

## IASbaba's Daily Quiz

November 16, 2016

### Q.1) Consider the following statements about Indian Ocean Dipole (IOD)

1. It is an atmosphere-ocean coupled phenomenon in the tropical Indian Ocean characterized by a difference in sea-surface temperatures (SST)
2. Positive IOD is characterized by warmer than normal SSTs in the eastern equatorial Indian Ocean and cooler than normal SSTs in the western tropical Indian Ocean
3. Negative IOD is characterized by cooler than normal sea-surface temperatures in the eastern equatorial Indian Ocean and warmer than normal sea-surface temperatures in the western tropical Indian Ocean
4. Negative IOD has a more direct and immediate impact on the North-East monsoon

### Which of the following statements is/are correct?

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

### Q.1) Solution (c)

IOD – It is an atmosphere-ocean coupled phenomenon in the tropical Indian Ocean (like the El Nino is in the tropical Pacific), characterized by a difference in sea-surface temperatures (SST).

Positive IOD – It is associated with cooler than normal sea-surface temperatures in the eastern equatorial Indian Ocean and warmer than normal sea-surface temperatures in the western tropical Indian Ocean.

Negative IOD – It is characterized by warmer than normal SSTs in the eastern equatorial Indian Ocean and cooler than normal SSTs in the western tropical Indian Ocean.

According to India Met Department (IMD), the North-East monsoon is likely to extend its deficient run for next three days thanks to misdirected weather systems in the Bay of Bengal/Indian Ocean.

This is in turn attributable to the persisting negative phase of the Indian Ocean Dipole (IOD), which causes the Indian Ocean just south to Bay of Bengal to warm up abnormally.

This has direct implications for the North-East monsoon, since the warmth builds up lower pressure over the Indian Ocean where most of the moisture gets directed.

**In News - <http://www.thehindubusinessline.com/economy/agri-business/is-the-northeast-monsoon-headed-for-a-washout/article9345836.ece>**

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## Q.2) Consider the following statements about Hypersaline lakes

1. The water of hypersaline lakes has minimum buoyancy
2. Dead Sea is the largest hyper saline lake in the world
3. Araruama Lagoon in Brazil is the deepest hyper saline lake in the world
4. The salinity of hyper saline lakes is always less than that of ocean water

## Which of the following statements is are *incorrect*?

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

## Q.2) Solution (d)

A hypersaline lake is a landlocked body of water that contains significant concentrations of sodium chloride or other salts, with saline levels surpassing that of ocean water (3.5%, i.e. 35 grams per litre).

The most saline water body in the world is the Don Juan Pond, located in the McMurdo Dry Valleys in Antarctica. Its volume is some 3,000 cubic meters, but is constantly changing. The Don Juan Pond has a salinity level of over 44%, (i.e. 12 times saltier than ocean water). Its high salinity prevents the Don Juan from freezing even when temperatures are below  $-50^{\circ}\text{C}$  ( $-58^{\circ}\text{F}$ ). There are larger hypersaline water bodies, lakes in the McMurdo Dry Valleys such as Lake Vanda with salinity of over 35% (i.e. 10 times saltier than ocean water). They are covered with ice in the winter.

The water of hypersaline lakes has great buoyancy due to a high salt content.

The Dead Sea, dividing Israel and the Palestinian West Bank from Jordan, is the world's deepest hypersaline lake and the Araruama Lagoon is the world's largest hypersaline lake.

In News - <http://timesofindia.indiatimes.com/home/environment/flora-fauna/Climate-humans-caused-decline-of-once-2nd-largest-salt-lake/articleshow/55418684.cms>

## Q.3) Green GDP means

1. Conventional GDP figures adjusted for the environmental costs of economic activities
2. Monetary value of the Forests

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3. Growth of Green Investments in economy
4. Accounts showing the monetized loss of biodiversity, costs caused by climate change

**Select the correct code:**

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

### Q.3) Solution (b)

Green Gross Domestic Product is the index of the Economic growth of a particular country which enshrines the environment consequences of the economic growth.

Green GDP does not mean the monetary value of the Forests etc.

Green GDP does not mean the growth of Green Investments.

Green GDP means that it accounts the monetized loss of biodiversity, costs caused by climate change.

Green GDP is conventional gross domestic product figures adjusted for the environmental costs of economic activities. It's a measure of how a country is prepared for sustainable economic development.

This means that GDP may have some indicators such as Waste per capita or CO2 emissions growth/ decline.

In News - <http://www.thehindubusinessline.com/economy/green-gdp-plans-gathering-dust-in-government-corridors/article9345806.ece?homepage=true>

### Q.4) Consider the following statements with respect to Golden Mahseer Fish.

1. It is the longest-living freshwater fish
2. It is native to mountain and sub-mountain regions
3. It inhabit only rivers
4. It is an omnivore

**Select the correct code**

- a) 1, 2 and 3

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

### Q.4) Solution (b)

Golden Mahseer Fish is the longest-living freshwater fish and is native to mountain and sub-mountain regions.

It inhabit both rivers and lakes and is an omnivore

In News - <http://timesofindia.indiatimes.com/city/dehradun/International-angling-meet-kicks-off-in-Pancheswar/articleshow/55037119.cms>

Read More –

<http://timesofindia.indiatimes.com/home/environment/flora-fauna/Himachal-Pradesh-propagating-mahseer-fish-for-conservation/articleshow/52348942.cms>

<https://en.wikipedia.org/wiki/Mahseer>

### Q.5) Consider the following statements:

1. Mixing fly ash in soil can help farmers increase production of crops and vegetables
2. Fly ash can be mixed with cement thus reducing the cost of construction.
3. Fly ash can cover the surface of plant leaves and thus helps in increasing nutrient capacity.
4. Fly ash bricks are light weight and offer high strength and durability.
5. Use of fly-ash instead of lime in agriculture can reduce net CO2 emission and also reduce global warming.

Which of the above statements are correct w.r.t Fly Ash?

- a) 1, 2, 3 and 4
- b) 2, 3, 4 and 5
- c) 1, 2, 4 and 5
- d) All of the above

### Q.5) Solution (c)

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Fly ash in atmosphere acts as a pollutant. It can cover the leaf surface by making a thin layer which reduces photosynthesis and productivity of plants. But its use in soils shows different result. Fly ash is a resourceful material and can be effectively utilized as soil modifier in large quantity and micro fertilizer in converting wasteland (barren land, rocky nature, sandy and water logged soil, highly alkali and acidic soil etc.) into agriculturally productive land. "Best thing about fly ash is, that it retains water in ground and helps bacterial actions to take place to cultivate good quality of crops or vegetables.

Refer to these

<http://scialert.net/fulltext/?doi=ajar.2010.1.14>

<http://timesofindia.indiatimes.com/city/bhopal/Fertilizer-costly-fly-ash-can-work-magic/articleshow/33835877.cms>

In News - <http://www.dnaindia.com/india/report-following-delhi-s-pollution-disaster-maharashtra-adopts-policy-to-curb-transport-of-fly-ash-2273918>

