



## ALL INDIA MOCK TEST - 2017

### GENERAL STUDIES - PAPER - I (EXPLANATIONS)

1. Ans: (D)

**Explanation:**

- An Astronomical Unit (AU) is the average distance between Earth and the Sun, which is about 93 million miles or 150 million kilometres.
- Astronomical units are usually used to measure distances within our Solar System
- Summer and winter on earth can mainly be attributed to the inclination of earth's rotational axis. The side inclined towards the sun receives maximum exposure and summer season sets in that region of earth (Northern or Southern Hemisphere)
- Any change in earth's distance from the sun during its revolution around the sun has no bearing on the seasons on earth

2. Ans: (D)

**Explanation:**

- In 1938 (Haripura) and 1939 (Tripuri), Subhas Chandra Bose was the president of INC
- Subhas Chandra Bose resigned from INC during the Tripuri session in 1939 and not during the Haripura session in which took place in 1938
- Bose organised the All India Forward Bloc, a faction within the Indian National Congress in 1939 **after his ouster from INC**
- It was aimed at consolidating the political left

3. Ans: (A)

**Explanation:**

Self-Explanatory

4. Ans: (D)

**Explanation:**

#### **Committee on Empowerment of Women**

This Committee came into being on 29th April, 1997, as a consequence of identical Resolutions adopted by both the Houses of Parliament on the occasion of International Womens' Day on 8th March, 1996. The Committee consists of 30 members, 20 nominated by the Speaker from amongst the members of Lok Sabha and 10 nominated by the Chairman, Rajya Sabha from amongst the members of the Rajya Sabha. The term of the Committee is of one year. The Committee have been primarily mandated with the task of reviewing and monitoring the measures taken by the Union Government in the direction of securing for women equality, status and dignity in all matters.

#### **Committee on the Welfare of Scheduled Castes and Scheduled Tribes**

The Committee on the Welfare of Scheduled Castes and Scheduled Tribes consists of 20 members elected by the Lok Sabha and 10 members of Rajya Sabha are associated with it. The term of the Committee is one year. A Minister is not eligible for election to this Committee.



### **Committee on Private Members' Bills and Resolutions (Lok Sabha)**

This Committee consists of 15 members and the Deputy Speaker is its Chairman when nominated as a member of the Committee. The Committee is nominated by the Speaker. The functions of the Committee are to allot time to Private Members' Bills and Resolutions, to examine Private Members' Bills seeking to amend the Constitution before their introduction in Lok Sabha, to examine all Private Members' Bills after they are introduced and before they are taken up for consideration in the House and to classify them according to their nature, urgency and importance into two categories namely, category A and category B and also to examine such Private Members' Bills where the legislative competence of the House is challenged. The Committee, thus, performs the same function in relation to Private Members' Bills and Resolutions as the Business Advisory Committee does in regard to Government Business. The Committee holds office for a term not exceeding one year.

### **Rules Committee (Lok Sabha)**

The Rules Committee consists of 15 members including the Speaker who is the ex-officio Chairman of the Committee. The members are nominated by the Speaker. The Committee considers matters of procedure and conduct of business in the House and recommends any amendments or additions to the Rules of Procedure and Conduct of Business in Lok Sabha that are considered necessary.

5. **Ans: (D)**

**Explanation:**

A marine protected area (MPA) is essentially a space in the ocean where human activities are more strictly regulated than the surrounding waters - similar to parks we have on land. These places are given special protections for natural or historic marine resources by local, state, territorial, native, regional, or national authorities. Authorities differ substantially from nation to nation.

It may be confusing marine reserves, where extraction of any resources is prohibited (no-take), as the only type of MPA. MPAs may include marine reserves, as well as other zones in which partial protection is afforded (seasonal closures, catch limits, etc.). Many MPAs are multiple-use areas, where a variety of uses are allowed.

6. **Ans: (C)**

**Explanation:**

- WHO has recently recommended a tax on sugary drinks to increase the retail price by 20 per cent or more. A tax on sugary beverages raising their price would result in a proportionate reduction in their consumption that would advance the fight against obesity, which has more than doubled since 1980.
- About half a billion adults were obese in 2014, roughly 11 percent of men and 15 percent of women. Excess calories contribute to overweight and obesity as they can be readily converted to body fat and stored within various tissues.

7. **Ans: (C)**

**Explanation:**

UNDP in October 2012 launched the Biodiversity Finance Initiative – BIOFIN, as a new global partnership seeking to address the biodiversity finance challenge in a comprehensive manner – building a sound business case for increased investment in the management of ecosystems and biodiversity.



