gradeup

75+ Science Questions PDF Asked in SSC CPO 2019/18/17

Prep Smart. Score Better. Go gradeup

www.gradeup.co

1. The SI (International system of units) unit of length is _____.
A. meter
B. millimeter
C. centimeter
D. kilometer
Ans. A
Sol.
• The SI unit of length is **Meter**.
• **SI system has seven base units, which are as follow**-

Quantity	SI Unit	Unit Symbol
Time	Second	s
Length	Meter	m
Weight	Kilogram	kg
Current	Ampere	A
Temperature	Kelvin	K
Amount of Substance	Mole	mol
Luminous Intensity	Candela	cd

2. Who among the following made the first observation on Platinum as a catalyst and discovered similar triads of elements that led to the development of the Periodic Table of elements?
A. Dmitri Mendeleev
B. Johann Wolfgang Dobereiner
C. Michael Faraday
D. Hans Christian Oersted
Ans. B
Sol.
• **Johann Wolfgang Dobereiner** made the first observation on Platinum as a catalyst and discovered similar triads of elements that led to the development of the Periodic Table of elements.
• **Dobereiner** was a German chemist who tried to manage the elements with similar properties into groups in 1817.
• He identified some groups having three elements each. So he called these groups **'triads'**.
• He identified a pattern in which each element of triad is written in order of **increasing atomic masses.**
• For example, take the triad consisting of lithium (Li), sodium (Na) and potassium (K) with the respective atomic masses 6.9, 23.0 and 39.0.
• After him, **Newland** arranged the elements in order of atomic mass in 1866.

3. Blood clot is formed because of the presence of certain cells in the blood called _____.
A. chondrocytes
B. platelets
C. lymphocytes
D. erythrocytes
Ans. B
Sol.
• Blood clotting prevents excessive bleeding when a blood vessel is injured.
• **Platelets** are small blood cells that help our body in blood clotting.
• Platelets are also known as "Thrombocytes".

4. Heinrich Rudolph laid the foundation for the future development of radio, telephone and telegraph. The SI unit of _____ was named as 'hertz' in his honour.
A. sound
B. heat
C. frequency
D. light
Ans. C
Sol.

SI unit of sound	Decibel
SI unit of heat	Joule
SI unit of frequency	Hertz
SI unit of light	Candela

5. During fertilization in living beings, fusion of male and female gametes takes place to form a cell called _____.
A. ovum
B. zygote
C. embryo
D. sperm
Ans. B
Sol.
• **Ovum**- The gamete produced by the female is called Ovum.
• **Zygote**- Fusion of male and female gametes forms Zygote.
• **Embryo**- Early stages of growth and development of an organism.
• **Sperm**- Sperm is the male reproductive cell in anisogamous forms of sexual reproduction.

6. _____ is known as the 'Suicidal Bag' of a cell.
A. Protoplasm
B. Cellulose
C. Lignin
D. Lysosome
Ans. D
Sol.
• **Lysosomes** are known as Suicidal Bags because when a cell is ruptured, the lysosomes burst themselves to repair the cells.
• They range in size from 0.1 to 1.2 micrometers. They are spherical bodies that are enclosed by a single membrane.

7. Lactometers (used to determine the purity of a sample of milk) and hydrometers (used to determine the density of liquids) are based on the _____ principle.
A. Archimedes
B. Special Relativity
C. Relativity
D. Uncertainty
Ans. A
Sol.
• **Lactometers and Hydrometers are based on the Archimedes' principle.**
• Archimedes' principle states that "The upward buoyant force that is exerted on a body immersed in a fluid, whether partially or fully submerged, is equal to the weight of the fluid that the body displaces and acts in the upward direction at the center of mass of the displaced fluid."

8. The weight of an object on the moon is equal to _____ of its weight on the earth.
A. $1/10^{th}$
B. $1/6^{th}$
C. $1/8^{th}$
D. $1/4^{th}$
Ans. B
Sol.
• The mass of moon **is 1/100 times** and its **radius is ¼ times that of earth.** So the gravitational attraction on the moon is about one sixth of that on the earth. That's why the weight of an object on the moon is 1/6 of its weight on the earth.

9. Twin paradox is associated with:
A. Quantum mechanics
B. Hydrodynamics
C. The theory of relativity
D. Particle physics
Ans. C
Sol.
Twin Paradox is generally related to the **theory of relativity.**
• This paradox experiment involve twin identical, one of whom makes a space journey in a high speed rocket and returns home to find that the another twin has aged more.
• The paradox is solved by special relativity framework.
• It was also confirmed in particle accelerators by measuring the time dilation of circulating particle beams.
• Theory of Relativity was given by Albert Einstein and encompasses two interrelated theories by Albert Einstein: special relativity and general relativity.

