Student name:\_\_\_\_\_\_\_\_\_\_

**1)** The interval of time between the initiation and completion of a movement is called \_\_\_\_\_\_.

**2)** A person had the following error scores for a series of 5 trials: +5, -3, +8, +18, -6. The average AE score is \_\_\_\_\_\_\_\_.

**3)** Variable error is an indicator of a person's performance \_\_\_\_\_\_\_\_ when performing a skill that requires hitting a target.

**4)** The kinematic measure of motor performance that describes the speeding up and slowing down of a movement is called \_\_\_\_\_\_\_\_.

**5)** The method of recording electrical activity in the muscles during movement is called \_\_\_\_\_\_\_\_.

**6)** If you want to describe the movement of an object in a straight line, the type of motion you would describe is referred to as \_\_\_\_\_\_\_\_.

**7)** Force can be calculated from the kinematics of a movement if you know the mass of the moving object and the \_\_\_\_\_\_\_\_ of the movement.

**8)** The rotary force of body segments around their joints axes is known as joint \_\_\_\_\_\_\_\_.

**9)** The brain activity measurement technique that shows blood flow in the brain is known as \_\_\_\_\_\_\_\_.

**10)** The calculation of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ provides an objective measure of the coordination between two limbs or limb segments by comparing the specific location of each limb or limb segment in one cycle of a cyclic movement.

**11)** Which of the following would be considered a performance outcome measure?

A) The distance a ball was kicked   
 B) The angle of the knee at ball impact  
 C) The electrical activity in the quadriceps muscles during the kick  
 D) The electrical activity in the brain during the kick

**12)** Which of the following would be considered a performance production measure?

A) The height of a jump   
 B) The time to complete a jump  
 C) The number of successful jumps to reach a target  
 D) The joint torque at the knee just prior to take off during a jump

**13)** Which two events mark the beginning and the end of the interval known as reaction time?

A) Warning signal and stimulus signal   
 B) Stimulus signal and initiation of the response  
 C) Stimulus signal and the completion of the response  
 D) Warning signal and the initiation of the response

**14)** When RT is fractionated, the interval that represents the time it takes to receive and transmit information from the environment is referred to as the:

A) Premotor time   
 B) Motor time  
 C) Discrimination time  
 D) Response time

**15)** An individual must respond to only one of several signals presented in this type of reaction time.

A) Simple RT   
 B) Choice RT  
 C) Discrimination RT  
 D) Serial RT

**16)** A physical therapist is helping a stroke patient relearn how to hold a fork. The patient drops the fork five out of the ten trials. The patient is having a \_\_\_\_\_\_\_.

A) Bias problem   
 B) Constant error  
 C) Consistency problem  
 D) Temporal accuracy problem

**17)** This error measure evaluates performance consistency during a series of trials.

A) AE   
 B) CE  
 C) VE  
 D) E

**18)** This error measure evaluates overall accuracy during a series of trials.

A) AE   
 B) CE  
 C) VE  
 D) RE

**19)** To determine muscle activation patterns, this measurement method could be used.

A) EMG   
 B) EEG  
 C) Kinetics  
 D) Kinematics

**20)** The change in spatial position of a limb is called:

A) Displacement.   
 B) Velocity.  
 C) Acceleration.  
 D) Linear motion.

**21)** Displacement, velocity, and acceleration are \_\_\_\_\_\_\_\_\_\_\_ measures of motion.

A) Kinetic   
 B) Kinematic  
 C) Force  
 D) Angular motion

**22)** What do angle-angle diagrams examine?

A) How fast a person moves between two points   
 B) The relationship between two joints during movement  
 C) Changes in acceleration  
 D) Movement kinetics

**23)** The term kinetics refers to motion caused by \_\_\_\_\_\_\_\_\_\_\_.

A) Velocity   
 B) Angular acceleration  
 C) Force  
 D) Movement

**24)** The measure of muscle activity that detects the lateral displacement of a muscle's belly following maximal percutaneous neuromuscular stimulation is referred to as:

A) Electromyography (EMG)   
 B) Whole muscle mechanomyography (wMMG)  
 C) Electroencephalography (EEG)  
 D) Near infrared spectroscopy (NIRS)

**25)** Near infrared spectroscopy (NIRS) can be used to measure activity in the:

A) Brain   
 B) Muscles  
 C) Brain and muscles  
 D) None of the above

**26)** EEG recordings will show \_\_\_\_\_\_\_\_\_\_ waves when the cerebral cortex is active.

A) Alpha   
 B) Beta  
 C) Theta  
 D) Delta

**27)** This brain activity measurement technique realigns hydrogen atoms in the body and may provide clear 2D and 3D images of the brain.

A) EEG   
 B) PET  
 C) EMG  
 D) fMRI

**28)** What brain recording technique allows researchers to elicit a motor evoked potential (MEP)?

A) EEG   
 B) fMRI  
 C) PET  
 D) TMS

**29)** Simple RT involves one signal and more than one possible response.

⊚ true  
 ⊚ false

**30)** Reaction time and movement time measure the same aspect of performance.

⊚ true  
 ⊚ false

**31)** A motor task involves having a person watch a screen that flashes multi-colored lights. The person is instructed to press a button as quickly as possible when the color blue flashes on the screen. This task is examining the individual's discrimination RT.

⊚ true  
 ⊚ false

**32)** Constant error (CE) refers to a person's performance bias during a series of trials.

⊚ true  
 ⊚ false

**33)** Radial error (RE) would be the appropriate general accuracy measure to assess the accuracy of a golf putt.

⊚ true  
 ⊚ false

**34)** Root-mean-square error (RMS) is typically used to measure accuracy in discrete skills.

⊚ true  
 ⊚ false

**35)** Kinematics studies how force influences motion.

⊚ true  
 ⊚ false

**36)** When a performance score is recorded as m/sec -1, the performance measure is velocity.

⊚ true  
 ⊚ false

**37)** During REM sleep you would expect a person's EEG to show alpha waves.

⊚ true  
 ⊚ false

**38)** TMS involves directing a short burst of magnetic waves at a specific area of the brain cortex in order to temporarily activate that area.

⊚ true  
 ⊚ false

**39)** If you move your two arms forward and backward several times at the same time, the phase relationship between them is 0 degrees.

⊚ true  
 ⊚ false

**40)** The two legs are 180 degrees out of phase during running.

⊚ true  
 ⊚ false

**Answer Key**Test name: Chapter 02

1) Movement time

2) 8

3) [consistency, Also acceptable, variability]

4) acceleration

5) [EMG, or electromyography]

6) linear

7) acceleration

8) torque

9) [PET, or Positron Emission Topography]

10) [relative phase, or continuous relative phase]

11) A

12) D

13) B

14) A

15) C

16) C

17) C

18) A

19) A

20) A

21) B

22) B

23) C

24) B

25) C

26) B

27) D

28) D

29) FALSE

30) FALSE

31) TRUE

32) TRUE

33) TRUE

34) FALSE

35) FALSE

36) TRUE

37) FALSE

38) FALSE

39) TRUE

40) TRUE