

**Q.1) Consider the following statements with reference to a National Park:**

1. It has moist deciduous, semi evergreen, evergreen, shola forests and montane grasslands.
2. It is home to largest population of Lion Tailed Macaque.
3. It is locally known as Sairandhrivanam.

**Which of the following National Parks is characterized by the above features?**

- a) Manas
- b) Bannerghata
- c) Silent valley
- d) Nandadevi

**Q.1) Solution (c)**

Silent Valley National Park has exceptional Ecosystem diversity from moist deciduous, semi evergreen, evergreen and shola forests to montane grasslands. It has largest population of Lion Tailed Macaque and Nilgiri Langur. It comes under Project Elephant area.

The Silent Valley region is locally known as Sairandhrivanam, which means Sairandhri's Forest. Sairandhri is Draupadi, the wife of the Pandavas in the epic Mahabharatha, who disguised herself as Sairandhri, the maid of a queen named Sudeshna while her family was in exile

Manas national park is ruled out as Shola forests are endemic to southern part of Western Ghats.

Bannerghata national park is located just south of Bengaluru and is deprived of shola forest.

Lion tailed macaque is not there in Nandadevi national park.

**Do you know?**

- The Eastern Highlands moist deciduous forests is a tropical moist broadleaf forest ecoregion of east-central India. The ecoregion covers an area of 341,100 square kilometers (131,700 sq mi), extending across portions of Andhra Pradesh, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, and Telangana states.

**THINK!**

- Simlipal National Park

**Q.2) Consider the following statements regarding Loktak lake:**

1. It is known for phumdis floating over it.
2. It provides habitat to critically endangered Sangai.
3. It is covered under Ramsar list and Montrux Record.
4. Keoladeo National Park is situated inside the lake.

**Which of the statements given above is/are correct?**

- a) 3 and 4 only
- b) 2 and 3 only
- c) 1, 2 and 4 only
- d) 1, 2 and 3 only

**Q.2) Solution (d)**

Loktak Lake is the largest freshwater lake in North -East India (Manipur) is famous for the phumdis (heterogeneous mass of vegetation, soil, and organic matters at various stages of decomposition) floating over it.

It is listed under Ramsar as well as Montreux Record.

The Keibul Lamjao National Park on the lake is the only remaining natural habitat of the endangered brow-antlered deer or the dancing deer, locally known as Sangai. Keibul Lamjao National park is situated inside the lake to conserve the species.

**Do you know?**

- Keoladeo National Park or Keoladeo Ghana National Park formerly known as the Bharatpur Bird Sanctuary in Bharatpur, Rajasthan, India is a famous avifauna sanctuary that hosts thousands of birds, especially during the winter season. Over 230 species of birds are known to be resident. It is also a major tourist centre with scores of ornithologists arriving here in the hibernal season. It was declared a protected sanctuary in 1971. It is also a World Heritage Site.

**THINK!**

- Tso Moriri Lake

**Q.3) Consider the following statements regarding Biosphere Reserves:**

1. The core area should be large enough to sustain viable population of all trophic levels.

2. There is no comprehensive statute covering biosphere reserves in India.
3. All biosphere reserves of India are under the MAB programme of UNESCO.

**Which of the statements given above is/are correct?**

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

**Q.3) Solution (b)**

Biosphere Reserves (BRs) are representative parts of natural and cultural landscapes extending over large area of terrestrial or coastal/marine ecosystems or a combination thereof and representative examples of bio-geographic zones/provinces.

**The core area of biosphere reserve should be typical of a bio-geographical unit and large enough to sustain viable populations representing all trophic levels in the ecosystem.**

The UNESCO has introduced the designation 'Biosphere Reserve' for natural areas to minimize conflict between development and conservation. BRs are nominated by national government which meet a minimal set of criteria and adhere to minimal set of conditions for inclusion in the world network of Biosphere reserves under the Man and Biosphere Reserve Programme of UNESCO. **Thus only 10 of the 18 biosphere reserves are covered under MAB.**

At present, there is no comprehensive legislation dealing with all aspect of biosphere. Only few aspects have legal backing e.g. the core areas like National park or wildlife sanctuaries of reserve are governed under Wildlife protection act.