10. Which one of the following diseases is caused mainly by the deficiency of Vitamin C?
A. Kwashiorkor
B. Scurvy
C. Rickets
D. Goitre
Ans. B
Sol.
• **Scurvy** is caused due to deficiency of Vitamin C.
• Vitamin C is also known as **Ascorbic Acid or Ascorbate**.
• Vitamin C plays essential role in repair of tissues and production of specific enzymes.
• Vitamin C also plays as an **Antioxidant**.
• Vitamin C is required to make the building blocks for **collagen**.
• Scurvy is a disease which results in bone pain, bleeding from skin, gum diseases etc.

11. The part of the eye which is responsible for the conversion of image of an object into neural signals is:
A. retina
B. optic nerve
C. iris

D. vitreous humour
Ans. A
Sol.
• **Retina** is responsible for conversion of image of an object into neural signals.
• **Optical Nerve**- they are responsible for detailed central and colour vision and help in peripheral vision.
• **Iris** is responsible for regulation or adjusting the exposure.
• **Vitreous humour**- helps in protection eyes and hold it's spherical shape.

12. Which of the following organisms uses ultrasonic sound to catch its prey?
A. Bat
B. Eagle
C. Dog
D. Cat
Ans. A
Sol.
• **Bats** catch insects continuously using echolocation, an advanced navigation system.
• The bat **emits ultrasonic waves with very high frequencies**.

13. Canis lupus is commonly known as _____.
A. Cow
B. Gray Wolf
C. Hen
D. Goat
Ans. B
Sol.
• **The Canis wolf is also known as the gray wolf**.
• It is the only species of Canis to have a range encompassing both Eurasia and North America.
• It is a social animal, travelling in nuclear families consisting of a mated pair accompanied by their adult offspring.

14. In January 2019, NASA's Transiting Exoplanet Survey Satellite (TESS) discovered its third small exoplanet named HD 21749b in the _____ constellation.
A. Antilla
B. Laserta
C. Reticulum
D. Lupus
Ans. C
Sol.
• **The National Aeronautics and Space Administration (NASA)** which launched Transiting Exoplanet Survey Satellite (Tess) for searching exoplanets in April, 2018 has discovered a third small planet outside our solar system.
• The new planet is named **HD 21749b**.
• It was discovered in **January 2019**.
• The newly discovered planet orbits a bright and nearby star which is about 53 light years away in the **constellation Reticulum**.
• The surface of the new planet is hotter than 100 degrees Celsius.

15. Sunita Williams, a famous astronaut of Indian origin, spent a record _____ days in space.
A. 150
B. 175
C. 195
D. 200
Ans. C
Sol.
• **Sunita Williams** is an American astronaut and United States Navy officer.
• She is the second woman of Indian origin to have been selected by NASA for a space mission after Kalpana Chawla.
• She has spent a record **195 days** in space.
• She became the first person to run a marathon from the space station on **April 16, 2007**.

16. Which of the following is India's largest research reactor?
A. Dhruva
B. Apsara
C. Circus
D. Kamini
Ans. A
Sol.
* **The Dhruva reactor is India's largest nuclear research reactor.**
* It is located in the Mumbai (Bombay) suburb of Trombay at the Bhabha Atomic Research Centre (BARC).
* It is India's primary generator of weapons-grade plutonium-bearing spent fuel for its nuclear weapons program.

17. protocol used for receiving an email is _____.
A. HTTP
B. FTP
C. POP-3
D. SSH
Ans. C
Sol.
• Email Protocols – POP3, SMTP and IMAP
• Post Office Protocol version 3 (POP3) is a standard mail protocol used to receive emails from a remote server to a local email client. POP3 allows you to download email messages on your local computer and read them even when you are offline.
• The Internet Message Access Protocol (IMAP) is a mail protocol used for accessing email on a remote web server from a local client. IMAP and POP3 are the two most commonly used Internet mail protocols for retrieving emails. Both protocols are supported by all modern email clients and web servers.
• Simple Mail Transfer Protocol (SMTP) is the standard protocol for sending emails across the Internet.

18. Which of the following is not a computer language?
I. C++
II. Java
III. Linux
A. Only I
B. Only III
C. II and III
D. I and II
Ans. B
Sol. The languages of computer includes Java, C++, BASIC, COBOL, Fortran etc. while Linux is an operating system.

