

# Important General Science Questions

## AFCAT Exam



1. Surface water of a lake is about to freeze. What will be the temperature (in °C) of water at the bottom of the lake?

- A. 0
- B. -1
- C. 1
- D. 4

2. Hydraulic brakes used in automatic vehicles is direct virtual application of which law?

- A. Pascal's law
- B. Archimedes principle
- C. Newton's law
- D. Boyle's law

3. What is a Vermicompost?

- A. Organic fertilizer
- B. Inorganic fertilizer
- C. Toxic substance
- D. Type of soil

4. What is the Freezing point of water?

- A. 212 °F
- B. 100 °F
- C. 180°F
- D. 32°F

5. Escape velocity of a rocket fired from the earth towards the moon is a velocity to get rid of the:

- A. Earth's gravitational pull
- B. Moon's gravitational pull
- C. Centripetal force due to the' earth's rotation
- D. Atmospheric pressure

6. Protium, Deutrium and tritium are all forms of which element?

- A. Hydrogen
- B. Helium
- C. Iron

D. Carbon

7. Which of these elements is not a Noble gas?

- A. Neon
- B. Bromine
- C. Helium
- D. Krypton

8. For galvanizing iron which of the following metals is used?

- A. Zinc
- B. Copper
- C. Aluminium
- D. Lead

9. Quinine is obtained from which plant?

- A. Cinchona
- B. Cocoa
- C. Mulberry
- D. Eucalyptus

10. Which part of the body is affected by Jaundice?

- A. Small intestine
- B. Liver
- C. Stomach
- D. Pancreas

11. The branch of science that studies cells is called

- A. Cytology
- B. Entomology
- C. Homoplastic
- D. Hormonology

12. Sir CV Raman was awarded Nobel Prize for his work connected with which of the following phenomenon of radiation?

- A. Scattering
- B. Diffraction

- C. Interference
- D. Polarization

13. Which of the following Intercontinental Ballistic Missiles (ICBMs) is under development in India?

- A. Agni-I
- B. Agni-II
- C. Agni-IV
- D. Agni-VI

14. Which kind of missile is BRAHMOS?

- A. Medium range ballistic missile
- B. Supersonic cruise missile
- C. Short range tactical missile
- D. Ultrasonic cruise missile

15. Which of the following is not a unit of energy?

- A. Calorie
- B. Joule
- C. electron volt
- D. Watt

16. Which is the longest bone in the human body?

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

17. A US team of scientists has found that the mechanism responsible for the ageing process is located --

- A. Inside the face
- B. Inside the skin
- C. Inside the brain
- D. Inside the heart

18. The outer most layer of the Sun is known as---

- A. Corona
- B. Photosphere

- C. Chromosphere
- D. Granule

19. The elements which have low value of ionization potential are strong:-

- A. Oxidizing agents
- B. Reducing agents
- C. Oxidizing and Reducing agents depending upon the reactants
- D. none of these

20. \_\_\_\_\_ is a thyroid hormone which controls the balance of calcium in the body.

- A. Calcitonin
- B. Thyroxine
- C. Calmodulin
- D. all of these

21. The cell wall in plants is interrupted by narrow pores carrying fine strands of cytoplasm which interlink the contents of the cells. These strands are called:-

- A. Plasmahole
- B. Microvilli
- C. Plasmodesmata
- D. Plasmalemma

22. The transport phenomenon occurs only in \_\_\_\_\_ state of a gas and is \_\_\_\_\_

- A. Non-equilibrium, irreversible
- B. Non-equilibrium, reversible
- C. equilibrium, irreversible
- D. equilibrium, reversible

23. Which of the following compounds form nitrites with nitrous acid?

- A. Primary amines
- B. Secondary amines
- C. Tertiary amines
- D. All of these

24. When body is accelerated--

- A. Its velocity never changes.
- B. Its speed will always change.
- C. Its direction always changes.
- D. Its speed may or may not change.

25. What is the main purpose of white blood corpuscles?

- A. To carry nutrients
- B. To combat infection
- C. To carry oxygen
- D. To give strength

26. The instrument used to measure the electric current is:

- A. Barometer
- B. Altimeter
- C. Ammeter
- D. Anemometer

27. Gamma rays are :

- A. High energy electrons
- B. Low energy electrons
- C. High energy protons
- D. High energy electro magnetic waves

28. Heart attack is caused by the blocking of :

- A. Pulmonary artery
- B. Coronary artery
- C. Coronary vein
- D. Pulmonary vein

29. Synapse gap is present between which of the following?

- A. Two neurons
- B. Brain and Spinal Cord
- C. Two Kidneys
- D. None of these

30. Xylem helps in transportation of which of the following?

- A. Food
- B. Water solubles
- C. All solid nutrients
- D. Both food and water

###ANSWERS###

1. Ans. C.

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2. Ans. A.

