



AFCAT SCIENCE QUESTIONS

Questions + AFCAT PYQs (2022-2026)

Science Question Bank

Physics

1. The SI unit of force is:

- | | |
|----------|-----------|
| A. Joule | B. Newton |
| C. Watt | D. Pascal |

Answer: B. Newton

2. Which color has the shortest wavelength?

- | | |
|-----------|-----------|
| A. Red | B. Yellow |
| C. Violet | D. Green |

Answer: C. Violet

3. Speed of light in vacuum is:

- | | |
|-------------------------|------------------------|
| A. 3×10^6 m/s | B. 3×10^8 m/s |
| C. 3×10^4 km/s | D. 3×10^7 m/s |

Answer: B. 3×10^8 m/s

4. Sound cannot travel through:

- | | |
|-----------|----------|
| A. Water | B. Steel |
| C. Vacuum | D. Air |

Answer: C. Vacuum

5. The mirror used in headlights is:

- | | |
|------------|----------------|
| A. Plane | B. Convex |
| C. Concave | D. Cylindrical |

Answer: C. Concave

6. Unit of electric current is:

- | | |
|-----------|---------|
| A. Volt | B. Ohm |
| C. Ampere | D. Watt |

Answer: C. Ampere

7. Which quantity is measured in Joules?

- | | |
|-------------|----------|
| A. Force | B. Work |
| C. Pressure | D. Power |

Answer: B. Work

8. Device used to measure atmospheric pressure:

- | | |
|---------------|----------------|
| A. Hydrometer | B. Thermometer |
| C. Barometer | D. Lactometer |

Answer: C. Barometer

9. Which lens is used to correct myopia?

- | | |
|------------|----------------|
| A. Convex | B. Concave |
| C. Bifocal | D. Cylindrical |

Answer: B. Concave

10. Which metal is the best conductor of electricity?

- | | |
|--------------|-----------|
| A. Copper | B. Silver |
| C. Aluminium | D. Iron |

Answer: B. Silver

11. SI unit of power:

- | | |
|-----------|---------|
| A. Joule | B. Watt |
| C. Newton | D. Volt |

Answer: B. Watt

12. Which energy is stored in a stretched spring?

- | | |
|------------|--------------|
| A. Heat | B. Potential |
| C. Kinetic | D. Nuclear |

Answer: B. Potential

13. Instrument used to measure electric current:

- | | |
|-----------------|------------------|
| A. Voltmeter | B. Ammeter |
| C. Galvanometer | D. Potentiometer |

Answer: B. Ammeter

14. One kilowatt equals:

- | | |
|-----------|------------|
| A. 10 W | B. 100 W |
| C. 1000 W | D. 10000 W |

Answer: C. 1000 W

15. Which wave is used in TV remote controls?

- | | |
|------------|------------------|
| A. X-rays | B. Infrared rays |
| C. UV rays | D. Radio waves |

Answer: B. Infrared rays

16. Which law explains floating?

- A. Newton's Law
C. Ohm's Law

- B. Archimedes' Principle
D. Hooke's Law

Answer: B. Archimedes' Principle

17. Which instrument records earthquake waves?

- A. Seismograph
C. Altimeter

- B. Hygrometer
D. Odometer

Answer: A. Seismograph

18. SI unit of frequency:

- A. Hertz
C. Newton

- B. Pascal
D. Tesla

Answer: A. Hertz

19. Which force keeps planets in orbit?

- A. Magnetic
C. Gravitational

- B. Friction
D. Electrostatic

Answer: C. Gravitational

20. Which phenomenon causes the sky to appear blue?

- A. Reflection
C. Scattering of light

- B. Refraction
D. Diffraction

Answer: C. Scattering of light

Chemistry

21. pH of pure water is:

- A. 5
C. 7

- B. 6
D. 8

Answer: C. 7

22. LPG mainly contains:

- A. Methane
C. Ethane

- B. Propane and Butane
D. Hydrogen

Answer: B. Propane and Butane

23. Vinegar contains:

- A. Citric acid
C. Lactic acid

- B. Acetic acid
D. Formic acid

Answer: B. Acetic acid

24. Which gas is called laughing gas?

- | | |
|--------------------|------------------|
| A. Oxygen | B. Nitrous oxide |
| C. Carbon monoxide | D. Methane |