**Do you know?**

- The United Nations General Assembly declared 2011–2020 the United Nations Decade on Biodiversity (Resolution 65/161). The UN Decade on Biodiversity serves to support and promote implementation of the objectives of the **Strategic Plan for Biodiversity and the Aichi Biodiversity Targets, with the goal of significantly reducing biodiversity loss.**

**THINK!**

- Cartagena Protocol on Biosafety.

**Q.4) With reference to biodiversity conservation, Forest PLUS is:**

- a) a bilateral program between India and Nepal to enhance conservation efforts for the forests in the Himalayas.
- b) a bilateral program between India and the U.S. to develop solutions for sustainable forest land use in India.
- c) a program of UNFCCC to reduce emissions from deforestation and forest degradation.
- d) None of the above.

**Q.4) Solution (b)**

Forest-PLUS is a bilateral program between India and the U.S. to develop solutions for sustainable forest land use in India. The program, in partnership with the Ministry of Environment, Forest and Climate Change (MoEFCC), prepares India to implement successfully Reducing Emissions from Deforestation and Forest Degradation (REDD+), an international mechanism for climate change mitigation, livelihoods improvement, and biodiversity protection.

**Do you know?**

- Dr Harsh Vardhan inaugurates Conference on “Sustainable Landscapes & Forest Ecosystems: Theory to Practice” Environment Minister launches “Wood is Good” Campaign on 12-September-2017.

**THINK!**

- REDD

(Source <http://pib.nic.in/newsite/PrintRelease.aspx?relid=170685> )

**Q.5) Insectivorous plants have special mechanisms that trap insects which serve as their nutrition. With respect to this, which of the following conditions is/are favorable for this modification?**

1. Acidic soils
2. Nitrogen deficient soils.
3. Leached soils.

**Select the correct answer using the code given below.**

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

d) 1, 2 and 3

#### Q.5) Solution (d)

Insectivorous plants are a specialized group of plants that grow **in wet, acidic soils**.

One of the most critical plant nutrients is nitrogen which is usually taken up by plants as nitrates. **Nitrogen is a nutrient that is easily leached out of soils.**

For this reason, the plants that live in these soils have evolved into carnivorous plants that capture and digest insects as a means of obtaining nitrates. **These plants are usually associated with leached, nutrient-poor soils, or wet and acidic areas that are ill-drained.**

#### Do you know?

Insectivorous plants of India belong mainly to three families:

- Droseraceae
- Nepenthaceae
- Lentibulariaceae

#### THINK!

- Endangered plants from India.

**Q.6) Biosphere reserves are demarcated into following 3 inter-related zones-Core zones, Buffer Zones and Transition Zone. A core zone being National Park or Sanctuary is regulated under which of the following acts?**

- a) Environmental Protection Act, 1986
- b) Wildlife Protection Act, 1972
- c) Biodiversity Act, 2002
- d) The Forest (Conservation) Act, 1980

#### Q.6) Solution (b)

Biosphere reserves are demarcated into following 3 inter-related zones:

**Core Zone:** Core zone must contain suitable habitat for numerous plant and animal species, including higher order predators and may contain centres of endemism. Core areas often conserve the wild relatives of economic species and also represent important genetic reservoirs having exceptional scientific interest.

**A core zone being National Park or Sanctuary regulated under the Wildlife (Protection) Act, 1972.** Whilst realizing that perturbation is an ingredient of ecosystem functioning, the core zone is to be kept free from human pressures external to the system.

**Buffer Zone:** The buffer zone, adjoins or surrounds core zone, uses and activities are managed in this area in the ways that help in protection of core zone in its natural condition. These uses and activities include restoration, demonstration sites for enhancing value addition to the resources, limited recreation, tourism, fishing, grazing, etc; which are permitted to reduce its effect on core zone. Research and educational activities are to be encouraged. Human activities, if natural within BR, are likely to continue if these do not adversely affect the ecological diversity.

**Transition Zone:** The transition area is the outermost part of a biosphere reserve. This is usually not delimited one and is a zone of cooperation where conservation knowledge and management skills are applied and uses are managed in harmony with the purpose of the biosphere reserve. This includes settlements, crop lands, managed forests and area for intensive recreation and other economic uses characteristics of the region.

