Biomechanical Basis of Human Movement 5th edition Hamill Test Bank

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Test Bank, Chapter 1, Basic Terminology

1. Using a force platform to measure the forces imposed on the feet during walking is an example of what type of analysis?
   A) Qualitative
   B) Quantitative
   C) Kinematic
   D) Both A and C
   Ans: B

2. During knee extension, the shank (i.e., the segment between the ankle and the knee) undergoes what type of motion?
   A) Linear
   B) Curvilinear
   C) Angular
   D) Diagonal
   Ans: C

3. During practice, a coach watches an athlete swim several laps and identifies a technique error that puts the swimmer at an increased risk of injury. This type of analysis is called:
   A) kinesiologic.
   B) static.
   C) kinetic.
   D) kinematic.
   Ans: D

4. Statics is the branch of mechanics that examines systems that are:

   A) not moving.

   B) moving at a constant speed.

   C) accelerating.

   D) both A and B.

   Ans: D

5. Which type of analysis is a nonnumeric evaluation of motion based on direct observation?

   A) Quantitative

   B) Qualitative

   C) Statics

   D) Dynamics

   Ans: B

6. Which phrase best defines *biomechanics*?

   A) The scientific study of human movement

   B) The science of the structure of the body

   C) The study of the structure and function of biologic systems by means of the methods of mechanics

   D) The study of characteristics of motion from a spatial and temporal perspective without reference to the forces causing the motion

   Ans: C

7. Select the term that best describes the study of the body components needed to achieve or perform a human movement or function.
   A) Biomechanics
   B) Kinesiology
   C) Functional anatomy
   D) Angular kinematics
   Ans: C

8. Linear motion is also known as _____ motion.
   A) translational
   B) angular
   C) curvilinear
   D) diagonal
   Ans: A

9. The examination of the projectile characteristics of a high jumper is an example of which type of analysis?
   A) Angular
   B) Anatomical
   C) Kinetic
   D) Kinematic
   Ans: D

10. A _____ analysis would be used to determine the amount of force necessary to lift a 200-lb barbell in a squat.

    A) kinetic

    B) kinematic

    C) static

    D) dynamic

    Ans: A

11. Select the term that best describes the branch of mechanics that examines systems that are not moving or are moving at a constant speed.

    A) Kinematics

    B) Kinetics

    C) Dynamics

    D) Statics

    Ans: D

12. Which is not part of the axial skeleton?

    A) Head

    B) Neck

    C) Upper extremities

    D) Trunk

    Ans: C

13. The longitudinal axis is orthogonal to which plane?

A) Sagittal

B) Transverse

C) Frontal

D) Diagonal

Ans: B

14. The right and left deltoid muscles are _____ to one another.

A) ventral

B) dorsal

C) ipsilateral

D) contralateral

Ans: D

15. On which side of the body are the patellae located?

A) Dorsal

B) Posterior

C) Ventral

D) Both A and B

Ans: C

16. If one clasps hands behind the back and moves them back and upward, which term best describes the movement at the shoulder joint?

    A) Hyperextension

    B) Hyperflexion

    C) Hyperabduction

    D) Hyperadduction

    Ans: A

17. When the shoulders return to a neutral position from being shrugged, the scapulae undergo:

    A) elevation.

    B) depression.

    C) protraction.

    D) retraction.

    Ans: B

18. Standing on one's toes is an example of:

    A) plantar flexion.

    B) dorsiflexion.

    C) supination.

    D) pronation.

    Ans: A

19. Holding the hand in a fixed position and drawing an imaginary O in the air with the thumb is best described as:

A) supination.

B) pronation.

C) inversion.

D) circumduction.

Ans: D

20. An absolute reference frame is one in which the movement of a segment is described relative to:

A) the center of a joint.

B) the adjacent segment.

C) the center of mass of the segment.

D) a fixed point in space.

Ans: D

21. The anteroposterior axis runs:

A) ventral and dorsal.

B) horizontal.

C) vertical.

D) none of the above.

Ans: A

22. A somersault occurs in which plane?

A) Sagittal

B) Frontal

C) Transverse

D) None of the above

Ans: A

23. How many degrees of freedom does the hip have?

A) 1

B) 2

C) 3

D) 4

Ans: C

24. A relative angle is also referred to as a joint angle.

A) True

B) False

Ans: A

25. When the body is in anatomical position, the palms face inward toward the trunk.

A) True

B) False

Ans: B

26. When the body is in fundamental position, the thumb is on the anterior side of the hand.

A) True

B) False

Ans: A

27. The wrist is proximal to the elbow.

A) True

B) False

Ans: B

28. The knee has 2 degrees of freedom.

A) True

B) False

Ans: B