Answer: B. Nitrous oxide

25. Chemical symbol of Gold:

- | | |
|-------|-------|
| A. Ag | B. Gd |
| C. Au | D. Go |

Answer: C. Au

26. Stainless steel contains:

- | | |
|-------------|---------|
| A. Chromium | B. Tin |
| C. Zinc | D. Lead |

Answer: A. Chromium

27. The lightest gas is:

- | | |
|-----------|-------------|
| A. Helium | B. Hydrogen |
| C. Oxygen | D. Nitrogen |

Answer: B. Hydrogen

28. Which gas is essential for photosynthesis?

- | | |
|-------------------|-------------|
| A. Oxygen | B. Nitrogen |
| C. Carbon dioxide | D. Hydrogen |

Answer: C. Carbon dioxide

29. Baking soda is:

- | | |
|----------------------|------------------------|
| A. Sodium carbonate | B. Sodium bicarbonate |
| C. Calcium carbonate | D. Potassium carbonate |

Answer: B. Sodium bicarbonate

30. Common salt is:

- | | |
|---------|----------------------|
| A. NaOH | B. NaCl |
| C. KCl | D. CaCl ₂ |

Answer: B. NaCl

31. Which metal is liquid at room temperature?

- | | |
|------------|-----------|
| A. Mercury | B. Iron |
| C. Copper | D. Silver |

Answer: A. Mercury

32. Diamond is an allotrope of:

A. Silicon

B. Carbon

C. Sulphur

D. Phosphorus

Answer: B. Carbon

33. Rust is mainly:

A. Iron oxide

B. Copper oxide

C. Zinc oxide

D. Aluminium oxide

Answer: A. Iron oxide

34. The most abundant gas in Earth's atmosphere is:

A. Oxygen

B. Nitrogen

C. Carbon dioxide

D. Argon

Answer: B. Nitrogen

35. Which acid is present in lemon?

A. Citric acid

B. Oxalic acid

C. Acetic acid

D. Tartaric acid

Answer: A. Citric acid

Biology

36. Powerhouse of the cell:

A. Nucleus

B. Ribosome

C. Mitochondria

D. Golgi body

Answer: C. Mitochondria

37. Largest organ of the human body:

A. Liver

B. Skin

C. Brain

D. Lungs

Answer: B. Skin

38. Insulin is secreted by:

A. Liver

B. Pancreas

C. Kidney

D. Spleen

Answer: B. Pancreas

39. Vitamin D deficiency causes:

A. Scurvy

B. Rickets

C. Beriberi

D. Night blindness

Answer: B. Rickets

40. Blood group system discovered by Karl Landsteiner:

- | | |
|-----------|--------|
| A. Rh | B. ABO |
| C. Bombay | D. MN |

Answer: B. ABO

41. Human heart has:

- | | |
|---------------|---------------|
| A. 2 chambers | B. 3 chambers |
| C. 4 chambers | D. 5 chambers |

Answer: C. 4 chambers

42. Universal donor blood group:

- | | |
|---------------|----------------|
| A. A | B. B |
| C. O Negative | D. AB Positive |

Answer: C. O Negative

43. Which vitamin helps in blood clotting?

- | | |
|--------------|--------------|
| A. Vitamin A | B. Vitamin K |
| C. Vitamin C | D. Vitamin D |

Answer: B. Vitamin K

44. Functional unit of kidney:

- | | |
|-------------|--------------|
| A. Neuron | B. Nephron |
| C. Alveolus | D. Sarcomere |

Answer: B. Nephron

45. Largest gland in the human body:

- | | |
|-------------|--------------|
| A. Pancreas | B. Liver |
| C. Thyroid | D. Pituitary |

Answer: B. Liver

46. Which blood cells fight infections?

- | | |
|--------------|-----------|
| A. RBC | B. WBC |
| C. Platelets | D. Plasma |

Answer: B. WBC

47. Human blood is slightly:

- | | |
|-------------|-------------------|
| A. Acidic | B. Neutral |
| C. Alkaline | D. Basic (strong) |

Answer: C. Alkaline

48. Vitamin C deficiency causes:

- | | |
|------------|-------------|
| A. Rickets | B. Beriberi |
| C. Scurvy | D. Pellagra |

