

# **General Science Mega Quiz for SSC (Solutions)**

# **S1.** Ans.(b)

**Sol.** In botany, the petiole is the stalk that attaches the leaf blade to the stem. Outgrowths appearing on each side of the petiole in some species are called stipules. Leaves lacking a petiole are called sessile or epetiolate.

# S2. Ans.(c)

**Sol.** The thin layer of living cells just inside the bark of a tree is called Xylem.

### S3. Ans.(a)

**Sol.** Tears are a clear liquid secreted by the lacrimal glands (tear gland) found in the eyes of all land mammals (except for goats and rabbits).

### S4. Ans.(b)

**Sol.** Anatomy is the branch of biology concerned with the study of the structure of organisms and their parts.

### S5. Ans.(a)

**Sol.** Benjamin Franklin coined the term "battery" to describe the way a row of capacitors resembled a battery of canons.

### **S6.** Ans.(d)

**Sol.** The pancreas, a pistol shaped organ, produces the enzymes amylase, lipase and protease and releases them into the small intestine when needed. The enzymes are used to fully digest the food molecules, so that they are small enough to diffuse into the bloodstream.

### S7. Ans.(a)

**Sol.** Blue Vitriol is another name for Copper Sulphate.

### **S8.** Ans.(c)

**Sol.** The smaller units of measuring mass are Milligram, Microgram, Pikogram and Femtogram.

 $1 \text{ Pikogram} = 10^{-12} \text{ gram}$ 

#### **S9.** Ans.(d)

**Sol.** Law of Conservation of Energy means Energy can neither be created nor be destroyed, rather it can only be transformed from one form to another.



### \$10. Ans.(a)

**Sol.** It is clear that when the elevator is going upwards a person actually feels a little heavier than his usual weight and on the other hand when elevator accelerates downward then a person feels a little reduction than his usual weight.

### S11. Ans.(a)

**Sol.** In general, a uniformly accelerated motion is the one in which the acceleration of the particle throughout the motion is uniform. The motion of a freely falling body is an example of Uniformly accelerated motion.

### **S12.** Ans.(b)

**Sol.** The laws which govern the motion of planets are called Kepler's law of planetary motion.

### **S13.** Ans.(c)

**Sol.** LASER(LIGHT AMPLIFICATION BY STIMULATED EMMISSION OF RADIATION) is a device that emits light through a process of optical amplification based on the stimulated emission of electromagnetic radiation. The first laser was built in 1960 by Theodore H. Maiman.

#### S14. Ans.(a)

**Sol.** In 1742, Swedish astronomer, Anders Celsius invented the Celsius(Centigrade) temperature scale, which was named after the inventor.

### S15. Ans.(c)

**Sol.** In 1913 Bohr proposed his quantized shell model of the atom to explain how electrons can have stable orbits around the nucleus. The energy of an electron depends on the size of the orbit and is lower for smaller orbits. Radiation can occur only when the electron jumps from one orbit to another.

#### **S16.** Ans.(c)

**Sol.** Georges Claude invented Neon Lamp.

#### \$17. Ans.(a)

**Sol.** The organs which have different basic structure and origin but are similar in their appearance and functioning, are called analogous organs.

#### \$18. Ans.(a)

**Sol.** A mushroom, or toadstool, is the fleshy, spore-bearing fruiting body of a fungus, typically produced above ground on soil or on its food source. It is NOT an example of organism that takes in whole food material and breaks it down inside its body.

### **S19.** Ans.(c)

**Sol.** Bird and bat wings are analogous that is, they have separate evolutionary origins, but are superficially similar because they have both experienced natural selection that shaped them to play a key role in flight.



# S20. Ans.(b)

**Sol.** Carbon dioxide is NOT a waste material removed from blood in the kidney.

# **S21.** Ans.(d)

**Sol.** A capillary is a small blood vessel from 5 to 10 micrometres ( $\mu$ m) in diameter, and having a wall one endothelial cell thick. They are the smallest blood vessels in the body: they convey blood between the arterioles and venules.

### S22. Ans.(d)

**Sol.** Alimentary canal is the whole passage along which food passes through the body from mouth to anus during digestion.

### S23. Ans.(d)

**Sol.** The fungal cell wall is composed of chitin, glucans, polysaccharides and mucopolysaccharides, waxes, and pigments.

### S24. Ans.(d)

**Sol.** The chemical process of interaction between neurons and between neurons and effector cells occur at the end of the axon, in a structure called synapse.

# S25. Ans.(b)

**Sol.** The Small Intestine is the largest and longest part of the alimentary canal.

### S26. Ans.(d)

**Sol.** The neon gas is used in discharge lamps, tubes and in fluorescent bulbs.

### S27. Ans.(b)

**Sol.** According to Archimede's principle when a body is immersed fully or partially in a liquid, it experiences an upward force that is equal to the weight of the fluid displaced by it therefore the mass of water displaced is equal to the mass of the ship.

### S28. Ans.(c)

**Sol.** Most remote controls of a television receiver send signals using Infra-red radiation.

# **S29.** Ans.(b)

**Sol.** Benzene was first discovered by the English scientist Michael Faraday in 1825

# S30. Ans.(b)

**Sol.** Glycol is an organic compound with the formula (CH2OH)2. It is used to prevent freezing of fuel in space crafts.

