**Q1) Which of the following is a plant-based protein source?**

a) Chicken

b) Lentils

c) Fish

d) Beef

Correct Answer: Option (b)

Explanation: Lentils are a type of legume that are a good source of protein. They are a plant-based protein source and are a great option for vegetarians or vegans who may not consume animal products.

Thus, the correct answer is option (b).

Difficulty Level- Easy

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q2) Which of the following is not a function of carbohydrates in our body?**

a) Provide energy

b) Build and repair tissues

c) Regulate body temperature

d) Aid in digestion

Correct Answer: Option (c)

Explanation: Carbohydrates are a macronutrient that provides our body with energy. They also play a role in digestion and can help with building and repairing tissues. However, they do not directly regulate body temperature.

Thus, the correct answer is option (c).

Difficulty Level- Easy

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q3) Which of the following vitamins is necessary for maintaining healthy eyesight?**

a) Vitamin A

b) Vitamin B

c) Vitamin C

d) Vitamin D

Correct Answer: Option (a)

Explanation: Vitamin A is important for maintaining healthy eyesight. It plays a key role in the functioning of the retina, which is the part of the eye that detects light and sends signals to the brain. Vitamin A can be found in foods like carrots, sweet potatoes, and spinach.

Thus, the correct answer is option (a).

Difficulty Level- Easy

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q4) Which of the following nutrients is responsible for building and repairing tissues in our body?**

a) Carbohydrates

b) Proteins

c) Fats

d) Vitamins

Correct Answer: Option (b)

Explanation: Proteins play a critical role in building and repairing tissues in the body. They are made up of long chains of amino acids, which are linked together by peptide bonds. There are 20 different types of amino acids that can be combined in various ways to form different proteins, each with its own unique function in the body.

Thus, the correct answer is option (b).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q5) Which of the following is a fat-soluble vitamin?**

a) Vitamin C

b) Vitamin B

c) Vitamin D

d) Vitamin K

Correct Answer: Option (c)

Explanation: Vitamin D is a fat-soluble vitamin, meaning it dissolves in fat and is stored in our body's fat cells. This vitamin is important for bone health and can be obtained from sunlight exposure or from certain foods like fatty fish and fortified milk.

Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q6) Which of the following is not a source of complex carbohydrates?**

a) Bread

b) Pasta

c) Candy

d) Rice

Correct Answer: Option (c)

Explanation: Complex carbohydrates are made up of long chains of sugar molecules and are found in foods like bread, pasta, and rice. Candy, on the other hand, is typically made up of simple sugars and is not a source of complex carbohydrates.

Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q7) Answer the following question with reference to the audio**

**(**[**https://drive.google.com/file/d/1n7PKxOGowqXFZ2odrYPudyUJ-zxsKvQA/view?usp=share\_link**](https://drive.google.com/file/d/1n7PKxOGowqXFZ2odrYPudyUJ-zxsKvQA/view?usp=share_link)**)**

**TYPE: Audio**

**Which of the following is a water-soluble vitamin?**

a) Vitamin A

b) Vitamin B

c) Vitamin C

d) Vitamin E

Correct Answer: Option (c)

Explanation: Vitamin C is a water-soluble vitamin, meaning it dissolves in water and is not stored in our body. This vitamin is important for immune function and can be found in foods like citrus fruits, broccoli, and bell peppers. Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q8) Which of the following is not a function of fats in our body?**

a) Provide energy

b) Insulate and protect our organs

c) Help with the absorption of certain vitamins

d) Build and repair tissues

Correct Answer: Option (d)

Explanation: Fats play several important roles in our body, including providing energy, insulating and protecting our organs, and helping with the absorption of certain vitamins. However, they do not play a direct role in building and repairing tissues.

Thus, the correct answer is option (d).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q9) Which of the following nutrients is responsible for the production of hemoglobin in our blood?**

a) Vitamin D

b) Iron

c) Vitamin C

d) Calcium

Correct Answer: Option (b)

Explanation: Iron is a mineral that is important for the production of hemoglobin, a protein found in red blood cells that carries oxygen throughout the body. Iron can be found in foods like red meat, poultry, and beans.

Thus, the correct answer is option (b).

Difficulty Level- Hard

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q10) Answer the following question with reference to the audio**

**(**[**https://drive.google.com/file/d/1Wiu\_OU7K2JitHUQayMWELCnNcWt3WROF/view?usp=share\_link**](https://drive.google.com/file/d/1Wiu_OU7K2JitHUQayMWELCnNcWt3WROF/view?usp=share_link)**)**

**TYPE: Audio**

**Which of the following vitamins is important for the production of collagen, a protein that provides structure to our skin, bones, and connective tissues?**

a) Vitamin A

b) Vitamin C

c) Vitamin E

d) Vitamin K

Correct Answer: Option (b)

Explanation: Vitamin C is important for the production of collagen, a protein that provides structure to our skin, bones, and connective tissues. This vitamin is found in foods like citrus fruits, strawberries, and broccoli.

Thus, the correct answer is option (b).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q11) Which of the following is not a factor that can influence a person's daily energy requirements?**

a) Age

b) Gender

c) Weight

d) Blood type

Correct Answer: Option (d)

Explanation: Age, gender, and weight are all factors that can influence a person's daily energy requirements. For example, a younger person may have higher energy requirements than an older person, and a male may have higher energy requirements than a female. Blood type, on the other hand, does not play a role in determining a person's energy requirements.

