Exam

Name_____

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 1) _____
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 2) _____
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 3) _____
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 4) _____
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 5) _____
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? 6) _____
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? 7) _____
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 8) _____
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