	BCM SCHOOL, BASANT AVENUE, DUGRI ROAD, LUDHIANA **CLASS – VIII** **SUBJECT – SCIENCE ASSIGNMENT** **CHAPTERS – FRICTION | CHEMICAL EFFECTS OF ELECTRIC CURRENT | SOUND | REPRODUCTION | REACHING THE AGE OF ADOLESCENCE**
	GENERAL INSTRUCTIONS : **All questions are compulsory.** **Assignment includes MCQs, Assertion–Reasoning, Competency-Based Subjective Questions, and a Case Study.** **Use diagrams wherever required.**
	SECTION – A
1	A shopkeeper replaces his old wooden ramp with a rubber-coated ramp. Customers now walk more safely even during rain. What is the MAIN reason? (a) Rubber reduces gravitational pull (b) Rubber increases friction due to better grip (c) Rubber decreases the weight of people (d) Wooden ramps absorb water
2	Which of the following arrangements will show the strongest chemical effect when connected to a battery? (a) Copper electrodes in distilled water (b) Carbon electrodes in salt solution (c) Iron nails in pure honey

	(d) Aluminium strips in oil
3	A student strikes a metal plate lightly and then strongly. The pitch remains the same, but the loudness changes. Which property of sound explains this? (a) Frequency (b) Amplitude (c) Wavelength (d) Time period
	(A) Both Assertion and Reason are the true and Reason is a correct explanation of Assertion. (B) Both Assertion and Reason are the true but Reason is not a correct explanation of Assertion. (C) Assertion is true and Reason is false. (D) Assertion is false and Reason is true. (E) Both Assertion and reason are false
4	Assertion (A): Girls generally enter puberty earlier than boys. Reason (R): Hormonal changes begin at different times in different individuals. Options: A, B, C, D
5	Assertion (A): Internal fertilisation provides better chances of embryo survival. Reason (R): The embryo is protected inside the mother's body during development.
	SECTION-B
6	Why does sound echo clearly in large empty halls but not inside a furnished classroom? Explain using the concepts of reflection and absorption of sound.
7	A cyclist observes that the bicycle moves slowly on muddy ground even though he pedals harder. Using scientific reasoning, explain how: a) Type of surface b) Rolling and sliding friction c) Application of lubricants affect the motion of the bicycle.

8	An experiment is performed using copper electrodes in a blue-coloured copper sulphate solution. After a few minutes of electrolysis, the colour of the solution fades and one electrode becomes coated. Explain the entire process using the concepts of: a) Ion movement b) Discharge of ions at electrodes c) Deposition of metal d) Importance of electroplating in daily life
9	A 13-year-old student suddenly shows physical changes such as increased height, development of stronger muscles, sweating, and emotional sensitivity. Explain these changes in terms of: a) Hormonal changes b) Secondary sexual characteristics c) Endocrine system d) Importance of hygiene and balanced diet during adolescence
	SECTION-C
10	CASE STUDY A school science exhibition has three demonstrations: 1. Friction Zone: Students compare sliding a box over sandpaper, wood, and polished tiles. 2. Electric Conductivity Table: Bulb glows brightly in lemon juice but dim in tap water. 3. Sound Station: A metal rod and a wooden scale are struck with equal force; the metal rod produces a louder sound. Give answer of the following questions (a). Why does the box slide slowest on sandpaper? (b). Why does lemon juice make the bulb glow brighter than tap water? (c). Why does the metal rod produce a louder sound than the wooden scale?