

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) Two people are balanced on a seesaw. If one person leans inward toward the center of the seesaw, that person's end of the seesaw tends to _____
A) stay at the same level. B) rise.
C) fall. D) need more information
- 2) The chef at the infamous Fattening Tower of Pizza tosses a spinning disk of uncooked pizza dough into the air. The disk becomes wider during its flight, while its rotational speed _____
A) quickens. B) remains constant. C) slows.
- 3) A coin and a ring roll down an incline at the same time. The one to first reach the bottom is the _____
A) coin.
B) ring.
C) both reach the bottom at the same time
- 4) The rotational inertia of your leg is greater when your leg is _____
A) same either way B) bent. C) straight.
- 5) As a huge rotating cloud of particles in space gravitate together forming an increasingly dense ball, it shrinks in size and _____
A) rotates at the same speed. B) cannot rotate.
C) rotates slower. D) rotates faster.
- 6) A ring, a disk, and a solid sphere begin rolling down a hill together. Which reaches the bottom first? _____
A) sphere
B) ring
C) disk
D) all reach the bottom at the same time
E) need more information
- 7) A boy plays solitary seesaw by placing the seesaw's fulcrum one-eighth the distance from where he sits at one end. Which weighs more? _____
A) they have equal weights B) the seesaw
C) the boy D) need more information
- 8) A vertically-held sledge hammer is easier to balance when the heavier end is _____
A) same either way
B) on your hand.
C) at the top, away from your hand.

- 9) You can safely stand on the overhanging end of a heavy plank that rests on a table. How much overhang depends on your mass and the plank's mass. If you can stand on the end of a plank that overhangs the edge of the supporting table $1/4$ its total length, how massive is the plank compared to your mass? 9) _____
- A) twice
 - B) $1/2$
 - C) 1 and $1/2$ times
 - D) 4 times
 - E) the same
- 10) As you crawl toward the edge of a large freely-rotating horizontal turntable in a carnival funhouse, the angular momentum of you and the turntable 10) _____
- A) decreases in direct proportion to your decrease in revolutions per minute.
 - B) increases.
 - C) decreases.
 - D) remains the same, but the revolutions per minute decrease.
 - E) none of these

Answer Key

Testname: QUIZ - ROTATION

- 1) B
- 2) C
- 3) A
- 4) C
- 5) D
- 6) A
- 7) C
- 8) C
- 9) E
- 10) D