BIOFIN is managed by the UNDP Ecosystems and Biodiversity Programme, in partnership with the European Union and the Governments of Germany and Switzerland, who support the initiative with a total of USD 15 million. The Global Environment Facility is a further partner financing parallel in-country projects in support of the revision of National Biodiversity Strategies and Action Plans (NBSAPs).

BIOFIN aims to develop a methodology for quantifying the biodiversity finance gap at national level, for improving cost-effectiveness through mainstreaming of biodiversity into national development and sectoral planning, and for developing comprehensive national resource mobilising strategies. BIOFIN will thus provide a framework for undertaking 'bottom-up' analyses of the biodiversity finance gap and resource mobilization strategies, through a transformative process led by national stakeholder.

8. **Ans: (A)**

**Explanation:**

- Appalachian and Ural Mountains belong to Hercynian period.

**Time Periods:**

**Pre-Cambrian:** 600-3500 million years. Laurentian Mountains (North America),

- Algoman Mountains,
- Kilarnean Mountains,
- Mountains of Feno-Scandia,
- North-West highlands
- Anglesey (Europe)

**Caledonian:** 320 million years ago- raised mountains of Scandinavia and Scotland and is represented in North America.

**Hercynian:** 240 million years ago

- Ural Mountains,
- the Pennines and Welsh highlands in Britain,
- Harz mountains (Germany)
- The Appalachians (America)
- High plateau of Siberia and china.

**Alpine:** 30 million years ago

- The Alps,
- Himalayas,
- Andes,
- Rockies

9. **Ans: (C)**

**Explanation:**

- **Mahakasyapa** was one of the principal disciples of Gautama Buddha and convened and directed the first Buddhist council in 483 BC at Rajgir with the patronage of King Ajatashatru
- **Moggaliputta-Tissa** was the spiritual teacher of Emperor Ashoka, and his son Mahinda. He also presided over the third Buddhist Council in 250 BC at Pataliputra
- **Vasumitra** led the fourth Buddhist Council in Kashmir around the 2nd century AD
- **Upali** was one of the ten chief disciples of the Buddha



10. Ans: (A)

**Explanation:**

Bond Holders are the creditors who lend money buy holding the bond. During inflation creditors will suffer, hence bond holders will also suffer.

11. Ans: (B)

**Explanation:**

- Yamanaka genes are the four essential genes that can reprogramme the cells in our body and can be used to regenerate old cells or grow new organs. Collectively known as OSKM (for the initials of the genes, Oct4, Sox2, Klf4 and Myc), these Yamanaka genes are named after Japanese scientist Shinya Yamanaka.
- Recently, scientists have found a 'stress factor', a pro-inflammatory molecule called interleukin-6 (IL6) that may be responsible for reducing the efficiency of the Yamanaka genes. With this finding the Yamanaka genes may finally result in practical therapy

12. Ans: (B)

**Explanation**

	Phase 1	Phase 2
<b>Cause for the rise of revolutionary terrorism</b>	Frustration of the youth with the constitutional methods of the moderates	Sudden withdrawal of Non-Cooperation Movement
<b>Places of operations</b>	Operated in Maharashtra, Bengal and also abroad	Operated in Punjab-UP-Bihar and Bengal areas
<b>Prominent Incidents</b>	Founding of Ramosi Pesant Force, Mitra Mela	Kakori robbery Saunders' murder, Bomb in the central legislative assembly, Chittagong Armoury Raid
<b>Prominent Names</b>	Jnanendranath Basu, Promotha Mitter, Jatindranath Banerjee, Vasudev Balwant Phadke, Madam Bhikaji Cama,	Bhagat Singh, Azad, Rajguru, Batukeshwar Dutt, Gopinath Saha, Surya Sen, Kalpana Dutt, Pritilata Waddedar

13. Ans: (A)

**Explanation:**

The Karachi Session of the Indian National Congress held in March, 1931 adopted the famous Resolution moved by Mahatma Gandhi which contained our charter on Fundamental Rights. It is against this historical backdrop of a long and arduous struggle and the crystallization of our vision of a sovereign, democratic nation that the first session of the Constituent Assembly was held in 1946.