Thus, the correct answer is option (d).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q12) Which of the following is a natural material?**

a) Plastic

b) Glass

c) Wood

d) Metal

Correct Answer: Option (c)

Explanation: Wood is a natural material that comes from trees, while plastic, glass, and metal are all synthetic materials that are made by humans. Wood is a renewable resource, as it can be grown and harvested sustainably, while plastics, glass, and metals are typically derived from non-renewable resources such as fossil fuels and minerals.

Thus, the correct answer is option (c).

Difficulty Level- Easy

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q13) Which of the following is a property of metals?**

a) They are brittle

b) They are good conductors of heat and electricity

c) They are transparent

d) They are soft and easily scratched

Correct Answer: Option (b)

Explanation: Metals are generally good conductors of both heat and electricity, which makes them useful for a wide variety of applications. In the case of electrical wiring, metals such as copper and aluminum are commonly used because they allow electricity to flow easily through them, with minimal resistance or loss of energy. This is important for ensuring that electrical devices and systems function efficiently and reliably.

Thus, the correct answer is option (b).

Difficulty Level- Easy

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q14) Which of the following materials is not a good insulator?**

a) Rubber

b) Glass

c) Metal

d) Wool

Correct Answer: Option (c)

Explanation: Insulators are materials that do not conduct heat or electricity well. Rubber, glass, and wool are all good insulators. However, metal is a good conductor of heat and electricity and is not a good insulator.

Thus, the correct answer is option (c).

Difficulty Level- Easy

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q15) Which of the following materials is not a polymer?**

a) Plastic

b) Rubber

c) Glass

d) Nylon

Correct Answer: Option (c)

Explanation: Polymers are materials made up of long chains of molecules. Plastic, rubber, and nylon are all examples of polymers. Glass, on the other hand, is not a polymer but is made up of non-crystalline materials.

Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**16) Answer the following question with reference to the audio**

**(**[**https://drive.google.com/file/d/1AhwssjbV9XEkAmbmDAKm8r2Vw0NCnfDp/view?usp=share\_link**](https://drive.google.com/file/d/1AhwssjbV9XEkAmbmDAKm8r2Vw0NCnfDp/view?usp=share_link)**)**

**TYPE: Audio**

**Which of the following is a synthetic fiber?**

a) Cotton

b) Wool

c) Silk

d) Polyester

Correct Answer: Option (d)

Explanation: Polyester is a synthetic fiber that is made from petrochemicals, which are derived from petroleum. It is a type of polymer that is created through a chemical process known as polymerization, which involves linking together multiple small molecules, called monomers, to form a long chain of repeating units. In contrast, natural fibers such as cotton, wool, and silk are derived from plants or animals. Cotton, for example, comes from the fibers of the cotton plant, while wool comes from the fleece of sheep, and silk comes from the cocoons of silkworms.

Thus, the correct answer is option (d).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q17) Which of the following materials has the highest melting point?**

a) Aluminum

b) Copper

c) Iron

d) Tungsten

Correct Answer: Option (d)

Explanation: Tungsten has the highest melting point of any metal and is used in high-temperature applications like light bulb filaments and heating elements. Aluminum, copper, and iron all have lower melting points than tungsten.

Thus, the correct answer is option (d).

Difficulty Level- Medium

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q18) Which of the following materials is a good conductor of electricity but a poor conductor of heat?**

a) Copper

b) Silver

c) Aluminum

d) Rubber

Correct Answer: Option (a)

Explanation: Copper is a good conductor of electricity because it has free electrons that can move easily through the material. However, copper is a poor conductor of heat because it does not have a lot of free spaces for heat to move through the material.

Thus, the correct answer is option (a).

Difficulty Level- Medium

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q19) Which of the following materials is not a good choice for making permanent magnets?**

a) Iron

b) Cobalt

c) Copper

d) Nickel

Correct Answer: Option (c)

Explanation: Iron, cobalt, and nickel are all good choices for making permanent magnets because they have magnetic properties. Copper, on the other hand, is not magnetic and would not be a good choice for making a permanent magnet.

Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q20) Which of the following is an example of a ferromagnetic material?**

a) Copper

b) Aluminum

c) Nickel

d) Silver

Correct Answer: Option (c)

Explanation: Ferromagnetic materials are materials that are strongly attracted to magnets. Nickel, iron, and cobalt are all examples of ferromagnetic materials. Copper and aluminum are not ferromagnetic. These materials have a crystalline structure that allows their electrons to align their magnetic moments with each other, resulting in a net magnetic moment for the material.

Thus, the correct answer is option (c).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q21) Which of the following materials is the hardest substance known?**

a) Diamond

b) Graphite

c) Quartz

d) Topaz

Correct Answer: Option (a)

Explanation: Diamond is the hardest substance known, with a rating of 10 on the Mohs hardness scale. Graphite and quartz are also relatively hard materials, with ratings of 1-2 and 7, respectively. Topaz is a relatively soft material with a rating of 8 on the Mohs hardness scale.

Thus, the correct answer is option (a).

Difficulty Level- Hard

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q22) Which of the following is an example of a shape memory alloy?**

a) Copper

b) Steel

c) Nitinol

d) Gold

Correct Answer: Option (c)

Explanation: Shape memory alloys are materials that can return to their original shape after being deformed. Nitinol is a shape memory alloy made from nickel and titanium. Copper, steel, and gold are not shape memory alloys.

Thus, the correct answer is option (c).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q23) Answer the following question with reference to the audio**

**(**[**https://drive.google.com/file/d/1xLtyEe2M0wqiDKDHl1I\_8Nul5JmWlzFK/view?usp=share\_link**](https://drive.google.com/file/d/1xLtyEe2M0wqiDKDHl1I_8Nul5JmWlzFK/view?usp=share_link)**)**

**TYPE: Audio**

**Which of the following is not a characteristic of living organisms?**

a) Reproduction

b) Growth

c) Movement

d) Inorganic composition

Correct Answer: Option (d)

Explanation: Living organisms are characterized by their ability to reproduce, grow, and move. They are also made up of organic compounds, such as proteins, carbohydrates, and lipids, as opposed to inorganic materials like minerals and water.

