speed
- c. Without a change in length of the muscle
- d. While a muscle is lengthening

57. Which of the following is NOT an advantage of isometric or static exercises?

- a. They require no equipment
- b. They mimic the speed of contraction needed for some sports
- c. They can be done almost anywhere
- d. They can overcome weak points in a joint's range of motion

58. Muscular force exerted as a muscle shortens is best classified as

- a. eccentric.
- b. isometric.
- c. concentric.
- d. isotonic.

59. A muscle lengthens as it contracts during a(n)

- a. isometric exercise.
- b. concentric contraction.
- c. speed-loading exercise.
- d. eccentric contraction.

60. Isokinetic exercise is best described as applying force

- a. with movement.
- b. at a constant speed.
- c. without movement.
- d. while a muscle is lengthening.

61. The MINIMUM number of training days per week for gaining strength is
- 2.
  - 3.
  - 5.
  - 6.
62. Training intensity for weight training is determined by
- number of sets.
  - amount of weight lifted.
  - number of repetitions.
  - amount of time lifting.
63. A recommended amount of resistance and number of repetitions for improving muscular endurance is
- 40-60% RM and 15-20 repetitions.
  - 40-60% RM and 1-5 repetitions.
  - 70-80% RM and 1-5 repetitions.
  - 80-100% RM and 5 repetitions.
64. A recommended amount of resistance and number of repetitions for building muscular strength rapidly is
- 40-60% RM and 15-20 repetitions.
  - 40-60% RM and 1-5 repetitions
  - 80% RM and 1-5 repetitions.
  - 90-100% RM and 10-15 repetitions.
65. To build individual muscle strength and muscle size, it is best to
- use heavy resistance with few repetitions for multiple sets.
  - use medium resistance with a medium number of repetitions.
  - use light resistance with many repetitions.
  - do resistance exercises for each muscle at least 5 days per week.
66. To improve muscular endurance, it is best to
- use heavy resistance with few repetitions for multiple sets.
  - use medium resistance with a medium number of repetitions.
  - use light resistance with many repetitions.
  - do resistance exercises for each muscle no more than 2 days per week.
67. In weight training, a set is a
- group of exercises followed by a rest period.
  - group of repetitions followed by a rest period.
  - group of similar exercises followed by a rest period.

d. single muscle contraction.

68. Which of the following is an example of an intensive weight training program focused on building muscular strength?
- a. 1 set, 8-12 repetitions, 70% of 1 RM
  - b. 1 set, 3-5 repetitions, 85% of 1 RM
  - c. 3 sets, 12-15 repetitions, 60% of 1 RM
  - d. 3 sets, 4-6 repetitions, 90% of 1 RM
69. For overall fitness, you should include \_\_\_\_\_ different exercises in your weight training program.
- a. 2-3
  - b. 5-6
  - c. 8-10
  - d. 12-14
70. An antagonist muscle is one that
- a. is stretched when an agonist muscle contracts, opposing the agonist.
  - b. is a contracting muscle.
  - c. is a strong, powerful muscle.
  - d. is a small, weak muscle.

Part II True/False Questions 2 points each

71. People in the contemplation stage of change are planning to take action within a month.
- a. True
  - b. False
72. Coordination is considered a health-related component of fitness.
- a. True
  - b. False
73. Balance is considered a skill-related component of fitness.
- a. True
  - b. False
74. Specificity is the principle which states that placing increasing amounts of stress on the body causes adaptations which improves fitness.
- a. True
  - b. False

75. The optimal exercise frequency for improving one's health related cardiorespiratory fitness level is three to five days per week.
- True
  - False
76. A person who stops exercising on a regular basis may lose up to 50% of fitness improvements within two months.
- True
  - False
77. The three phases of an exercise program are the beginning, progress, and maintenance phases.
- True
  - False
78. The vena cava is the largest artery in the body.
- True
  - False
79. The nonoxidative (anaerobic) energy system is used for high intensity activities lasting about 10 seconds to 2 minutes.
- True
  - False
80. Improved fitness allows you to exercise at higher intensities before the abrupt build-up of metabolic acids referred to as the Lactate Threshold.
- True
  - False
81. People who are fit have a higher resting heart rate than people who are unfit.
- True
  - False
82. Cardiovascular endurance exercise increases levels of low-density lipoproteins.
- True
  - False
83. A fast time and a low heart rate during the 1 –mile walk test indicate a high level of cardiorespiratory endurance.
- True
  - False
84. The “talk test” may be used to monitor exercise intensity.

- a. True
- b. False

85. The development of large muscle fibers is referred to as atrophy.

- a. True
- b. False

86. Myofibrils are made up of groups of muscle fibers.

- a. True
- b. False

87. Slow twitch muscle fibers do not fatigue as rapidly as fast twitch muscle fibers and are used primarily during endurance activities.

- a. True
- b. False

88. Weight training improves body composition by increasing fat free mass and raising metabolism.

- a. True
- b. False

89. Muscular strength can be assessed by measuring the maximum amount of weight a person can lift during one repetition (1 RM).

- a. True
- b. False

90. During a strength training exercise, the agonist muscle contracts and the antagonist muscle stretched to allow the contraction.

- a. True
- b. False

### Part III

91. Calculate your target heart rate using the Karvonen method (heart rate reserve (50% - 85%).

92. Calculate your target heart rate using the Maximum Heart Rate method (70% - 85%).

Exam 1 Redacted 3.17.15