
APPENDIX

ACHIEVEMENT TEST 1

STUDENTS NAME:-.....

CLASS:-.....

DATE:-

SUBJECT:-.....

SUBJECT: - PHYSICS
CLASS 9

Time Allotted:- 80 Mins
Maxi. Marks= 40

GENERAL INSTRUCTIONS

All Questions Are Compulsory.

There Are Three Section:-

1. Section A Carry 20 Questions Each Carrying One Marks.
2. Section B Carry 11 Question Each Carrying One Marks
3. Section C Tally 9 Question Is Carry One Marks
4. You May Attempt Any Section At A Time.

SECTION A

1. Two objects of different masses falling freely near the surface of the moon would
 - (a) have same velocities at any instant
 - (b) have different acceleration
 - (c) experience forces of same magnitude
 - (d) undergo a change in their inertia
 2. The value of acceleration due to gravity
 - (a) is same on equator and poles
 - (b) is least on poles
 - (c) is least on equator
 - (d) increases from pole to equator
 3. The gravitational force between two objects is F . If masses of both objects are halved without changing the distance between them, then the gravitational force would become
 - (a) $F/4$
 - (b) $F/2$
 - (c) F
 - (d) $2F$
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4. A boy is whirling a stone tied to a string in a horizontal circular path. If the string breaks, the stone
- (a) will continue to move in the circular path
 - (b) will move along a straight line towards the centre of the circular path
 - (c) will move along a straight line tangential to the circular path
5. d) will move along a straight line perpendicular to the circular path away from the boy
6. An object is put one by one in three liquids having different densities. The object floats with 19, 211 and 37 parts of their volumes outside the liquid surface in liquids of densities d_1 , d_2 and d_3 respectively. Which of the following statement is correct?
- (a) $d_1 > d_2 > d_3$
 - (b) $d_1 > d_2 < d_3$
 - (c) $d_1 < d_2 > d_3$
 - (d) $d_1 < d_2 < d_3$
7. In the relation $F = GMm/d^2$, the quantity G
- (a) depends on the value of g at the place of observation
 - (b) is used only when the Earth is one of the two masses
 - (c) is greatest at the surface of the Earth
 - (d) is universal constant of nature
8. Law of gravitation gives the gravitational force between
- (a) the Earth and a point mass only
 - (b) the Earth and Sun only
 - (c) any two bodies having some mass
 - (d) two charged bodies only
9. The value of quantity G in the law of gravitation
- (a) depends on mass of Earth only
 - (b) depends on radius of Earth only
 - (c) depends on both mass and radius of Earth
 - (d) is independent of mass and radius of the Earth
10. Two particles are placed at some distance. If the mass of each of the two particles is doubled, keeping the distance between them unchanged, the value of gravitational force between them will be
- (a) 14 times
 - (b) 4 times
 - (c) 12 times
 - (d) unchanged
11. The atmosphere is held to the Earth by
- (a) gravity
 - (b) wind
 - (c) clouds
 - (d) Earth's magnetic field
12. The force of attraction between two unit point masses separated by a unit distance is called
- (a) gravitational potential
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- (b) acceleration due to gravity
 - (c) gravitational field
 - (d) universal gravitational constant

13. The weight of an object at the centre of the Earth of radius R is

- (a) zero
- (b) infinite
- (c) R times the weight at the surface of the Earth
- (d) $1/R^2$ times the weight at surface of the Earth

14. An object weighs 10 N in air. When immersed fully in water, it weighs only 8 N. The weight of the liquid displaced by the object will be

- (a) 2 N
- (b) 8 N
- (c) 10 N
- (d) 12 N

15. A girl stands on a box having 60 cm length, 40 cm breadth and 20 cm width in three ways. In which of the following cases, pressure exerted by the box will be

- (a) maximum when length and breadth form the base
- (b) maximum when breadth and width form the base
- (c) maximum when width and length form the base
- (d) the same in all the above three cases

