



PHYSICS

BOOKS - MBD

PHYSICAL WORLD

Example

1. What is the difference between physical sciences and biological sciences?



Watch Video Solution

2. What is Optics?



[Watch Video Solution](#)

3. Name some physicists who were great.



[Watch Video Solution](#)

4. What are the steps involved in a scientific methods?



Watch Video Solution

5. Name two Indian physicists who have won Nobel Prize in physics.



Watch Video Solution

6. Who first gave the concept of antiparticle?



Watch Video Solution

7. What is meant by physical world?



Watch Video Solution

8. Who gave theory of relativity?



Watch Video Solution

9. What is heliocentric theory?



Watch Video Solution

10. What is scientific attitude?



Watch Video Solution

11. What is range of lengths and time to microscopic atomic level processes?



Watch Video Solution

12. The fate of society is linked with physics.

Comment.



[Watch Video Solution](#)

13. What is range of length and time in an astronomical phenomenon?



[Watch Video Solution](#)

14. Name Indian physicist who had contributed a lot to the nuclear physics.



[Watch Video Solution](#)

15. Name five main branches of physics.



Watch Video Solution

16. What is basic aim of science?



Watch Video Solution

17. What is the theory ? How is it made?



Watch Video Solution

18. The physicists think at a level for higher than a normal individual. Is it true ?



Watch Video Solution

19. Should a discovery which have nothing good but dangerous consequences be made public?



Watch Video Solution

20. What are the other words for science in Sanskrit and Arabic?



Watch Video Solution

21. What is the basic difference between a gravitational force and electrostatic force?



Watch Video Solution

22. Which force is weakest in nature?



Watch Video Solution

23. Which force is strongest in nature?



Watch Video Solution

24. Which forces obeys the inverse square law?



Watch Video Solution

25. Which exchange particles are involved in Nuclear forces?



Watch Video Solution

26. Which exchange particles are involved in gravitational force?



Watch Video Solution

27. Which force governs the structures of atoms and molecules?



Watch Video Solution

28. What are the conserved quantities in nature? Name any two.



Watch Video Solution

29. What is basic aim of science?



[Watch Video Solution](#)

30. What do you mean by weak nuclear force?



[Watch Video Solution](#)

31. Some of the most profound statements on the nature of science have come from Albert Einstein, one of the greatest scientists of all time. What do you think did Einstein mean when he said : "The most incomprehensible

thing about the world is that it is comprehensible"?



[Watch Video Solution](#)

32. "Every great physical theory starts as a heresy and ends as a dogma". Give some examples from the history of science of the validity of this incisive remark.



[Watch Video Solution](#)

33. "Politics is the art of the possible". Similarly, " Science is the art of the soluble". Explain this beautiful aphorism on the nature and practice of science.



Watch Video Solution

34. Though India now has a large base in science and technology, which is fast expanding, it is still a long way from realising its potential of becoming a world leader in

science. Name some important factors, which in your view have hindered the advancement of science in india.



[Watch Video Solution](#)

35. No physicist has ever "seen" an electron. Yet, all physicists believe in the existence of electron. An intelligent but superstitious man advances this analogy to argue that 'ghosts' exist even though no one has 'seen' one. How will you refute his argument?



36. The shells of crabs found around a particular coastal location in Japan seem mostly to resemble the legendary face of a Samurai. Given below are two explanations of this observed fact. Which of these strikes you as a scientific explanation? -

(a) A tragic sea accident several centuries ago drowned a young Samurai. As a tribute to his bravery, nature through its inscrutable ways immortalised his face by imprinting it on the

crab shells in that area.

(b)After the sea tragedy, fishermen in that area, in a gesture of honour to their dead hero, let free any crab shell caught by them which accidentally had a shape resembling the face of a Samurai. Consequently, the particular shape of the crab shell survived longer and therefore in course of time the shape was genetically propagated. This is an example of evolution by artificial selection.



