

Que-1 Why are viruses being found in Asia and Africa so often?

1- Humans in these continents have a greater chance of coming in contact with animals more often in their many densely populated regions, thus increasing the risk of the spread of diseases.

2- In Africa infections originating in animals and then jumping to humans have been happening for centuries, but the risk of mass infections and deaths had been relatively limited in Africa, poor transport infrastructure acted as a natural barrier.

3- In Asia, the dense forests here and the culture of consuming wildlife — both for food and as traditional medicine.

Which of the following given above is/are correct

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

Que-2 To commemorate the victory of Indian armed forces and pay tribute to the supreme sacrifice of the gunners in 'Operation Vijay', Point 5140 at Drass in Kargil has been christened as

- a) Vijay Hill
b) Gun Hill
c) Shaheed Hill
d) None of the Above

Que-3 With reference to President's Colours Award, consider the following statements

1- It is the highest honour that can be bestowed upon any military unit of India.

2- It is also known as 'Nishaan' which is an emblem that is worn by all unit officers on the both hands sleeve of their uniform.

3- The practice of carrying the Colour into battle has stopped, the tradition of receiving, holding and parading the Colour continues even today in the Armed forces.

Which of the following given above is/are correct

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

Que-4 With reference to "Ex VINBAX 2022", consider the following statements

1- Vietnam-India Bilateral Army Exercise.

2- The theme of Ex VINBAX - 2022 is the employment and deployment of an Engineer Company and a Medical Team as part of the United Nations Contingent for Peace Keeping Operations.

3- This year this is scheduled to be conducted at Kochi.

Which of the following given above is/are correct

- a) 1 and 2 only b) 1 only

- c) 1, 2 and 3 d) 2 and 3 only

Que-5 With reference to Orunodoi scheme, consider the following statements

- 1- It's a Haryana government's Scheme.
- 2- Seeking to benefit women-headed households and specially-abled persons.
- 3- The state government has been transferring ₹1,000 as monetary benefit to the bank accounts of economically weak women.

Which of the following given above is/are correct

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

Que-6 With reference to exercise 'AL NAJAH-IV', consider the following statements about

- 1- India-UAE joint military exercise.
- 2- This year this will take place in the Mahajan field firing ranges in Rajasthan.
- 3- The joint exercise would focus on counter-terrorism operations, regional security operations and peacekeeping operations under United Nations charter apart from organising joint physical training schedules, tactical drills, techniques and procedures.

Which of the following given above is/are correct

- a) 1 only b) 1 and 3 only

- c) 1, 2 and 3 d) 2 and 3 only

Que-7 What is a hybrid electric vehicle?

- 1- A hybrid electric vehicle (HEV) uses an ICE (a petrol/diesel engine) and one or more electric motors to run.
- 2- It is powered by the electric motor alone, which uses energy stored in batteries, by the internal combustion engine (ICE), or both.
- 3- The powertrain of the HEV is more complex than a regular ICE-powered car as it has EV components and a conventional ICE.

Which of the following given above is/are correct

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

Que-8 Consider the following statements about Lumpy skin disease (LSD)

- 1- It is an infectious disease in cattle caused by a virus of the family Poxviridae, also known as Neethling virus.
- 2- The disease is characterised by mild fever for two-three days followed by the development of stiff, round nodules on the skin all over the body of cattle and buffaloes.
- 3- It is also transmitted to humans.

Which of the following given above is/are correct

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

ANSWER

1- (c)

- Increased frequency and reach of travel, changing patterns of land use, changing diets, wars and social upheaval and climate change. These factors increase interactions between humans and reservoir hosts, facilitating exposure to zoonotic viruses and spillover infections in people.
- The rapid growth in urbanisation and infrastructure development, as well as the clearing of biodiversity-rich areas, has led to more interactions among species in the last few decades. Poor health systems and social upheaval may also be to blame, due to which health generally becomes neglected.
- Asia has its own set of contributing factors: the dense forests here and the culture of consuming wildlife — both for food and as traditional medicine. Wet markets, where live animals are packed together and displayed for sale, have particularly come under focus due to the belief

that the SARS-CoV-2 virus could have jumped from multiple species kept together. Some of these factors are old to these regions, but are contributing significantly to diseases now because of the overall increase in interconnectedness and travel among people globally in the last few decades.

2- (b)

- On July 26, 1999, the Indian Army announced the successful culmination of 'Operation Vijay', declaring victory after a nearly three-month-long battle with Pakistani troops on the icy heights of Kargil in Ladakh.

3- (b)

- It is also known as 'Nishaan' which is an emblem that is worn by all unit officers on the left hands sleeve of their uniform.
- The 'Standards' are awarded to Heavy Cavalry and the 'Guidons' are awarded to Light Cavalry.

4- (a)

- The exercise is a sequel to a previously conducted bilateral exercise in Vietnam in 2019 and a major milestone in strengthening the bilateral relations between India and Vietnam. India and Vietnam share a Comprehensive Strategic Partnership

and defence cooperation is a key pillar of this partnership. Vietnam is an important partner in India's Act East policy and the Indo-Pacific vision.

- Chandi Mandir Cantonment is a military cantonment of the Indian Army located in Panchkula district at the foot of the Sivalik Hills adjoining Panchkula city in Haryana. It is the headquarters of the Western Command of the Indian Army.

5- (d)

- It's a Assam government's Scheme.

6- (d)

- India-Oman joint military exercise.
- The Indian Army will be represented at the exercise by troops from the 18 Mechanised Infantry Battalion. The previous edition of the exercise was organised in Muscat in March 2019.

7- (c)

- A hybrid electric vehicle (HEV) uses an ICE (a petrol/diesel engine) and one or more electric motors to run. It is powered by the electric motor alone, which uses energy stored in batteries, by the ICE, or both. The powertrain of the HEV is more complex than a regular ICE-powered car as it has EV components and a conventional ICE. That means a typical HEV will have a

low-voltage auxiliary battery, a traction battery pack to store electricity for the electric motor, an electric generator, an AC/DC converter, a power electronics controller, a thermal system to maintain working temperature, an ICE, a fuel tank, a fuel filler, a transmission and an exhaust system.

How do HEV powertrains work?

- HEV powertrains are designed to power cars in a series, parallel or series-parallel (power split) methods. A series HEV uses only the electric motor to drive the wheels, while the ICE powers the generator, which in turn recharges the battery. A parallel HEV, based on the driving condition, uses the best power source to power the vehicle. It will alternate between the electric motor and the ICE to keep the car moving.
- A series-parallel HEV offers a combination of both models and allows to split power, wherein power is routed from the ICE alone or from the battery to the electric motor to drive the vehicle. Moreover, in all three designs, the battery is charged through regenerative braking technology.

8- (a)

- It is not transmitted to humans.