Answer: C. Scurvy

49. Which organ purifies blood?

- | | |
|----------|-----------|
| A. Liver | B. Kidney |
| C. Heart | D. Lungs |

Answer: B. Kidney

50. DNA stands for:

- | | |
|--------------------------|-----------------------------|
| A. Deoxyribonucleic Acid | B. Dioxyribonucleic Acid |
| C. Double Nucleic Acid | D. Deoxyribose Nucleic Acid |

Answer: A. Deoxyribonucleic Acid

Physics

51. The SI unit of pressure is:

- | | |
|-----------|-----------|
| A. Joule | B. Newton |
| C. Pascal | D. Watt |

Answer: C. Pascal

52. Which instrument measures electric potential difference?

- | | |
|-----------------|--------------|
| A. Ammeter | B. Voltmeter |
| C. Galvanometer | D. Barometer |

Answer: B. Voltmeter

53. Which law states that every action has an equal and opposite reaction?

- | | |
|-----------------------|------------------------|
| A. Newton's First Law | B. Newton's Second Law |
| C. Newton's Third Law | D. Law of Gravitation |

Answer: C. Newton's Third Law

54. Which electromagnetic wave has the highest frequency?

- | | |
|---------------|----------------|
| A. Infrared | B. Ultraviolet |
| C. Gamma rays | D. Radio waves |

Answer: C. Gamma rays

55. The speed of sound is maximum in:

- | | |
|----------|-----------|
| A. Air | B. Water |
| C. Steel | D. Vacuum |

Answer: C. Steel

56. Which phenomenon is responsible for the formation of a rainbow?

- | | |
|----------------|---|
| A. Reflection | B. Refraction, dispersion and internal reflection |
| C. Diffraction | D. Polarization |

Answer: B. Refraction, dispersion and internal reflection

57. Unit of electrical resistance:

- | | |
|---------|-----------|
| A. Volt | B. Ampere |
| C. Ohm | D. Watt |

Answer: C. Ohm

58. Which device converts mechanical energy into electrical energy?

- | | |
|----------------|--------------|
| A. Motor | B. Generator |
| C. Transformer | D. Battery |

Answer: B. Generator

59. Which color deviates the most through a prism?

- | | |
|-----------|-----------|
| A. Red | B. Green |
| C. Violet | D. Yellow |

Answer: C. Violet

60. The energy possessed by a moving object is:

- | | |
|---------------------|-------------------|
| A. Potential energy | B. Kinetic energy |
| C. Chemical energy | D. Heat energy |

Answer: B. Kinetic energy

61. Which instrument is used to measure humidity?

- | | |
|---------------|---------------|
| A. Hygrometer | B. Barometer |
| C. Hydrometer | D. Lactometer |

Answer: A. Hygrometer

62. The SI unit of momentum is:

- | | |
|-----------|---------|
| A. kg.m/s | B. N/m |
| C. Joule | D. Watt |

Answer: A. kg.m/s

63. Which force opposes motion between two surfaces?

- | | |
|-------------|------------------|
| A. Magnetic | B. Electrostatic |
| C. Friction | D. Gravitational |

Answer: C. Friction

64. A fuse wire is made of:

- | | |
|-------------------|--------------|
| A. Copper | B. Aluminium |
| C. Tin-Lead alloy | D. Iron |

Answer: C. Tin-Lead alloy

65. Which mirror forms only virtual and erect images?

- | | |
|---------------|-----------------|
| A. Concave | B. Convex |
| C. Plane only | D. Both B and C |

Answer: D. Both B and C

66. The unit of electric power is:

- | | |
|----------|------------|
| A. Joule | B. Watt |
| C. Volt | D. Coulomb |

Answer: B. Watt

67. Which particle has no electric charge?

- | | |
|-------------|-------------|
| A. Electron | B. Proton |
| C. Neutron | D. Positron |

Answer: C. Neutron

68. The instrument used to detect electric current is:

- | | |
|-----------------|------------------|
| A. Galvanometer | B. Ammeter |
| C. Voltmeter | D. Potentiometer |

