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Q.1) Which of the following statements is correct with respect to LIDAR?

- a) It works on the principle of radar, but uses light from a laser
- b) It uses sound propagation to navigate, communicate with or detect objects on or under the surface of the water
- c) It used sound waves to detect any object
- d) None of the above

Q.1) Solution (a)

LIDAR, which stands for Light Detection and Ranging, is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the Earth. These light pulses—combined with other data recorded by the airborne system— generate precise, three-dimensional information about the shape of the Earth and its surface characteristics.

A LIDAR instrument principally consists of a laser, a scanner, and a specialized GPS receiver. Airplanes and helicopters are the most commonly used platforms for acquiring LIDAR data over broad areas.

Two types of LIDAR are topographic and bathymetric. Topographic LIDAR typically uses a near-infrared laser to map the land, while bathymetric lidar uses water-penetrating green light to also measure seafloor and riverbed elevations.

LIDAR systems allow scientists and mapping professionals to examine both natural and manmade environments with accuracy, precision, and flexibility.

Q.2) The city of Aleppo has been in news. The city is located in which of the following countries?

- a) Turkey
- b) Syria
- c) Belgium
- d) France

Q.2) Solution (b)

Aleppo has been in news for a few years now due to the Syrian Civil War.

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Q.3) Consider the following statements with respect to Indian Coast Guard (ICG)

- 1. It is under the Ministry of Defence
- 2. It works in cooperation with Indian Navy only
- 3. It protects and provides assistance to fishermen and mariners at sea

Which of the following statements is/are correct?

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

Q.3) Solution (c)

It is under the Ministry of Defence.

The Coast Guard works in close cooperation with the Indian Navy, the Department of Fisheries, the Department of Revenue (Customs) and the Central and State police forces.

The Indian Coast Guard's motto is "वयम रक्षामः" (Vayam Rakshamah), which translates from Sanskrit as "We Protect".

Missions of Indian Coast Guard

- Safety and protection of artificial islands, offshore terminals and other installations
- Protection and assistance to fishermen and mariners at sea
- Preservation and protection of marine ecology and environment including pollution control
- Assistance to the Department of Customs and other authorities in anti-smuggling operations
- Law enforcement in territorial as well as international waters
- Scientific data collection and support
- National defence during hostilities (under the operational control of the Indian Navy)

Additional responsibilities of the Indian Coast Guard

 Offshore Security Coordination Committee (OSCC) - The Director-General of the Indian Coast Guard is the Chairman of OSCC constituted by the Ministry of Petroleum and Natural Gas (MoPNG).

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- National Maritime Search and Rescue Coordinating Authority (NMSARCA) The Director-General of the Indian Coast Guard is the NMSARCA for executing / coordinating search and rescue (SAR) missions
- Lead Intelligence Agency (LIA) For coastal and sea borders
- Coastal Security The Director-General of the Indian Coast Guard is the commander
 of coastal command and is responsible for overall coordination between central and
 state agencies in all matters relating to coastal security

Q.4) Below given are the statements about direct and indirect taxes. Which among the following statements is not correct?

- a) GST is same as the VAT but with a wider base. GST includes tax on both goods and services whereas VAT includes only tax on goods.
- b) Currently, States' tax only sale of good and not on services
- c) Indirect Taxes are considered regressive and Direct Taxes are proportional.
- d) GST, by subsuming an array of direct taxes under one rubric will simplify tax administration, improve compliance, eliminate economic distortions in production, trade and consumption.

Q.4) Solution (d)

GST stands for "Goods and Services Tax", and is proposed to be a comprehensive indirect tax levy on manufacture, sale and consumption of goods as well as services at the national level. It will replace all indirect taxes levied on goods and services by the Indian Central and State governments.

Therefore, GST subsumes an array of indirect taxes (not direct taxes). Hence, statement (d) is incorrect.

In News: http://www.thehindu.com/business/Economy/cabinet-may-discuss-gst-council-setup/article9096964.ece

Q.5) Consider the following principles:

- 1. Ahimsa
- 2. Satya
- 3. Asteya

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- 4. Aparigraaha
- 5. Brahmacharya

Which of the above are followed under Jainism?

- a) 1 and 2
- b) 1, 2 and 3
- c) 1, 3 and 4
- d) All of the above

Q.5) Solution (d)

All Jains have to follow these five principles -

- 1. Ahimsa (non-violence)
- 2. Satya (truthfulness)
- 3. ASteya (not stealing)
- 4. Aparigraha (non-acquistion)
- 5. Brahmacharya (chaste living)