### Do you know?

Benefit sharing out of usage of biological resources can be done in following manner

- Joint ownership of intellectual property rights
- transfer of technology
- location of production, research development units in the area of source
- payment of monetary and non-monetary compensation
- setting up of venture capital fund for aiding the cause of benefit claimers

### THINK!

- Traditional Knowledge Digital Library (TKDL)

**Q.7) Consider the following statements regarding Community Reserves:**

1. Its objective is to protect the areas in and around existing or proposed protected areas from private ownership of land and land use.
2. They are declared under Wildlife Protection Act, 1972.
3. It is managed by a Community Reserve Management Committee.

**Which of the statements given above is/are correct?**

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

d) 1, 2 and 3

### Q.7) Solution (d)

Community reserves in India are terms denoting protected areas of India which typically act as buffer zones to or connectors and migration corridors between established national parks, wildlife sanctuaries and reserved and protected forests of India.

Such areas are designated as community areas if they are uninhabited and owned by both govt. and private individuals but used for subsistence by communities. If such land is completely owned by government of India it is called as conservation areas.

These protected area categories were first introduced in the Wildlife (Protection) Amendment Act of 2002, the amendment to the Wildlife Protection Act of 1972. Under the act, Community Reserve Management committee is formed to manage the community reserves. Their members would be included from Gram sabha.

These categories were added because of reduced protection in and around existing or proposed protected areas due to private ownership of land, and land use. The declaration of such an area is aimed at improving the socio-economic conditions of the people living in such areas as well as conserving wildlife.

The law calls for a 'Community Reserve Management Committee' (CRMC), the 'competent authority to prepare and implement management plans for the Reserve and to take steps to ensure the protection of the wildlife and its habitat in the Reserve'. Its representatives will be nominated from the local village panchayat or gram sabha.

### Do you know?

- Tiruppadaimarathur Conservation Reserve is an IUCN Category V protected bird nesting area in the 2.84 hectares (7.0 acres) compound of Siva temple in Tiruppadaimarathur village, Thanjavur District, Tamil Nadu, South India. It was declared Feb 14, 2005 and **is the first Conservation Reserve to be established in India**. The reserve is 10 kilometres (6.2 mi) from Kalakkad Mundanthurai Tiger Reserve.

### THINK!

- Indian Council of Forestry Research and Education.

**Q.8) Project Elephant was launched by Government of India in 1992. Which of the following statements are correct regarding Project Elephant?**

1. It aims at conserving elephants, their habitat and migratory routes.
2. Project includes only wild elephants and not domestic elephants.
3. The project's endeavour is to strengthen the measures for protection of elephants against poachers and unnatural death.

Select the code from following:

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

**Q.8) Solution (c)**

**Project Elephant**

Initiated in 1992 by the Government of India Project Elephant aims at conserving elephants and their habitat and of migratory routes by developing scientific and planned management measures. Under the project welfare of the domestic elephants is also considered, issues like mitigation of human-elephant conflict are also taken care of. The project's endeavour is to strengthen the measures for protection of elephants against poachers and unnatural death.

**Q.9) Which of the following species is not critically endangered?**

- a) Malabar Civet
- b) Hangul
- c) Pygmy Hog
- d) Blackbuck

**Q.9) Solution (d)**

According to IUCN status, Blackbuck is least concerned specie. However, it is in Schedule I of Wildlife protection act because of its cultural and religious significance.

**Q.10) The Svalbard Global Seed Vault is a secure seed bank which act as a bank for seed banks of other countries. Where is it located?**

- a) Denmark
- b) Norway
- c) Netherlands
- d) Finland



**Q.10) Solution (b)****Svalbard Global Seed Vault**

The Svalbard Global Seed Vault is a secure seed bank on the Norwegian island of Spitsbergen near Longyearbyen in the remote Arctic Svalbard archipelago, about 1,300 kilometres (810 mi) from the North Pole.

The seed vault is an attempt to ensure against the loss of seeds in other genebanks during large-scale regional or global crises. The seed vault is managed under terms spelled out in a tripartite agreement between the Norwegian government, the Crop Trust and the Nordic Genetic Resource Center (NordGen).

The Norwegian government entirely funded the vault's approximately 45 million kr (US\$8.8 million in 2008) construction. Storing seeds in the vault is free to end users, with Norway and the Crop Trust paying for operational costs. Primary funding for the Trust comes from organisations such as the Bill & Melinda Gates Foundation and from various governments worldwide.