14. Ans: (A)

**Explanation:**

- While Mt Cotopaxi and Mt Aconcagua are located in the Andes Mountain Range along the Pacific Ring of Fire (or) Circum Pacific Belt
- However Mt Vesuvius is situated on the Gulf of Naples in Italy

15. Ans: (C)

**Explanation:**

**K. Kelappan**

- He is also known as Kerala Gandhi
- Fought relentlessly against untouchability and caste-based discrimination

**Khan Abdul Ghaffar Khan**

- Known for his nonviolent opposition, and a lifelong pacifist and devout Muslim
- Nicknamed the "Frontier Gandhi"
- Founded the Khudai Khidmatgar ("Servants of God") movement in 1929
- Opposed the demand for the partition of India

**Usha Mehta**

- She is remembered for organizing the Congress Radio, also called the Secret Congress Radio
- It is an underground radio station, which functioned for few months during the Quit India Movement in 1942 and not the Civil Disobedience Movement which took place in 1930

16. Ans: (D)

**Explanation:**

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was adopted on 22 March 1989 by the Conference of Plenipotentiaries in Basel, Switzerland, in response to a public outcry following the discovery, in the 1980s, in Africa and other parts of the developing world of deposits of toxic wastes imported from abroad.. Under the Basel Convention, elemental mercury and mercury containing or contaminated wastes are categorized as hazardous wastes. Improper handling, collection, transportation or disposal of mercury wastes as well as some disposal technologies, can lead to emissions or releases of mercury.

The Conference of Parties to the Stockholm Convention in 2011 approved the recommendation for elimination of production and use of endosulfan and its isomers worldwide, subject to certain exemptions. This would require 173 countries, which are parties to the Convention, to take steps for a ban on production and use of endosulfan. However, exemptions will be available for five years, extendable for another five years. The listing takes one year to be effective. Exemptions will be available for application of endosulfan against 44 pests in 22 crops — cotton, jute, coffee, tea, tobacco, cowpeas, beans, tomato, okra, eggplant, onion, potato, chillies, apple, mango, gram, arhar, maize, paddy/rice, wheat, groundnuts and mustard. The pests include aphids in most of the exempted crops, bollworms, jassids, whiteflies, thrips and leafroller in cotton, Bihar hairy caterpillar and yellow mites in jute and berry borer and stem borer in coffee.

The Rotterdam Convention is a multilateral treaty to promote shared responsibilities in relation to importation of hazardous chemicals. The convention promotes open exchange of information and calls on exporters of hazardous chemicals to use proper labeling, include directions on safe handling, and inform purchasers of any known restrictions or bans.

In the 28th meeting of the Parties to the Montreal Protocol, negotiators from 197 nations have signed a historic agreement to amend the Montreal Protocol in Kigali, a capital city of a tiny African



country, Rwanda on 15th October 2016. As per the agreement, these countries are expected to reduce the manufacture and use of Hydrofluorocarbons (HFCs) by roughly 80-85% from their respective baselines, till 2045. This phase down is expected to arrest the global average temperature rise up to 0.5° C by 2100. Kigali agreement is an amendment to Montreal Protocol.

17. Ans: (B)

**Explanation:**

Producer price index measures the price changes from the perspective of the producer while the Consumer price index measures it from the consumer perspective.

A Producer Price Index (PPI) is a price index that measures the average changes in prices received by domestic producers for their output.

18. Ans: (A)

**Explanation:**

- **Varuna** is a celestial deity in the early vedic period
- Varuna, apart from being the god of the sky, is also the god of law of nature Rta. Varuna is also lord of the Patal Loka (nether world).
- He is one of the most prominent gods in the Rig-Veda, and lord of the heavens and the earth.
- **Indra** is described as Rowdy and amoral. Indra is depicted as fond of feasting and drinking Soma in the rig veda. The largest number of hymns in the Rig Veda is addressed to Indra

19. Ans: (B)

**Explanation:**

- As one moves from west to east across the GMT, time gets added to the clock.
- While doing that, the shift from AM to PM may not necessarily happen

20. Ans: (D)

**Explanation:**

**Interest Coverage Ratio**

The interest coverage ratio is used to determine how easily a company can pay interest expenses on outstanding debt. The ratio is calculated by dividing a company's earnings before interest and taxes (EBIT) by the company's interest expenses for the same period.

21. Ans: (A)

**Explanation:**

The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972, commonly called the "London Convention" or "LC '72" and also abbreviated as Marine Dumping, is an agreement to control pollution of the sea by dumping and to encourage regional agreements supplementary to the Convention. It covers the deliberate disposal at sea of wastes or other matter from vessels, aircraft, and platforms.

It does not cover discharges from land-based sources such as pipes and outfalls, wastes generated incidental to normal operation of vessels, or placement of materials for purposes other than mere disposal, providing such disposal is not contrary to aims of the Convention. It entered into force in 1975. As of September 2016, there were 89 Parties to the Convention.