Watch Video Solution

37. The shells of crabs found around a particular coastal location in Japan seem mostly to resemble the legendary face of a Samurai. Given below are two explanations of this observed fact. Which of these strikes you as a scientific explanation? -

(a) A tragic sea accident several centuries ago drowned a young Samurai. As a tribute to his bravery, nature through its inscrutable ways immortalised his face by imprinting it on the crab shells in that area.

(b) After the sea tragedy, fishermen in that area, in a gesture of honour to their dead

hero, let free any crab shell caught by them which accidentally had a shape resembling the face of a Samurai. Consequently, the particular shape of the crab shell survived longer and therefore in course of time the shape was genetically propagated. This is an example of evolution by artificial selection.



[Watch Video Solution](#)

38. The industrial revolution in England and Western Europe more than two centuries ago

was triggered by some key scientific and technological advances. What were these advances?



[Watch Video Solution](#)

39. It is often said that the world is witnessing now a second industrial revolution, which will transform the society as radically as did the first. List some key contemporary areas of science and technology, which are responsible for this revolution.



[Watch Video Solution](#)

40. Write in about 1000 words a fiction piece based on your speculation on the science and technology of the twenty second century.



[Watch Video Solution](#)

41. Attempt to formulate your 'moral' views on the practice of science. Imagine yourself stumbling upon a discovery, which has great academic interest but in certain to have

nothing but dangerous consequences for the human society. How, if at all, will you resolve your dilemma?



[Watch Video Solution](#)

42. Science, like any knowledge, can be put to good or bad use, depending on the user. Given below are some of the applications of science. Formulate your views on whether the particular application is good, bad or something that cannot be so clearly

categorised: - Mass vaccination against small pox to curb and finally eradicate this disease from the population. (This has already been successfully done in India).



[Watch Video Solution](#)

43. Science, like any knowledge, can be put to good or bad use, depending on the user. Given below are some of the applications of science. Formulate your views on whether the particular application is good, bad or

something that cannot be so clearly categorised: - Television for eradication of illiteracy and for mass communication of news and ideas.



[Watch Video Solution](#)

44. Science, like any knowledge, can be put to good or bad use, depending on the user. Given below are some of the applications of science. Formulate your views on whether the particular application is good, bad or

something that cannot be so clearly
categorised: - Prenatal sex determination



Watch Video Solution

45. Science, like any knowledge, can be put to good or bad use, depending on the user. Given below are some of the applications of science. Formulate your views on whether the particular application is good, bad or something that cannot be so clearly

categorised: - Computers for increase in work efficiency



Watch Video Solution

46. Science, like any knowledge, can be put to good or bad use, depending on the user. Given below are some of the applications of science. Formulate your views on whether the particular application is good, bad or something that cannot be so clearly

categorised: - Putting artificial satellites into orbits around the Earth



Watch Video Solution

47. Science, like any knowledge, can be put to good or bad use, depending on the user. Given below are some of the applications of science. Formulate your views on whether the particular application is good, bad or something that cannot be so clearly

categorised: - Development of nuclear weapons



Watch Video Solution

48. Science, like any knowledge, can be put to good or bad use, depending on the user. Given below are some of the applications of science. Formulate your views on whether the particular application is good, bad or something that cannot be so clearly categorised: - Development of new and

powerful techniques of chemical and biological warfare).



Watch Video Solution

49. Science, like any knowledge, can be put to good or bad use, depending on the user. Given below are some of the applications of science. Formulate your views on whether the particular application is good, bad or something that cannot be so clearly categorised: - purification of water for drinking



[Watch Video Solution](#)

50. Science, like any knowledge, can be put to good or bad use, depending on the user. Given below are some of the applications of science. Formulate your views on whether the particular application is good, bad or something that cannot be so clearly categorised: - plastic surgery



[Watch Video Solution](#)

51. Science, like any knowledge, can be put to good or bad use, depending on the user. Given below are some of the applications of science. Formulate your views on whether the particular application is good, bad or something that cannot be so clearly categorised: - Cloning



Watch Video Solution

52. India has had a long and unbroken tradition of great scholarship - in mathematics, astronomy, linguistic, logic and ethics. Yet, in parallel with this, several superstitious and obscurantistic attitudes and practices flourished in our society and unfortunately continue even today - among many educated people too. How will you use your knowledge of science to develop strategies to counter these attitudes?