**Q.11) The High Biodiversity Wilderness Areas (HBWA) approach has been developed by Conservation International (CI). HBWAs consist of 5 of the 24 major wilderness areas that hold globally significant levels of biodiversity. Which of the following areas are considered under HBWA?**

1. Amazonia
2. The Congo forests of Central Africa
3. New Guinea
4. The North American Desert complex

**Select the code from following:**

- a) 1 and 2
- b) 2, 3 and 4
- c) 1, 3 and 4
- d) All of the above

**Q.11) Solution (d)****High Biodiversity Wilderness Areas (HBWA)**

The High Biodiversity Wilderness Areas (HBWA) approach has been developed by Conservation International (CI). HBWAs consist of 5 of the 24 major wilderness areas that hold globally significant levels of biodiversity, as identified by Mittermeier et al (2002). **The 5**

HBWAs are Amazonia, the Congo forests of Central Africa, New Guinea, the Miombo-Mopane woodlands of Southern Africa (including the Okavango Delta), and the North American desert complex of northern Mexico and the Southwestern part of United States of America. The intact portion of these areas covers 8,981,000 km<sup>2</sup> (76% of their original extent), and 6.1% of the planet's land area. The geographic boundaries of the HBWAs coincide with the boundaries of several amalgamated WWF ecoregions.

In the past HBWAs were mostly considered to have "low vulnerability" because of their low levels of past habitat loss. However, recent analysis suggests that the high cultivation potential of many HBWAs makes them a target for future agricultural expansion. Cropland expansion is one of the primary threats to biodiversity in tropical countries.

**Q.12) In order to name a biodiversity hotspot, which of the following criteria is not taken into account?**

- a) Endemism
- b) Biodiversity loss
- c) Lesser inter – species competition
- d) Species richness

**Q.12) Solution (c)**

### **Biodiversity Hotspot**

To qualify as a biodiversity hotspot, a region must meet two strict criteria:

- It must have at least **1,500 vascular plants as endemics** — which is to say, it must have a high percentage of plant life found nowhere else on the planet. A hotspot, in other words, is **irreplaceable**.
- It must have **30% or less of its original natural vegetation**. In other words, it must be **threatened**.

Around the world, **35 areas** qualify as hotspots. They represent just **2.3% of Earth's land surface**, but they support more than half of the world's plant species as endemics — i.e., species found no place else — and nearly **43% of bird, mammal, reptile and amphibian species as endemics**.

**Q.13) In general the biodiversity**

- a) Increases towards equator
- b) Decreases towards equator

- c) Is zero in arctic region
- d) Is not effected by latitudes

**Q.13) Solution (a)**

Conducive conditions for biodiversity are high temperature, ample sunlight and moisture. Since all these conditions are present at the equator, it has high biodiversity.

**Q.14) Which of the following endangered animals are correctly matched with the National Parks?**

1. Hangul – Kebul lamjao
2. Tiger – Bandipur
3. Elephant – Periyar
4. Rhinoceros – Kaziranga

Select the code from following:

- a) 1, 2 and 3
- b) 2, 3 and 4
- c) 1, 3 and 4
- d) All of the above

**Q.14) Solution (b)**

Hangul is Kashmir Stag. It is found only in Dachigam National Park.

**Q.15) Consider the below statements with regard to Under2 Coalition and identify the correct statement:**

- a) It is a group of ambitious governments from around the world committed to combating climate change.
- b) It is in relation to limiting the use of plastic which are above 2 microns.
- c) It is in relation to limiting the use of plastic and plan policy on alternatives.
- d) It deals with conservation of Antarctica and Antarctic

**Q.15) Solution (a)**



SECRETARIAT THE °CLIMATE GROUP

Pic link: <http://under2mou.org/wp-content/uploads/2016/08/Under2-Secretariat-Logo.jpg>

The Under2 Coalition is a group of ambitious governments from around the world committed to combating climate change. A total of 205 jurisdictions representing 43 countries and six continents have signed or endorsed the climate agreement, known as the Under2 MOU (Memorandum of Understanding).

The goal of limiting warming to below 2° Celsius, which the Intergovernmental Panel on Climate Change (IPCC) scientists say is needed to avoid dangerous consequences.

The Under2 Coalition's shared goal of limiting greenhouse gas emissions to 2 tons per capita, or 80-95% below 1990 level by 2050.

