ICSE MODEL EXAMINATION

ANNUAL ASSESSMENT — CLASS VI

Subject: Physics

Time Allowed: 1.5 Hours **Maximum Marks: 50**

Name: _____	**Roll No:** _____	**Section:** _____

** Answer all questions from Section A and Section B. Attach extra sheets if necessary. **

SECTION A (20 Marks) — Attempt all questions

Q1. Fill in the blanks with appropriate words: **[5 × 1 = 5 Marks]**

1. Work is done when a force acts on an object and causes it to move in the direction of the _____.
2. Energy is defined as the ability or capacity to do _____.
3. _____ are simple machines formed by wrapping an inclined plane around a central rod.
4. The _____ is the fixed point around which a lever pivots or rotates.
5. Light travels in a straight line, a phenomenon known as _____ propagation of light.

Q2. Match the items in Column A with their correct examples in Column B: **[5 × 1 = 5 Marks]**

Column A	Column B	Answers
1. Class I lever	(a) Bolt	1. _____
2. Class II lever	(b) Knife	2. _____
3. Class III lever	(c) Flagpole	3. _____
4. Wedge	(d) Fishing rod	4. _____
5. Screw	(e) Wheelbarrow	5. _____
	(f) Seesaw	

Q3. Select the correct option for each of the following: **[5 × 1 = 5 Marks]**

1. Which of the following simple machines functions as a lever?
   (a) Screwdriver (b) Knife (c) Hammer (d) Wheel
2. What type of simple machine is a inclined ramp used to load heavy goods?
   (a) Lever (b) Pulley (c) Wedge (d) Inclined plane
3. A crowbar used to lift a heavy stone is an example of a:
   (a) Class I lever (b) Class II lever (c) Class III lever (d) Pulley
4. The Mechanical Advantage (MA) of any machine is defined as:
   (a) Load / Effort (b) Effort / Load (c) Load × Effort (d) Effort − Load
5. Which of the following is categorized as a natural luminous body?
   (a) Lighted candle (b) The Sun (c) The Moon (d) LED bulb

Q4. Answer the following in one sentence / word each: **[5 × 1 = 5 Marks]**

1. What term is given to the fixed pivot point about which a rigid bar turns?
2. What type of simple machine is a sharp cutting edge like a knife?
3. Write the formula used to calculate the efficiency of a machine.
4. Name the biological phenomenon by which living creatures like fireflies produce light.
5. What is the nature of the image formed on the screen of a pinhole camera?

SECTION B (18 Marks) — Short & Conceptual Answer Questions

Q5. Answer the following questions briefly: **[6 × 3 = 18 Marks]**

1. **Simple Machines:** Define Mechanical Advantage (MA) of a simple machine and state its mathematical formula.
2. **Simple Machines:** Explain the classification of levers into three types based on the relative positions of the Fulcrum, Load, and Effort.
3. **Simple Machines:** Describe the working principle of a screw. How can a paper triangle wrapped around a cylinder demonstrate this?
4. **Light:** Differentiate between transparent, translucent, and opaque materials. Provide one example for each type.
5. **Light:** The moon shines brightly at night. Why is it still classified as a non-luminous object? Explain clearly.
6. **Light:** State two main factors that govern the size of the image produced by a pinhole camera.

SECTION C (12 Marks) — Numericals & Activity-Based Questions

Q6. Solve the following numerical problems showing step-by-step calculations: **[2 × 3 = 6 Marks]**

1. An effort force of 20 N is applied to a Class I lever in order to lift a heavy load of 80 N. Calculate the Mechanical Advantage (MA) of the lever setup.

2. A simple machine consumes 100 Joules of input energy to perform 70 Joules of useful output work. Calculate the percentage efficiency of the machine.

Q7. Diagrams & Experimental Analysis: **[2 × 3 = 6 Marks]**

1. In the boxes provided below, draw neat and labeled ray diagrams representing the three types of light beams:

(a) Parallel Beam	(b) Convergent Beam	(c) Divergent Beam

2. **Rectilinear Propagation Experiment:** Describe a hands-on activity using three perforated cardboard sheets to prove that light travels in a straight line. What observation occurs when one cardboard is shifted slightly out of alignment?

End of Question Paper

- Ensure all objective questions are attempted cleanly.
- Draw clean diagrams using a pencil where specified.