ENVIRONMENT

1. National Institute of Solar Energy (NISE)
   - NISE is an autonomous institution of Ministry of New and Renewable (MNRE) is the apex National R&D institution in the field Solar Energy.
   - The Government of India has converted 25 year old Solar Energy Centre (SEC) under MNRE to NISE an autonomous institution in September, 2013 to assist the Ministry in implementing the National Solar Mission and to coordinate research, technology and other related works.
   - The NISE has assumed all technical activities of SEC and has also re-organized itself to undertake roles and responsibilities assigned to it by the Ministry.
   - The institute is involved in demonstration, standardization, interactive research, training and testing solar technologies and systems.
   - It is an effective interface between the Government and institutions, industry & user organizations for development, promotion and widespread utilization of solar energy in the country.
   - NISE is located in Gurugram Haryana.
   - 4th Foundation Day celebrations of National Institute of Solar Energy (NISE), were conducted at its campus in Gurugram, recently.

GEOGRAPHY

1. Arctic Sea Ice Melting
   - Arctic sea ice, a key indicator of global warming is melting faster than predicted, according to a study by the the Cryosphere Climate Research Group under the Department of Geography at the University of Calgary, Canada.
   - It found that satellite measurements over the years have overestimated the thickness of Arctic sea ice by as much as 25% because of the presence of salty snow.
     - Salty Snow
     - The study, based on satellite data and extensive field measurements, found that salty snow - formed when brine is expelled upward from the ice surface — does not allow radar waves from satellites to penetrate, leading to skewed measurements.
     - The implication is that the prediction of an ice-free Arctic ocean in summertime by 2050 could happen much earlier.
   - Impact of Ice Melting
     - Dwindling ice cover hastens the warming of oceans, and has an impact on weather phenomena like the El Nino that influences the Asian monsoon.
     - The thinning ice would make it difficult for animals like polar bears and seals and organisms like phytoplankton to survive.

Previous Year Questions

1. The term ‘IndARC’, sometimes seen in the news, is the name of
   (a) An indigenously developed radar system inducted into Indian Defence
   (b) India’s satellite to provide services to the countries of Indian Ocean Rim
   (c) A scientific establishment set up by India in Antarctic region
   (d) India’s underwater observatory to scientifically study the Arctic region
   Answer (c) (2015)

2. Consider the following countries:
   1. Denmark
   (2014)
2. Japan
3. Russian Federation
4. United Kingdom
5. United States of America
Which of the above are the members of the ‘Arctic Council’?
(a) 1, 2 and 3 (b) 2, 3 and 4 (c) 1, 4 and 5 (d) 1, 3 and 5

2. Inuit People or Inuk
✔ The Inuit are a group of culturally similar peoples inhabiting the Arctic regions of Greenland, Canada and Alaska.
✔ The people of the Canadian Arctic are known as the Inuit. They used to be called Eskimos, which came from a Native American word for ‘eater of raw meat’.
✔ Now the Arctic people are officially known as the Inuit, which means ‘the people’, or singularly, Inuk, which means ‘the person’.
✔ The Eskimo are the indigenous peoples who have traditionally inhabited the northern circumpolar region from eastern Siberia(Russia), across Alaska (United States), Canada, and Greenland
✔ Helps people and scientists in Arctic.

What Questions to expect
Consider the following pairs: (2016-edited)

Community sometimes mentioned in the news
In the affairs
1. Kurd : Bangladesh
2. Inuit : Arctic
3. Rohingya : Myanmar

Which of the pairs given above is/are correctly matched?
(a) 1 and 2 (b) 2 only (c) 2 and 3 (d) 3 only
Answer (c)

GENERAL SCIENCE
1. Kala-Azar (Visceral Leishmaniasis)
What is it?
✔ Visceral leishmaniasis, also known as Kala-Azar is a parasitic tropical disease.
✔ Kala azar is the second largest parasitic killer in the world after Malaria.
✔ Along with Chagas disease and sleeping sickness, kala azar is one of the most dangerous neglected tropical diseases (NTDs). Only malaria is more deadly.

Transmission
✔ Historically, the parasite Leishmania Donovani is believed to be the pathogen responsible for the disease.
✔ The vector (or transmitter) of the Leishmania parasite is the sand fly. The parasite is spread to humans by bites from infected female sand flies.

Kala-Azar and India
✔ Kala-azar is endemic to the Indian subcontinent in 119 districts in four countries (Bangladesh, Bhutan, India and Nepal).
✔ India itself accounts for half the global burden of the disease.

Symptoms of Kala Azar
✔ Initially, leishmania parasites cause skin sores or ulcers at the site of sand fly bites. If the disease progresses.
✔ Kala azar presents after two to eight months, with more generalised symptoms including prolonged fever and weakness.
✓ The disease is characterized by **irregular bouts of fever, substantial weight loss, swelling of the spleen and liver, and anaemia** (which may be serious).
✓ It attacks the immune system, and is almost always fatal if not treated.

