

Class 9 Physics Chapter 10 Gravitation MCQs

1. Which of the following is true of two objects of different masses falling freely near the surface of the moon?

- (a) They both have different accelerations.
- (b) They have the same velocities at any instant
- (c) They experience forces of the same magnitude
- (d) They change their inertia

2. Which of the following statements is true of the value of acceleration due to gravity?

- (a) The value is the same on the equator and poles
- (b) The value is least on poles
- (c) The value is almost negligible on the equator
- (d) The value increases from pole to equator

3. The law of gravitation describes the gravitational force between

- (a) any two bodies having mass
- (b) earth and point mass only
- (c) earth and Sun only
- (d) two charged bodies only

4. The Earth's atmosphere is held by the

- (a) Wind
- (b) Clouds
- (c) Earth's magnetic Field
- (d) Gravity

5. Which of the following factors does the acceleration due to gravity on the Earth depend upon?

- (a) Mass of the Body
- (b) Mass of the Earth
- (c) The volume of the Body
- (d) Shape and Size of the Body

6. Which of the following is true when a Mango falls from a Mango Tree?

- (a) Only the Earth attracts the Mango.
- (b) Only the Mango attracts the Earth.
- (c) Both Mango and Earth attract each other
- (d) Both Mango and Earth repel each other

7. The weight of an object on the Moon's surface is

- (a) $1/3^{\text{rd}}$ of the weight on Earth
- (b) $1/5^{\text{rd}}$ of the weight on Earth
- (c) $1/6^{\text{th}}$ of the weight on Earth
- (d) $1/2^{\text{nd}}$ of the weight on Earth

8. What is the value of the acceleration due to gravity on the surface of the Earth?

- (a) 9.8 m/s^2
- (b) 18.8 m/s^2
- (c) 4 m/s^2
- (d) 12 m/s^2

9. What holds the Earth's atmosphere?

- (a) Gravity
- (b) Clouds
- (c) Wind
- (d) Earth's Magnetic Field

10. The gravitational force between two bodies does not depend on

- (a) their masses
- (b) their separation
- (c) the product of their masses
- (d) the medium between two bodies

***** Answer Key *****

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|---------|---------|---------|---------|----------|
| 1 - (b) | 2 - (c) | 3 - (a) | 4 - (d) | 5 - (b) |
| 6 - (c) | 7 - (c) | 8 - (a) | 9 - (a) | 10 - (d) |