Watch Video Solution

53. Though the law gives women equal status in India, many people hold unscientific views on a women's innate nature, capacity and intelligence, and in practice give them a secondary status and role. Demolish this view using scientific arguments, and by quoting examples of great women in science and other spheres, and persuade yourself and other that, given equal opportunity, women are on par with men.



Watch Video Solution

54. "It is more important to have beauty in the equations of physics than to have them agree with experiments". The great British physicist P. A. M. Dirac held this view. Criticize this statement. Look out for some equations and results in this book which strike you as beautiful.



[Watch Video Solution](#)

55. The scientific principle involved in radio and television is:

- A. super conductivity
- B. electromagnetic induction
- C. propagation of e.m. wave
- D. emissions of γ – rays.

Answer:



Watch Video Solution

56. Unification of weak and electromagnetic interaction was done by:

A. Einstein

B. Salam

C. Hubble

D. Raman

Answer:



Watch Video Solution

57. Who discovered neutron?

A. Newton

B. Rutherford

C. Maxwell

D. Chadwick

Answer:



Watch Video Solution

58. Raman got Nobel prize in physics for:

A. Scattering of light

B. dispersion of light

C. reflection of light

D. refraction of light.

Answer:



Watch Video Solution

59. Which of the following astronomers first proposed that sun is static and earth rounds the sun?

A. Copernicus

B. Kepler

C. Galileo

D. None of these.

Answer:



Watch Video Solution

60. Physics involves the study of

A. plants

B. animal and birds

C. human

D. nature and natural phenomenon

Answer:



Watch Video Solution

61. Time taken by light to cross nuclear diameter is of the order of

A. 10^{-6} s

B. 10^{+6}

C. 10^{-22} s

D. 10^{+22} s

Answer:



Watch Video Solution

62. Fill in the Blanks:

_____ is the branch of science which deals with nature and natural phenomenon.



Watch Video Solution

63. Fill in the Blanks:

The word _____ originates from the Latin verb scientia.



Watch Video Solution

64. Fill in the Blanks:

The two domains of interest in Physics are



Watch Video Solution

65. Fill in the Blanks:

_____ deals with the study of gaseous systems.



Watch Video Solution

66. Fill in the Blanks:

The sciences which deals with _____ are called Physical Science.



Watch Video Solution

67. What is science ?



Watch Video Solution

68. What is physics?





[Watch Video Solution](#)

69. What is the name of Greek word from which the word physics is derived?



[Watch Video Solution](#)

70. Name five main branches of physics.



[Watch Video Solution](#)

71. What are two main tools of physics?



Watch Video Solution

72. Give the drawbacks of classical physics.



Watch Video Solution

73. Why is physics inherently simple?



Watch Video Solution

74. What is the interplay between physics and technology?



Watch Video Solution

75. The fate of society is linked with physics.
Comment.



Watch Video Solution

76. What is electromagnetic force?



[Watch Video Solution](#)

77. Name the branch of physics which deals with theory of motion of material particles.



[Watch Video Solution](#)

78. Name the branch of physics which deals with the behaviour of sub-microscopic particles.



[Watch Video Solution](#)

79. Name Indian physicist who had contributed a lot to the nuclear physics.



Watch Video Solution

80. What is gravitational force?



Watch Video Solution

81. What are nuclear forces ? Discuss four important properties of nuclear forces.



Watch Video Solution

82. Name the scientist who gave the following comment on science. " Science is not just a collection of passengers in a bus, a catalogue of unrelated facts. It is a creation of human mind, with its freely invented ideas and concepts."





