

GEOGRAPHY & ENVIRONMENT QUESTIONNAIRE

Topic	Question
Saline solution: How MGNREGA helped Nagapattinam recover from the 2004 tsunami	<ul style="list-style-type: none"> ▣ What are the effects of Tsunami on soil fertility? ▣ How MNREGA can be integrated with environmental projects? ▣ Do you think there is any relationship between environment and employment?
The first known 'space hurricane' pours 'electron rain'	<ul style="list-style-type: none"> ▣ How the hurricane was formed in ionosphere? ▣ What was the direction of its spin? ▣ What are the similarities and differences of space hurricane with hurricane in troposphere? ▣ Are the space hurricane present in other planets?
Could kelp help relieve ocean acidification?	<ul style="list-style-type: none"> ▣ Why ocean acidification is a cause of concern? ▣ What types of seaweed can be grown in India?

	<ul style="list-style-type: none"> ❑ What are the potential benefits of Multipurpose Seaweed Park for the coastal community? Why the location is chosen at Chennai?
La Niña weather phenomenon	<ul style="list-style-type: none"> ❑ What is the effect of ENSO on Indian economy? ❑ What crops will benefit from La Nina in India?
INCOIS found a method of improving wave forecast	<ul style="list-style-type: none"> ❑ What is Boreal Summer Intra-Seasonal Oscillation (BSISO)? ❑ How BSISO is related to height of wave in Indian Ocean?
Solar corona puzzle cracked	<ul style="list-style-type: none"> ❑ What is the relationship between corona and solar winds? ❑ How does Nano flare heats up corona?
WMO certifies Mega flash lightning extremes	<ul style="list-style-type: none"> ❑ What are mega-flashes? ❑ How will the lightening occur in sky? ❑ What causes thunder in the sky?
Earth's magnetic field is weakening	<ul style="list-style-type: none"> ❑ What are the possible ramifications of this phenomenon? ❑ What difference technologies, we use in our daily life, are dependent on earth's magnetic field? ❑ What is geomagnetic reversal? ❑ How will this affect earth's ionosphere?
Cyclone Amphan	<ul style="list-style-type: none"> ❑ What is the process to name a cyclone? ❑ What is the approx. speed of winds during cyclone? ❑ How will you protect the wildlife during such disaster?
Earth's seismic noise	<ul style="list-style-type: none"> ❑ What is seismic noise? ❑ How will you utilize seismic noise data? ❑ What are the natural sources of seismic noise?

<p>Extreme Heat Events in India's Cities: A Framework for Adaptive Action Plans</p>	<ul style="list-style-type: none"> ▫ Are loo and heat waves same?
<p>Sudden stratospheric warming (SSW)</p>	<ul style="list-style-type: none"> ▫ How SSW was responsible for Australian Bushfire? ▫ How SSW affect polar vortex? ▫ How SSW affects the weather of Northern USA?
<p>Giant iceberg A68a</p>	<ul style="list-style-type: none"> ▫ What type of biodiversity can be found below the submerged part of an iceberg?
<p>Moon controls release of methane in Arctic Ocean: Study</p>	<ul style="list-style-type: none"> ▫ What are the different sources of methane emission in Arctic? ▫ How moon is responsible in controlling methane emission from Arctic Ocean?
<p>Mountain measurement</p>	<ul style="list-style-type: none"> ▫ Why Himalayas are rising? ▫ What are the different techniques available to Measure Mountains?
<p>Curving waves</p>	<ul style="list-style-type: none"> ▫ What are the factors responsible for draughts in India? ▫ How jet streams effect Indian monsoon?
<p>Winter Solstice, which made December 21 the shortest day of the year</p>	<ul style="list-style-type: none"> ▫ Do you think the date Dec 21 is fixed for winter solstice till 2100? ▫ When does the astronomical winter starts? ▫ What will happen if the axial tilt is increased to 90° ?
<p>Looking for lithium toehold, India finds a small deposit in Karnataka</p>	<ul style="list-style-type: none"> ▫ What are rare earth metals? Give examples. ▫ Why lithium has become an important element in recent times? ▫ Where is lithium triangle?

	<ul style="list-style-type: none"> ❑ Name some potential sites of lithium deposition sites in India. ❑ Name some latest energy storage technologies. ❑ From where does India imports its lithium. ❑ Is lithium an oxidizing agent or reducing agent?
<p>Tripartite agreement signed for harnessing Potash in Rajasthan</p>	<ul style="list-style-type: none"> ❑ What is solution mining? ❑ What is the role of potassium in human body? ❑ Do you think feasibility studies should be deregulated? ❑ What is the role of Potash in fertilizers? ❑ Do you think that fertilizer subsidy goes against the principle of UN Convention to Combat Desertification?
<p>Megatrends' to affect forests over the coming decade</p>	<ul style="list-style-type: none"> ❑ How the following has affected or will affect forest? ❑ Erratic weather ❑ Changing demographics ❑ Rise of middle class ❑ Use of digital technologies ❑ Infrastructure development
<p>Banana grit from Changanikodan Nendran Banana</p>	<ul style="list-style-type: none"> ❑ Suggest some measures to increase shelf life of food products. ❑ Suggest some food preservation techniques.
<p>To what extent does climate change affect food insecurity? Case Study of Lesotho</p>	<ul style="list-style-type: none"> ❑ How each of the following affect food security in India? ❑ EXIM policy ❑ Green revolution ❑ Globalization

Zombie fires’ discovered in Arctic as climate change introduces new fuel	<ul style="list-style-type: none"> ❑ What is zombie fire? ❑ What is the geographical distribution of sequestered carbon?
Glistening ‘blue tide’ along Mumbai	<ul style="list-style-type: none"> ❑ What is bioluminescence? ❑ Name some species with bioluminescence.
Indonesia's Mount Sinabung erupted	<ul style="list-style-type: none"> ❑ How does the aerosol affect Indian monsoon? ❑ How will you react to such a disaster in your district?
Earthquakes hit Mizoram for the fourth day	<ul style="list-style-type: none"> ❑ What threat does earthquakes poses to biodiversity of the region?
Kerala to start intercropping	<ul style="list-style-type: none"> ❑ Name some agricultural produce from Kerala. ❑ What are the benefits of inter-cropping?
New maps reveal details of the lost continent Of Zealandia	<ul style="list-style-type: none"> ❑ How does a continent form?
Chamoli glacier break	<ul style="list-style-type: none"> ❑ What is Glacial Lake Outburst Flood? ❑ What disaster risk reduction measures will you put in place after Chamoli disaster? ❑ On whom will you fix the accountability of such disasters? If any.
Forest fire in Uttarakhand, Australia, California	<ul style="list-style-type: none"> ❑ Why forest fires have increased in recent years across the world and why are they increasingly more devastating?
Migration	<ul style="list-style-type: none"> ❑ What will be the long-term impact of covid-induced reverse migration from cities to villages?
Urbanization	<ul style="list-style-type: none"> ❑ Why the first monsoon rains lead to flooding even in our so-called ‘smart cities’. What needs to be done. ❑ What is the basis of selection of a town/city towards smart city?

Horticulture/ agriculture start-ups

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