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Q.1) Consider the following statements about 'Sariska National Park'

- 1. It is a part of the Aravalli Range
- 2. It was given the status of a tiger reserve making it a part of India's Project Tiger in 1978.
- 3. It is the first tiger reserve in the world to have successfully relocated tigers

Select the correct statements

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

Q.1) Solution (d)

Sariska Tiger Reserve is a national park and tiger reserve located in the Alwar district of the state of Rajasthan, India. The topography of the protected area comprises scrub-thorn arid forests, rocky landscapes, dry deciduous forests, rocks, grasses and hilly cliffs. This area was a hunting preserve of the Alwar state and it was declared a wildlife reserve in 1955. It was given the status of a tiger reserve making it a part of India's Project Tiger in 1978. The wildlife sanctuary covers an area of 866 km2 (334 sq mi). The Sariska Tiger Reserve was declared a national park in 1982 with a total area of about 273.8 km2 (105.7 sq mi). The park is situated 106 km (66 mi) away from Hindaun, 107 km (66 mi) from Jaipur and 200 km (120 mi) from Delhi.

The Sariska Tiger Reserve is a part of the Aravalli Range and rich in mineral resources, such as copper. In spite of the Supreme Court's 1991 ban on mining in the airarea, marble mining continues to threaten the environment.

A notable feature of this reserve are its Bengal tigers. It is the first tiger reserve in the world to have successfully relocated tigers.

In News - http://indianexpress.com/article/opinion/editorials/cat-lessons-man-eater-leopard-sariska-national-park-jaipur-zoo-4542338/

Q.2) Consider the following statements about 'Seemai karuvelam' trees

- 1. It is native to Mexico, South America and the Caribbean
- 2. It is an invasive species
- 3. It produces less oxygen and more carbon dioxide

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Select the correct statements

- a) Only 2
- b) 2 and 3
- c) 1, 2 and 3
- d) 1 and 2

Q.2) Solution (c)

Why TN government is uprooting thousands of trees to prevent water-bodies from drying up?

http://www.thenewsminute.com/article/why-tn-government-uprooting-thousands-treesprevent-water-bodies-drying-35549

Source: http://www.thehindu.com/news/national/tamil-nadu/govt-proposes-special-programme-to-remove-karuvelam-trees/article7693796.ece

Q.3) Grizzled Squirrel Wildlife Sanctuary is located in

- a) Tamil Nadu
- b) Kerala
- c) Maharashtra
- d) Andaman and Nicobar Islands

Q.3) Solution (a)

The Grizzled Squirrel Wildlife Sanctuary (GSWS), also known as Srivilliputhur Wildlife Sanctuary, was established in 1988 to protect the vulnerable grizzled giant squirrel. It is bordered on the southwest by the Periyar Tiger Reserve and is one of the best preserved forests south of the Palghat Gap.

In News - http://www.thehindu.com/todays-paper/tp-national/tp-tamilnadu/rare-butterfly-varieties-spotted-in-srivilliputhur-sanctuary/article17357548.ece

Q.4) McGurk effect is concerned with

a) Youngs modulus and Hooke's Law

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- b) Anomalous behaviour of pendulums or gravimeters
- c) Filling of an inner-shell vacancy of an atom is accompanied by the emission of an electron from the same atom
- d) None of the above

Q.4) Solution (d)

It is a powerful multisensory illusion occurring with audiovisual speech whereby the brain can be deceived into hearing sounds that don't exist. The effect is named after researcher Harry McGurk, who published a 1976 paper with John MacDonald titled "Hearing lips and seeing voices".

It involves showing a person's lips making the shape of one sound — like "bah" — while the audio is actually the person saying "fah." What's interesting is that your brain changes what you "hear" based on what you see. It's "bah" all the way through, but when we see "bah" our minds transform "bah" into "fah". It has been replicated many times and has sparked an abundance of research. It demonstrates the overwhelming influence that sight exerts over the brain and how the latter reorders perception to give us a consistent picture of the world.

In News - http://www.thehindu.com/todays-paper/tp-opinion/demystifying-science-february-26-2017/article17370018.ece

Q.5) Which of the following statements is/are correct?

- a) Methyl bromide is an ozone depleting substance that is controlled under the Montreal Protocol.
- b) According to The Plant Quarantine (Regulation of Import into India) Order, 2003 has all agricultural cargo coming into India needs to be fumigated with methyl bromide.
- c) Both (a) and (b)
- d) Neither (a) nor (b)

Q.5) Solution (c)

Methyl bromide is widely used as a fumigant in agriculture, for pest control in structures and stored commodities, and for quarantine treatments. Fumigation is a technique that allows the gas to reach pests which are in soil, in durables, in perishables, and in structures

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and vehicles. This chemical controls a wide range of pests, including pathogens (fungi, bacteria and soilborne viruses), insects, mites, nematodes and rodents.

Methyl bromide is an ozone depleting substance that is controlled under the Montreal Protocol. With support from the Protocol's Multilateral Fund and the Global Environment Facility, developing countries and countries with economies in transition are reducing and ultimately phasing out their consumption of this chemical.

Use of methyl bromide can be reduced and eliminated by adopting alternatives, which have been identified for more than 90 percent of applications. These include chemicals, non-chemical measures - - including Integrated Pest Management (IPM) - or a combination of both.