**Diagnosis**
✓ The most common method of diagnosing kala azar is by Dipstick Testing
✓ The most effective diagnostic tests for leishmaniasis are invasive and potentially dangerous, where tissue samples are required from the spleen, lymph nodes or bone marrow.
✓ These tests require lab facilities and specialists not readily available in resource-poor endemic areas.

**Recent Developments**
✓ Recently researchers (a group of scientists from West Bengal and Uttar Pradesh) have found evidence of an unknown virus that may be responsible for the persistence of Kala-Azar.
✓ Another parasite called **Leptomonas seymouri** may also be present according to the research team.
✓ However, scientists are still not clear how the parasites cause the infection and how they manage to hide within the body.

**What Kind of Questions to Expect**

1. H1N1 virus is sometimes mentioned in the news with reference to which one of the following diseases? (2015)
   (a) AIDS
   (b) Bird flu
   (c) Dengue
   (d) Swine flu
   Answer (d)

2. Consider the following diseases:
   1. Diphtheria
   2. Chickenpox
   3. Smallpox
   Which of the above disease has/have been eradicated in India? (2014)
   (a) 1 and 2 only
   (b) 3 only
   (c) 1, 2 and 3
   (d) None
   Answer (b)

3. Consider the following statements:
   1. Dengue is a protozoan disease transmitted by mosquitoes.
   2. Retro-orbital pain is not a symptom of Dengue.
   3. Skin rash and bleeding from nose and gums are some of the symptoms of the Dengue.
   Which of the statements given above is/are correct? (2005)
   (a) 1 and 2
   (b) 3 only
   (c) 2 only
   (d) 1 and 3
   Answer (d)

**SCIENCE & TECHNOLOGY**

1. **Offshore Patrol Vessel (OPV) Vikram**
   ✓ OPV Vikram is **India’s first-ever OPV to be built in a private shipyard**,
   ✓ This is the first of the seven vessels for which the Rs 1,432-crore contracts had been awarded by the Ministry of Defence in March 2015
   ✓ The vessel built at Larsen and Toubro's Kattupalli shipyard, about 45 km from here, was recently handed over to the Coast Guard ahead of the March 2018 delivery schedule (use in mains answers-efficiency of private sector)

**Functions of Vikram**
The vessel, equipped with modern weapon and state-of-the-art radar systems, would be deployed for
✓ day and night surveillance patrol,
✓ search and rescue and
✓ in pollution response operations in exclusive economic zones of the country.
ECONOMY

1. WTO Ministerial Conference
   ✓ The Ministerial Conference is the topmost decision-making body of the WTO.
   ✓ It usually meets every two years.
   ✓ It brings together all members of the WTO, all of which are countries or customs unions.
   ✓ The Ministerial Conference can take decisions on all matters under any of the multilateral trade agreements.

Eleventh Ministerial Conference (MC11)
   ✓ Will take place from 10 to 13 December 2017 in Buenos Aires, Argentina. The Conference will be chaired by Argentina.
   ✓ An agreement on elimination of ‘harmful’ fisheries subsidies is likely to be the only major outcome at the Eleventh Ministerial Conference (MC11)
   ✓ Introduction of “new issues” like ‘e-commerce’, ‘trade facilitation in services’ and ‘investment facilitation’ into the WTO’s ongoing Doha Round negotiations may not happen in 11th MC.

The First WTO Ministerial Conference was held in Singapore in 1996.

10th Ministerial Conference
   ✓ The WTO’s 10th Ministerial Conference was held in Nairobi, Kenya in 2015.
   ✓ It culminated in the adoption of the "Nairobi Package", a series of six Ministerial Decisions on agriculture, cotton and issues related to least-developed countries (LDCs).

Ninth Ministerial Conference, Bali, Indonesia 2013
   ✓ At the Ninth Ministerial Conference, held in Bali, Indonesia, in 2013, ministers adopted the "Bali Package” a series of decisions aimed at streamlining trade, allowing developing countries more options for providing food security, boosting least-developed countries’ trade and helping development more generally.
   ✓ WTO members concluded negotiations at the 2013 Bali Ministerial Conference on the landmark Trade Facilitation Agreement (TFA), which entered into force on 22 February 2017 following its ratification by two-thirds of the WTO membership.

2. Doha Development Agenda,(Fourth WTO Ministerial Conference)
   ✓ The Fourth WTO Ministerial Conference was held in Doha, Qatar in 2001.
   ✓ This MC officially launched The Doha Round, which is the latest round of trade negotiations among the WTO membership.
   ✓ Its aim is to achieve major reform of the international trading system through the introduction of lower trade barriers and revised trade rules.
   ✓ The work programme covers about 20 areas of trade. The Round is also known semi-officially as the Doha Development Agenda as a fundamental objective is to improve the trading prospects of developing countries.
   ✓ The Doha Ministerial Declaration provided the mandate for the negotiations, including on agriculture, services and an intellectual property topic, which began earlier
   ✓ In Doha, ministers also approved a decision on how to address the problems developing countries face in implementing the current WTO agreements.
   ✓ The Round of Talks aims to produce the first major overhaul of the WTO system in the 21st Century.
   ✓ All WTO member governments — currently 157 — participate in the Doha Round

The subjects of Doha Round are
   1. Agriculture
   2. Non-agricultural market access (NAMA)
   3. Services
   4. Trade facilitation in goods
5. Rules on anti-dumping, subsidies and countervailing measures, fisheries subsidies, and regional trade agreements.