Thus, the correct answer is option (d).

Difficulty Level- Easy

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q24) Which of the following is a non-living thing?**

a) Tree

b) Rock

c) Bacteria

d) Fish

Correct Answer: Option (b)

Explanation: Rocks are non-living things, whereas trees, bacteria, and fish are all living organisms. Living organisms are characterized by certain fundamental properties, such as the ability to grow, reproduce, respond to stimuli, and maintain homeostasis (a relatively stable internal environment). These properties are not found in non-living things such as rocks, which do not have the capacity for growth, reproduction, or other biological processes.

Thus, the correct answer is option (d).

Difficulty Level- Easy

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q25) Which of the following is a function of the circulatory system?**

a) Digestion

b) Respiration

c) Movement

d) Transport of nutrients and waste products

Correct Answer: Option (d)

Explanation: The circulatory system is responsible for the transport of nutrients and waste products throughout the body. Digestion and respiration are functions of the digestive and respiratory systems, respectively, while movement is a function of the musculoskeletal system.

Thus, the correct answer is option (d).

Difficulty Level- Easy

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q26) Which of the following is an example of an autotroph?**

a) Cow

b) Fish

c) Mushroom

d) Sunflower

Correct Answer: Option (d)

Explanation: Autotrophs are organisms that can produce their own food using energy from sunlight, such as plants and algae. Cows, fish, and mushrooms are all heterotrophs that must obtain their food from other sources.

Thus, the correct answer is option (d).

Difficulty Level- Medium

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q27) Which of the following is a type of tissue found in animals?**

a) Chloroplasts

b) Cell walls

c) Muscle tissue

d) Xylem

Correct Answer: Option (c)

Explanation: Muscle tissue is one of the four basic types of tissue found in animals, along with epithelial, connective, and nervous tissue. Chloroplasts and cell walls are structures found in plant cells, while xylem is a specialized tissue found in plants that transports water and nutrients.

Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q28) Which of the following is not a characteristic of viruses?**

a) They have genetic material

b) They can reproduce on their own

c) They can cause disease

d) They are not considered living organisms

Correct Answer: Option (b)

Explanation: Viruses are not considered living organisms because they cannot reproduce on their own; they must infect a host cell and use the host's cellular machinery to replicate. However, they do have genetic material and can cause disease.

Thus, the correct answer is option (b).

Difficulty Level- Medium

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q29) Which of the following is not a function of the skeletal system?**

a) Protection of internal organs

b) Production of blood cells

c) Storage of fat

d) Movement

Correct Answer: Option (c)

Explanation: The skeletal system has several functions, including the protection of internal organs, production of blood cells, and support and movement of the body. However, it is not involved in the storage of fat, which is the function of adipose tissue.

Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q30) Answer the following question with reference to the audio**

**(**[**https://drive.google.com/file/d/16lZDrAy8-z3e57qNZxIau12g2Ac\_JFuj/view?usp=share\_link**](https://drive.google.com/file/d/16lZDrAy8-z3e57qNZxIau12g2Ac_JFuj/view?usp=share_link)**)**

**TYPE: Audio**

**Which of the following is a type of blood vessel that carries blood away from the heart?**

a) Artery

b) Vein

c) Capillary

d) Aorta

Correct Answer: Option (a)

Explanation: Arteries are blood vessels that carry oxygen-rich blood away from the heart and to the rest of the body. Veins, on the other hand, carry oxygen-poor blood back to the heart, while capillaries are small blood vessels that connect arteries and veins. The aorta is the largest artery in the body and carries blood away from the heart to the rest of the body.

Thus, the correct answer is option (a).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q31) Which of the following is not a characteristic of eukaryotic cells?**

a) They have a nucleus

b) They are larger than prokaryotic cells

c) They have cell walls made of peptidoglycan

d) They can be multicellular

Correct Answer: Option (c)

Explanation: Eukaryotic cells are characterized by the presence of a nucleus and other membrane-bound organelles, as well as their larger size and ability to form multicellular organisms. Prokaryotic cells, on the other hand, lack a nucleus and other membrane-bound organelles and are typically smaller than eukaryotic cells. While some prokaryotic cells have cell walls made of peptidoglycan, eukaryotic cells do not.

Thus, the correct answer is option (c).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q32) Which of the following is an example of mutualism?**

a) A tick feeding on a deer

b) A mosquito transmitting malaria to a human

c) A bee pollinating a flower

d) A tapeworm living in the intestines of a human

Correct Answer: Option (c)

Explanation: Mutualism is a type of symbiotic relationship in which both organisms benefit. In the case of a bee pollinating a flower, the bee obtains nectar as a food source, while the flower is able to reproduce through the transfer of pollen. The other options all involve one organism benefiting at the expense of the other (parasitism) or one organism being unaffected while the other is harmed (commensalism).

Thus, the correct answer is option (c).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q33) Which of the following is not a type of muscle tissue?**

a) Skeletal

b) Cardiac

c) Smooth

d) Epithelial

Correct Answer: Option (d)

Explanation: Muscle tissue is one of the four basic types of tissue found in animals, and it is responsible for movement. The three types of muscle tissue are skeletal, cardiac, and smooth. Skeletal muscle is attached to bones and responsible for voluntary movement, while cardiac muscle makes up the heart and is responsible for pumping blood. Smooth muscle is found in organs such as the intestines and blood vessels and is responsible for involuntary movement. Epithelial tissue, on the other hand, is a type of tissue that lines the surfaces of organs and structures in the body.