19. Within what pH range does the human body work?
A. 9.3 to 9.6
B. 7.0 to 7.8
C. 6.0 to 6.2
D. 8.2 to 8.9
Ans. B
Sol.
• The Ph range of human body under favorable condition is **between 7-7.8.**
• Different body fluids have different ph, like blood has a ph of 7.3-7.4, and ph of saliva ranges from 6.5 to 7.5 etc.
• The enzyme pepsin requires low pH to act and break down food, while the enzymes in intestine require high pH or alkaline environment to function.
• pH is maintained in the body using primarily three mechanisms: **buffer systems, respiratory control, and renal control.**

20. Potassium is a chemical element with the symbol:
A. Na
B. K
C. S
D. Ca
Ans. B
Sol.
• The symbol of **Potassium is K.**
• The symbol of **Sodium is Na.**
• The symbol of **Sulphur is S.**
• The symbol of **calcium is Ca.**
• Some **other unique symbols are**-
Gold-Au
Silver-Ag
Tin-Sn
Lead-Pb
Antimony-Sb
Iron-Fe
Mercury-Hg
Tungsten-W

21. Which one of the following is NOT a compound?
A. Sodium Chloride
B. Carbon Monoxide
C. Iron
D. Water
Ans. C
Sol.
• **Iron is not a compound**. It is an element with symbol Fe and atomic number 26.
• **Sodium Chloride** is common salt with chemical formula NaCl. It is an ionic compound with 1:1 ratio of Sodium and Chloride ions.
• **Carbon Monoxide** is a chemical compound consists of one carbon and one oxygen atom connected by covalent

bond. It is also known as Silent Killer. It's chemical formula is CO.
• **Water** is a chemical compound represented as H2O. Here also hydrogen and oxygen atoms are connected by covalent bonds.

22. What is the periodicity of Halley's comet?
A. 85-86 years
B. 45-46 years
C. 75-76 years
D. 30-31 years
Ans. C
Sol.
• The periodicity of **Halley's comet is 75-76 years**.
• The last time it was seen by human eye in 1986, and it is projected to return in 2061.
• The comet is named after English astronomer **Edmond Halley**.
• Halley suggested that the comet could return to earth in 1758 but he did not live long and died in 1742 but his discovery lead to naming the comet on his name.
• Several spacecraft successfully made the journey to the comet. This fleet of spaceships is sometimes dubbed the "**Halley Armada**."

23. _____ is/are known as the powerhouse of the cell.
A. Mitochondria
B. Endoplasmic reticulum
C. Nucleus
D. Cytoplasm
Ans. A
Sol.
• **Mitochondria is known as the powerhouses of the cell.**
• The main function of mitochondria is to metabolize or break down carbohydrates and fatty acids to generate energy.
• Eukaryotic cells use energy in the form of a chemical molecule called ATP.

24. The blood vessels that carry blood from the heart to the various parts of the body are called _____.
A. Arteries
B. Veins
C. Septum
D. Capillaries
Ans. A
Sol.
• The blood vessels that deliver oxygen-rich blood from the heart to the various parts of body are called **arteries**.
• **Veins** are blood vessels that carry deoxygenated blood to the heart.
• **Septum** is the cartilage in the nose that separates the nostrils.
• **Capillaries** are the smallest of blood vessels which distribute oxygenated blood from arteries to the tissues of the body and to deoxygenated blood from the tissues to veins.

25. There are some plastics that when moulded once cannot be softened by heating. These are called _____.
A. thermoplastic polyurethanes (TPU)
B. high-density polyethene (HDPE)
C. polyvinyl chloride
D. thermosetting polymers
Ans. D
Sol.
• The **thermosetting polymers** is a permanent setting polymer that gets hardened and sets during moulding process and cannot be softened again.
• They are usually soft solid or liquid. Heat provides energy for chemical reactions that increases the cross-linking between polymer chains.

26. Which among the following gases is also known as 'Laughing Gas'?
A. Sulphur dioxide
B. Nitrogen oxide
C. Carbon dioxide
D. Carbon monoxide
Ans. B
Sol.
• **Nitrogen Oxide/Nitrous oxide is known as "Laughing Gas".**
• It is a chemical compound, an oxide of Nitrogen with the formula- N_2O.
• It is a colourless non-flammable gas, when inhaled, the gas slows down the body's reaction time.

27. Which one of the following is NOT a natural fibre?
A. Terylene

B. Wool
C. Flax
D. Jute
Ans. A
Sol.
• **Terylene** is a synthetic polyester fibre produced by polymerizing ethylene glycol and terephthelic acid.
• Terylene is mainly used in making plasstic bottles and clothing.
• Wool, Flax and Jute are natural fibres.

28. Which among the following is a male part of a flower?
A. Stigma
B. Stamen
C. Pistil
D. Style
Ans. B
Sol.
• **Stigma-** It is the female reproductive part of a flower.
• **Stamen-** It is a male reproductive organ of a flower which produces the pollen.
• **Pistil-** It is also a part of the female reproductive part of flower, located in the center of the flower.
• **Style-** It is the stalk that supports the stigma and connects it to the ovary.