**Q.16) Which of the following statements regarding Marsupial mammals are correct?**

1. Marsupial females have a pouch to carry and protect their babies.
2. The young ones are born premature and the embryo climbs from the mother's birth canal to the nipple.
3. They have a longer gestation period as compared to placental mammal of the same size.

**Select the code from below:**

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

**Q.16) Solution (a)**

Marsupials are any members of the mammalian infraclass Marsupialia. All extant marsupials are endemic to Australasia and the Americas. A distinctive characteristic common to these species is that most of the young are carried in a pouch. Well-known marsupials include kangaroos, wallabies, koalas, possums, opossums, wombats, and Tasmanian devils. Some lesser known marsupials are the potoroo and the quokka.

Marsupials represent the clad originating from the last common ancestor of extant metatherians. Like other mammals in the Metatheria, they give birth to relatively undeveloped young that often reside with the mother in a pouch, for a certain amount of time. Close to 70% of the 334 extant species occur on the Australian continent (the mainland, Tasmania, New Guinea and nearby islands).

Marsupials give birth at a very early stage of development (about four to five weeks); after birth, newborn marsupials crawl up the bodies of their mothers and attach themselves to a nipple, which is located on the underside of the mother either inside a pouch called the marsupium or open to the environment. To crawl to the nipple and attach to it, the marsupial must have well-developed forelimbs and facial structures. This is accomplished by accelerating forelimb and facial development in marsupials compared to placental mammals, which results in decelerated development of such structures as the hindlimb and brain. There they remain for a number of weeks, attached to the nipple. The offspring are eventually able to leave the marsupium for short periods, returning to it for warmth, protection, and nourishment.

**Q.17) Consider the below statements in regard to SAMPADA scheme and identify the correct statement:**

- a) It is launched by ministry of culture to preserve ancient literary pieces and manuscripts
- b) It is a scheme of Ministry of Drinking Water and Sanitation to improve access to drinking water in drought hit areas
- c) It is a scheme of Ministry of agriculture to boost farm income
- d) It is a scheme of Ministry of Food processing to modernise agriculture, processing and decrease agri-waste

**Q.17) Solution (d)**

The government has given its approval for re-structuring the schemes of the Ministry of Food Processing Industries (MoFPI) under new Central Sector Scheme – SAMPADA (Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters) for the period 2016-20. The objective of SAMPADA is to supplement agriculture, modernize processing and decrease agri-waste.

SAMPADA is an umbrella scheme incorporating ongoing schemes of the Ministry like Mega Food Parks, Integrated Cold Chain and Value Addition Infrastructure, Food Safety and Quality Assurance Infrastructure, etc. It now also includes new schemes of Infrastructure for Agro-processing Clusters, Creation of Backward and Forward Linkages and Creation /

Expansion of Food Processing & Preservation Capacities. The implementation of SAMPADA will result in creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet.

**Q.18) Which of the following statements are correct about endosulfan?**

1. Endosulfan is acutely neurotoxic to both insects and mammals.
2. Endosulfan has high potential to bio-accumulate and bio-magnify.
3. Endosulfan is banned across the world under Stockholm convention.
4. Endosulfan is the cause of death of Indian vultures.

**Select the code from the following:**

- a) 1 and 2
- b) 1, 2 and 3
- c) 2, 3 and 4
- d) 1, 2, 3 and 4

**Q.20) Solution (b)**

The Stockholm Convention banned endosulfan in more than 120 countries in 2011, including India.

The World Health Organization classifies pesticides based on their acute toxicity. Class I pesticides are considered to be the most hazardous. Many class I pesticides such as monocrotophos, triazophos and phosphamidon are still in use in India, even though they are banned by other countries.

In 2011, India's supreme court banned endosulfan after aerial spraying was linked to neurological and congenital disorders in children in southern India. The decision came hot on the heels of the Stockholm Convention meeting in Geneva, where India agreed to join a global phase-out of the pesticide.

Cause of death of Indian vultures is the use of diclofinac, not endosulfan.