Thus, the correct answer is option (d).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q34) Which of the following is an example of a simple machine?**

a) A bicycle

b) A hammer

c) A lever

d) A car

Correct Answer: Option (c)

Explanation: A lever is a simple machine that consists of a rigid bar that pivots around a fixed point called a fulcrum. It can be used to amplify force or to move objects with less effort.

Thus, the correct answer is option (c).

Difficulty Level- Easy

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q35) What is the unit of measurement for speed?**

a) Meters per second

b) Newtons

c) Joules

d) Liters

Correct Answer: Option (a)

Explanation: Speed is a measure of how fast an object is moving, and it is typically measured in meters per second (m/s) or kilometers per hour (km/h). Speed is a scalar quantity, which means that it only has magnitude (i.e., a numerical value) and no direction. In contrast, velocity is a vector quantity that includes both magnitude and direction, and is defined as the rate at which an object changes its position in a particular direction.

Thus, the correct answer is option (a).

Difficulty Level- Easy

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q36) Answer the following question with reference to the audio**

**(**[**https://drive.google.com/file/d/1X05XOU0l86q0L\_cpZCcNXWATdeFW0jfO/view?usp=share\_link**](https://drive.google.com/file/d/1X05XOU0l86q0L_cpZCcNXWATdeFW0jfO/view?usp=share_link)**)**

**TYPE: Audio**

**Which of the following is not a form of energy?**

a) Heat energy

b) Light energy

c) Sound energy

d) Density energy

Correct Answer: Option (d)

Explanation: Density is a property of matter, not a form of energy. Heat energy, light energy, and sound energy are all different forms of energy that can be transferred between objects or converted into other forms of energy.

Thus, the correct answer is option (d).

Difficulty Level- Easy

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q37) Which of the following statements about friction is true?**

a) Friction always opposes motion.

b) Friction always increases with surface area.

c) Friction is always proportional to the speed of an object.

d) Friction is always the same regardless of the type of surface.

Correct Answer: Option (a)

Explanation: Friction is a force that opposes motion and acts in the opposite direction to an object's motion. It can be affected by a number of factors, such as the type of surface, the force pushing the objects together, and the roughness of the surfaces.

Thus, the correct answer is option (a).

Difficulty Level- Medium

Bloom’s Taxonomy- Analyze

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q38) Which of the following is an example of kinetic energy?**

a) A book sitting on a shelf

b) A stretched rubber band

c) A roller coaster at the top of a hill

d) A battery with no charge

Correct Answer: Option (c)

Explanation: Kinetic energy is the energy of motion, and it is proportional to an object's mass and speed. A roller coaster at the top of a hill has potential energy, but as it begins to move, it gains kinetic energy.

Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q39) What is the formula for calculating work?**

a) W = F/d

b) W = F x d

c) W = m x g

d) W = P x V

Correct Answer: Option (b)

Explanation: Work is a measure of the amount of energy required to move an object over a distance, and it is calculated by multiplying the force applied to the object by the distance it is moved. The formula for work is W = F x d, where W is work, F is force, and d is distance.

Thus, the correct answer is option (b).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q40) What is the SI unit of force?**

a) Newton

b) Watt

c) Joule

d) Pascal

Correct Answer: Option (a)

Explanation: The SI unit of force is the newton (N), which is defined as the amount of force required to accelerate a 1-kilogram mass at a rate of 1 meter per second squared. The newton is named after Sir Isaac Newton, a famous physicist and mathematician who made many important contributions to our understanding of mechanics and the laws of motion. The newton is one of the seven base units of the International System of Units (SI), which is the standard system of measurement used in science and engineering worldwide.

Thus, the correct answer is option (a).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q41) Answer the following question with reference to the audio**

**(**[**https://drive.google.com/file/d/1nrRIToyPZx2ber7mRtVPO42PtOndfRFQ/view?usp=share\_link**](https://drive.google.com/file/d/1nrRIToyPZx2ber7mRtVPO42PtOndfRFQ/view?usp=share_link)**)**

**TYPE: Audio**

**Which of the following statements about momentum is true?**

a) Momentum is a measure of an object's mass.

b) Momentum is always conserved in a closed system.

c) Momentum is a type of potential energy.

d) Momentum is measured in units of joules.

Correct Answer: Option (b)

Explanation: Momentum is a measure of an object's mass and its velocity, and it is calculated by multiplying the mass by the velocity. In a closed system, the total momentum is always conserved, which means that the total momentum of the objects in the system before an event is the same as the total momentum after the event, assuming there are no external forces acting on the system. Momentum is measured in units of kilogram meters per second (kg m/s).

Thus, the correct answer is option (b).

Difficulty Level- Hard

Bloom’s Taxonomy- Analyze

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q42) Which of the following is an example of an inclined plane?**

a) A pulley system

b) A wedge

c) A screw

d) A ramp

Correct Answer: Option (d)

Explanation: An inclined plane is a simple machine that is used to lift heavy objects to higher levels. A ramp is an example of an inclined plane, as it allows an object to be lifted to a higher level with less force than would be required to lift the object straight up.

