

AISSEE General Science

Sample Paper – 1

Duration: 30 Minutes

Maximum Marks: 50

Instructions

- This paper has **25 questions** carrying **2 marks** each. Total: **50 marks**.
- All questions are MCQs with four options (A/B/C/D). Choose the single correct answer.
- **No negative marking**. Wrong or blank answers carry zero marks.
- Attempt all questions. Do not leave any answer blank.

Section A: Human Body

Q1. What is the main function of the kidneys in the human body?

- (A) Pump blood to the lungs
- (B) Produce insulin for digestion
- (C) Filter air before it enters the lungs
- (D) Filter blood and remove waste as urine

Answer: (D)

Solution

The **kidneys** filter blood, remove urea and other waste products, and produce **urine**. The heart pumps blood, the pancreas produces insulin, and the lungs handle air.

Q2. Which is the largest organ of the human body?

- (A) Heart
- (B) Brain
- (C) Liver
- (D) Skin

Answer: (D)



Solution

The **skin** is the largest organ of the human body. It covers the entire body, protects against infection, and regulates body temperature. The liver is the largest internal organ.

Q3. What is the main function of red blood cells (RBCs)?

- (A) Fight infection and disease
- (B) Carry oxygen from lungs to body cells
- (C) Form blood clots to stop bleeding
- (D) Produce digestive enzymes

Answer: (B)

Solution

Red blood cells contain haemoglobin, which binds to oxygen and carries it from the lungs to all body cells. White blood cells fight infection; platelets form clots.

Q4. The process of breathing air INTO the lungs is called:

- (A) Exhalation
- (B) Inhalation
- (C) Transpiration
- (D) Photosynthesis

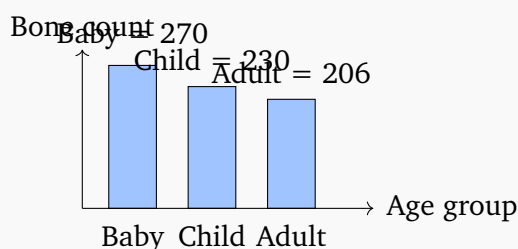
Answer: (B)

Solution

Inhalation is breathing air in; **exhalation** is breathing air out. Transpiration is the release of water vapour by plants; photosynthesis is food-making by plants.



Q5. The bar chart shows approximate bone counts in the human body at different ages. How many bones does a *healthy adult* have?



- (A) 100
- (B) 150
- (C) 196
- (D) 206

Answer: (D)

Solution

An adult human body has **206 bones**. Babies are born with about 270 bones; many fuse together as a person grows. The skeleton supports the body and protects internal organs.

Q6. Which vitamin is produced in the skin when it is exposed to sunlight?

- (A) Vitamin A
- (B) Vitamin B
- (C) Vitamin D
- (D) Vitamin K

Answer: (C)

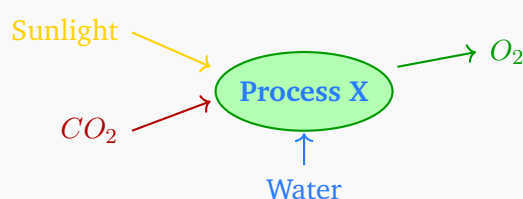
Solution

The skin produces **Vitamin D** when exposed to sunlight (UV radiation). Vitamin D helps the body absorb calcium and keep bones strong. A deficiency causes rickets in children.

Section B: Plants and Animals



Q7. The diagram shows a leaf making food. Which process is labelled X?



- (A) Photosynthesis
- (B) Respiration
- (C) Transpiration
- (D) Fermentation

Answer: (A)

Solution

The process is **photosynthesis**. Plants absorb sunlight, CO₂ (from air), and water (from roots) and produce glucose (food) and oxygen. The oxygen is released into the air.

Q8. Which tissue in a plant carries water from the roots up to the leaves?

- (A) Xylem
- (B) Phloem
- (C) Stomata
- (D) Chloroplast

Answer: (A)

Solution

Xylem transports water and dissolved minerals from the roots to the rest of the plant. Phloem carries food (glucose) made in the leaves to other parts of the plant.