Answer: A. Galvanometer

69. Which gas is filled in electric bulbs?

- | | |
|-----------|-------------|
| A. Oxygen | B. Nitrogen |
| C. Argon | D. Hydrogen |

Answer: C. Argon

70. Which law explains the relationship between voltage and current?

- | | |
|-----------------|------------------|
| A. Boyle's Law | B. Ohm's Law |
| C. Charles' Law | D. Faraday's Law |

Answer: B. Ohm's Law

Chemistry

71. Which gas turns lime water milky?

- | | |
|-------------------|-------------|
| A. Oxygen | B. Hydrogen |
| C. Carbon dioxide | D. Nitrogen |

Answer: C. Carbon dioxide

72. The chemical formula of washing soda is:

- | | |
|---------------------|--|
| A. NaHCO_3 | B. $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$ |
| C. NaOH | D. NaCl |

Answer: B. $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$

73. Which element is common to all acids?

- | | |
|-----------|-------------|
| A. Oxygen | B. Hydrogen |
| C. Carbon | D. Nitrogen |

Answer: B. Hydrogen

74. Which metal is extracted from bauxite?

- | | |
|-----------|--------------|
| A. Copper | B. Aluminium |
| C. Iron | D. Zinc |

Answer: B. Aluminium

75. The hardest natural substance is:

- | | |
|-------------|------------|
| A. Quartz | B. Diamond |
| C. Graphite | D. Steel |

Answer: B. Diamond

76. Which gas is used in fire extinguishers?

- | | |
|-------------|-------------------|
| A. Oxygen | B. Carbon dioxide |
| C. Nitrogen | D. Hydrogen |

Answer: B. Carbon dioxide

77. Which acid is present in curd?

- | | |
|----------------|----------------|
| A. Acetic acid | B. Lactic acid |
| C. Citric acid | D. Formic acid |

Answer: B. Lactic acid

78. The atomic number of carbon is:

- | | |
|------|-------|
| A. 4 | B. 6 |
| C. 8 | D. 12 |

Answer: B. 6

79. Which metal is used for galvanization?

- | | |
|---------|--------------|
| A. Zinc | B. Copper |
| C. Iron | D. Aluminium |

Answer: A. Zinc

80. Which gas is known as marsh gas?

- A. Methane
- B. Ethane
- C. Propane
- D. Butane

Answer: A. Methane

81. The pH of acids is generally:

- A. Greater than 7
- B. Equal to 7
- C. Less than 7
- D. Equal to 14

Answer: C. Less than 7

82. Which gas is released during photosynthesis?

- A. Carbon dioxide
- B. Oxygen
- C. Nitrogen
- D. Hydrogen

Answer: B. Oxygen

83. Brass is an alloy of:

- A. Copper and Zinc
- B. Copper and Tin
- C. Iron and Carbon
- D. Aluminium and Copper