Thus, the correct answer is option (d).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q43) Which of the following is an example of static friction?**

a) The friction between two surfaces that are sliding past each other

b) The friction between a car's tires and the road while it is braking

c) The friction between a person's shoes and the ground while standing still

d) The friction between a roller skate's wheels and a wooden floor

Correct Answer: Option (c)

Explanation: Static friction is the force that opposes the motion of two surfaces that are in contact and not moving relative to each other. It is the force that keeps an object at rest when a force is applied to it. An example of static friction is the friction between a person's shoes and the ground while standing still.

Thus, the correct answer is option (c).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q44) What is the formula for calculating power?**

a) P = F x d

b) P = W/t

c) P = m x g

d) P = V x I

Correct Answer: Option (b)

Explanation: Power is a measure of how much work is done in a certain amount of time, and it is calculated by dividing the work done by the time taken to do the work. The formula for power is P = W/t, where P is power, W is work, and t is time. Power is measured in units of watts (W).

Thus, the correct answer is option (b).

Difficulty Level- Very Hard

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q45) Which type of energy is stored in a stretched rubber band?**

a) Kinetic Energy

b) Thermal Energy

c) Potential Energy

d) Electrical Energy

Correct Answer: Option (c)

Explanation: A stretched rubber band has potential energy due to its position or state. Potential energy is the energy that is stored in an object due to its position or configuration.

Thus, the correct answer is option (c).

Difficulty Level- Easy

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q46) Answer the following question with reference to the audio**

(<https://drive.google.com/file/d/143G9un56Lv9kUmbEmJvZFGY52quaxq8a/view?usp=share_link>)

**TYPE: Audio**

**What fundamental idea underlies the operation of a straightforward pendulum?**

a) Newton's Second Law of Motion

b) Law of Gravitation

c) Principle of Conservation of Energy

d) Archimedes Principle

Correct Answer: Option (c)

Explanation: The basic principle behind the working of a simple pendulum is the conservation of energy. When the pendulum is at its highest point, it has maximum potential energy, and when it is at its lowest point, it has maximum kinetic energy. As the pendulum swings back and forth, the energy is conserved between potential and kinetic forms.

Thus, the correct answer is option (c).

Difficulty Level- Easy

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q47) What is the working principle of an electric motor?**

a) Electromagnetic Induction

b) Reflection of Light

c) Refraction of Light

d) Resistance of Materials

Correct Answer: Option (a)

Explanation: The working principle of an electric motor is based on electromagnetic induction. When an electric current flows through a wire in a magnetic field, a force is exerted on the wire, causing it to rotate. This is the basic principle behind the working of an electric motor, which converts electrical energy into mechanical energy.

Thus, the correct answer is option (a).

Difficulty Level- Easy

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q48) Which of the following devices works on the principle of the Archimedes' principle?**

a) Thermometer

b) Barometer

c) Hydrometer

d) Seismometer

Correct Answer: Option (c)

Explanation: A hydrometer works on the principle of Archimedes' principle, which states that the buoyant force acting on an object immersed in a fluid is equal to the weight of the fluid displaced by the object. A hydrometer is used to measure the specific gravity or relative density of liquids, based on the principle that a denser liquid will exert a greater buoyant force on the hydrometer.

Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q49) The pitch of a sound depends on:**

a) The frequency of sound waves

b) The amplitude of sound waves

c) The wavelength of sound waves

d) The speed of sound waves

Correct Answer: Option (a)

Explanation: The pitch of a sound refers to the subjective perception of its highness or lowness. It depends on the frequency of the sound waves, which is the number of oscillations per second. Higher frequency sound waves have a higher pitch, while lower frequency sound waves have a lower pitch.

Thus, the correct answer is option (a).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q50) Which of the following substances effectively conducts electricity?**

a) Rubber

b) Glass

c) Copper

d) Plastic

Correct Answer: Option (c)

Explanation: Copper is a good conductor of electricity due to its low resistivity. This means that it allows the flow of electric current with minimal resistance, and thus, the current can flow easily through it. This property makes copper a preferred material for electrical wiring and other electrical applications.

Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q51) Which of the following is not a simple machine?**

a) Lever

b) Pulley

c) Wedge

d) Transformer

Correct Answer: Option (d)

Explanation: A transformer is not a simple machine. It is an electrical device used to transfer electrical energy from one circuit to another by means of electromagnetic induction. Simple machines are basic mechanical devices that can be used to make work easier, such as levers, pulleys, wedges, etc.

Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q52) What is the principle behind the working of a nuclear power plant?**

a) Electromagnetic Induction

b) Nuclear Fission

c) Nuclear Fusion

d) Thermoelectric Effect

Correct Answer: Option (b)

Explanation: The principle behind the working of a nuclear power plant is nuclear fission. In nuclear fission, the nucleus of an atom is split into two smaller nuclei, releasing a large amount of energy. This energy is used to heat water to produce steam, which drives the turbines to generate electricity.

Thus, the correct answer is option (b).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q53) Which of the following is an example of a second-class lever?**

a) Scissors

b) Wheelbarrow

c) Bottle opener

d) Fishing rod

Correct Answer: Option (b)

Explanation: In a second-class lever, the load is located between the effort (force) and the fulcrum. In a wheelbarrow, the load (the weight of the objects being carried) is located between the handles (the effort) and the wheel (the fulcrum). The other options listed are examples of a first-class lever (scissors, where the fulcrum is between the load and effort), a third-class lever (bottle opener, where the effort is between the fulcrum and load), and a combination of first and third-class levers (fishing rod, where the fulcrum is at the joint between the rod and reel).

