PHYSICS

BOOKS - JNAN PUBLICATION

PHYSICAL ENVIRONMENT (FORCES ACTIVE WITHOUT CONTACT)

Example

1. What is the name of attractive force which act between two bodies in the universe

A. nuclear force

B. gravitational force

C. magnetic force

D. columb attractive force.

Answer:

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2. The value of gravitational acceleration___

A. 9.81

B. 8.91

C. 4.43

D. none of the above.

Answer:

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3. In which region of earth the weight of a body is slightly greater?

A. at equator

B. tropic of cancer/tropic of capricorn

C. at polar region

D. none of the above.

Answer:

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4. Gravitation is a which type of force?

A. repulsive force

B. attractive or repulsive force

C. attractive force

D. not a force

Answer:

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5. The force involved in falling of an apple from a tree is known as _____

A. magnetic force

B. electrostatic force

C. contact force

D. gravitational force

Answer: gravitational force

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6. Which of the following is an example of a non-contact force _____

the force exerted by us to lift a bucket ☐

hit a cricket ball for runs ☐

the force exerted by magnet ☐

push a stationary car ☐

A. the force exerted by us to lift a bucket

B. hit a cricket ball for runs

C. the force exerted by magnet

D. push a stationary car

Answer:

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7. In Newton's equation F =

A. universal gravitational constant

B. distance between the two particles

C. gravitational force

D. masses of two point object.

Answer:

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8. Mass of proton is ____

$9.11 \times 10 - ^{28} \ gm$ ☐

1.675×10^{-24}gm ☐

1.6725×10^{-24}gm ☐

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9. An atom is usually electrically neutral because_____

equal number of electron proton ☐

equal number of neutron electron ☐

equal number of neutron proton ☐

none of these ☐

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10. Metals are good conductor of electricity because____

metals have large number of free electrons ☐

metals have many protons. ☐

None Of These ☐

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11. Two types of charges were named by____

A. Franklin

B. Coulomb

C. Faraday

D. Archimedes

Answer:

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12. If electron increases in a body then it would be_____

A. negatively charged

B. positively charged

C. charge free

D. none of the above.

Answer:

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13. It is safe to do electrical work standing on a wooden stool because it is _____

good conductor ☐

preventive ☐

bad conductor ☐

none of the above. ☐

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14. Which particle revolves around the centre of atom___

A. proton

B. neutron

C. electron

D. none of the above.

Answer:

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15. A semi conductor material is____

silicon ☐

glass ☐

copper ☐

none of the above. ☐

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16. Which one is good conductor___

silicon ☐

graphite ☐

ebonite ☐

none of the above. ☐

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17. State whether True or False :

G is called 'Universal gravitational constant'.

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18. State whether True or False :

In a vaccum place a gold coin will fall faster than a feather.

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19. State whether True or False :

Similar charges attracts each other.

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20. State whether True or False :

CGS unit of force is Dyne.

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21. State whether True or False :

The force with which sun attracts an object near it is called gravitational force.

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22. State whether True or False :

The force with which earth attracts an object near it is called gravitational force.

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23. State whether True or False :

If dry hair is combed static electricity is produced.

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24. State whether True or False :

The negative charged particle of atom is proton.

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25. State whether True or False :

The positive charged particle of atom is proton.

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26. State whether True or False :

CGS unit of force is Newton.

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27. State whether True or False :

The negative and positive charged particles of an atom has same numerical value.

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28. State whether True or False :

When two materials are rubbed against each other one becomes positively and the other becomes negatively charged.

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29. State whether True or False :

G is called acceleration due to gravity.

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30. State whether True or False :

Hydrogen has no neutron.

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31. State whether True or False :

When an atom loses one or more electron(s) it becomes positively charged.

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32. State whether True or False :

An atom consits of four types of particles.

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33. Fill in the blanks:

Of all metals _____ is the best conductor of electricity.

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34. Fill in the blanks:

Static electricity can be produced by _____.

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35. Fill in the blanks:

Neutron is not present in the nucleus of _____ atom.

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36. Fill in the blanks:

Minimum velocity to overcome gravitational pull of the earth is _____.