Answer: A. Copper and Zinc

84. Which metal is most abundant in the Earth's crust?

- A. Iron
- B. Aluminium
- C. Copper
- D. Calcium

Answer: B. Aluminium

85. The chemical formula of ammonia is:

- A. NH₂
- B. NH₃
- C. NO₂
- D. N₂H₄

Answer: B. NH₃

Biology

86. The smallest bone in the human body is:

- A. Femur
- B. Stapes
- C. Tibia
- D. Radius

Answer: B. Stapes

87. The largest bone in the human body is:

- A. Humerus
- B. Femur
- C. Tibia
- D. Fibula

Answer: B. Femur

88. Which blood group is called the universal recipient?

- A. O-
- B. AB+
- C. A+
- D. B+

Answer: B. AB+

89. Vitamin A deficiency causes:

- A. Beriberi
- B. Night blindness
- C. Scurvy
- D. Rickets

Answer: B. Night blindness

90. The normal human body temperature is:

- A. 35 degrees C
- B. 37 degrees C
- C. 39 degrees C
- D. 40 degrees C

Answer: B. 37 degrees C

91. Which organ produces bile?

- A. Pancreas
- B. Liver
- C. Kidney
- D. Stomach

Answer: B. Liver

92. The pigment responsible for the red color of blood is:

- A. Chlorophyll
- B. Hemoglobin
- C. Melanin
- D. Carotene

Answer: B. Hemoglobin

93. Which part of the brain controls balance?

- A. Cerebrum
- B. Cerebellum
- C. Medulla
- D. Hypothalamus

Answer: B. Cerebellum

94. Which gland is known as the "master gland"?

- A. Thyroid
- B. Pituitary
- C. Adrenal
- D. Pancreas

Answer: B. Pituitary

95. The study of birds is called:

- A. Entomology
- B. Ornithology
- C. Ichthyology
- D. Herpetology

Answer: B. Ornithology

96. Which vitamin is also known as ascorbic acid?

- | | |
|--------------|--------------|
| A. Vitamin A | B. Vitamin C |
| C. Vitamin D | D. Vitamin E |

Answer: B. Vitamin C

97. The largest part of the human brain is:

- | | |
|---------------|-------------|
| A. Cerebellum | B. Cerebrum |
| C. Medulla | D. Pons |

Answer: B. Cerebrum

98. The respiratory pigment in humans is:

- | | |
|----------------|---------------|
| A. Chlorophyll | B. Hemoglobin |
| C. Myoglobin | D. Insulin |

Answer: B. Hemoglobin

99. The human heart is enclosed in a membrane called:

- | | |
|---------------|----------------|
| A. Pleura | B. Pericardium |
| C. Peritoneum | D. Meninges |

Answer: B. Pericardium

100. Which organ is primarily responsible for gas exchange in humans?

- | | |
|----------|-----------|
| A. Heart | B. Lungs |
| C. Liver | D. Kidney |

Answer: B. Lungs

AFCAT Science PYQs | 2022-2026

AFCAT 2022

1. What is the study of cells called?

- | | |
|---------------|--------------|
| A. Histology | B. Cytology |
| C. Physiology | D. Pathology |

Answer: B. Cytology

AFCAT 1 2022 | Reported memory-based question

2. Which of the following diseases has been eradicated through vaccination?

- | | |
|---------------|-------------|
| A. Measles | B. Smallpox |
| C. Chickenpox | D. Leprosy |

Answer: B. Smallpox

AFCAT 1 2022 | Reported memory-based question

3. The thickness of the ozone layer is measured in which unit?

- | | |
|------------|----------------|
| A. Decibel | B. Dobson unit |
| C. Pascal | D. Candela |

Answer: B. Dobson unit

AFCAT 2 2022 | Reported memory-based question

4. The largest ecosystem of the Earth is:

- | | |
|----------------|----------------|
| A. Biosphere | B. Hydrosphere |
| C. Lithosphere | D. Biome |

Answer: A. Biosphere

AFCAT 2 2022 | Reported memory-based question

5. According to the law of conservation of energy, the total energy of an isolated system remains:

- | | |
|-------------|-------------|
| A. Variable | B. Zero |
| C. Constant | D. Infinite |

Answer: C. Constant

AFCAT 1 2022 | Reported memory-based question

AFCAT 2023

6. Which instrument is used to measure blood pressure?

- | | |
|----------------|-----------------------|
| A. Spirometer | B. Sphygmomanometer |
| C. Stethoscope | D. Electrocardiograph |

Answer: B. Sphygmomanometer

AFCAT 1 2023 | Reported memory-based question

7. What is the normal blood pressure of a healthy adult at rest?

- A. 80/120 mmHg
- B. 120/80 mmHg
- C. 140/100 mmHg
- D. 100/60 mmHg

Answer: B. 120/80 mmHg

[AFCAT 1 2023](#) | Reported memory-based question

8. The escape velocity from the surface of the Earth is approximately:

- A. 7.9 km/s
- B. 9.8 km/s
- C. 11.2 km/s
- D. 22.4 km/s

Answer: C. 11.2 km/s

[AFCAT 1 2023](#) | Reported memory-based question

9. Cathode rays are streams of:

- A. Protons
- B. Neutrons
- C. Electrons
- D. Photons

Answer: C. Electrons

[AFCAT 1 2023](#) | Reported memory-based question

10. At what temperature is the density of water maximum?

- A. 273 C
- B. 4 C
- C. 0 C
- D. 100 C

Answer: B. 4 C

[AFCAT 2 2023](#) | Reported memory-based question

11. Most weather changes occur in which layer of the atmosphere?

- A. Stratosphere
- B. Mesosphere
- C. Troposphere
- D. Thermosphere

Answer: C. Troposphere

[AFCAT 2 2023](#) | Reported memory-based question

AFCAT 2024

12. Who discovered X-rays?

- A. J. J. Thomson
- B. Wilhelm C. Rontgen
- C. Ernest Rutherford
- D. James Chadwick