6. The Environment
   These are the first significant negotiations on trade and the environment in the GATT/WTO. They have two key components:
   I. Freer trade in environmental goods
   II. Environmental agreements

7. Intellectual property issues
8. Bio piracy, benefit sharing and traditional knowledge
9. Dispute settlement

Previous Year Questions
1. In the context of which of the following do you sometimes find the terms ‘amber box, blue box and green box’ in the news?
   (2016)
   (a) WTO affairs
   (b) SAARC affairs
   (c) UNFCCC affairs
   (d) India-EU negotiations on FTA
   Answer (a)

2. The terms ‘Agreement on Agriculture’, ‘Agreement on the Application of Sanitary and Phytosanitary Measures’ and ‘Peace Clause’ appear in the news frequently in the context of the affairs of the
   (2015)
   (a) Food and Agriculture Organization
   (b) United Nations Framework Conference on Climate Change
   (c) World Trade Organization
   (d) United Nations Environment Programme
   Answer (c)

What Kind of Questions to Expect
1. Consider the following subjects:
   1. agriculture
   2. non-agricultural market access (nama)
   3. trade facilitation in services
   4. environment
   5. e-commerce
   Which of the above are included in the Doha round of talks of WTO?
   (a) 1, 2 and 4
   (b) 2, 3 and 4
   (c) 1, 4 and 5
   (d) 1, 3 and 5
   Answer (a)

3. Trade facilitation
   ✓ Trade facilitation is the simplification, modernization and harmonization of export and import processes—has therefore emerged as an important issue for the world trading system.
   ✓ WTO members concluded negotiations at the 2013 Bali Ministerial Conference on the landmark Trade Facilitation Agreement (TFA), which entered into force on 22 February 2017 following its ratification by two-thirds of the WTO membership.
   ✓ The TFA contains provisions for expediting the movement, release and clearance of goods, including goods in transit.
   ✓ It also sets out measures for effective cooperation between customs and other appropriate authorities on trade facilitation and customs compliance issues.
   ✓ It further contains provisions for technical assistance and capacity building in this area.

What Kind of Questions to expect?
1. Consider the following statements:
   (2017)
   1. India has ratified the Trade Facilitation Agreement (TFA) or WTO.
2. TFA is a part of WTO's Bali Ministerial Package of 2013.
3. TFA came into force in January 2016.
Which of the statements given above is/are correct?
(a) 1 and 2 only  (b) 1 and 3 only  (c) 2 and 3 only  (d) 1, 2 and 3
Answer (a)

4 The United Nations Guidelines for Consumer Protection (UNGCP)

- The United Nations Guidelines for Consumer Protection (UNGCP) were adopted by United Nations General Assembly on 16 April 1985 and revised in December 22nd 2015.
- The new guidelines call for greater International cooperation.

Role of UNCTAD

- The guidelines are promoted by UNCTAD
- It encourages interested member States to create awareness of the many ways in which member States, businesses and civil society can promote consumer protection in the provision of public and private goods and services.

The Intergovernmental group of experts

- The Intergovernmental group of experts on consumer protection law and policy has been established to monitor the implementation of the guidelines, provide a forum for consultations, produce research and studies, provide technical assistance, undertake voluntary peer reviews, and periodically update the UNGCP.
- Its first session was held on 17 and 18 October 2016 in Geneva.
- The Intergovernmental group of experts on consumer protection law and policy is expected to continue within the framework of existing UNCTAD machinery.
- The revised UNGCP extend their scope to state-owned enterprises

5 International Conference on Consumer Protection for East, South and South-East Asia

- This is the first time an international conference on consumer protection is being organised by India for countries of the region which account for a majority of the global consumers and share common challenges and experiences.
- 22 countries from East, South and South-East Asia are participating in the international conference.

6 The United Nations Conference on Trade and Development UNCTAD

- The United Nations Conference on Trade and Development (UNCTAD) is the principal organ of the United Nations General Assembly dealing with trade, investment, and development issues.
- UNCTAD is a permanent intergovernmental body established by the United Nations General Assembly in 1964.
- Its headquarters is located in Geneva, Switzerland, and has offices in New York and Addis Ababa.
- UNCTAD is part of the UN Secretariat.
- It reports to the UN General Assembly and the Economic and Social Council.
- But it has its own membership, leadership, and budget.
- It is also part of the United Nations Development Group.

The Goals and Objectives of UNCTAD.

- The organization's goals are to maximize the trade, investment and development opportunities of developing countries and assist them in their efforts to integrate into the world economy on an equitable basis.
CULTURE

1. Chhath Pooja

✓ Celebrated on the sixth day after Diwali, Chhath is an ancient Hindu festival dedicated to
the Sun God for a period of four days.

✓ It is celebrated by the people of the Madhesh province and Mithila region of Nepal and
Bihar, Jharkhand, Uttar Pradesh states of India.