

**Q.1) Consider the following statements about Labeo genus of fishes**

1. The fishes in the Labeo genus are widely distributed in the inland waterbodies of India, Pakistan, Nepal, and Bangladesh
2. Rohu, one of the species of Labeo genus is one of the major carps of India

**Select the correct statements**

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

**Q.1) Solution (c)**

The fishes in the Labeo genus are widely distributed in the inland waterbodies of India, Pakistan, Nepal, Bangladesh, Sri Lanka, Burma, Malaysia, tropical Africa and Syria. They are medium- sized elongate fishes with rounded abdomen, swollen snout, finged lips and a straight lateral line.

As many as 31 species of Labeo are reported to be present in India, with L.rohita, commonly known as Rohu, extensively used in aquaculture.

**News:**

New species of edible fish found in Pampa river. The new species that belongs to the Labeo genus is only the second one to be reported from Kerala. Named Labeo filiferus, it has been collected from the stretch of the Pampa running through Edakadathy in Pathanamthitta. The only other Labeo species reported from Kerala is L.dussumieri.

L.filiferus was found to be distinct from the other species of the genus in its features including black coloured body and fins, prominent barbels, smaller eyes, longer snout and elongated dorsal and anal fins. The eyes are brilliantly coloured with orange tinge. The specimens were 20 to 40 cm long and weighed four to five kg.

The name filiferus was taken from Latin (filum in latin means 'thread' and fero means 'to bear') and refers to the very long dorsal fin of the species.

**Rohu** - <http://www.iucnredlist.org/details/full/166619/0>

**Source:** <http://www.thehindu.com/news/national/kerala/new-species-of-edible-fish-found-in-pampa-river/article19637488.ece>

**Q.2) Which of the following is/are types of 'Internet Fraud'**

1. Catfishing
2. Cramming
3. Click Farm

**Select the correct code:**

- a) 1 and 2
- b) Only 1
- c) 2 and 3
- d) All of the above

**Q.2) Solution (d)**

A click farm is a form of click fraud, where a large group of low-paid workers are hired to click on paid advertising links for the click fraudster (click farm master or click farmer). The workers click the links, surf the target website for a period of time, and possibly sign up for newsletters prior to clicking another link. For many of these workers, clicking on enough ads per day may increase their revenue substantially and may also be an alternative to other types of work. It is extremely difficult for an automated filter to detect this simulated traffic as fake because the visitor behavior appears exactly the same as that of an actual legitimate visitor.

Cramming is a form of fraud in which small charges are added to a bill by a third party without the subscriber's consent or disclosure. These may be disguised as a tax, some other common fee or a bogus service, and may be several dollars or even just a few cents. The crammer's intent is that the subscriber will overlook and ultimately pay these small charges.

Catfishing is a type of deceptive activity involving a person creating a sock puppet social networking presence for nefarious purposes.

The term was originated from a TV show called "Catfish" telecasted on Vh1.

**Source:** <http://www.livemint.com/Technology/GS8qtvZPnk9qKIFctv6TeJ/New-malware-steals-users-money-through-mobile-phones-Kaspe.html>

**Q.3) Which of the following had published "Systematic Criticism of Moderate Politics?"**

- a) Aurobindo Ghosh
- b) R.C. Dutt

- c) Syed Ahmad Khan
- d) Bipin Chandra Pal

### Q.3) Solution (a)

Aurobindo Ghosh launched a systematic criticism of moderate politics through a series of articles entitled. 'New Lamps for the old' published in Indu Prakash of Bombay.

Aurobindo Ghosh (1872-1950) was an ardent nationalist who later became a saint, was educated in England. His views were readily accepted by Lala Lajpat Rai of Punjab and Bal Gangadhar Tilak of Maharashtra and led to the formation within the ambit of Congress, on an extremist school. He propagated his ideas through journals like the Bande Mataram and Karmayogin. He passed away in 1950.

Source: <http://www.dnaindia.com/india/video-the-unsung-heroes-leaders-who-played-an-important-role-in-india-s-freedom-struggle-2530464>

### Q.4) Which of the following statements is/are correct?

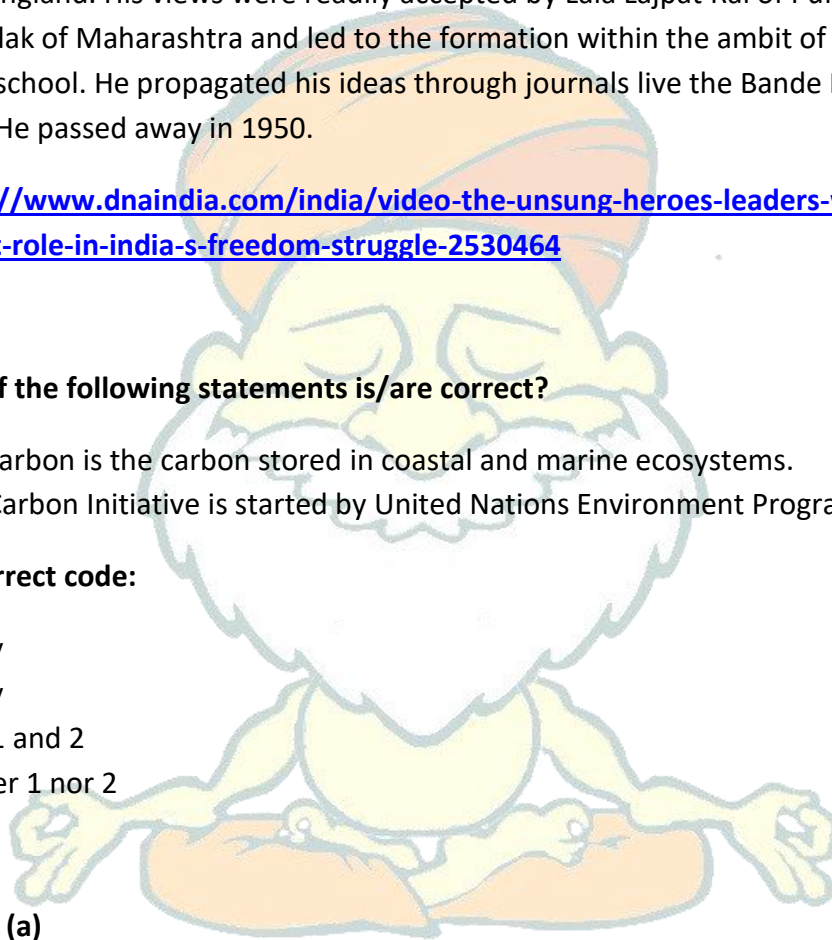
1. Blue carbon is the carbon stored in coastal and marine ecosystems.
2. Blue Carbon Initiative is started by United Nations Environment Programme (UNEP)

