



Daily Current Affairs Prelims Quiz 08-09-2023 (Online Prelims Test)

1) Consider the following statements with respect to Heat Index

1. Heat Index is a measure of how the temperature feels to humans.
2. Dew point, relative humidity and air temperature are the important factors in the calculation of heat index.

Which of the above statement(s) is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

Heat Index


- Heat index is also known as apparent temperature, is a measure of how the temperature feels to humans.
- Relative humidity along with air temperature is an important factor that determines heat index.
- A formula to calculate heat index was published by Dr. Robert Steadman, a professor in the Colorado State University, USA in 1979.
- Dew point, which is the temperature at which gas is transformed into liquid state, is an important factor in the calculation of heat index.
- A heat index value of 67°C or above can be extremely dangerous for people and animals who have direct and prolonged exposure.
- Canada uses Humidex, its own measure of heat index.


India


- The heat index in India is in experimental basis, launched by India Meteorological Department (IMD).
- Colour codes used for experimental heat index, according to IMD are as follows:


| Colours | Experimental Heat Index |
|---------|--------------------------|
| Green | Less than 35 deg C |
| Yellow | In the range 36-45 deg C |
| Orange | In the range 46-55 deg C |
| Red | Greater than 55 deg C |

COLOUR-CODED WARNINGS

 **GREEN ALERT**
No risk

 **YELLOW ALERT**
Be aware of high heat

 **ORANGE ALERT**
Be prepared to take precautionary action against heat, or avoid exposure

 **RED ALERT**
Be vigilant, step out only if necessary

- In 2024, India is scheduled to launch its own heat index to quantify the impact of heat on its population and generate impact-based heat wave alerts for specific locations.

2) *Schizostachyum andamanicum*, sometimes seen in the news is related to?

- An invasive species responsible for declining frog population
- New Moon mission by Japan Aerospace Exploration Agency
- Indigenously developed vaccine to cure Dementia
- A species of Bamboo which can be used as reusable straw

Answer : d

Schizostachyum andamanicum

The bamboo species Schizostachyum andamanicum has recently received the patent for reusable straw and its manufacturing

- Schizostachyum andamanicum is a Bamboo species which can be used as reusable straw.
- The bamboo species Schizostachyum andamanicum was discovered on the [Andamans and Nicobar Islands](#) about 3 decades ago.
- This species of bamboo is characterized by a thin large hollow erect culm (stem) with long internodes and has potential for developing into a straw.
- The germplasm of the bamboo species is only found in some forested areas of Andamans and large-scale production of the straw will be dependent on commercial cultivation of the species.



3) Consider the following statements with respect to the Visible Line Emission Coronagraph (VELC)

1. It is a primary payload of Aditya-L1 Mission.
2. It is designed to create a total solar eclipse all the time once Aditya-L1 is placed in Lagrangian Point 1.
3. VELC has the capability to capture images of the solar corona closer to the Sun's disc than any other solar space observatory.

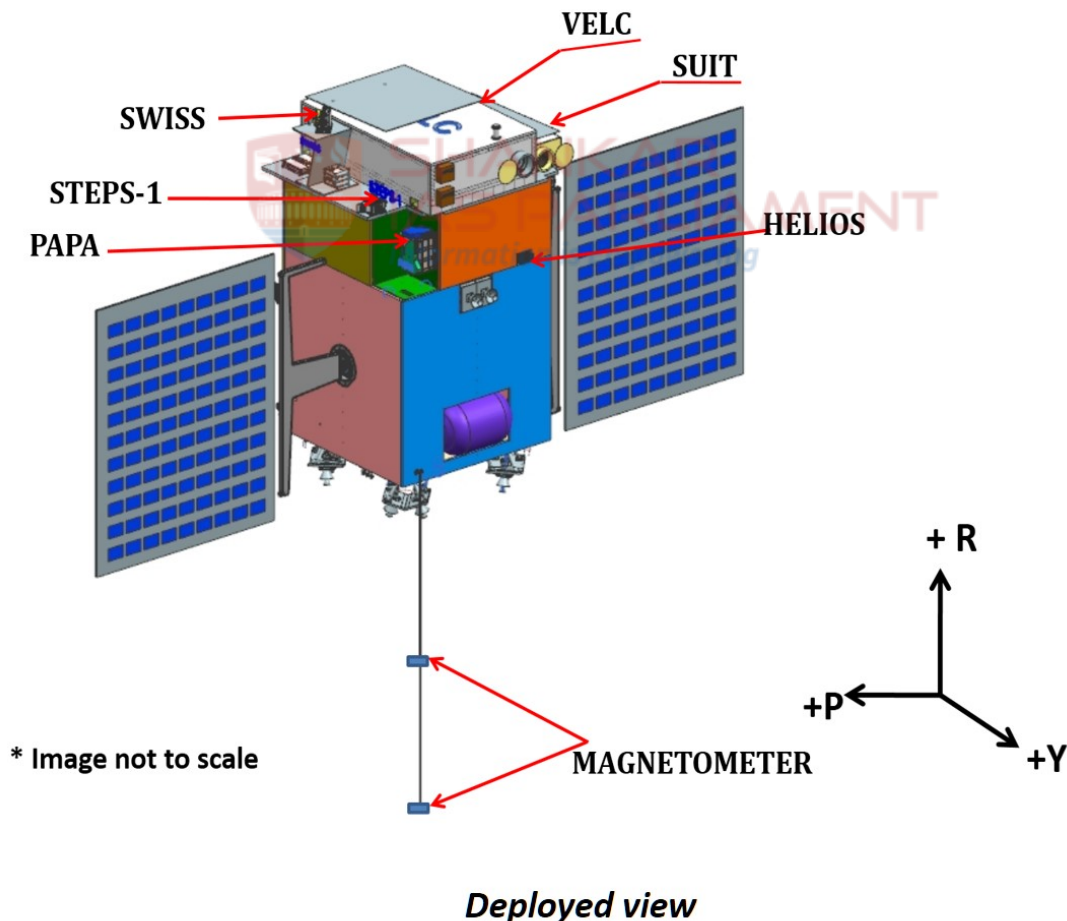
How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All Three
- d. None