29. The entire content of a living cell is known as _____ which includes the cytoplasm and the nucleus.
A. mitochondria
B. lysosomes
C. protoplasm
D. cell membrane
Ans. C
Sol.
• **Protoplasm** is the colourless material comprising the living part of a cell, including the cytoplasm, and the nucleus.
• Protoplasm is composed of a mixture of small molecules such asions, amino acids, monosaccharides and water, and macromoleculels such as nucleic acids, proteins lipids and polysaccharides.
• It is present between the cell membrane and the nucleus in a eukaryotic cell.

30. The strongest muscle (based on its weight) of the body is the masseter muscle and is located in the _____.
A. jaw
B. hand
C. chest
D. thigh
Ans. A
Sol.
• The strongest muscle of the body is called masseter muscle and is located in **Jaw.**
• This muscle plays a major role in the chewing of solid foods.
• It has a parallelogram shape, connecting to the Lower jawbone and the cheekbone.

31. There is NO vaccine for which of the following hepatitis viruses?
A. Hepatitis D
B. Hepatitis A
C. Hepatitis B
D. Hepatitis C
Ans. D
Sol.
• There is no vaccine for **Hepatitis C**
• There are three common types of hepatitis caused by viruses: **hepatitis A, hepatitis B, and hepatitis C**
• Vaccines have been developed that protect people from contracting **hepatitis A and B**
• Hepatitis is an inflammation of the liver, most often caused by a viral infection.

32. The function of the retina is to_____ .
A. lubricate the eye by releasing tears in a controlled way
B. adjust the focus of the lens for formation of a clear image
C. process the information gathered by photoreceptor cells and send it to the brain to decide what the picture is
D. close the eyes through the eyelids to prevent damage to the lens from excessive light
Ans. C
Sol.
• The function of the retina is to process the information gathered by photoreceptor cells and send it to the brain to decide what the picture is.

• The retina is a thin layer of tissue that lines the back of the eye on the inside.
• It is located near the optic nerve.

33. Which substance covers the root of the tooth?
A. Dentin
B. Enamel
C. Pulp
D. Cementum
Ans. D
Sol.
• **Cementum covers the root of the tooth.**
• The root is embedded in bone and contains blood vessels and nerves.
• The tooth consists of two major parts of Crown and Root.
• The enamel covers the crown of the tooth and is the hardest substance in the body.

34. Who became the first player of Indian origin to play in an NBA game?
A. Palpreet Singh
B. Satnam Singh
C. Sim Bhullar
D. Amjyot Singh
Ans. C
Sol.
• **Sim Bhullar became the first player of Indian origin to play in an NBA game.**
• NBA is an active member of USA Basketball which is recognized by FIBA and headquarters is in Newyork City

35. The pH of pure water (H2O) at 25° C is _____.
A. 8
B. 7
C. 9
D. 6
Ans. B
Sol.
• The pH of water is 7.0 at about 25 deg C or about 77 deg F.
• Pure water undergoes a reversible reaction in which both H+ and OH- are generated.

36. Which gas in its solid state is known as dry ice?
A. Hydrogen
B. Carbon-dioxide
C. Oxide of Magnesium
D. Nitrogen
Ans. B
Sol.
• **Carbon-dioxide** is a chemical compound composed of one carbon and two oxygen atoms.
• It is often referred to by its formula CO2.
• It is present in the Earth's atmosphere at a low concentration and acts as a greenhouse gas.
• In its solid state, it is called **dry ice**.

37. Smelling indicators indicate changes in _____.
A. Chemical state
B. Physical state
C. Colour
D. Odour
Ans. D
Sol.
• Smelling indicators indicate changes in odor.
• Substances which change their smell when mixed with acid or base are known as olfactory indicators.

38. Excessive amount of _____ in the body causes gout.
A. uric acid
B. lactic acid
C. nitric acid
D. acetic acid
Ans. A
Sol.
* **The excessive amount of Uric acid in the body causes gout.**
* Gout is caused by the formation of urate crystals in body tissues. It usually occurs in or around joints and results in a painful type of arthritis.
* Hyperuricemia term is used to denote for too much uric acid in the blood. Gout can be caused by decreased excretion of uric acid, increased production of uric acid, or a high dietary intake of purines.
* Men are more likely to have symptoms of gout. It is rare in children and younger adults.