22. Ans: (A)

**Explanation:**

**RIN revolt**

- A total strike and subsequent revolt by Indian sailors of the Royal Indian Navy
- Date: 18<sup>th</sup> – 23<sup>rd</sup> February, 1946
- The mutiny was repressed with force by British troops and Royal Navy warships
- It was supported by the communist party and not by INC or Muslim League

**3<sup>rd</sup> June plan**

- Also known as Mountbatten Plan
- Indian Independence Act 1947 was designed based on the 3<sup>rd</sup> June plan which was an agreement between: INC, Muslim League and the Sikh community with Lord Mountbatten

**Shimla Offer**

- Period: 1945
- Convened to agree on and approve the Wavell Plan for Indian self-government
- It reached a potential agreement for the self-rule of India that provided separate representation for Muslims and reduced majority powers for both communities in their majority regions

**INA trials**

- Also known as the Red Fort trials
  - The first trial was held in Red Fort in Delhi
- Happened between November 1945 and May 1946

23. Ans: (C)

**Explanation:**

The atmosphere in an MA package consists of Nitrogen, Oxygen and Carbon dioxide. It is the altered ration of these gases that prolongs the shelf life. By reducing the oxygen level and increasing the carbon dioxide level ripening of the fruits and vegetables can be delayed, respiration and ethylene production rates can be retarded and various compositional changes associated with ripening can be slowed down.

24. Ans: (A)

**Explanation:**

Article 3 of Indian Constitution addresses the topic of 'Formation of new States and alteration of areas, boundaries or names of existing States'.

Provided that no Bill for the purpose shall be introduced in either House of Parliament except on the recommendation of the President and unless, where the proposal contained in the Bill affects the area, boundaries or name of any of the States, the Bill has been referred by the President to the Legislature of that State for expressing its views thereon within such period as may be specified in the reference or within such further period as the President may allow and the period so specified or allowed has expired. Constitution puts complete responsibility of creating new states ONLY with the Parliament. Indian Constitution envisioned a situation where a state may refuse to



provide its view or provide negative views about a formation of a new state, and therefore gave full powers to Indian Parliament to go ahead with its decisions irrespective of opposition from the State Assembly.

A bill on a new state has to be recommended by the President. In India it is usually the Cabinet which requests the President to do that. Article 3 makes it clear that the Parliament is the sole authority on making a decision on a new state. President refers the bill to the State Assembly for its views giving it a certain period of time. Parliament is not obligated to follow on the views of State Assembly. If the State Assembly does not express its opinion within the specified period of time, the bill could be introduced in the Parliament after the expiry of the specified period.

**25. Ans: (B)**

**Explanation:**

The concept of virtual, or embedded, water was first developed as a way of understanding how water scarce countries could provide food, clothing and other water intensive goods to their inhabitants. The global trade in goods has allowed countries with limited water resources to rely on the water resources in other countries to meet the needs of their inhabitants. As food and other products are traded internationally, their water footprint follows them in the form of virtual water. This allows us to link the water footprint of production to the water footprint of consumption, wherever they occur.

**26. Ans: (A)**

**Explanation:**

Kigali amendment(2016) will allow the use of ozone-saving Montreal Protocol to phase-out HFCs, a set of 19 gases in the hydrofluorocarbon family that are used extensively in the air-conditioning and refrigeration industry. In all, 197 countries, including India, China and the United States, agreed on Saturday to a timeline to reduce the use of HFCs by roughly 85 per cent of their baselines by 2045. The agreement is significant in that it amends the 1987 Montreal Protocol, initially conceived only to plug gases that were destroying the ozone layer, to now include gases responsible for global warming.

The Kyoto Protocol(1997) is an international treaty which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits State Parties to reduce greenhouse gas emissions

The Cartagena Protocol on Biosafety to the Convention on Biological Diversity is an international agreement on biosafety as a supplement to the Convention on Biological Diversity effective since 2003. The Biosafety Protocol seeks to protect biological diversity from the potential risks posed by genetically modified organisms resulting from modern biotechnology

The Nagoya Protocol(2010) on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the Convention on Biological Diversity is a supplementary agreement to the Convention on Biological Diversity.

27. Ans: (D)

**Explanation:**

- Excess of total government spending above the national income is known as inflationary gap.
- Shortfall in total spending of the government over the national income creates deflationary gap.