**Q.19) Which of the following are classified as 'Lotic Ecosystem'?**

1. Brooks
2. Springs
3. Lakes
4. Rivers

Select the correct code

- a) 1 and 3
- b) 1, 2 and 4
- c) 3 only
- d) 2 and 4

**Q.19) Solution (b)**

**A Lotic Ecosystem has flowing waters.** Examples include: creeks, streams, runs, rivers, springs, brooks and channels.

**A Lentic Ecosystem has still waters.** Examples include: ponds, basin marshes, ditches, reservoirs, seeps, lakes, and vernal / ephemeral pools.

**Q.20) Consider the following statements regarding the 'Black Lung' Disease:**

1. It is an industrial hazard of mercury mining and develops due to inhaling of mercury vapours.
2. It is a form of Pneumoconiosis.

**Which of the above statements are correct?**

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

**Q.20) Solution (b)**

The other name for 'Black Lung Disease' is Coal Workers Pneumoconiosis (CWP) and is caused by long exposure to coal dust. It is similar to silicosis, from inhaling silica dust, and to the long effects of Tobacco smoking.

**Q.21) Choose the Correct Answer**

**Hydroponics is otherwise called**

- a) soil-less agriculture
- b) tank farming

- c) chemical gardening
- d) All of the above

**Q.21) Solution (d)**

Hydroponics: The term hydroponics has been used for growth of plants in water and sand culture. This may also be referred to as soil-less agriculture, test-tube farming, tank farming or chemical gardening.

**Q.22) Consider the following statements about Global Partnership on Forest Landscape Restoration (GPFLR)**

1. It responds directly to the Bonn Challenge to restore 150 million hectares of deforested and degraded land by 2020 and 350 million hectares by 2030.
2. It was initiated by the International Union for Conservation of Nature

**Select the correct statements**

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

**Q.22) Solution (c)****Bonn Challenge**

- It is a global effort to bring 150 million hectares of the world's deforested and degraded land into restoration by 2020, and 350 million hectares by 2030.
- It was launched in 2011 by the Government of Germany and IUCN, and later endorsed and extended by the New York Declaration on Forests at the 2014 UN Climate Summit.
- Underlying the Bonn Challenge is the forest landscape restoration (FLR) approach, which aims to restore ecological integrity at the same time as improving human well-being through multifunctional landscapes.
- The Bonn Challenge is not a new global commitment but rather a practical means of realizing many existing international commitments, including the CBD Aichi Target 15, the UNFCCC REDD+ goal, and the Rio+20 land degradation neutrality goal.



- It is an implementation vehicle for national priorities such as water and food security and rural development while contributing to the achievement of international climate change, biodiversity and land degradation commitments.

**Global Partnership on Forest Landscape Restoration (GPFLR)**

- It was initiated by IUCN to unite governments, organisations, communities and individuals working towards the restoration of degraded and deforested lands.
- Its members are active in every major region of the world, gathering knowledge on restoration, facilitating restoration assessments, and supporting Bonn Challenge commitments.

Read More - <http://www.forestlandscaperestoration.org/about-partnership>

**Q.23) 'Regional Anti-Terrorist Structure (RATS)' is associated with which of the following organisations?**

- a) Shanghai Cooperation Organisation
- b) European Union
- c) North Atlantic Treaty Organization
- d) Islamic Military Counter Terrorism Coalition

**Q.23) Solution (a)**

**Regional Anti-Terrorism Structure (RATS)**

- RATS is headquartered in Tashkent, Uzbekistan
- It is a permanent organ of the Shanghai Cooperation Organisation (SCO)
- It serves to promote cooperation of member states against the three evils of terrorism, separatism and extremism.
- The Head of RATS is elected to a three-year term. Each member state also sends a permanent representative to RATS.

**Q.24) Recently, Bureau of Indian Standards (BIS) granted first license for Liquid Chlorine on All India Basis. 'Liquid Chlorine' is used in which of the following industries/sectors?**

1. Water purification
2. Plastics
3. Agriculture
4. Paper

**Select the correct statements**

- a) 1 and 4 Only
- b) 1, 2 and 4
- c) 1, 3 and 4
- d) All of the above

**Q.24) Solution (d)**

**Industrial applications**

**Agriculture**

- Liquid chlorine is used to manufacture pesticides and insecticides including BHC and DDT.

**Chemical processing**

- Liquid chlorine serves as a reactive intermediate to make inorganic chemicals such as hydrochloric acid, chloro sulphonic acid and metallic chlorides.

**Dyes, pigments and paints**

- Chlorine derivatives of copper phthalocyanines are commercially important.