39. Diabetes is a condition in which the level of _____ in an individual's blood becomes too high.
A. Sucrose
B. Glucose
C. Galactose
D. Maltose
Ans. B
Sol.
* Diabetes is a condition in which the **level of glucose in an individual's blood becomes too high**.
* Blood glucose is also called **blood sugar.**
* Blood glucose is the main source of energy and comes from the food.
* Glucose is a simple sugar and approximately 4 grams of glucose are present in the blood of a 70-kilogram (150 lb) human at all times.

40. The Serum Institute of India launched the oral polio vaccine in _____.
A. 2012
B. 2013
C. 2014
D. 2011
Ans. B
Sol.
* **The Serum Institute of India launched the oral polio vaccine in 2013.**
* **Oral Polio Vaccine** is a live attenuated vaccine, is to be given by mouth.
* Serum Institute of India Private Limited is a manufacturer of immunobiological drugs including vaccines in India.
* The company was founded by **Poonawalla in 1966.**

41. In Carbon dating, a weak C – 14 molecule deteriorates and transforms into _____.
A. C – 16
B. C – 11
C. N – 14
D. N – 12
Ans. C
Sol.
• In Carbon dating, a weak C – 14 molecule deteriorates and transforms into **nitrogen-14**.
• Carbon-14 (14C), or radiocarbon, is a radioactive isotope of carbon with an atomic nucleus containing **6 protons and 8 neutrons**.
• Nitrogen-14 is the source of naturally-occurring, radioactive, carbon-14.

42. Which of the following statements is NOT correct regarding the 'Bombay blood group'?
A. It was first discovered in 1952 by Dr. Y M Bhende.
B. It is deficient in expressing H antigen.
C. It has neither A nor B antigen.
D. A person with this blood group may receive blood from a person with O blood group.
Ans. D
Sol.
• **Bombay blood group is a rare blood type.**
• This blood group was first discovered **by Dr. Y. M. Bhende in 1952** in **Bombay**.
• It is mostly found in South Asia (India, Bangladesh, Pakistan) and parts of the Middle East such as Iran.
• It is also known as the 'Hh' blood group.

43. The sun heats the earth through_____.
A. Conduction
B. Radiation
C. Fission
D. Convention
Ans. B
Sol.
• The sun heats the earth through **radiation**.
• **Radiation** is the emission or transmission of energy in the form of waves or particles through space or through a material medium

44. During the occurrence of thunder and lightning_____ .
A. thunder is heard before lightning is seen
B. lightning is seen at the same time as thunder is heard
C. whether lightning is seen first or thunder is heard first will depend upon the distance and angle of the clouds vis-à-vis earth

D. lightning is seen before thunder is heard
Ans. D
Sol.
• During a thunderstorm, lightning is seen first and thunder is heard later.
• Lightning can be seen before thunder is heard as light travels faster than sound.
• The noise of thunder is caused by the rapid expansion of the air surrounding the lightning bolt.

45. Colour of the plants is green due to the presence of _____ .
A. Urea
B. Carbon dioxide
C. Chlorophyll
D. Oxygen
Ans. C
Sol.
• Colour of the plants is green due to the presence of **Chlorophyll**.
• It is a green photosynthetic pigment found in plants, algae, and cyanobacteria.
• It absorbs mostly in the blue and to a lesser extent red portions of the electromagnetic spectrum, hence it is of intense green color.

46. Which protein protects the epithelial cells from damage?
A. Elastin
B. Actin
C. Keratin
D. Collagen
Ans. C
Sol.
• **Keratin** is the major structural fibrous protein to form hair, wool, feathers, nails, and horns of many kinds of animals.
• It protects the epithelial cells from damage.

47. The term 'Askaryan effect' is associated with which functional area of science?
A. Chemistry
B. Physics
C. Geology
D. Biology
Ans. B
Sol.
• **The Askaryan radiation** is also known as the Askaryan effect.
• It is associated with **Physics**.
• The Askaryan effect describes coherent electromagnetic radiation from high-energy cascades in dense media with a collective charge.

48. Which one of the following can be categorised as a solution?
A. Salt
B. Diamond
C. Sea Water
D. Coal
Ans. C
Sol.
• **Sea water is one of the following that can be categorised as a solution.**
• Seawater in the world's oceans has a salinity of about 3.5% and Seawater pH is typically limited to a range between 7.5 and 8.4..
• The most abundant dissolved ions in seawater are sodium, chloride, magnesium, sulfate and calcium.

49. What is the primary function of the eccrine glands?
A. To produce growth hormones
B. To produce colour of the skin
C. To produce sweat
D. To produce body hair
Ans. C
Sol.
• **Producing Sweat is the primary function of the eccrine glands.**
• Apocrine sweat glands that are associated with hair follicles, continuously secrete a fatty sweat into the gland tubule.
• Stimulation done sympathetic nervous system cause the eccrine sweat glands to secrete water to the skin surface, where it cools the body by evaporation.
• Sweat is an important mechanism for temperature control of the body.