Q9. What gas do plants release into the air as a product of photosynthesis?

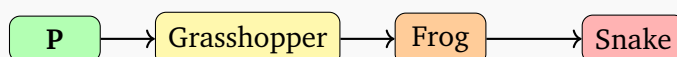
- (A) Carbon dioxide
- (B) Oxygen
- (C) Nitrogen
- (D) Hydrogen

Answer: (B)

Solution

Plants release **oxygen** during photosynthesis. They absorb CO_2 and release O_2 . At night, when photosynthesis stops, plants respire and release CO_2 just like animals.

Q10. The diagram shows a food chain. Which organism always occupies position **P** at the start of a food chain?



- (A) Green plant
- (B) Herbivore
- (C) Carnivore
- (D) Decomposer

Answer: (A)

Solution

A food chain always begins with a **green plant** (producer), which uses sunlight to make food. The arrows show the direction of energy flow - from eaten to eater.



Q11. What is the basic structural and functional unit of all living organisms?

- (A) Tissue
- (B) Organ
- (C) Cell
- (D) Molecule

Answer: (C)

Solution

The **cell** is the basic unit of life. Cells group into tissues, tissues form organs, and organs form organ systems. All living things - from bacteria to humans - are made of cells.

Section C: Force, Motion, and Simple Machines

Q12. A force applied to an object can change its:

- (A) Shape, speed, and direction of motion
- (B) Colour and smell only
- (C) Temperature only
- (D) Weight but not shape

Answer: (A)

Solution

A **force** can change an object's **shape**, **speed**, and **direction of motion**. For example, kicking a ball (speed + direction change), or squeezing clay (shape change). Force does not directly change colour or smell.



Q13. A simple machine that consists of a wheel with a groove around which a rope passes is called:

- (A) Pulley
- (B) Lever
- (C) Inclined plane
- (D) Wedge

Answer: (A)

Solution

A **pulley** uses a wheel and rope to lift heavy loads with less effort. A lever uses a rigid bar and fulcrum. An inclined plane is a sloped surface. A wedge is a moving inclined plane.

Q14. In which class of lever is the *fulcrum* placed between the effort and the load?

- (A) Second-class lever
- (B) Third-class lever
- (C) First-class lever
- (D) Zero-class lever

Answer: (C)

Solution

In a **first-class lever**, the fulcrum is between the effort and the load (e.g. a seesaw, scissors). In a second-class lever, the load is between the fulcrum and effort (e.g. a wheelbarrow). In a third-class lever, the effort is between the fulcrum and load (e.g. tweezers).



Q15. Which of the following is a *useful* effect of friction in daily life?

- (A) It increases the speed of moving objects
- (B) It helps us walk without slipping
- (C) It makes surfaces smoother over time
- (D) It reduces the weight of objects

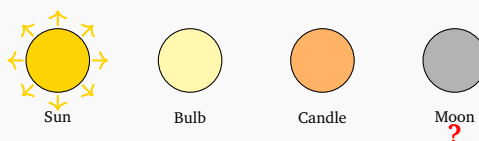
Answer: (B)

Solution

Friction between our feet and the ground helps us **walk without slipping**. It also helps vehicles brake, and lets us write with a pen on paper. Friction does not increase speed - it actually slows objects down.

Section D: Light, Sound, Heat, and Chemistry

Q16. Which of the following is *NOT* a source of light?



- (A) Sun
- (B) Electric bulb
- (C) Candle
- (D) Moon

Answer: (D)

Solution

The **Moon** is not a source of light - it only reflects sunlight. The Sun, electric bulb, and candle all produce their own light. Objects that produce their own light are called *luminous objects*.



Q17. When a ray of light falls on a smooth mirror and bounces back, the process is called:

- (A) Refraction
- (B) Reflection
- (C) Absorption
- (D) Dispersion

Answer: (B)

Solution

Reflection occurs when light bounces off a smooth surface. **Refraction** is the bending of light when it passes from one medium to another (like water to air). **Dispersion** is the splitting of white light into rainbow colours.