Thus, the correct answer is option (b).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q54) What is the basic principle behind the working of a geothermal power plant?**

a) Conversion of Thermal Energy to Electrical Energy

b) Conversion of Kinetic Energy to Electrical Energy

c) Conversion of Potential Energy to Electrical Energy

d) Conversion of Chemical Energy to Electrical Energy

Correct Answer: Option (a)

Explanation: The basic principle behind the working of a geothermal power plant is the conversion of thermal energy to electrical energy. Geothermal energy is the heat that is generated by the Earth's core, and this heat is used to produce steam, which drives turbines to generate electricity.

Thus, the correct answer is option (a).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q55) What is the basic principle behind the working of a fuel cell?**

a) Faraday's Law of Electromagnetic Induction

b) Conservation of Energy

c) Electrolysis

d) Electrochemical Reaction

Correct Answer: Option (d)

Explanation: The basic principle behind the working of a fuel cell is an electrochemical reaction. A fuel cell converts the energy released by a chemical reaction directly into electrical energy. The reaction occurs between the fuel (usually hydrogen) and an oxidant (usually oxygen), with the help of a catalyst. The fuel cell produces electricity, water, and heat as byproducts.

Thus, the correct answer is option (d).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q56) Which of the following factors affects the loudness of a sound?**

a) Amplitude of the sound wave

b) Frequency of the sound wave

c) Wavelength of the sound wave

d) Velocity of the sound wave

Correct Answer: Option (a)

Explanation: The loudness of a sound is related to the amplitude of the sound wave. Amplitude is the maximum displacement of a particle in the medium from its rest position. The greater the amplitude of a sound wave, the louder the sound will be perceived. Frequency (option B) is related to the pitch of the sound, while wavelength (option C) is related to the distance between consecutive compressions or rarefactions in the sound wave. Velocity (option D) is the speed of the sound wave, which is constant in a given medium.

Thus, the correct answer is option (a).

Difficulty Level- Very Hard

Bloom’s Taxonomy- Analyze

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q57) Answer the following question with reference to the audio**

**(**[**https://drive.google.com/file/d/15HJsL7UGvSSOC9XTGpwx316htEuLKLrE/view?usp=share\_link**](https://drive.google.com/file/d/15HJsL7UGvSSOC9XTGpwx316htEuLKLrE/view?usp=share_link)**)**

**TYPE: Audio**

**Which of the following is a natural disaster caused by tectonic plates?**

a) Tsunami

b) Cyclone

c) Flood

d) Landslide

Correct Answer: Option (a)

Explanation: Tsunami is a natural disaster caused by tectonic plates. It occurs when there is a sudden movement in the ocean floor, usually as a result of an earthquake, volcanic eruption, or underwater landslide. This movement creates massive waves that can travel long distances across the ocean, causing devastation when they hit the shore.

Thus, the correct answer is option (a).

Difficulty Level- Easy

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q58) Which of the following is a natural disaster caused by atmospheric conditions?**

a) Earthquake

b) Volcanic Eruption

c) Hurricane

d) Landslide

Correct Answer: Option (c)

Explanation: Hurricane is a natural disaster caused by atmospheric conditions. It occurs when warm, moist air rises from the ocean and forms a low-pressure area, which is then surrounded by high-pressure areas. This creates a rotating storm that can cause high winds, heavy rain, storm surges, and flooding.

Thus, the correct answer is option (c).

Difficulty Level- Easy

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q59) What is lightning?**

a) A flow of water in the atmosphere

b) A flow of charged particles in the atmosphere

c) A type of precipitation

d) A type of cloud formation

Correct Answer: Option (b)

Explanation: Lightning is a natural phenomenon that occurs when there is a flow of charged particles in the atmosphere. It is usually associated with thunderstorms and is caused by the buildup of electrical charge in the clouds. When the electrical charge becomes strong enough, it creates a flow of electrons between the cloud and the ground or between two clouds, producing a bright flash of light and a loud sound (thunder).

Thus, the correct answer is option (b).

Difficulty Level- Easy

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q60) Which of the following is an early warning system used to detect earthquakes?**

a) Richter Scale

b) Barometer

c) Seismograph

d) Anemometer

Correct Answer: Option (c)

Explanation: Seismographs are instruments used to detect and measure earthquakes. They work by recording the vibrations caused by seismic waves, which are produced by the movement of tectonic plates. Seismographs help scientists to locate the epicenter of an earthquake and determine its magnitude.

Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q61) Which of the following is a scale used to measure the intensity of a tornado?**

a) Saffir-Simpson Scale

b) Fujita Scale

c) Richter Scale

d) Beaufort Scale

Correct Answer: Option (b)

Explanation: The Fujita Scale, also known as the F-Scale, is a scale used to measure the intensity of a tornado. It ranges from F0 (weakest) to F5 (strongest) and is based on the amount of damage caused by the tornado. The Fujita Scale is used by meteorologists to classify tornadoes and estimate their wind speeds.

Thus, the correct answer is option (b).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q62) Which of the following natural phenomena is caused by the rotation of the Earth?**

a) Tsunami

b) Aurora

c) Tornado

d) Coriolis Effect

Correct Answer: Option (d)

Explanation: The Coriolis Effect is a natural phenomenon caused by the rotation of the Earth. It causes moving objects, such as air and water, to appear to curve instead of moving in a straight line. The Coriolis Effect is responsible for the rotation of hurricanes, the direction of ocean currents, and the pattern of global winds.

Thus, the correct answer is option (d).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q63) What is the process by which water vapor turns into liquid water?**

a) Condensation

b) Evaporation

c) Sublimation

d) Melting

Correct Answer: Option (a)

Explanation: Condensation is the process by which water vapor turns into liquid water. It occurs when warm, moist air cools and the water vapor condenses into droplets or clouds. Condensation is an important part of the water cycle and is responsible for the formation of precipitation, such as rain, snow, and hail.