50. Enamel of teeth is made up of _____.
A. Calcium sulphate
B. Calcium silicate
C. Calcium Phosphate
D. Calcium Carbonate

Ans. C
Sol.
• Enamel of teeth is made up of **Calcium Phosphate.**
• Enamel has no blood or nerve supply within it.
• It is enamel's hardness that enables teeth to withstand blunt, heavy masticatory forces.
• Enamel is so hard because it is composed primarily of inorganic materials: **roughly 95% to 98% of it is calcium and phosphate ions that make up strong hydroxyapatite crystals.**

51. The innovative concept of using sunshine to keep house warm in freezing winters is called _____.
A. Latent solar heating
B. Conductive solar heating
C. Radiation heating
D. Passive solar heating
Ans. D
Sol.
* The innovative concept of using sunshine to keep house warm in freezing winters is called "**Passive Solar Heating".**
* Passive solar heating is the process of using specific building systems to help regulate internal temperature by using the Sun's energy selectively and beneficially in an attempt to improve the energy efficiency.

52. Brass is an alloy of _____.
A. Zinc and Iron
B. Lead and Copper
C. Iron and Lead
D. Copper and Zinc
Ans. D
Sol.
* Brass is an **alloy of copper and zinc**.
* The proportions of the copper and zinc are varied to yield many different kinds of brass.
* Basic modern brass is **67% copper and 33% zinc**.
* It is also called a **homogeneous mixture**.

53. The process of blood clotting is called _____.
A. Coagulation
B. Thrombocytopenia
C. Haemophilia
D. Homophobia
Ans. A
Sol.
* **The process of blood clotting is called "Coagulation".**
* Coagulation is also known as **clotting**.
* It is the process by which blood changes from a liquid to a gel, forming a blood clot.
* It potentially results in hemostasis, the cessation of blood loss from a damaged vessel, followed by repair.

54. Which of the following metals is found in free state in nature?
A. Copper
B. Sodium
C. Potassium
D. Aluminium
Ans. A
Sol.
• **Copper** is found in the free metallic state in nature.
• This element is a **solid**.
• Copper is classified as a "**Transition Metal**"; those metals are located in **Groups 3 - 12** of the Periodic Table.
• Copper was discovered in Ancient times and used by the ancient Egyptians, Greeks, Romans and Chinese.

55. Poor vision in human can be due to the deficiency of _____.
A. Iron
B. Vitamin A
C. Iodine
D. Vitamin D
Ans. B
Sol.
• **Poor vision in human can be due to the deficiency of Vitamin A.**
• Vitamin A is important for growth and development, for the maintenance of the immune system and good vision.
• Vitamin A also functions in a very different role as retinoic acid, which is an important hormone-like growth factor for epithelial and other cells.

56. Which system in the human body controls every activity that you perform**?**
A. Respiratory system
B. Nervous system
C. Digestive system
D. Reproductive system
Ans. B
Sol.
* The **Nervous system** is like the manager inside our body.
* Its function is to control and coordinate the parts of our body so that they work together, doing their job at the right time.
* The brain and the spinal cord along with nerves constitute the nervous system.

57. What are the components of nucleus of an atom?
A. Only electrons
B. Only protons
C. Both protons and neutrons
D. Both protons and electrons
Ans. C
Sol.
• The atomic nucleus is the small, dense region consisting of protons and neutrons at the center of an atom.
• It was discovered in 1911 by Ernest Rutherford.

58. A _____ splits sunlight into seven colours.
A. Concave lens
B. Convex lens
C. Prism
D. Concave mirror
Ans. C
Sol.
• A prism splits sunlight into **seven colours.**
• Prism is a transparent optical element with flat, polished surfaces that refract light.
• A dispersive prism can be used to break light up into its constituent spectral colours.

59. Any data (or) instruction entered into the memory of computer is called as _____.
A. Hard copy
B. Input
C. Output
D. Information Correct
Ans. B
Sol. Any data (or) instruction entered into the memory of computer is called as input.
Any information or processed data sent or produced by a computer is called output.

60. What are female gametes called as?
A. Zygote
B. Ova
C. Sperms
D. Embryo
Ans. B
Sol.
○ Female gametes are also called eggs or ova.
○ They are created during the cellular reproduction process known as meiosis. The resulting gamete cell is a haploid cell.
○ When the two haploid cells, the egg and sperm, fuse together during fertilization, the result is a diploid cell called a zygote.

