# General Science Mega Quiz for RRB NTPC (Solutions)

**S1. Ans.(b)**
**Sol.** The first true Antibiotic, Penicillin, was discovered by Alexander Fleming.

**S2. Ans.(a)**
**Sol.** Frogs are oviparous. They lay eggs, which then develop outside of the mother.

**S3. Ans.(a)**
**Sol.** The acid produced by Ants is called Formic Acid. It is derived from the latin word for Ant i.e. formica.

**S4. Ans.(b)**
**Sol.** A butterfly transforms through the first stage: egg; second stage: larva; third stage: pupa; and fourth stage: adult butterfly.

**S5. Ans.(b)**
**Sol.** The Venus flytrap is a carnivorous plant native to subtropical wetlands on the East Coast of the United States in North Carolina and South Carolina.

**S6. Ans.(b)**
**Sol.** A normal adult mouth has 32 teeth, which (except for wisdom teeth) have erupted by about age 13: Incisors (8 total): The middlemost four teeth on the upper and lower jaws. Canines (4 total): The pointed teeth just outside the incisors. Premolars (8 total): Teeth between the canines and molars.

**S7. Ans.(b)**
**Sol.** Lead-acid batteries consist of (at least) two lead plates separated by a chemical solution generally made of 30-50% sulfuric acid or "battery acid." When fully charged, the battery's negative plate is solidly lead, the electrolyte is concentrated sulfuric acid, and the positive plate consists of lead dioxide.

**S8. Ans.(c)**
**Sol.** Sodium bicarbonate or Sodium hydrogen carbonate, also commonly known as baking soda, is commonly seen as a white, fine powder and has the chemical formula $NaHCO_3$. It

**S9. Ans.(a)**
**Sol.** Photometers are used to measure the intensity of the light produced by an unknown source in terms of a standard source. The general technique is to locate the two sources so that they give the same illumination to two adjacent surfaces.

**S10. Ans.(d)**
**Sol.** The decibel (symbol: dB) is a unit of measurement used to express the ratio of one value of a power or field quantity to another, on a logarithmic scale, the logarithmic quantity being called the power level or field level, respectively.

**S11. Ans.(a)**
**Sol.** Peristalsis is a particular, wave-like kind of muscle contraction because its purpose is to move solids or liquids along within the tube-like structures of the digestive and urinary tracts.

**S12. Ans.(b)**
**Sol.** The inner lining of stomach is protected by mucus. Mucus produced in the stomach forms a layer on the cells of the stomach preventing them directly coming in contact with acid in the stomach. Mucus also helps in easy movement of partially digested food into the small intestine.

**S13. Ans.(d)**
**Sol.** A capillary is a small blood vessel from 5 to 10 micrometres (μm) 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.

**S14. Ans.(a)**
**Sol.** The main respiratory surface in humans is the alveoli. Alveoli are tiny balloon like structures with very thin walls. They have numerous tiny thin walled blood vessels in direct contact with them. It is within the lungs.

**S15. Ans.(d)**
**Sol.** If the Distance-Time graph is a curve then it represents non uniform speed. The slope of distance – time graph represents its velocity.

**S16. Ans.(d)**
**Sol.** Classification of species is a reflection of their evolutionary relationships.

**S17. Ans.(b)**
**Sol.** Robert Hooke was a 17th century "natural philosopher" and an early scientist known for variety of observations of the natural world. His most notable discovery came in 1665, when he looked at a sliver of cork through a microscope lens and discovered cells.

**S18. Ans.(a)**
**Sol.** The skin, the lining of the mouth, the lining of blood vessels, lung alveoli and kidney tubules are all made of epithelial tissue. Epithelial tissue cells are tightly packed and form a continuous sheet.

**S19. Ans.(b)**
**Sol.** Before the object begins falling, it has gravitational potential energy which can be calculated by mgh, So the initial potential energy will equal the kinetic energy of the object right before it hits the ground. The potential energy has been converted into kinetic energy.

**S20. 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.

**S21. Ans.(d)**
**Sol.** If the Distance-Time graph is a curve then it represents non uniform speed. The slope of distance – time graph represents its velocity.

**S22. Ans.(b)**
**Sol.** $H = I^2t\,R$
= 0.3 x 0.3 x 900 x 10
= 810 joule

**S23. Ans.(c)**
**Sol.** A body is said to be in uniform motion, if it travels equal distances in equal intervals of time.A body is said to have non-uniform motion, if it travels unequal distances in equal intervals of time.

**S24. Ans.(b)**
**Sol.** We know that
Charge (q) = Current (I)×Time(t)
$500 = I \times 25 \Rightarrow I = 20$ Ampere.

**S25. Ans.(c)**
**Sol.** Uniform motion is defined as the motion of an object in which the object travels in a straight line and its velocity remains constant along that line as it covers equal distances in equal intervals of time, irrespective of the length of the time.

**S26. Ans.(b)**
**Sol.** An anemometer is a device used for measuring the speed of wind.

**S27. Ans.(a)**
**Sol.** Rakesh Sharma was the first Indian to travel in Space. He was born on 13th January 1949 in Punjab, India. He flew to the Salyut 7 Space Station.

**S28. Ans.(b)**
**Sol.** According to the equation of continuity Av = constant. Where A =cross-sectional area and v=velocity with which the fluid flows. It means that if any liquid is flowing in streamline flow in a pipe of non-uniform cross-section area, then rate of flow of liquid across any cross-section remains constant.

**S29. Ans.(c)**
**Sol.** A body which is in equilibrium is either moving at constant velocity in a straight line, or it is not moving.

**S30. Ans.(c)**
**Sol.** The viscosity of an ideal fluid is Zero.