28. Ans: (B)

**Explanation:**

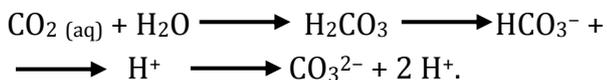
- Hinduism and Jainism believe in the existence of soul while Buddhism does not
- Jains regard soul as one of the six fundamental and eternal substances (dravyas) which forms the universe
- In Buddhism, the term anattā or anātman refers to the doctrine of "non-self", that there is no unchanging, permanent self, soul or essence in living beings.
- It is one of the seven beneficial perceptions in Buddhism and one of three Right Understandings about the three marks of existence
- The Buddhist concept of Anattā or Anātman is one of the fundamental differences between Buddhism and Hinduism

29. Ans: (B)

**Explanation:**

Ocean acidification refers to a reduction in the pH of the ocean over an extended period of time, caused primarily by uptake of carbon dioxide (CO<sub>2</sub>) from the atmosphere.

Dissolving CO<sub>2</sub> in seawater increases the hydrogen ion (H<sup>+</sup>) concentration in the ocean, and thus decreases ocean pH, as follows:



The oceans currently absorb about a third of human-created CO<sub>2</sub> emissions, roughly 22 million tons a day. Projections based on these numbers show that by the end of this century, continued emissions could reduce ocean pH by another 0.5 units. Shell-forming animals including corals, oysters, shrimp, lobster, many planktonic organisms, and even some fish species could be gravely affected.

30. Ans: (D)

**Explanation:**

- Equator has weak Coriolis force. Presence of high Coriolis force is favourable for tropical cyclone formation.

The conditions favourable for the formation and intensification of tropical storms are:

- (i) Large sea surface with temperature higher than 27° C
- (ii) Presence of the Coriolis force
- (iii) Small variations in the vertical wind speed
- (iv) A pre-existing weak low-pressure area or low-level-cyclonic circulation
- (v) Upper divergence above the sea level system.



31. Ans: (C)

**Explanation:**

- During Inflation, the prices of the commodities will be high. Since most of the indirect taxes are advalorem taxes, government will get more indirect tax revenue.
- According to the Philips curve employment increases with inflation.
- According to stagflation employment falls as inflation increases.

32. Ans: (B)

**Explanation:**

Jaldapara National Park is situated at the foothills of the Eastern Himalayas in northern West Bengal and on the banks of the Torsa River. Jaldapara is situated at an altitude of 61 m mainly of vast grassland with patches of riverine forests. The forest is mainly savannah covered with tall elephant grasses.

It was declared a sanctuary in 1941 for protection of its great variety flora and fauna. Today, it has the largest population of the Indian one horned rhinoceros in the state, an animal threatened with extinction. The nearby Chilapata Forests is an elephant corridor between Jaldapara and the Buxa Tiger Reserve. Near by is the Gorumara National Park, known for its population of Indian rhinoceros.

33. Ans: (A)

**Explanation:**

Article 15 (5) says Nothing in this article or in sub-clause (g) of clause (1) of article 19 shall prevent the State from making any special provision, by law, for the advancement of any socially and backward classes of citizens or for the Scheduled Castes or the Scheduled Tribes in so far as such special provisions relate to their admission to educational institutions including private educational institutions, whether aided or unaided by the State, other than the minority educational institutions referred to in clause (1) of article 30.

34. Ans: (A)

**Explanation:**

Self Explanatory

35. Ans: (B)

**Explanation:**

- Crop intensity = (Gross cropped area/Net cultivated area) X 100
- Crop intensity depends on the geo-climatic, pedological, socio-cultural and infrastructural factors
- Thus it is high in the well irrigated region and low in the less rainfall regions
- Highest agricultural density is in Punjab (165%)
- Crop diversity is the variance in genetic and phenotypic characteristics of plants used in agriculture
- Crop diversity loss threatens global food security
- Irrigation potential is thus tangential and does not necessarily imply an effect in the crop diversity of a region.



36. Ans: (D)

**Explanation:**

Desertification occurs when:

- the tree and plant cover that binds the soil is removed. It occurs when trees and bushes are stripped away for fuelwood and timber, or to clear land for cultivation.
- animals eat away grasses and erode topsoil with their hooves.
- intensive farming depletes the nutrients in the soil.

Wind and water erosion aggravate the damage, carrying away topsoil and leaving behind a highly infertile mix of dust and sand. It is the combination of these factors that transforms degraded land into desert.