61. Which element is used to make the coils used in water heaters?
A. Copper
B. Nichrome
C. A mixture of aluminium and copper
D. A mixture of iron and steel
Ans. B
Sol.
* Heating coils are commonly made up of metal alloys which are a combination of two or more elements.
* The most commonly used metal alloy is "**Nichrome**".
* **Nichrome** is an alloy of nickel (80%) and chromium (20%).

62. "The Origin of Species" was written by _____.
A. Charles Darwin
B. Carolus Linnaeus
C. Erasmus Darwin
D. William Paley
Ans. A
Sol.
• **"The Origin of Species" was written by Charles Darwin.**
• Charles Darwin is best known for his theory of Evolution. He gave theory of Survival of the fittest for evolution.

• Darwin published his theory of evolution with compelling evidence in his 1859 book On the Origin of Species.

63. Who discovered Law of Conservation of Electric Charge?
A. Michael Faraday
B. Gugliehno Marconi
C. Benjamin Franklin
D. Isaac Newton
Ans. C
Sol.

Invention/Discovered	Inventor/Discoverer
Radio	Gugliehno Marconi
Electromagnetic Induction, transformer etc.	Michael Faraday
Law of Conservation of Electric Charge	Benjamin Franklin
Newton's law, telescope	Isaac Newton

64. In fluid mechanics Mach number is 1, If the speed of an object is equal to the _____?
A. Speed of light
B. Rotational speed of sum
C. Speed of sound
D. Speed of revolution of earth around the sun
Ans. C
Sol.
• In fluid mechanics, mach number is defined as the ratio of velocity of a fluid to the velocity of sound in that fluid.
• Hence, if the velocity of fluid is equal to the velocity of sound then mach number will be 1.

65. The process of writing on an optical disc is called _____.
A. Ripping
B. Fetching
C. Scanning
D. Burning
Ans. D
Sol.
• **Burning is a colloquial term meaning to write content to a CD, DVD, or other recordable discs.**
• DVD and CD drives with recording capabilities, fetch data onto the disks with a laser.
• CD-Recordable and CD-Rewritable are the two most common types of drives that can write CDs, either once or repeatedly.
• Hence option D is the right answer.

66. Water cycle refers to_____
A. An integrated attempt to recycle water in relatively arid regions
B. Constant movement of water from ocean to land and back to ocean once again
C. Scientific management of water in areas excessively plagued with water-logging
D. Water distribution in relatively dry areas
Ans. B
Sol.
• **Water cycle** that involves the continuous circulation of water in the Earth-atmosphere system.
• There are **four** main **stages** in the **water cycle**. They are evaporation, condensation, precipitation and collection.

67. The maximum biodiversity is found in _____.
A. Tropical rain forests
B. Temperate forests
C. Coniferous forests
D. Arctic forest
Ans. A
Sol. Most of the terrestrial diversity is found in tropical rainforests. As per an estimation, these forests account for around 40% to 75% of all biotic species and are home to half of all the living animal and plant species on the planet. A single hectare of rain forest may contain 42,000 different species of insect, up to 807 trees of 313 species and 1,500 species of higher plants.

68. The magnitude of current flowing between two end points of a conductor is proportional to the potential difference between them and is called as_____.
A. Avogadro's law
B. Rault's law
C. Ohms law
D. Faraday's law
Ans. C
Sol. According to Ohm's Law, the potential difference (V) between two terminals of a current-carrying conductor.. is directly proportional to the current (1), flowing through it. The

proportionality constant R, is the resistance of the conductor. Thus,

$V \alpha I$

Or V = I x B

$$I = \frac{V}{R} \text{ or } R = \frac{V}{I}$$

69. The five kingdom concept of classification of organisms was given by _____.

A. William Paley
B. Charles Darwin
C. Carl Woese
D. Robert Whittaker
Ans. D
Sol.

• The five kingdom concept of classification of organisms was given by **Robert Whittaker.**

• R.H. Whittaker (1969) proposed a Five Kingdom Classification. The kingdoms defined by him were named **Monera, Protista, Fungi, Plantae and Animalia**.

• The main criteria for classification used by him include cell structure, thallus organisation, mode of nutrition, reproduction and phylogenetic relationships.

• Biological classification of plants and animals was first proposed by **Aristotle** on the basis of simple morphological characters. **Linnaeus** later classified all living organisms into two kingdoms – Plantae and Animalia.

70. What is the term used for pollination by wind?

A. Endophily
B. Angioplasty
C. Anemophily
D. Siciophily
Ans. C
Sol.

• **Anemophily** is a form of pollination whereby pollen is distributed by wind.

• **Majority of gymnosperms are anemophilous.**

• Almost all pollens that are allergens are from anemophilous species.

• Endophily is referred as tendency of mosquitoes to stay indoor.