Select the correct code:

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

### Q.4) Solution (a)

Blue carbon is the carbon stored in coastal and marine ecosystems. The Blue Carbon Initiative currently focuses on carbon in coastal ecosystems - mangroves, tidal marshes and seagrasses. These ecosystems sequester and store large quantities of blue carbon in both the plants and the sediment below. For example, over 95% of the carbon in seagrass meadows is stored in the soils\*.



## Global Distribution of Blue Carbon Ecosystems



The Blue Carbon Initiative is a global program working to mitigate climate change through the restoration and sustainable use of coastal and marine ecosystems. The Initiative currently focuses on mangroves, tidal marshes and seagrasses. The Blue Carbon Initiative brings together governments, research institutions, non-governmental organizations and communities from around the world. The Initiative is coordinated by Conservation International (CI), the International Union for Conservation of Nature (IUCN), and the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific, and Cultural Organization (IOC-UNESCO).

The Blue Carbon Initiative works to

- Develop management approaches, financial incentives and policy mechanisms for ensuring the conservation, restoration and sustainable use of coastal blue carbon ecosystems;
- Engage local, national, and international governments in order to promote policies that support coastal blue carbon conservation, management and financing;
- Develop comprehensive methods for assessing blue carbon stocks and emissions;
- Implement projects around the world that demonstrate the feasibility of blue carbon accounting, management and incentive agreements; and
- Support scientific research into the role of coastal blue carbon ecosystems for climate change mitigation.

To achieve these goals, the Blue Carbon Initiative has formed Science and Policy working groups. The International Blue Carbon Scientific Working Group identifies priority research

areas, synthesizes current and emerging blue carbon research and provides the robust scientific basis for coastal carbon conservation, management and assessment. The International Blue Carbon Policy Working Group supports efforts to integrate blue carbon in existing international policy frameworks such as the United Nations Framework Convention on Climate Change (UNFCCC), and the Convention on Biological Diversity (CBD) among others. Members of both working groups routinely collaborate to ensure that qualified science forms the basis of sound policy.

Each Working Group convenes several times a year. At each Working Group meeting, the Initiative brings together international blue carbon science and policy experts to exchange knowledge and build local capacity.

The Blue Carbon Initiative focuses on mangroves, salt marshes and seagrasses, which are found on every continent except Antarctica. These coastal ecosystems cover between 13.8 and 15.2 million hectares (Mha), 2.2 and 40 Mha, and 17.7 and 60 Mha, respectively. Combined, these ecosystems cover approximately 49 Mha.

### WHY IS IT IMPORTANT?

- When protected or restored, blue carbon ecosystems sequester and store carbon.
- When degraded or destroyed, these ecosystems emit the carbon they have stored for centuries into the atmosphere and oceans and become sources of greenhouse gases. Experts estimate that as much as 1.02 billion tons of carbon dioxide are being released annually from degraded coastal ecosystems, which is equivalent to 19% of emissions from tropical deforestation globally.
- Mangroves, tidal marshes and seagrasses are critical along the world's coasts, supporting coastal water quality, healthy fisheries, and coastal protection against floods and storms. For example, mangroves are estimated to be worth at least US\$1.6 billion each year in ecosystem services that support coastal livelihoods and human populations around the world.

**Q.5) Ethanethiol is intentionally added to butane and propane to impart an easily noticed smell to these normally odourless fuels that pose the threat of fire, explosion, and asphyxiation. It is a compound of**

- a) Sulphur
- b) Chlorine
- c) Bromine
- d) Phosphorus

### Q.5) Solution (a)

Ethanethiol, commonly known as ethyl mercaptan, is a clear liquid with a distinct odor. It is an organosulfur compound with the formula  $\text{CH}_3\text{CH}_2\text{SH}$ .

Abbreviated EtSH, it consists of an ethyl group (Et),  $\text{CH}_3\text{CH}_2$ , attached to a thiol group, SH. Its structure parallels that of ethanol, but with sulfur in place of oxygen. The odor of EtSH is infamous. Ethanethiol is more volatile than ethanol due to a diminished ability to engage in hydrogen bonding. Ethanethiol is toxic. It occurs naturally as a minor component of petroleum, and may be added to otherwise odorless gaseous products such as liquefied petroleum gas (LPG) to help warn of gas leaks. At these concentrations, ethanethiol is not harmful.

