

# General Science Mega Quiz for RRB NTPC (Solutions)

## S1. Ans.(c)

**Sol.** Ecology – Study of interrelationship between organisms and environment.

Genetics - Study of heredity and variation.

Demography – statistical study of populations including human beings.

Virology - Study of viruses.

## S2. Ans.(c)

**Sol.** Apiculture – Rearing bess

Horticulture – Study of fruit and flower producing plants

Sericulture – Rearing silk worm

Floriculture - Study of flowers for decoration work

### **S3.** Ans.(d)

**Sol.** Olericulture is the science of vegetable growing, dealing with the culture of non-woody (herbaceous) plants for food.

## **S4.** Ans.(b)

**Sol.** Neutron is a neutral particle which has no electrical change. It was discovered by Chadwick in 1932. He discovered that when Beryllium (Be) or other atoms are bombarded with high speed particles, then electrically neutral particles emerges from these atoms and such neutral particles are known as neutrons.

## **S5.** Ans.(a)

**Sol.** The equivalent of NaCl will be equal to equivalent weight of Na + equivalent weight of Cl = 23+35.5 =58.5 grams. molecular weight of NaCl also 58.5 grams.

## **S6.** Ans.(c)

**Sol.** A Geiger counter is an instrument used for detecting and measuring ionizing radiation. Also known as a Geiger-Mueller counter (or Geiger-Müller counter), it is widely used in applications such as radiation dosimetry, radiological protection, experimental physics, and the nuclear industry.

#### **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 Pikogram =  $10^{-12}$  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.

## S10. 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.(d)

**Sol.** A homologous structure is an organ, system, or body part that shares a common ancestry in multiple organisms. Limbs of frog, lizard, bird and human are example of Homologous organs.

### \$12. Ans.(a)

**Sol.** Pepsin is an endopeptidase that breaks down proteins into smaller peptides (protease). It is produced in the stomach and is one of the main digestive enzymes in the digestive systems of humans and many other animals, where it helps digest the proteins in food.

## **S13.** Ans.(b)

**Sol.** Lymphatic vessels present in the intestinal villi absorb fatty acids and carries the digested food and fats from the small intestine. It acts as a reservoir of digested food and water.

## **S14.** Ans.(c)

**Sol.** Most autotrophs use a process called photosynthesis to make their food. In photosynthesis, autotrophs use energy from the sun to convert water from the soil and carbon dioxide from the air into a nutrient called glucose. Glucose is a type of sugar. The glucose gives plants energy.

## **S15.** Ans.(b)

**Sol.** The processes which maintain body functions and are necessary for survival are called life processes.

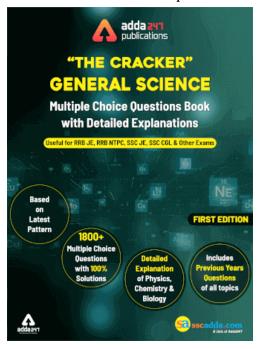
The important life processes are nutrition, transportation, metabolism, reproduction, respiration, and excretion.

# **S16.** Ans.(b)

**Sol.** During very intense exercise, your circulatory system cannot keep up with your muscles demand for oxygen. To maintain a steady supply of energy, muscles shift from aerobic metabolism, which requires oxygen, to anaerobic metabolism, which does not. Muscles can break down carbohydrates anaerobically to provide energy, resulting in a compound called pyruvate. When oxygen is available, pyruvate can be further broken down aerobically to provide more energy. But when sufficient oxygen is not available, pyruvate is converted into lactic acid.

# \$17. Ans.(c)

**Sol.** Food is the source of energy and materials in human beings.



### **S18.** Ans.(b)

**Sol.** Washing soda is used for removing permanent hardness of water and as a cleaning agent for domestic purpose.

### **S19.** Ans.(d)

**Sol.** Synthetic fibers are man-made from chemicals. They are generally based on polymers and are stronger than natural and regenerated fibers. They melt after catching fire. They are more durable. They are prepared by a number of processes using petrochemicals.

### **S20.** Ans.(c)

**Sol.** An image stays on the retina for about 1/16 of a second. This feature is called persistence of vision.

### S21. Ans.(c)

**Sol.** The Intensity of waves is defined as the power delivered per unit area of a Wave.

### S22. Ans.(a)

Sol. Lucimeter is an instrument used for measuring light intensity.

### **S23.** Ans.(a)

**Sol.** Electric motors operating at low voltage tend to burn out because they draw more current which is inversely proportional to the voltage.

### S24. Ans.(c)

**Sol.** A parachute descends slowly because it has a larger surfaace area and air resistance is more.

### S25. Ans.(a)

**Sol.** A vast collection of stars held together by mutual gravitation is called a Galaxy.

#### S26. Ans.(a)

**Sol.** Digestion of some fats can begin in the mouth where lingual lipase breaks down some short chain lipids into diglycerides. However fats are mainly digested in the small intestine.

# **S27.** Ans.(b)

**Sol.** An atom is the smallest constituent unit of ordinary matter that has the properties of a chemical element according to the every solid, liquid, gas, and plasma is composed of neutral or ionized atoms.

Atoms are extremely small; typical sizes are around 100 picometers.

### S28. Ans.(a)

**Sol.** Polycot is a mixture of Polyester and cotton.

### S29. Ans.(c)

**Sol.** Polyethylene, polypropylene, polyvinyl chloride, polystyrene, polybenzimidazole, acrylic, nylon and Teflon are examples of thermoplastics.

# S30. Ans.(d)

**Sol.** Mn, Hg does NOT follow New lands Law of Octaves.

