

September 10, 2018

**Q.1) Which of the following statements is correct about 'Colobopsis explodens'?**

- a) It is a species of ant found in Southeast Asia
- b) It is a species of night frog found in Western Ghats
- c) It is a newly discovered moth at Coringa Wildlife Sanctuary
- d) It is a medicinal plant found in Pir Panjal range

**Q.1) Solution (a)**

**Colobopsis explodens**

- It is a species of ant which is found in Southeast Asia.
- When attacked, Colobopsis explodens ants live up to their name — they explode! The blast releases poisonous yellow goo that stops their enemies in their tracks.
- C. explodens are found in the tropical jungles of Borneo. They live in colonies of thousands, high up in the treetops.
- It latches onto an enemy and squeezes its own abdominal muscles hard enough that its backside bursts open, releasing the goo. It sacrifices itself to kill its rival.

Source: <https://www.thehindu.com/todays-paper/tp-miscellaneous/tp-others/ant-that-explodes-to-kill-its-enemy/article24905971.ece>

**Q.2) 'HupB' is an essential protein of which of the bacteria?**

- a) Vibrio cholerae
- b) Mycobacterium tuberculosis
- c) Bacillus anthracis
- d) Borrelia burgdorferi

**Q.2) Solution (b)**

The HupB protein was discovered in late 1990s by Prof. H. Krishna Prasad, formerly with AIIMS, while looking at specific TB bacterial antigens that induced immune response in humans. He found the protein was associated with the DNA of the bacteria.

Source: <https://www.thehindu.com/sci-tech/science/aptamer-inhibits-tb-bacteria-entry-into-cells/article24903152.ece>

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**Q.3) 'Eusociality' is displayed in which of the following?**

1. Termites
2. Bees
3. Ants

**Select the correct code:**

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

**Q.3) Solution (d)**

Eusociality, an extensively studied social system, is displayed in three main insect orders: Hymenoptera-ants, bees, wasps, Isoptera -termites, and Homoptera -aphids. Eusocial insects are recognized by three main characteristics:

- The mother, along with individuals that may or may not be directly related, conducts cooperative care of young.
- A reproductive division of labour evolves from sterile castes which often have certain propensities or characteristics associated with helping behaviour.
- There is an overlapping of generations which allows for the older generations of offspring to help related, younger generations.

Source: <https://www.pressreader.com/india/the-hindu/20180909/282265256319677>

**Q.4) 'Kebul Lamjao' is India's only floating National Park. Which of the following lakes hosts this park?**

- a) Dal Lake
- b) Wular Lake
- c) Chilka Lake
- d) Loktak Lake

**Q.4) Solution (d)**

Loktak Lake is the largest fresh water lake in North-East India. It hosts only floating National Park in the World – Kebul Lamjao. Sangai, an antlered deer is endemic to it.

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**Q.5) 'Greyhounds' have been in news recently, they are**

- a) Suicide bombers
- b) Coastal guards
- c) Anti-naxal force
- d) Police dogs used in detecting bombs

**Q.5) Solution (c)**

Greyhounds is a police special forces unit operating in the Indian states of Telangana and Andhra Pradesh and belongs to the Telangana and Andhra Pradesh Police departments. Greyhounds specialises in anti-insurgency operations against Naxalite and Maoist terrorists.

Source: <https://www.thehindu.com/todays-paper/tp-national/tp-andhrapradesh/maoists-favour-dialogue-with-centre/article24749611.ece>