**Pharmaceuticals**

- 98 per cent of pharmaceuticals drugs are manufactured using liquid chlorine.

**Plastics**

- Chlorination of ethylene produces PVC. Liquid chlorine is also used in the production of methylene diphenyl diisocyanate (MDI) and toluene diisocyanate (TDI) which are used to make polyurethanes.

**Pulp and paper**

- As a bleaching agent, liquid chlorine helps in pulp whitening.

**Textile**

- Liquid chlorine is used to bleach cotton yarn and cloth in the textile industry.

**Water purification**

- When added to raw water, liquid chlorine helps prevent biological growth. Liquid chlorine added to the rapid mix before sedimentation is often used for disinfection, oxidation of iron and manganese, taste and odour, as well as control and oxidation of hydrogen sulphide.

**Q.25) Consider the following statements about Armed Forces (Special Powers) Act**

1. According to AFSPA, an area can be disturbed due to differences or disputes between members of different religious, racial, language or regional groups or castes or communities.
2. The Central Government or the Governor of the State or administrator of the Union Territory can declare the whole or part of the State or Union Territory as a disturbed area.
3. Armed Forces personnel are immune from prosecution under AFSPA

**Select the correct statements**

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

**Q.25) Solution (a)**

**Armed Forces (Special Powers) Act (AFSPA)**

- AFSPA gives armed forces the power to maintain public order in “disturbed areas”.
- They have the authority to prohibit a gathering of five or more persons in an area, can use force or even open fire after giving due warning if they feel a person is in contravention of the law.
- If reasonable suspicion exists, the army can also arrest a person without a warrant; enter or search a premises without a warrant; and ban the possession of firearms.
- Any person arrested or taken into custody may be handed over to the officer in charge of the nearest police station along with a report detailing the circumstances that led to the arrest.
- It is effective in the whole of Nagaland, Assam, Manipur (excluding seven assembly constituencies of Imphal) and parts of Arunachal Pradesh. The Centre revoked it in Meghalaya on April 1, 2018. Tripura withdrew the AFSPA in 2015. Jammu and Kashmir too has a similar Act.

**Origin**

- The Act came into force in the context of increasing violence in the North-eastern States decades ago, which the State governments found difficult to control.
- The Armed Forces (Special Powers) Bill was passed by both the Houses of Parliament and it was approved by the President on September 11, 1958. It became known as the Armed Forces Special Powers Act, 1958.

**Disturbed Area**

- A disturbed area is one which is declared by notification under Section 3 of the AFSPA.
- An area can be disturbed due to differences or disputes between members of different religious, racial, language or regional groups or castes or communities.
- The Central Government, or the Governor of the State or administrator of the Union Territory can declare the whole or part of the State or Union Territory as a disturbed area.
- As per Section 3, it can be invoked in places where “the use of armed forces in aid of the civil power is necessary”.
- The Ministry of Home Affairs would usually enforce this Act where necessary, but there have been exceptions where the Centre decided to forego its power and leave the decision to the State governments.

**On July 8, 2016, in a landmark ruling, The Supreme Court of India ended the immunity of the armed forces from prosecution under AFSPA.**

**Q.26) Which of the following have Constitutional Status?**

1. National Commission for Minorities (NCM)
2. National Commission for Scheduled Castes (NCSC)
3. National Commission for Scheduled Tribes (NCST)

**Select the correct code:**

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

**Q.26) Solution (b)**

Only the National Commission for Scheduled Castes and the National Commission for Scheduled Tribes have Constitutional status till now, which gives them powers to act against officials.

**National Commission for Minorities (NCM)**

- It was under the National Commission for Minorities Act, 1992.
- Five religious communities, viz; Muslims, Christians, Sikhs, Buddhists and Zoroastrians (Parsis) have been notified as minority communities by the Union Government.
- Further vide notification dated 27th Jan 2014; Jains have also been notified as minority community.
- Some of the states have also set up State Minorities Commissions in their respective States.
- Aggrieved persons belonging to the minority communities may approach the concerned State Minorities Commissions for redressal of their grievances. They may also send their representations, to the National Commission for Minorities, after exhausting all remedies available to them.
- NCM has powers to summon officials, including chief secretaries and director generals of police, but has to rely on departments concerned for action against officials.