United Nations Convention to Combat Desertification was established in 1994 and is the sole legally binding international agreement linking environment and development to sustainable land management. The Convention addresses specifically the arid, semi-arid and dry sub-humid areas, known as the drylands, where some of the most vulnerable ecosystems

India became a signatory to UNCCD on 14th October 1994 and ratified it on 17th December 1996. The Ministry of Environment, Forest and Climate Change is the nodal Ministry in the Government of India for the UNCCD, and Desertification Cell is the nodal point within the Ministry to co-ordinate all issues pertaining to the Convention.

As a party to the Convention, the Country Parties are obligated to submit National reports to UNCCD periodically. Till date, India has submitted 6 National Reports. India's Seventh National Report will be due for submission in 2016.

After ratification in 1996, India prepared its National Action Programme (NAP) to Combat Desertification and sent it to the UNCCD Secretariat in 2001. NAP 2001 provides an overview of the status of natural resources in the country, the status and impacts of desertification, measures under implementation, and in particular, the initiatives taken for combating desertification. India is also preparing its New national Action Programme to Combat Desertification (NNAP-CD) keeping in view (a) The 10 year (2008-2018) Strategy of UNCCD (Decision 3/COP 8), (b) the fact that India has already undertaken a number of schemes and programs in the recent past to address the issue of DLDD and (c) the aspirational goal of achieving Land Degradation Neutrality.

37. Ans: (A)

**Explanation:**

- **Ashoka** was the last great emperor of the Maurya dynasty.
- 'Devanampriya' means 'the beloved of the Gods'
- 'Piyadassi' means one who regards everyone amiably.
- **Kanishka** was the greatest ruler of the Kushan Empire with his capital at Purushapur, modern day Peshawar. Buddhist philosopher Ashvagoshya greatly influenced Kanishka.
- **Samudra Gupta** was the son of King Chandra Gupta I and the Licchavi princess Kumaradevi
- Allahabad inscription of Ashoka talks about Samudragupta
- He revived the ancient Vedic horse sacrifice or Ashwamedha
- **Harshavardhana** ruled North India from 606 to 647 CE. He belonged to Pushyabhuti dynasty
- Harsha studied in the University of Nalanda. The Chinese traveller Xuanzang visited the court of Harsha



- His biography Harshacharita written by Banabhatta
- His is referred as the 'Lord of Northern India' or 'Sakalottarpatha natha'

38. Ans: (B)

**Explanation:**

Policy Rates	Liquidity
Repo Rates Increases	Decreases
Reverse Repo Increases	Decreases
Repo Decreases	Increases
Reverse Repo Decreases	Increases

39. Ans: (B)

**Explanation:**

A biotope is an area of uniform environmental conditions providing a living place for a specific assemblage of plants and animals. Biotope is almost synonymous with the term habitat. However, these two terms can also be distinguished: the subject of a habitat is a population, the subject of a biotope is a biocoenosis or biological community.

40. Ans: (B)

**Explanation:**

Kappatagudda forest is located in Karnataka. Spread over Mundargi, Shirhatti and Gadag taluks, the forest area is home to a variety of medicinal plants, aromatic herbs, other flora and fauna. In December 2015 the Karnataka State Board of Wildlife had cleared the proposal for 17,872 hectares of the reserve forest to be declared as a conservation reserve under Section 36A of Wildlife Protection Act, 1972. However, in November the status was withdrawn. The State Board of Wildlife (SBW) has empowered the Chief Minister to take the final call on declaring the Kappatagudda as a conservation reserve. As of March 2017, the matter is under consideration by the Karnataka Government.

41. Ans: (C)

**Explanation:**

Article 19. (6) states that State can make any law relating to the carrying on by the State, or by a corporation owned or controlled by the State, of any trade, business, industry or service, whether to the exclusion, complete or partial, of citizens or otherwise

Article 19. (1) (c) says All citizens shall have the right to form associations or unions or co-operative societies

Article 25. (1) says Subject to public order, morality and health and to the other provisions of this Part, all persons are equally entitled to freedom of conscience and the right freely to profess, practise and propagate religion.

Article 28 (2) says Religious instruction can be provided in an educational institution which is administered by the State but has been established under Any endowment or trust which requires that religious instruction shall be imparted in such institution.



42. Ans: (C)

**Explanation:**

**Ocean current**

- An ocean current is a continuous, directed movement of seawater
- They are primarily horizontal water movements
- They create the global conveyor belt which plays a dominant role in determining the climate of many of the Earth's regions.
- Deep ocean currents are driven by density and temperature gradients
- The heat exchange happens between Ocean currents and wind driven surface currents
- Thermohaline circulation is also known as the ocean's conveyor belt

**Boundary current**

- Boundary currents are ocean currents with dynamics determined by the presence of a coastline, and fall into two distinct categories: western boundary currents and eastern boundary currents.