16. An apple falls from a tree because of gravitational attraction between the Earth and the apple. If F_1 is the magnitude of force exerted by the Earth on the apple and F_2 is the magnitude of force exerted by the apple on the Earth, then

- (a) F_1 is very much greater than F_2
- (b) F_2 is very much greater than F_1
- (c) F_1 is only a little greater than F_2
- (d) F_1 and F_2 are equal

17. The acceleration due to gravity on the Earth depends upon the

- (a) mass of the body
- (b) mass of the Earth
- (c) shape and size of the body
- (d) volume of the body

18. When a mango falls from a mango tree then

- (a) only the Earth attracts the mango.
- (b) only the mango attracts the Earth.
- (c) both the mango and the Earth attract each other.
- (d) both the mango and the Earth repel each other

19. When a ship floats in sea water

- (a) The weight of water displaced is greater than the weight of ship
 - (b) The weight of water displaced is less than the weight of the ship
 - (c) The weight of water displaced is equal to the weight of the ship
 - (d) It displaces no water.
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20. The SI unit of pressure is
- (a) Nm^2
 - (b) N/m
 - (c) N/m^2
 - (d) N^2/m^2
21. If the gravitational attraction of the Earth suddenly disappears, which of the following statements will be true?
- (a) The weight of body will become zero but the mass will remain same.
 - (b) The weight of a body will remain same but the mass will become zero.
 - (c) Both mass and weight become zero.
 - (d) Neither mass nor weight becomes zero.

SECTION-B

Fill in the blanks

1. Gravitational force is always in nature.
2. of a body is the quantity of matter contained in it.
3. SI unit of mass is
4. Weight of an object is the force with which it is attracted towards the
5. The acceleration due to gravity of moon is of that of the Earth.
6. Every fluid exerts an force on a body immersed in it. This force is called
7. Density of a substance is defined as mass per unit
8. The force acting on an object to the surface is called thrust.
9. The relative density of a substance is the ratio of its density to that of
10. The unit of pressure is
11. The unit of weight is
12. The earth revolves around the sun due to.....

Match the following columns

Column A	Column B
1. SI unit of Weight.	(i) Kilogram
2. mass	(ii) $F = G\frac{m_1m_2}{r^2}$
3. Weight	(iii) mg
4. Buoyant force	(iv) Newton
5. Relative density.	(v) Ratio of density of the substance to that of water
6. SI unit of mass	(vi) Quantity of matter contained in a body
7. Gravitational force between two bodies (expression)	(vii) Force acting on body due to Earth's attraction

8. Weight of an object (expression)	(viii) Upward force on a body placed in a fluid
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ACHIEVEMENT TEST 2

STUDENTS NAME:-.....

CLASS:-.....

DATE:-

SUBJECT-.....

SUBJECT: - PHYSICS

CLASS 9

Time Allotted:- 80 Mins

Maxi. Marks= 40

GENERAL INSTRUCTIONS

All Questions Are Compulsory.

There Are Three Sections:-

1. Section A Carry 20 Questions Each Carrying One Marks.
2. Section B Carry 11 Questions Each Carrying One Marks
3. Sections C carry 9 Question Is Carry One Marks
4. You May Attempt Any Section At A Time.

SECTION A

1. The value of acceleration due to gravity on the surface of the earth at sea level is
 - (a) 4.9 m/s^2
 - (b) 6 m/s^2
 - (c) 8 m/s^2
-

(d) 9.8 m/s^2

2. When an object is thrown vertically upward, on reaching the highest point, the value of acceleration due to gravity will be

- (a) 4.9 m/s^2
- (b) 9.8 m/s^2 upwards
- (c) 9.8 m/s^2 towards the ground
- (d) 0 m/s^2

3. In the polar regions, the value of acceleration due to gravity

- (a) is same as at the equator
- (b) Is more than at the equator
- (c) Is less than at the equator
- (d) zero

