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# BGS Vijnatham School

## Mock Test Answer Keys Step- V Science

### 1. Choose the correct answers

i. Which of the following is a simple machine?

**Ans: b) Lever**

ii. What type of energy is used by solar panels?

**Ans: c) Solar Energy**

iii. Which layer of the atmosphere contains the ozone layer?

**Ans: b) Stratosphere**

iv. Who breaks down dead plants and animals into simple substances?

**Ans: d) Decomposers**

v. Which of the following is NOT a correct 4-step food chain?

**Ans: c) Grass → Cow → Goat → Tiger**

vi. What is the main cause of air pollution?

**Ans: b) Burning fossil fuels**

vii. A ball rolling on the ground stops after some time due to:

**Ans: c) Friction**

### 2. Fill in the blanks

a. Solar energy is converted into **electrical** energy through solar panels.

b. The **ozone layer** protects us from harmful UV rays.

c. **Vitamins** are also called protective food.

d. A seesaw is an example of a **first-class** lever.

e. **Air** pollution is caused by excessive vehicle emissions and factory smoke.

f. The two types of forces are **contact** and **non-contact**.

g. Planets orbiting the sun have **kinetic** energy.

h. Ozone is made up of three atoms of **oxygen**.

### 3. Answer in One Word

a. Microorganism that causes cholera – **Bacteria**

b. Force that pulls objects toward the Earth – **Gravitational force**

- c. Example of liquid fuel – **Petrol**
- d. Gas responsible for depletion of ozone layer – **Chlorofluorocarbon (CFC)**
- e. Energy change from one form to another – **Energy Conversion**
- f. Force exerted by magnet – **Magnetic force**

**4. Give reasons**

**a. A worn-out tyre is dangerous**

Because it has less grip and less friction, which may cause skidding and accidents.

**b. Objects dropped in water either float or sink**

If the upward force applied by water on the object is more than the force of the mass of an object on water, the objects float, otherwise it sinks.

**5. Short Answer Questions**

**a. Two advantages of friction:**

- Helps us walk without slipping
- Helps vehicles stop using brakes

**b. Two causes of water pollution:**

- Industrial waste
- Dumping garbage into rivers

**c. Two differences between kinetic and potential energy:**

<b>Kinetic Energy</b>	<b>Potential Energy</b>
Energy of the body due to its motion	Energy of the body due to its position
Depends on speed	Depends on height

**d. Primary and secondary consumers (example):**

Primary consumers eat plants (e.g., **deer**).

Secondary consumers eat primary consumers (e.g., **lion**).

**e. Two uses of microorganisms:**

- Converts milk to curd
- Helps in decomposing waste

**f. Two harmful effects of water pollution:**

- Causes water-borne diseases
- Harms aquatic life

**6. Long Answer Questions**

**a. Food Pyramid**

A food pyramid shows different food groups and the quantity needed for a balanced diet.

**Two importance:**

- Helps us plan a balanced diet
- Keeps our body healthy

**b. Uses of simple machines:**

- **Pulley:** Lifting heavy loads
- **Screw:** Holding objects tightly
- **Inclined plane:** Moving loads to a height with less effort

**7. Case-Based Question**

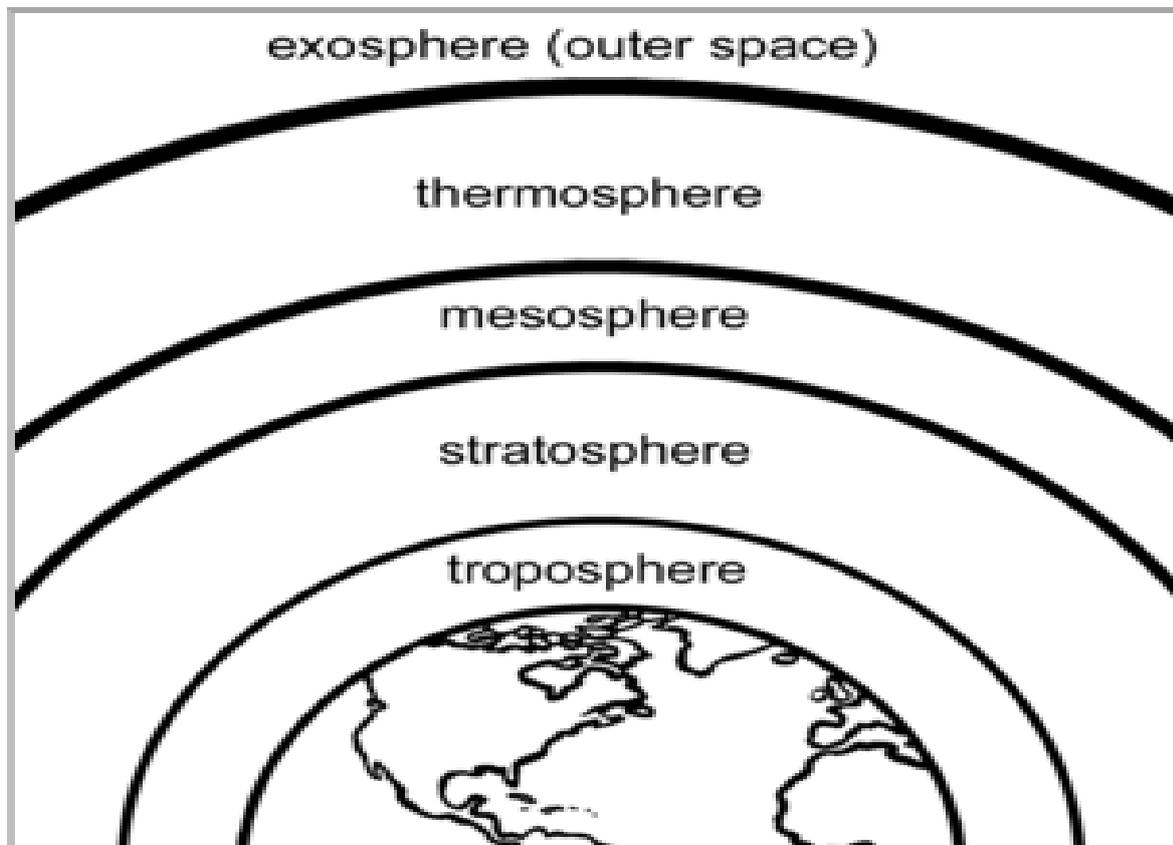
**a. Effect of decrease in grasshoppers:**

- Frogs will have less food and their number will decrease
- Snakes will also reduce due to lack of frogs
- Grass will increase due to less grazing

**8. Diagram-Based / Identification**

- a. Inclined plane      b. Wedge      c. Pulley      d. Screw      e. Lever  
f. Wheel and Axle

**ii. Layers of atmosphere (top to bottom):**



**Aeroplane flies in: Stratosphere**