• Angioplasty is a procedure to restore blood flow through the artery.

71. In which of the following parts of the human digestive system is the digestion of food completed?

A. Small intestine
B. Large intestine
C. Mouth
D. Stomach
Ans. A
Sol.

• **The small intestine** is the part of the gastrointestinal tract where almost all of the digestion and absorption of nutrients and minerals from food takes place.

• The average length of the small intestine in an adult female is 7.1m and in an adult male is 6.9m

• The small intestine is divided into the duodenum, jejunum and ileum.

72. Sound cannot pass through _____.

A. Soil
B. Water
C. Fire
D. Vacuum
Ans. D
Sol.

• **Sound** cannot pass through vacuum because vacuum has no molecules which can vibrate and carry sound waves .

• **Vacuum** means empty space, region with no matter particles .

73. Who discovered electromagnetism?

A. Hans Christian Oersted
B. Andrey Ampere
C. James Clerk
D. Michael Faraday
Ans. A
Sol.

• **Hans Christian Oersted** a Danish physicist and chemist.

• He discovered that electric currents create magnetic fields, which was the **first connection found between electricity and magnetism.**

• The centimetre-gram-second system (CGS) unit of magnetic induction (oersted) is named for his contributions to the field of electromagnetism.

74. The power of a lens is measured in _____
A. Kelvin
B. Candela
C. Ampere
D. Diopter
Ans. D
Sol.
• The power of a lens is measured in **Diopter**.
• The power of a lens is defined as the reciprocal of its focal length in meters, **or D = 1/f**, where D is the power in diopters and f is the focal length in meters.

75. What are the components of nucleus of an atom?
A. Only Protons
B. Protons and Neutrons
C. Neutrons and Electrons
D. Only Neutrons
Ans. B
Sol.
• Protons and Neutrons are the components of nucleus of an atom.
• Protons are the particles which have positive charge and found within atomic nuclei.
• Neutrons are the particles which have no charge and found within atomic nuclei (except for hydrogen-1). Protons are slightly smaller in mass as compared to neutrons.

76. Which among the following is used in fire extinguisher?
I. Carbon dioxide
II. Oxygen
III. Sulphur dioxide
A. Only I
B. Only II
C. Only III
D. All options are correct
Ans. A
Sol.
• Carbon dioxide is used in fire extinguisher.
• Fire extinguishers contain different chemicals, depending on the application. Hand held extinguishers, which are commonly sold at hardware stores for use in the kitchen or garage, are pressurized with nitrogen or carbon dioxide (CO2) to propel a stream of fire-squelching agent to the fire

77. Which of the following metal is the heaviest?
A. Iron
B. Silver
C. Nickel
D. Osmium
Ans. D
Sol.
• Osmium is the heaviest or densest metal.
• Osmium has a density of around 22 grams per cubic centimeter,

78. Which of the following quantity is a measure of inertia?
A. Velocity
B. Acceleration
C. Mass
D. Weight
Ans. C
Sol. Mass of an object is the measure of Inertia of that object. Inertia is measured by the Second Law of Newton. If a object has greater mass, then it means, the object has greater resistance.

79. Sulphur dioxide bleaches colouring matter by :
A. Reduction
B. Dehydration
C. Decomposition
D. Oxidation
Ans. A
Sol.
• Sulphur dioxide gas exhibits bleaching properties in presence of moisture. It dissolve in water liberating nascent hydrogen. Nascent hydrogen removes oxygen atoms from the coloring matter (reduces coloring matter) and it loses its color.
• The bleaching action sulphur dioxide is due to its **reducing action**. The colour of pigment on exposure to SO2 gets **reduced** to a colourless compound.

80. An electron microscope gives higher magnifications than an optical microscope because:

A. The velocity of electrons is smaller than that of light
B. The wavelength of electrons is smaller as compared to the wavelength of visible light
C. The electrons have more energy than the light particulars
D. The electron microscope uses more powerful lenses
Ans. B
Sol.
- An electron microscope is a microscope that uses a beam of accelerated electrons as a source of illumination.
- Because the wavelength of an electron can be up to 100, 000 times shorter than that of visible light photons, the electron microscope has a higher resolving power than a light microscope and can reveal the structure of smaller objects.

Classroom

SSC CPO 2020

A Complete Course (Hindi)

Don't miss the chance to serve your nation!

Top features of the Course/Why take this course

- Prepare for the exam from Basic to Advanced Level
- Designed by SSC Qualified Experts
- Based on Latest Pattern of SSC CPO Exam
- **Complete Conceptual Clarity**

Sandeep Sharma, Vinod Shankaran, Kushal Anand, Chandan Raushan

Prep Smart. Score Better. Go gradeup

www.gradeup.co