4. Weight of an object on the surface of the moon is

- (a) $1/2$ th of the weight of object on the surface of the earth
- (b) $1/4$ th of the weight of object on the surface of the earth
- (c) $1/6$ th of the weight of object on the surface of the earth
- (d) $1/8$ th of the weight of object on the surface of the earth

5. For an object, which is projected vertically upwards, the time of ascent when measured from the point of projection, will be

- (a) less the Time of descent
- (b) greater the Time of descent
- (c) equal to the Time of descent
- (d) None of the above

6. . The force which keeps the body to move in circular motion when accelerated is

- (a) Centripetal force
- (b) Magnetic force
- (c) Electrostatic force
- (d) Force of gravitation

7. The expression for finding the gravitational force of attraction between any two bodies is
- (a) $F = Gm_1 m_2/r$
 - (b) $F = Gm_1 m_2/r^2$
 - (c) $F = Gm_1 /r^2$
 - (d) $F = Gm_1 m_2/r^3$
8. The reaction force, caused by expulsion of mass in one direction, applied on a surface in a direction perpendicular to the surface is called
- (a) weight
 - (b) Pressure
 - (c) Centripetal force
 - (d) thrust
9. SI Unit of pressure is
- (a) Pascal
 - (b) Newton
 - (c) Dyne
 - (d) barye
10. The upward force exerted by the liquid displaced by the body when it is placed inside the liquid is called
- (a) Gravitational force
 - (b) Force of gravitation
 - (c) Buoyant force
 - (d) Centripetal force
11. An an object on moon surface weighs 66 kg , the the weight of same object, on surface of earth will be
- (a) 6 kg
 - (b) 11 kg
 - (c) 33 kg
 - (d) 66 kg

12. $W_t(\text{Moon})$ - the weight of an object on moon and $W_t(\text{Earth})$ - the weight of an object on earth, are related to each other as per the expression :

(a) $W_t(\text{Moon}) = 1/4 W_t(\text{Earth})$

(b) $W_t(\text{Moon}) = 6 W_t(\text{Earth})$

(c) $W_t(\text{Moon}) = W_t(\text{Earth})$

(d) $W_t(\text{Moon}) = 1/6 W_t(\text{Earth})$

13. If the distance between objects decreases, then the gravitational force between the objects will:

(a) decrease

(b) Increase

(c) remain same

(d) none of the above

14. Which of the following was not a contribution of Newton's to science?

(a) laws of motion

(b) the law of universal gravitation

(c) the first experiment to measure the accurate values of G , the gravitational constant of proportionality

(d) Explanation of fundamental nature of light by means of different optical phenomena such as the refraction and diffraction etc.

15. The mass of an physical object is

(a) not the same thing as weight of an object

(b) The amount of matter contained in the object, independent of the position of object

(c) Measure of the extent to which a particle or object resists a change in its direction or speed when a force is applied.

(d) All of the above

16. A body of mass 1kg is attracted by the earth with a force which is equal to

a. 9.8N

b. 6.67×10^{11}

c. 1 N

d. 9.8m/s

17. . What is the gravitational force between two objects?
- a. attractive at large distances only
 - b. attractive at small distances only
 - c. attractive at all distances
 - d. attractive at large distances but repulsive at small distances
18. The value of 'g'
- a. Increases as we go above the earth's surface
 - b. Decreases as we go to the centre of the earth
 - c. Remains constant
 - d. Is more at equator and less at poles
19. . The ball is thrown up, the value of 'g' will be
- a. Zero
 - b. positive
 - c. negative
 - d. negligible
20. The gravitational force causes
- a. Tides
 - b. Motion of moon
 - c. None of them
 - d. Both a and b

SECTION B

Fill in the following blanks with suitable words:

1. The acceleration due to gravity on the moon is about..... of that on the earth.
2. In order that the force of gravitation between two bodies may become noticeable and cause motion, one of the bodies must have an extremely large.....
3. The weight of an object on the earth is about..... of its weight on the moon.
4. The weight of an object on the moon is about of its weight on the earth.
5. The value of g on the earth is about..... of that on the moon.
6. If the weight of a body is 6 N on the moon, it will be about..... on the earth
7. Gravitational force is always in nature.
8. of a body is the quantity of matter contained in it.