Answer: B. Wilhelm C. Rontgen

[AFCAT 1 2024](#) | Reported memory-based question

13. Very large distances between celestial bodies are commonly measured in:

- A. Nautical miles
- B. Light-years
- C. Fathoms
- D. Parsecs per second

Answer: B. Light-years

[AFCAT 1 2024](#) | Reported memory-based question

14. Lichens are commonly used as bioindicators of:

- A. Air pollution
- B. Water salinity
- C. Soil erosion
- D. Noise pollution

Answer: A. Air pollution

[AFCAT 1 2024](#) | Reported memory-based question

15. In humans, blood becomes oxygenated in the:

- A. Liver
- B. Kidneys
- C. Lungs
- D. Spleen

Answer: C. Lungs

[AFCAT 1 2024](#) | Reported memory-based question

16. Which chamber of the heart pumps oxygenated blood to the whole body?

- A. Right atrium
- B. Right ventricle
- C. Left atrium
- D. Left ventricle

Answer: D. Left ventricle

[AFCAT 1 2024](#) | Reported memory-based question

17. Vitamin K1 is chemically known as:

- A. Calciferol
- B. Phylloquinone
- C. Tocopherol
- D. Retinol

Answer: B. Phylloquinone

[AFCAT 1 2024](#) | Reported memory-based question

18. A fathometer is used to measure:

- A. Wind speed
- B. Water depth
- C. Atmospheric pressure
- D. Relative humidity

Answer: B. Water depth

[AFCAT 2 2024](#) | Reported memory-based question

19. Why does the Leaning Tower of Pisa remain stable despite its tilt?

- A. Its mass is uniformly zero
- B. The vertical through its centre of gravity falls within its base
- C. Air pressure supports it
- D. Its centre of gravity lies above the top

Answer: B. The vertical through its centre of gravity falls within its base

[AFCAT 2 2024](#) | Reported memory-based question

20. The term 'zombie virus' in recent scientific reports referred to:

- A. A virus released only from dead bodies
- B. Ancient viruses frozen in Arctic permafrost
- C. A virus found on an exoplanet
- D. A new name for every respiratory virus

Answer: B. Ancient viruses frozen in Arctic permafrost

[AFCAT 2 2024](#) | Reported memory-based question

AFCAT 2025

21. Which vitamin helps the body absorb calcium?

- A. Vitamin B
- B. Vitamin A
- C. Vitamin D
- D. Vitamin C

Answer: C. Vitamin D

[AFCAT 1 2025 | Reported memory-based question](#)

22. Which type of pollution is primarily responsible for acid rain?

- A. Soil pollution
- B. Air pollution
- C. Water pollution
- D. Noise pollution

Answer: B. Air pollution

[AFCAT 1 2025 | Reported memory-based question](#)

23. A washing machine works mainly on the principle of:

- A. Sublimation
- B. Centrifugation
- C. Condensation
- D. Sedimentation

Answer: B. Centrifugation

[AFCAT 2 2025 | Reported memory-based question](#)

24. Thunderstorms are most commonly associated with which cloud type?

- A. Cirrus
- B. Stratus
- C. Cumulonimbus
- D. Altostratus

Answer: C. Cumulonimbus

[AFCAT 2 2025 | Reported memory-based question](#)

25. Why can light not escape from within a black hole's event horizon?

- A. Light loses all frequency
- B. The required escape velocity exceeds the speed of light
- C. Black holes contain no space
- D. Light is converted into sound

Answer: B. The required escape velocity exceeds the speed of light

[AFCAT 1 2025 | Reported memory-based question](#)

AFCAT 2026

26. Which cartilaginous organ in the human body helps in sound production and is called the sound box?

- A. Bronchioles
- B. Epiglottis
- C. Larynx
- D. Pharynx

Answer: C. Larynx

[AFCAT 1 2026 | Official paper](#)