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37. Fill in the blanks:

Same kind of electrical charges_____.

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38. Fill in the blanks:

In the core of atom lies _____ and _____.

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39. Fill in the blanks:

Earth pulls every object towards itself through

_____ force.

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40. Fill in the blanks:

Average radius of earth_____.

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41. Fill in the blanks:

Most metals conduct electricity because they have enough _____ available in them.

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42. Fill in the blanks:

Force = _____ × _____.

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43. Fill in the blanks:

_____ is called Universal graviational constant.

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44. Fill in the blanks:

The force of gravity on unit mass is numerically equal to be _____ due to gravity.

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45. Fill in the blanks:

When an object is thrown upward, its speed _____ with altitude.

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46. Fill in the blanks:

French scientist _____ invented a formula to calculate the force exerted between the two charged particles.

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47. Fill in the blanks:

If glass is rubbed with silk, glass becomes _____ charged and silk becomes_____ charged.

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48. Fill in the blanks:

The centre of the atom is called_____.

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49. Fill in the blanks:

Electron carry _____ charges.

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50. Match the column A and column B.

Column A	Column B
a) Gravitation is a kind of	i) is different in different places.
b) SI unit of weight is	ii) an applied force
c) In the centre of earth	iii) it falls same speed.
d) Value of acceleration due to gravity	iv) 11·2 km/sec
e) Velocity of an object changes due to	v) is a kind of universal constant.
f) If an object falls without any hindrance	vi) force
g) Minimum velocity to overcome gravitational pull	vii) weight of object becomes zero.
h) Universal gravitational constant	viii) Newton.

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51. Due to which force all objects fall towards earth?

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52. With what force one object attracts another object?

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53. What are the CGS and SI unit of measuring force?

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54. What like charges do?

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55. What unlike charges do?

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56. What is produced by rubbing two materials?

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57. By what unit electric charges is measured?

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58. What is the CGS unit of acceleration?

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59. What is the SI unit of accleration?

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60. Who named the two charges positive and negative?

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61. If a glass rod is rubbed with silk what charges occur in which object?

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62. If an atom gains electron what charge it acquires?

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63. If an atom releases electron of what charge it becomes?

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64. Name a neutral particle in atom?

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65. What type of charge is in proton?

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66. What type of charge is in electron?

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67. A fruit falling from tree is an example of which type of force?

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68. Water begins to flow towards the ground as soon as we open a tap. This happens due to which force?

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69. Who gave us preliminary idea about the nature of electrical charge?

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70. What do you mean by free-falling object?

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71. What is the value of universal gravitational constant (G) in C.G.S. unit?

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72. What it the value of G in SI ?

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73. What is gravitation?

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74. What is gravity?

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75. Why G is called 'Universal gravitational constant'?

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76. What is weight of a body? How it is measured?

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77. What is escape velocity?

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78. On what factors the attraction between two objects depend? Explain how they depend?

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79. Define contact force

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80. What are non contact force?

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81. Define electrostatic force.

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82. Why atom is usually electrically neutral?

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83. How many types of electricity is there? Define

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84. What Aristotle thought about free falling object?

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85. What are the laws of electrostatic attraction and repulsion?

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86. A truck transporting petrol has a metal chain dangling to the ground. Explain the reason.

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87. What is the charge of an electron, proton and a neutron ?

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88. We have seen that bits of paper got attracted to a plastic comb which had got charged by rubbing it against dry hair, explain why it happen?

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89. With an experiment prove that like charges repel.

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90. Write Coulomb's law and explain it.

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91. From electrical point of view explain conductors and non-conductors.

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92. If charges of two particles are increased two times but the distance between them remains same than state what difference will occur in the attraciton of two particles.

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93. Define charging by friction. Give example.

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94. Define charging by conduction. Give's example.

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95. Describe the atomic structure.

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96. Mass of an object is 10g. Find out its weight?

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97. Find out the value of force with which 5 kg mass object is pulled by earth?

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98. Mass of one object remains same, but of another object mass is increased 3 times than before and their distance is also increased

three times. Then will the gravitational force increase or decrease?

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