9. SI unit of mass is

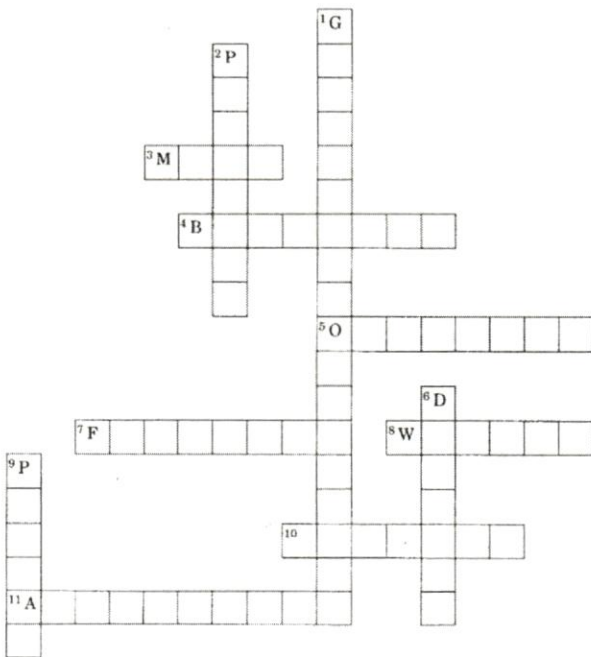
10. Weight of an object is the force with which it is attracted towards the

11. The acceleration due to gravity of moon is of that of the Earth.

12. Every fluid exerts an force on a body immersed in it. This force is called

SECTION C

Complete the crossword given below



Across

- Quantity of matter contained in a body
- The property due to which a body immersed in fluid experiences upward force.
- Acceleration due to gravity of moon is how much time that of Earth

7. Whenever objects fall towards the Earth under gravitational force alone, we say that objects are in

8. The force with which a body is attracted towards the Earth

10. Force of gravitation due to Earth is called

11. Nature of gravitational force is always

Down

1. Force between two bodies due to their masses

2. Thrust on unit area

6. Mass per unit volume

9. SI unit of pressure

PRE TEST MARKS

Name of students	Marks	Name of students	Marks
PINKY	10	AMIT	16
SEEMA	9	RAHUL	15
PRIYAKA	11	ROHAN	16
PRAVYA	12	MOHAN	18
POOJA	12	SAM	19
ASHA	13	PREM	18
JUHI	13	PANKAJ	19
SWATI	13	PRADEEP	20
ANJALI	14	SANDEEP	21

REENA	22	DEEPAK	22
RAKHI	35	GYAN	23
AAKASHA	13	MUKESH	21
LAXMI	15	SOURAV J	22
SAURABHI	12	SANJAY	23
MANOJ	15		
PRAJAY	16		
LUCKY	16		
BUNTY	16		
SUMIT	16		

POST TEST MARKS

Name of students	Marks	Name of students	Marks
PINKY	27	AMIT	37
SEEMA	37	RAHUL	31
PRIYAKA	28	ROHAN	40
PRAVYA	32	MOHAN	37
POOJA	28	SAM	31
ASHA	35	PREM	38

JUHI	29	PANKAJ	38
SWATI	38	PRADEEP	31
ANJALI	39	SANDEEP	38
REENA	30	DEEPAK	39
RAKHI	36	GYAN	39
AAKASHA	28	MUKESH	37
LAXMI	32	SOURAV J	34
SAURABHI	32	SANJAY	37
MANOJ	29		
PRAJAY	34		
LUCKY	32		
BUNTY	38		
SUMIT	33		