

SPECTACULAR WONDERS

RTC 1: The Living Root Bridges, Meghalaya

Read the extract given below and answer the questions that follow:

"Crossing the many waterways without bridges was difficult for people in the past, during monsoons. Attempts to use bamboo or wooden bridges across these waterways proved futile as these bridges could not last long in the heavy rains and strong waters. Living root bridges are an innovative and indigenous solution to solve this age-old problem. They are made of intertwined roots which are a sort of magic, but they aren't imaginary. These bridges have been built for centuries by the indigenous people of the land. It is a naturally built ecosystem of local flora."

1. Analyze how the harsh monsoon environment of Meghalaya compelled the local communities to shift from traditional building materials to a biological approach.
2. What does the phrase "a sort of magic, but they aren't imaginary" imply about the coexistence of nature and human effort?
3. Find a word in the extract that means "pointless, useless, or producing no result."
4. Complete the analogy based on the extract:
 - Bamboo bridges : Temporary :: Living root bridges : _____
5.
 - Assertion (A): The indigenous people built living root bridges as an alternative to bamboo and wooden bridges.
 - Reason (R): Bamboo and wooden bridges easily washed away or broke during the heavy monsoon rains.
 - Choose the correct option:
 - (a) Both A and R are true and R is the correct explanation of A.
 - (b) Both A and R are true but R is not the correct explanation of A.
 - (c) A is true but R is false.
 - (d) A is false but R is true.

RTC 2: Magnetic Hills in Leh, Ladakh

Read the extract given below and answer the questions that follow:

"Lying at a distance of around 30 km from Leh, the Magnetic Hill is marked by a yellow signboard which reads 'The Phenomenon That Defies Gravity'. It also instructs visitors to park vehicles in the box marked with a white point on the road, which is known as the Magnetic Road. When the vehicles are parked at the indicated spot, they begin moving forward at a speed of almost 20km/h. This unusual place creates an optical illusion where vehicles appear to roll uphill, a sight that has left tourists in disbelief for years, caused by the peculiar alignment of surrounding slopes and the horizon line."

1. How does the physical landscape around the Magnetic Hill deceive the human mind, as explained in the text?
2. Explain the deliberate role of the "yellow signboard" and the "white point" in helping tourists witness the unique phenomenon.
3. Find a word in the extract that means "strange, unusual, or particular."
4. Complete the analogy based on the extract:
 - Yellow signboard : Instructions :: White point : _____
5.
 - Assertion (A): Vehicles on the Magnetic Road actually defy the scientific laws of gravity.
 - Reason (R): The peculiar alignment of the surrounding slopes and the horizon creates an optical illusion of rolling uphill.
 - Choose the correct option:
 - (a) Both A and R are true and R is the correct explanation of A.
 - (b) Both A and R are true but R is not the correct explanation of A.
 - (c) A is true but R is false.
 - (d) A is false but R is true.

Part 2: Short Answer Questions (SAQs)

1. Based on the text, how do the mangrove forests of the Sundarbans act as a natural protective shield for the coastal ecosystem?
2. How does the Invisible Chandipur Beach in Odisha challenge a common person's general perception of a sea beach?

Part 3: Higher Order Thinking Skills (HOTS) Question

1. "Nature's mysteries often showcase a perfect harmony between scientific reality and visual magic." Using examples of the *Living Root Bridges of Meghalaya* and the *Glowing Waters of Kerala*, discuss how scientific phenomena and human resourcefulness can coexist beautifully with nature.