- Pascal's law states that increase in pressure at a point in the enclosed liquid in equilibrium is transmitted equally in all directions in liquid and to the Walls of the container.
- The working of hydraulic lift, hydraulic press and hydraulic brakes are based on Pascal's law.

3. Ans. A.

Vermicompost is an organic fertilizer. Vermicompost is the decomposition of organic materials by earthworms. Nowadays, consumption of vermicompost is increasing as it contains rich nutrients.

4. Ans. D.

Freezing point of water is  $0^{\circ}\text{C}$  i.e  $32^{\circ}\text{F}$

5. Ans. A.

Escape velocity of a rocket fired from the earth towards the moon is a velocity to get rid of the Earth's gravitational pull

6. Ans. A.

Protium, Deuterium and tritium are Isotopes of Hydrogen.

7. Ans. B.

The six noble gases that occur naturally are helium (He), neon (Ne), argon (Ar), krypton (Kr), xenon (Xe), and the radioactive radon (Rn).

8. Ans. A.

Galvanization (or galvanizing as it is most commonly called in that industry) is the process of applying a protective zinc coating to steel or iron, to prevent rusting. The most common method is hot-dip galvanizing, in which parts are submerged in a bath of molten zinc.

9. Ans. A.

Quinine was first isolated in 1820 from the bark of a cinchona tree. Quinine is a medication used to treat malaria and babesiosis. This includes the treatment of malaria due to Plasmodium falciparum that is resistant to chloroquine when artesunate is not available.

10. Ans. B.

Hepatitis, which is a cause of jaundice, damages the liver and makes it difficult for bilirubin to move to bile ducts.

11. Ans. A.

The branch of science that studies cells is called Cytology.

12. Ans. A.

Sir CV Raman was awarded Nobel Prize for his work connected with scattering phenomenon of radiation.

13. Ans. D.

Agni-VI is following Intercontinental Ballistic Missiles (ICBMs) is being developed by DRDO in India.

14. Ans. B.



BRAHMOS is a two-stage missile with a solid propellant booster engine as its first stage which brings it to supersonic speed and then gets separated.

15. Ans. D.

The *watt* (symbol: W) is a unit of power. In the International System of Units (SI) it is defined as a derived unit of 1 joule per second, and is used to quantify the rate of energy transfer. In dimensional analysis it is described by .

16. Ans. D.

The femur is also the longest bone in the human body. By most measures the femur is the strongest bone in the body.

17. Ans. C.

The US team of scientists found the mechanism in the hypothalamus, which is located deep inside the brain and showed that it is responsible for the ageing process.

18. Ans. A.

The corona is the outermost layer of the Sun, starting at about 1300 miles (2100 km) above the solar surface (the photosphere).

19. Ans. C.

Oxidizing and reducing agents depend upon the reactant. Oxidizing and reducing agents are key terms used in describing the reactants in redox reactions that transfer electrons between reactants to form products.

20. Ans. A.

Calcitonin is 32-amino acid linear polypeptide hormone that is produced in humans primarily by the parafollicular cells of the thyroid, and in many other animals in the ultimopharyngeal body. It acts to reduce blood calcium, opposing the effects of parathyroid hormone.

21. Ans. C.

Plasmodesmata are interrupted by narrow pores carrying fine strands of cytoplasm, which interlink the contents of the cells.

22. Ans. C.

The transport phenomenon occurs only in equilibrium state of a gas and is irreversible.

23. Ans. D.

The acid and the nitrite form nitrous acid which then reacts with the amine.

24. Ans. D.

Uniform circular motion, that is constant speed along a circular path, is an example of a body experiencing acceleration resulting in velocity of a constant magnitude but the change of direction.

25. Ans. B.

The main purpose of white blood corpuscles is to combat infection. It is also called leukocytes which is a part of immune system. It fights infections by attacking viruses, bacteria in human body. It originates in bone marrow.

26. Ans. C.

Ammeter is a device used to measure electric current in amperes.

27. Ans. D.

Gamma rays are High energy electromagnetic waves. Gamma rays have highest energy photons. these rays are also called gamma radiation. These rays are hazardous to health. Electromagnetic waves are synchronized oscillation of electric and magnetic waves. These properties are found in other waves also like in radio wave, microwave, X ray etc.

28. Ans. B.

Heart attack is caused by the blocking of Coronary artery. Coronary artery transports blood into and out of the cardiac muscles. They are in two parts left and right.

29. Ans. A.

Synapse gap is present between two neurons. Synapse act like a junction where the neurons meet each other.

30. Ans. B.

- Xylem helps in the transportation of water in the plant. These are vascular tissue and take along with water, nutrients from the roots

to the rest of the plant. Moreover, it also helps to form the woody element in the stem.

- Xylem is also responsible for transporting **water-soluble nutrients**, but as all nutrients are not water soluble.

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