DATE: 02.11.2026

1) Which one of the following best describes the 'Punah Bharan' Mobile Application?
   (a) A digital platform launched to monitor and manage groundwater recharge structures across rural India.
   (b) A mobile application developed to track electronic waste recycling and promote circular economy initiatives.
   (c) A portal developed to assess soil nutrient degradation and recommend customized organic replenishment practices
   (d) A mobile portal for tracking the real-time stock and distribution of essential food grains under the public distribution system.

2) Consider the following countries:
   1. Colombia
   2. Brazil
   3. Guyana
   4. Ecuador

   Which of the above share a land boundary with Venezuela?
   (a) 1, 2 and 3 only
   (b) 1 and 4 only
   (c) 2, 3 and 4 only
   (d) 1, 2, 3 and 4

3) Consider the following statements regarding the NVS-03 satellite:
   1. It provides both an unencrypted Standard Positioning Service (SPS) for civilian use and an encrypted Restricted Service (RS) for strategic operations.
   2. It incorporates the L1 frequency band to ensure direct signal compatibility with standard civilian smartphones and wearables.
   3. It carries an indigenously developed Rubidium atomic clock for high-precision position, navigation, and timing calculations.

   Which of the statements given above is/are correct?
   (a) 1 and 2 only
   (b) 2 and 3 only
   (c) 1 and 3 only
   (d) 1, 2 and 3

4) Which of the following best describes PANCHAM AI?
   (a) An AI-powered platform that facilitates two-way communication and outreach on government schemes in 17 Indian languages.
   (b) An AI-based platform designed to monitor the financial transactions of Gram Panchayats.
   (c) A digital portal that provides online training and certification to elected representatives of Panchayati Raj Institutions.
   (d) An AI-enabled platform for monitoring the implementation of rural infrastructure projects.

5) Consider the following statements:

Assertion (A): An individual infected with the Bundibugyo virus can transmit the infection to others during the incubation period, even before the appearance of symptoms.
Reason (R): The virus spreads through direct contact with the blood or other bodily fluids of infected individuals and contaminated materials, but infected individuals are not considered infectious before the onset of symptoms.
Which one of the following is correct?

(a) Both A and R are correct, and R is the correct explanation of A.
(b) Both A and R are correct, but R is not the correct explanation of A.
(c) A is correct, but R is incorrect.
(d) A is incorrect, but R is correct.

Explanation

1) Answer: (A)

- The **'Punah Bharan'** (*Punah Bharan* meaning "refilling" or "recharge") mobile application and web portal were launched by the **Ministry of Jal Shakti**. It was jointly developed by the **Bhaskaracharya National Institute for Space Applications and Geo-informatics (BISAG-N)** and the **National Water Mission (NWM)**.
- **Function:** The application uses multi-layered GIS and geospatial intelligence (combining rainfall, slope, soil permeability, drainage networks, and groundwater yield) **to identify artificial groundwater recharge zones** within a 3-km radius.
- **Objective:** It enables scientific planning and location selection for recharge structures like check dams, percolation tanks, recharge shafts, and injection wells to replenish depleted aquifers, particularly in water-stressed regions.
- **Therefore, option A is the correct answer**

2) Answer: (A)

Venezuela shares land boundaries with three South American countries:

1. **Colombia** to the west and southwest
2. **Brazil** to the south
3. **Guyana** to the east

Ecuador does not share a land border with Venezuela; they are separated by Colombia
Therefore, option A is the correct answer

3) Answer: (D)

- **Statement 1 is correct:** NVS-03 supports NavIC's dual-tier service architecture the open **Standard Positioning Service (SPS)** for commercial/civilian use and the encrypted **Restricted Service (RS)** for defense and security agencies.
- **Statement 2 is correct:** Unlike legacy satellites limited to L5 and S bands, NVS-03 includes the **L1 band (1575.42 MHz)**, enabling direct integration into low-power consumer electronics and mobile chipsets.
- **Statement 3 is correct:** It features a space-grade **indigenous Rubidium atomic clock** developed by ISRO's Space Applications Centre (SAC), eliminating critical dependence on imported timing hardware.
- **Therefore, option D is the correct answer**

4) Answer: (A)

PANCHAM (which stands for *Panchayat Assistance and Messaging Chatbot*) is an AI-enabled, multilingual communication and decision-support platform (integrated under initiatives like the PM Viksit Gram Swaraj Yojana) designed to streamline grassroots governance, enhance community awareness, and provide accessible information regarding government schemes across 17 Indian languages.

5) Answer: (D)

- **Assertion (A) is incorrect:** The incubation period of Bundibugyo Virus Disease (BVD) ranges **from 2 to 21 days.**
    - Infected individuals are not considered infectious before the appearance of symptoms.
    - Therefore, transmission during the incubation period, as stated in the assertion, is incorrect.
- **Reason (R) is correct:** Bundibugyo virus **spreads through direct contact, through broken skin or mucous membranes**, with the blood or other bodily fluids of infected individuals.
    - Transmission can also occur through contact with contaminated materials such as clothing, bedding and other surfaces.
    - Infected individuals become infectious only after the onset of symptoms. Transmission risk generally increases as the disease progresses.
- **Therefore, option D is the correct answer**