Q18. Sound travels fastest through which medium?

- (A) Air
- (B) Vacuum
- (C) Steel
- (D) Water

Answer: (C)

Solution

Sound travels fastest through **steel** (about 5000 m/s) because particles in solids are closest together. In water it travels at about 1500 m/s, and in air at about 343 m/s. Sound cannot travel through a vacuum at all.

Q19. Which of the following is the best *conductor* of heat?

- (A) Wood
- (B) Copper
- (C) Glass
- (D) Plastic



Answer: (B)

Solution

Copper is an excellent conductor of heat and electricity, which is why it is used in cooking vessels and electrical wires. Wood, glass, and plastic are **insulators** that conduct heat poorly.

Q20. When liquid water is heated and changes into water vapour (gas), the process is called:

- (A) Condensation
- (B) Melting
- (C) Freezing
- (D) Evaporation

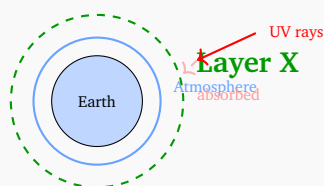
Answer: (D)

Solution

Evaporation is the change of liquid water to water vapour. **Condensation** is the reverse (gas to liquid). **Melting** is solid to liquid. **Freezing** is liquid to solid.

Section E: Environmental Science

Q21. The diagram shows layers around the Earth. Which layer (labelled X) protects life on Earth by absorbing harmful ultraviolet (UV) rays from the Sun?



- (A) Ozone layer
- (B) Carbon dioxide layer
- (C) Nitrogen layer
- (D) Oxygen layer

Answer: (A)



Solution

The **ozone layer** (in the stratosphere, about 15–35 km above Earth) absorbs most of the Sun's harmful UV radiation. Damage to the ozone layer by CFCs increases UV reaching the surface, causing skin cancer and eye problems.

Q22. Which gas is the main cause of the greenhouse effect and global warming?

- (A) Carbon dioxide (CO_2)
- (B) Nitrogen (N_2)
- (C) Oxygen (O_2)
- (D) Hydrogen (H_2)

Answer: (A)

Solution

Carbon dioxide (CO_2) is the main greenhouse gas causing global warming. It traps heat in the atmosphere. Burning fossil fuels and deforestation increase CO_2 levels. Nitrogen and Oxygen are the most abundant atmospheric gases but do not cause the greenhouse effect.

Q23. Rainwater harvesting is the practice of collecting and storing rainwater. Its main purpose is to:

- (A) Cause floods in cities
- (B) Reduce air pollution
- (C) Conserve water and recharge groundwater
- (D) Increase soil erosion

Answer: (C)

Solution

Rainwater harvesting collects rainwater from rooftops or open land and stores it for later use. Its main purpose is to **conserve water** and recharge groundwater levels, especially in water-scarce areas.



Q24. Which of the following is a *non-renewable* source of energy?

- (A) Solar energy
- (B) Wind energy
- (C) Tidal energy
- (D) Coal

Answer: (D)

Solution

Coal is a non-renewable resource formed over millions of years from ancient plants. It cannot be replaced once used up. Solar, wind, and tidal energy are renewable - they are naturally replenished and will not run out.

Q25. Which type of waste takes the **LONGEST** time to decompose in the environment?

- (A) Paper (decomposes in 2–6 weeks)
- (B) Food scraps (decomposes in 1–4 weeks)
- (C) Plastic (takes 400–1000 years)
- (D) Cotton cloth (decomposes in 1–5 months)

Answer: (C)

Solution

Plastic is the most persistent waste - it can take 400 to 1000 years to decompose. Food scraps and paper are biodegradable and break down quickly. This is why reducing plastic use is a major environmental goal.

Answer Key



Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	D	2	D	3	B	4	B	5	D
6	C	7	A	8	A	9	B	10	A
11	C	12	A	13	A	14	C	15	B
16	D	17	B	18	C	19	B	20	D
21	A	22	A	23	C	24	D	25	C

