Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Grade 8 Science \_\_\_\_\_\_\_\_\_

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| CMT Expected performance C 24  Describe the forces acting on an object moving in a circular path |

Centripetal Motion

*Directions: Write the letter of the correct answer on the space to the left.*

\_\_\_\_\_1. If you whirl a stone on the end of a string and the string suddenly breaks, the stone will

a. drop instantly to the ground c. fly off tangent in a straight line

b. fly directly toward you d. spiral away from your hand

\_\_\_\_\_2. When you whirl a ball on the end of a string, the centripetal force on the ball is actually the

a. tension of the string c. ball’s mass

b. normal force d. compression of the string

\_\_\_\_\_3. A car travels in a circle with constant speed. The centripetal force on the car is

a. towards the center of the circle c. forwards in the direction of motion

b. zero d. the car’s mass

\_\_\_\_\_4. You whirl a puck in a horizontal circle overhead, the force that holds the puck in the path

a. acts in either an inward or outward direction c. acts in an outward direction

b. acts parallel to the force of gravity d. acts towards the center of the circle