Answer : c

Visible Line Emission Coronagraph (VELC)

- The Visible Line Emission Coronagraph (VELC) is the primary payload that [Aditya-L1](#) will use to focus on the Sun's Corona.
- VELC aims to collect data to understand how the temperature of the solar corona can reach about a million degrees while the Sun's surface remains at just over 6000 degrees Celsius.
- It is designed to create a 'total solar eclipse' all the time once Aditya-L1 is placed in L1 (Lagrangian Point 1).
- VELC's ability to capture close-up images of the solar corona is attributed to its extremely accurately polished primary mirror, which was crafted by ISRO's Laboratory for Electro Optics Systems (LEOS).
- The payload will send 1,440 images per day to the ground station for analysis once it reaches its intended orbit.
- VELC has the capability to capture images of the solar corona closer to the Sun's disc than any other solar space observatory.



4) Consider the following statements with respect to X-Ray Imaging and Spectroscopy Mission

1. It is a collaborative mission of JAXA and ISRO with participation of NASA.
2. It will investigate the X-ray sky using high-resolution spectroscopy and imaging.

Which of the above statement(s) is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : b

XRISM (X-Ray Imaging and Spectroscopy Mission)

- XRISM (X-ray Imaging and Spectroscopy Mission) is a **JAXA and NASA collaborative mission** with **ESA participation**.
- It will investigate the X-ray sky using high-resolution spectroscopy and imaging.
- The XRISM mission has 2 instruments
 1. **Resolve**
 2. **Xtend**
- **Resolve** - is “microcalorimeter spectrometer.”
- When an X-ray hits the instrument’s 6×6 pixel detector, the energy causes a tiny increase in temperature.
- The instrument can measure each individual X-ray’s energy to provide information about the source including composition, motion and physical state.
- **Xtend - Wholly developed by JAXA.**
- It gives XRISM the largest fields of view of any X-ray imaging satellite flown to date.
- It observes an area that corresponds to 60 per cent larger than the average apparent size of the full moon.

5) Consider the following statements with respect to the National Creche Scheme

1. The scheme provides support to women of low-income groups who go to work at least 15 days a month or 6 months a year.
2. The scheme was revised and subsumed as part of the ‘Palna’ scheme under Mission Shakti in 2022.
3. The 80% of the funding is provided by Union government and remaining 20 % is provided by respective State governments.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All Three
- d. None

Answer : b

National Creche Scheme

- The Rajiv Gandhi National Creche Scheme (NCS) for the Children of Working Mothers (RGNCS) was launched in 2006 which has been reformulated twice, 2017 and 2022.
- In 2022 the NCS was revised and subsumed as part of the ‘Palna’ scheme under Mission Shakti.
- It was subsumed to provide day-care facilities for children (6 months to 6 years) of working mothers and to improve nutrition and health status of children.”
- The scheme provides support to women of low-income groups who go to work at least 15 days a month or 6 months a year.
- The targeted mothers can use creche facilities for 7.5 hours a day and 26 days in a month.
- The subsidised facilities charge Rs.20 a month per child for families below the poverty line,

and between Rs.100-200 for other families.

- Each creche is required to provide “holistic development of children,” a space tasked with providing quality nutrition, sleep, education and “stimulation” activities.
- A creche of 25 children, say, should at least have one creche worker, helper and doctor.
- The NCS falls under the umbrella of Integrated Child Development Services (ICDS) under the Ministry of Women and Child Development (MWCD).
- **60% of funding comes from the Union Government, 30% from State Government and 10% from individual NGOs.**
- MGNREGA “is the only Act in the country that legalises support for childcare in the unorganised sector, by including the provision for creches and availability of safe drinking water in it,”
- **State Governments are responsible for making, enforcing and monitoring the relevant rules.**