[Watch Video Solution](#)

83. Who discovered electron?



[Watch Video Solution](#)

84. What is the principle of nuclear reactor?



[Watch Video Solution](#)

85. Fill in the Blanks:

_____ is the branch of science which deals with nature and natural phenomenon.



Watch Video Solution

86. Laser involve the process of _____.



Watch Video Solution

87. Computers are based on _____



[Watch Video Solution](#)

88. Science is a _____ knowledge.



[Watch Video Solution](#)

89. Name the branch of physics which deals with theory of motion of material particles.



[Watch Video Solution](#)

90. _____ deals with the motion of particles moving with speeds of the order of velocity of light.



[Watch Video Solution](#)

91. What are the steps involved in a scientific methods?



[Watch Video Solution](#)

92. Name two advancements made in technology on the basis of physics.



Watch Video Solution

93. Name five main branches of physics.



Watch Video Solution

94. Discuss the relation of physics with other sciences.



[Watch Video Solution](#)

95. Give examples of gravitational, electromagnetic and nuclear forces from daily life experience.



[Watch Video Solution](#)

96. What is the difference between physical sciences and biological sciences?



[Watch Video Solution](#)

97. Differentiate between biological and physical sciences.



Watch Video Solution

98. What is the interplay between physics and technology?



Watch Video Solution

99. Mention three conservation laws of mechanics.



Watch Video Solution

100. When a theory needs modification?



Watch Video Solution

101. Has imagination any role in physics?



Watch Video Solution

102. Name five main branches of physics.



Watch Video Solution

103. Match the following

A. Scientist	B. Discovery
1. Faraday	1. Laws of gravitation
2. Rutherford	2. Quantum model of hydrogen atom
3. Chadwick	3. Unification of light and electromagnetism



Watch Video Solution

104. Match the following

A. Scientist	B. Country of origin
1. Michelson	1. Denmark
2. Newton	2. U.S.A.
3. Landau	3. Italy
4. Bhabha	4. France
5. Bohr	5. India
6. Archimedes	6. Germany
7. Galileo	7. U.S.S.R.
8. Curie	8. Britain
9. Heisenberg	9. Japan
10. Yukawa	10. Greece



Watch Video Solution

105. Explain the role of physics in relation to science and society.



Watch Video Solution

106. What is the role of physics in our daily life?



Watch Video Solution

107. Write the relative magnitude of four forces.



Watch Video Solution

108. Define science, scientific method, theory and physics.



Watch Video Solution

109. Discuss the scope and excitement of physics.



Watch Video Solution

110. What is gravitational force?



[Watch Video Solution](#)

111. What is weak force? Give its properties.



[Watch Video Solution](#)

112. What is electromagnetic force?



[Watch Video Solution](#)

113. What are nuclear forces ? State their four properties.



Watch Video Solution

114. What is law of conservation of momentum ?



Watch Video Solution

Exercise

1. What is science ?



Watch Video Solution

2. What is physics?



Watch Video Solution

3. What do you understand by the term scientific method?



Watch Video Solution

4. Who discovered neutron?



Watch Video Solution

5. Who proposed the wave theory of light?



Watch Video Solution

6. What does LASER stand for?



Watch Video Solution

7. Are S.I. units coherent one, why?



[Watch Video Solution](#)

8. What does SONAR stands for?



[Watch Video Solution](#)

9. What are two main tools of physics?



[Watch Video Solution](#)

10. Give the drawbacks of classical physics.



Watch Video Solution

11. Who discovered X-rays?



Watch Video Solution

12. What are biological sciences? Give their examples.





Watch Video Solution

13. Differentiate between biological and physical sciences.



Watch Video Solution

14. What do you understand by the term scientific method?



Watch Video Solution

15. What is the interplay between physics and technology?



Watch Video Solution

16. What is the relation between physics and society?



Watch Video Solution

17. Physics is an exciting science. Justify the statement.



[Watch Video Solution](#)

18. Explain the role of physics in relation to science and society.



[Watch Video Solution](#)

19. Explain the role of science in the entertainment industry.



[Watch Video Solution](#)