**Eastern boundary currents**

- They are found on the eastern side of oceanic basins (adjacent to the **western coasts of continents**).
- They flow equator-ward, transporting cold water from higher latitudes to lower latitudes
- Examples: Benguela Current, the Canary Current, the Humboldt Current, and the California Current.

**Western boundary currents**

- They are warm, deep, narrow, and fast flowing currents that form on the west side of ocean basins
- They carry warm water from the tropics pole-ward
- Examples: Gulf Stream, the Agulhas Current, and the Kuroshio.

43. Ans: (B)

**Explanation:**

The most widely used detergent phosphate is sodium tripolyphosphate, , but various phosphates of sodium, potassium and other minerals are also used for specific applications..

One important function of phosphates in detergents is to enable the cleaning components of the detergent to act, by preventing interference by the "hardness" of water (mineral ions). Even in soft water, this is necessary because of calcium and magnesium ions in soils and dirt. This function is termed "builder".

Phosphates also maintain the correct pH for cleaning components to act, in particular the high pH necessary to ensure sanitisation (killing of bacteria) in dishwashers.

44. Ans: (A)

**Explanation:**

Wetlands:

- Wetlands are areas where water controls or regulates the environment, and any animal or plant life.



- They occur where the water table is at or near the surface of the land, or where land is covered by water.
- Wetlands are cradles of biological diversity and are among the world's most productive environments.
- They provide water upon which countless species of plants and animals depend for survival. Wetlands support high concentrations of birds, mammals, reptiles, amphibian, fish and invertebrate species.
- They are also important storehouses of plant genetic material. Rice, for example, which is a common wetland plant, is the staple diet for more than half of humanity.

There are six kinds of wetlands:

- 1) Marine or coastal wetlands which include coastal lagoons, rocky shores, and coral reefs
- 2) Estuarine wetlands including deltas, tidal marshes and mangrove swamps
- 3) Lacustrine wetlands associated with lakes
- 4) Riverine wetlands along rivers and streams
- 5) Palustrine wetlands, essentially marshes, swamps and bogs
- 6) Man-made wetlands like fish, shrimp and farm ponds, irrigated agricultural land, salt pans, reservoirs, gravel pits and canals.

45. Ans: (A)

**Explanation:**

**Anti- Dumping Duty:**

A penalty imposed on suspiciously low-priced imports, to increase their price in the importing country and so protect local industry from unfair competition.

Anti-Dumping duty measures are allowed under the multi-lateral WTO regime.

Anti-dumping steps are taken to ensure fair trade and provide a level-playing field to the domestic industry. They are not a measure to restrict import or cause an unjustified increase in cost of products.

46. Ans: (C)

**Explanation:**

- Cheras, Cholas and Pandyas formed the three most powerful warring kingdoms of the Iron Age in South India
- Foreign travellers like Megasthenes and Pliny have mentioned **Chera** kingdom in their accounts
- Hathigumpha inscription of Karavela mentions **Chola** kingdom
- Their early capitals were Urayur and Kaveripattinam
- The capital of the Early **Pandyan** kingdom was initially Korkai and in later times moved to Madurai
- Nedunjeliam II is referred to as the most popular warrior among the Early Pandyas
- Greek authors Ptolemy, Strabo and Pliny has written about the Pandya Kingdom
- **Pallavas** held the Telugu and northern Tamil land
- They were in constant conflict with both Chalukyas of Badami in the north and the Tamil kingdoms of Chola and Pandyas in the south
- Pallavas are most noted for their patronage of architecture
- Chinese traveller Hiuen Tsang visited Kanchipuram during Pallava rule



47. Ans: (A)

**Explanation:**

Dr. G.V.K. Rao committee (1985) emphasized the need for regular elections to the Panchayati Raj Institutions.

The utmost recommendation of the Singhvi Committee(1986 ) was that local government should be constitutionally recognized, protected and preserved by the inclusion of a new chapter in the Indian Constitution Department of planning should be democratic for enlisting the participation of the people in local self governments.

recommended the constitutionalisation of the Panchayaties, a two-tier system of Panchayaties at District and Mandal level representation of

Dr. P.K Thungon committee (1988) viewed that the Panchayati Raj Institution should be constitutionally identified and recommended that a constitutional provision should be made to ensure timely and regular elections to these bodies with the term lasting for five years.