Thus, the correct answer is option (a).

Difficulty Level- Medium

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q64) Which of the following types of waves can cause the most destruction during an earthquake?**

a) P-waves

b) S-waves

c) Surface waves

d) Love waves

Correct Answer: Option (c)

Explanation: Surface waves are the most destructive type of waves that can occur during an earthquake. They travel along the Earth's surface and cause the ground to move in a rolling, up-and-down motion. Surface waves can cause significant damage to buildings, roads, and other structures, and are responsible for most of the damage and loss of life during an earthquake.

Thus, the correct answer is option (c).

Difficulty Level- Hard

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q65) Which of the following is a type of cloud that is associated with thunderstorms and can produce lightning and hail?**

a) Stratus cloud

b) Cumulonimbus cloud

c) Cirrus cloud

d) Altostratus cloud

Correct Answer: Option (b)

Explanation: Cumulonimbus clouds are tall, dense clouds that are associated with thunderstorms. They can produce lightning, hail, heavy rain, and strong winds, and are often accompanied by thunder and lightning. Cumulonimbus clouds are the largest clouds in the sky and can extend up to 40,000 feet in the atmosphere.

Thus, the correct answer is option (b).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q66) Answer the following question with reference to the audio**

**(**[**https://drive.google.com/file/d/1Aqh1\_HvrgRoAsi4Nl3cDUwje9ukicMMJ/view?usp=share\_link**](https://drive.google.com/file/d/1Aqh1_HvrgRoAsi4Nl3cDUwje9ukicMMJ/view?usp=share_link)**)**

**TYPE: Audio**

**Which of the following types of electromagnetic radiation has the shortest wavelength?**

a) Radio waves

b) Microwaves

c) X-rays

d) Gamma rays

Correct Answer: Option (d)

Explanation: Gamma rays are a type of electromagnetic radiation that has the shortest wavelength and the highest frequency. They are produced by nuclear reactions, such as those that occur during a supernova explosion, and are highly energetic and dangerous. Gamma rays can penetrate through most materials, including lead and concrete, and can cause damage to living tissue.

Thus, the correct answer is option (d).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q67) What is the name of the process by which a hurricane loses strength and dissipates over time?**

a) Eyewall replacement cycle

b) Tropical cyclone

c) Dissipation

d) Extratropical transition

Correct Answer: Option (c)

Explanation: Dissipation is the process by which a hurricane loses strength and eventually dissipates over time. This can occur when the hurricane moves over land or cooler water, which can weaken the storm and cause it to break apart. Dissipation is a natural part of the life cycle of a hurricane and is responsible for bringing an end to the storm.

Thus, the correct answer is option (c).

Difficulty Level- Hard

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q68) Which of the following seismic waves is responsible for causing the most damage during an earthquake?**

a) Primary waves (P-waves)

b) Secondary waves (S-waves)

c) Rayleigh waves

d) Love waves

Correct Answer: Option (c)

Explanation: Rayleigh waves are surface waves that are responsible for causing the most damage during an earthquake. These waves move in a rolling motion, similar to ocean waves, and can cause the ground to move up and down as well as side to side. Rayleigh waves are slower than P-waves and S-waves, but they have the highest amplitude and can cause the most shaking and damage to buildings, roads, and other structures.

Thus, the correct answer is option (c).

Difficulty Level- Very Hard

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q69) Answer the following question with reference to the audio**

**(**[**https://drive.google.com/file/d/1GQ9ewkbQBGDv1WIQYxgWHLhpIBfiejuJ/view?usp=share\_link**](https://drive.google.com/file/d/1GQ9ewkbQBGDv1WIQYxgWHLhpIBfiejuJ/view?usp=share_link)**)**

**TYPE: Audio**

**Which of the following is a renewable resource?**

a) Coal

b) Natural gas

c) Petroleum

d) Solar energy

Correct Answer: Option (d)

Explanation: Solar energy is a renewable resource because it is derived from the sun, which is an inexhaustible source of energy. Solar panels can be used to capture the energy from the sun and convert it into electricity, making it a sustainable source of power.

Thus, the correct answer is option (d).

Difficulty Level- Easy

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q70) Which of the following is a nonrenewable resource?**

a) Wind energy

b) Water

c) Oil

d) Geothermal energy

Correct Answer: Option (c)

Explanation: Oil is a non-renewable resource because it is formed over millions of years from the remains of dead plants and animals that have been buried and compressed underground. It takes a long time for oil to form, and once it has been extracted from the earth, it cannot be replenished in a short amount of time.

Thus, the correct answer is option (c).

Difficulty Level- Easy

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q71) Which of the following is a natural resource that can be used to produce paper?**

a) Coal

b) Iron

c) Timber

d) Gold

Correct Answer: Option (c)

Explanation: Timber, or wood, is a natural resource that can be used to produce paper. The wood fibers are separated and processed to make paper, which is used for a variety of purposes, including books, newspapers, and packaging materials. While timber is a renewable resource, it is important to manage forests sustainably to ensure that they can continue to provide wood and other products over time.

Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q72) Which of the following is an example of fossil fuel?**

a) Wind energy

b) Solar energy

c) Natural gas

d) Geothermal energy

Correct Answer: Option (c)

Explanation: Natural gas is a fossil fuel that is formed from the remains of dead plants and animals that have been buried and compressed underground for millions of years. It is a non-renewable resource that is used to produce electricity, heat homes, and power vehicles.

Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q73) Which of the following is a method of conserving water resources?**

a) Using a hose to water plants

b) Taking long showers

c) Fixing leaky faucets

d) Using a dishwasher instead of washing dishes by hand

Correct Answer: Option (c)

Explanation: Fixing leaky faucets is a method of conserving water resources. Even small leaks can waste a significant amount of water over time, so it is important to fix them as soon as possible. Other methods of conserving water include using low-flow showerheads and toilets, watering plants in the early morning or late afternoon to reduce evaporation, and collecting rainwater for outdoor use.

Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q74) Which of the following is a renewable resource that can be used to generate electricity?**

a) Coal

b) Natural gas

c) Solar energy

d) Petroleum

Correct Answer: Option (c)

Explanation: Solar energy is a renewable resource that can be used to generate electricity. Solar panels can be used to capture the energy from the sun and convert it into electricity, making it a sustainable source of power.

Thus, the correct answer is option (c).

Difficulty Level- Medium

Bloom’s Taxonomy- Remember

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q75) Which of the following is a benefit of using wind energy as a power source?**

a) It is a non-polluting source of energy

b) It is a non-renewable resource

c) It produces greenhouse gas emissions

d) It is only effective in areas with high wind speeds

Correct Answer: Option (a)

Explanation: Wind energy is a non-polluting source of energy because it does not produce greenhouse gas emissions or other harmful pollutants. It is a renewable resource that can be used to generate electricity in areas with consistent wind speeds, such as coastal regions and high-elevation areas. While wind turbines can have some negative impacts on wildlife and scenic views, they are generally considered to be a clean and sustainable source of energy.

Thus, the correct answer is option (a).

Difficulty Level- Medium

Bloom’s Taxonomy- Understand

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q76) Which of the following is a disadvantage of using nuclear energy as a power source?**

a) It produces large amounts of greenhouse gas emissions

b) It is expensive to build and maintain nuclear power plants

c) It is a renewable resource that can be used indefinitely

d) It poses a risk of nuclear accidents and radioactive waste

Correct Answer: Option (d)

Explanation: While nuclear energy is a highly efficient and powerful source of energy, it also poses significant risks in terms of nuclear accidents and radioactive waste. The radioactive waste produced by nuclear power plants can remain hazardous for thousands of years, and the risk of accidents like those that occurred at Chernobyl and Fukushima can have devastating consequences.

Thus, the correct answer is option (d).

Difficulty Level- Hard

Bloom’s Taxonomy- Analyze

**$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$**

**Q77) Which of the following is a method of reducing carbon emissions in the transportation sector?**

a) Encouraging the use of larger, less fuel-efficient vehicles

b) Investing in the development of new fossil fuel technologies

c) Promoting the use of public transportation, bicycles, and electric vehicles

d) Increasing the speed limits on highways

Correct Answer: Option (c)

Explanation: The transportation sector is a major contributor to carbon emissions, and one way to reduce these emissions is to promote the use of public transportation, bicycles, and electric vehicles. These options are typically more energy-efficient and produce fewer emissions than traditional gasoline-powered vehicles.

Thus, the correct answer is option (c).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

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**Q78) Answer the following question with reference to the audio**

**(**[**https://drive.google.com/file/d/1AYRkHk4wTlY0QFnM1YDNWtP4eo3l5K2Y/view?usp=share\_link**](https://drive.google.com/file/d/1AYRkHk4wTlY0QFnM1YDNWtP4eo3l5K2Y/view?usp=share_link)**)**

**TYPE: Audio**

**What are the environmental impacts of using non-renewable resources?**

a) Air pollution

b) Water pollution

c) Climate change

d) All of the above

Correct Correct Answer: Option (d)

Explanation: Non-renewable resources such as fossil fuels (coal, oil, and natural gas) are finite and will eventually run out. In addition to being a finite resource, the extraction, transportation, and use of non-renewable resources can have significant negative impacts on the environment. The combustion of fossil fuels, for example, releases carbon dioxide and other pollutants into the air, contributing to air pollution and climate change. Burning fossil fuels also releases sulfur dioxide and nitrogen oxides, which can react with water vapor to form acid rain, leading to water pollution and damage to ecosystems. Extracting and transporting non-renewable resources can also have negative impacts on the environment. For example, oil spills from offshore drilling and pipeline leaks can contaminate waterways and harm wildlife. Mountaintop removal mining for coal can destroy entire ecosystems and lead to habitat loss for wildlife.

Thus, the correct answer is option (d).

Difficulty Level- Hard

Bloom’s Taxonomy- Understand

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**Q79) Which of the following is a method of reducing water pollution in agricultural areas?**

a) Using large amounts of pesticides and fertilizers to increase crop yields

b) Diverting polluted water away from nearby waterways

c) Planting cover crops to prevent erosion and reduce runoff

d) Building more industrial-scale animal feedlots

Correct Answer: Option (c)

Explanation: Agricultural areas can contribute to water pollution through the use of pesticides and fertilizers, as well as by allowing soil erosion and runoff to enter nearby waterways. One way to reduce water pollution in these areas is to plant cover crops, which help prevent soil erosion and reduce the amount of runoff entering nearby waterways.

Thus, the correct answer is option (c).

Difficulty Level- Hard

Bloom’s Taxonomy- Remember

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**Q80) Which of the following is an example of a non-renewable resource?**

a) Wind energy

b) Solar energy

c) Coal

d) Hydroelectricity

Correct Answer: (c)

Explanation: Coal is a non-renewable resource, meaning that it is a finite resource that cannot be replenished in a short amount of time. Once it is used up, it is gone forever. Other examples of non-renewable resources include oil and natural gas.

Thus, the correct answer is option (c).

Difficulty Level- Very Hard

Bloom’s Taxonomy- Remember

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