



4

CHECK YOUR UNDERSTANDING

**Multiple Choice**

1. In order to effectively gather, sort, analyze, and evaluate relevant information before making a decision, you must determine whether that information is:

- A) reliable
- B) valid
- C) objective
- D) all of the above
- E) A and B only

Answer: _____

2. What is the first major consideration when making an evaluation?

- A) the number of people being evaluated
- B) the resources available for the evaluation
- C) the data available for comparisons
- D) the proper choice of instrument
- E) the experience of the evaluators

Answer: _____

3. Which of the following statements about cardiorespiratory endurance is **false**:

- A) It is a key component of physical fitness.
- B) It reflects an individual's aerobic capacity.
- C) It is the ability to supply oxygen to working muscles during physical exertion.
- D) It can be estimated from heart rate response.
- E) None of the above.

Answer: _____

4. Which of the following statements about strength is **true**:

- A) Laboratory tests must be used to assess muscular strength.
- B) Strength is an important factor in human performance.
- C) Strength is the maximum force a muscle can generate during prolonged contraction.
- D) There is a minor relationship between muscular strength and muscular endurance.
- E) Both B and D.

Answer: _____

5. Which of the following is **not** a test of muscular endurance:

- A) YMCA 1-minute sit-ups test
- B) flexed arm hang
- C) CAHPER shuttle run

D) push-ups test

E) continuous burpee test

Answer: _____

**Fill in the Blanks**

Fill in the blanks for the following statements using words from the **word bank** below. Place the corresponding letter from the word bank in the blank spaces provided.

1. When it is beneficial to group individuals on the basis of their skill level or ability, tests may be done for the purpose of _____.

2. _____ refers to the consistency or repeatability of test scores, data, or observations.

3. Step tests involve stepping up and down steps of a certain height at a particular _____ for an established period of time.

4. Ramjeet can lift 165 pounds and Jose can lift 210 pounds. Jose has higher _____ strength.

5. Flexibility tends to be _____ specific.

Word Bank

- | | | |
|-------------|---------------|----------------|
| a. absolute | d. placement | g. relative |
| b. angle | e. prediction | h. reliability |
| c. joint | f. rate | i. validity |

**True or False**

Indicate whether each statement is **true (T)** or **false (F)**. If the statement is false, provide the correct answer.

1. A personality inventory is an example of a test that diagnoses human performance.

Answer: _____

2. Reliability or validity must be present for results to be accurate and meaningful.

Answer: _____



3. True measures of body composition involve the estimation of an individual's body fat percentage, requiring the determination of body density.

Answer: _____

5. The CAHPER shuttle run is a measure of cardiorespiratory fitness.

Answer: _____

4. The factor that distinguishes the concepts of strength and power is time.

Answer: _____



Think and Link



1. Match the following terms in Column A with their corresponding characteristic in Column B. Terms can be matched with more than one answer.

Column A	Answer	Column B
Diagnosis	_____	A) Examples include entrance exams and skinfold tests
Placement	_____	B) Used to identify deficiencies and weaknesses
Prediction	_____	C) Is becoming more useful with increasing competition for funds and resources
Motivation	_____	D) Helps individuals put forth their full effort
Achievement	_____	E) Groups individuals who share certain characteristics
Program evaluation	_____	F) Helps instructors make the most efficient use of time and energy
		G) Indicates how an individual has fared in a particular task

2. What are the benefits of using norms? Describe one specific situation where you would use norm-referenced standards to compare performances to help you make an important decision.



Evaluate and Communicate



As an exercise physiologist in the health care industry, your job is to assess and analyze data from fitness evaluations and to communicate this information to your client with a structured and enjoyable fitness regime that promotes healthy active living.

Analyze the following fitness test results for Jeanie Nalliosa, and communicate your knowledge of these results to her. Provide suggestions/guidance to Ms. Nalliosa that she could incorporate into her stressful lifestyle as an executive administrator for a large and successful company.

Note: Use the tables and guidelines outlined in the textbook chapter to help you determine Ms. Nalliosa's performance levels and overall level of fitness. If performance norms are not available for Ms. Nalliosa's age, use the norms for the highest age category given.

Fitness Test	Component of Fitness the Test Measures	Results	Fitness Rating/Category
12-minute run-walk test		Distance covered: 2 km	
YMCA skinfold test		Sum of 4 skinfolds = 76 mm	
Grip dynamometer		Combined score = 58 kg	
Standing long jump		Score = 130 cm	
Vertical jump		Score = 15 cm	
YMCA sit-ups test		40 repetitions	
Push-ups test		25 repetitions	
Sit-and-reach test		Score = 30 cm	
Hamstring looseness test		Fingertips barely touch feet	
CAHPER shuttle run		Score = 12.5 seconds	



A little more background information on Ms. Nalliosa:

- She is a 29-year-old executive administrator (predominantly a desk job on the computer).
- She stands 168 cm tall.
- She has a mass of 55 kg.
- Resting blood pressure is 120/78 mm Hg – normal with no family history of cardiovascular illness.
- Her resting heart rate is 72 beats per minute (bpm).
- She constantly complains about back stiffness and numbness in her hands from sitting and typing all day.
- Also complains of sore feet from wearing high heels at work.
- She takes work home, which sometimes gets in the way of healthy eating and an active lifestyle.
- Has a fitness club membership and enjoys swimming and cardiorespiratory exercises most.
- Does not know how to use weight machines properly and complains that she can't grip very well because of hand pain.
- Loves to go for walks in the park, but does not like sports.
- Does not like heavy lifting or hard labour such as grocery shopping and gardening.
- Has a sweet tooth for chocolate and candy.

Calculate Ms. Nalliosa's predicted $\dot{V}O_2$ max (using the Queen's College step test formula on page 239 in the textbook) if her heart rate was 35 beats per 15 seconds at the conclusion of the test.

What are the four skinfold sites used in the YMCA skinfold test?

Research another type of skinfold test, and compare it to the YMCA skinfold test. Why would you use the test you researched over the YMCA skinfold test?

What areas does Ms. Nalliosa excel in? Need improvement in?

From the results, what guidance or suggestions can you recommend to Ms. Nalliosa to help her maintain her strong areas and to help her improve on areas that need improvement?
