Name _____

How Are Moons Formed?

Multiple Choice Questions

1. How are moons formed through the capture mechanism?

a) They are created from protoplanetary disks.

b) They result from colossal collisions.

c) They are captured by a planet's gravity.

d) They form through accretion.

2. What is the primary process responsible for the formation of moons from protoplanetary disks?

a) Capture

b) Giant impact

c) Accretion

d) Inclined orbit

3. Which moon formation mechanism involves the collision of a planet with another celestial body?

a) Capture

b) Accretion

c) Giant Impact Hypothesis

d) Inclined orbit

4. What sets captured moons apart from a planet's natural moons?

a) Their highly elliptical or inclined orbits

b) Their large size

c) Their icy composition

d) Their molten surfaces

5. What is a protoplanetary disk, and how does it contribute to moon formation through accretion?

a) A protoplanetary disk is a region around a black hole, contributing to moon formation by gravitational pull that coalesces nearby objects into moons.

b) A protoplanetary disk is a dense cloud from a supernova, facilitating moon formation by condensing and accreting material quickly.

c) A protoplanetary disk is a disk of gas and dust around a young star, contributing to moon formation as material clumps together through accretion.

d) A protoplanetary disk is a flat disk of minor planets within a galaxy, aiding moon formation as planets capture these materials gravitationally.