Ashok Mehta Committee (1977) recommended the constitutionalisation of the Panchayaties, a two-tier system of Panchayaties at District and Mandal level representation at District and Mandal level representation of scheduled Castes and Scheduled Tribes in the election of Panchayati Raj Institution. The committee had also suggested a draft constitutional amendment bill for awarding constitutional status to the Panchayaties.

48. Ans: (D)

**Explanation:**

- There is lesser evaporation in the saline water as compared to the fresh water
- Increasing salinity means more number of salt molecules per unit volume of solution.
- Hence more salt molecules occupy the place where the solution and air meet, also called inter-phase
- This ultimately presents reduced exposure of water available for evaporation
- The temperature of the ocean decreases as we go deeper due to the lack of thermal radiation from the sun
- Also warm water flows to the top and cold water flows to the bottom which makes water in the depths colder than the layers above

49. Ans: (C)

**Explanation:**

The Genuine Progress Indicator (GPI) is an attempt to measure the real increase in economic welfare. The GPI measures the improvement in economic welfare – costs associated with growth. The GPI takes a wider measure of economic indicators into consideration. For example, GPI includes

- value of voluntary work and unpaid work.
- value of leisure time
- Distribution of income
- Impact on environment
- Environmental standards
- Cost of crime

Advantages of Using GPI



- 1) GDP doesn't take into account negative externalities of growth. Higher GDP may lead to a large rise in pollution, crime and congestion leaving people with lower economic welfare and lower levels of happiness. Therefore, GDP can be misleading as an account of economic welfare.
- 2) By focusing on a wider measure of economic indicators, it encourages policy makers to think in broader terms of economic welfare and not just crude GDP statistics.
- 3) GDP only measures output – not how it actually effects people's living standards and how it is used in society.
- 4) Encourages long term planning. i.e. sustainable growth rather than short term measures which increase GDP at expense of damaging environment.

#### Disadvantages of Using GPI

- 1) Many non-economic variables such as value of leisure time / environment are very subjective and it can be difficult to assign an economic value. GDP is simpler and gives less normative results.
- 2) Not useful for judging state of business cycle.

#### 50. Ans: (B)

##### **Explanation:**

The Committee constituted under the Chairmanship of Shri Madhukar Gupta, has submitted its report to the Government to strengthen border protection and address vulnerabilities in fencing along the Indo- Pakistan border. The Committee has given its recommendations broadly on the issues of Threats and Border Protection, assessment of force level, deployment on the border, infrastructure and technology issues for protection of border and administrative issues.

#### 51. Ans: (A)

##### **Explanation:**

##### **On Tap Licensing**

- Under this method, the licensing window will be open on-tap, and the applications to start a universal bank could be submitted to the RBI at any point of time.

##### **Important Aspects of the New Guidelines:**

- Minimum Capital of Rs.500 crores is needed to apply for license.
- **Ring fencing** the banking system from large industrial houses, though they can take **10% stake** in a bank.
- Resident individual with 10 years' experience in banking and finance can promote universal banks.
- NBFC controlled by residents with a successful track record of 10 years are eligible.
- Should list in stock exchanges within 6 years.
- **Capital Adequacy Ratio of 13% during first 3 years** is a necessary condition to be maintained.

The applicant would have to pass **the 'Fit and Proper' criteria**, according to which, promoter/promoting entity/promoter group should have a past record of sound financials, credentials, integrity and have a minimum 10 years of successful track record.



52. Ans: (C)

**Explanation:**

The passage of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006 (hereafter called Forest Rights Act or FRA) is a watershed event in the prolonged struggle of adivasis and other forest dwellers of the country. For the first time in the history of Indian forests the state formally admits that rights have been denied to forest dwelling people for long, and the new forest law attempts not only to right that 'historic injustice' but also give forest communities a central role in forest management. The FRA addresses the right to live in forestland for habitation or cultivation, right of access, use and sale of minor forest produce, and right to protect, regenerate, conserve or manage any community forest resource, amongst other rights (these rights can be claimed both as individuals and as a community). It provides tribal and other forest dwelling communities the first legislative handle to assertion of tenure rights and addresses important livelihood security issues, while also stressing the rights and responsibilities of forest dwellers in maintaining sustainable forest use patterns and the conservation of forest biodiversity. This space, guaranteed under FRA, has immense scope for community-based or collaborative forest management.

Panchayats (Extension to Scheduled Areas) Act, 1996 or PESA is a law enacted by the Government of India for ensuring self governance through traditional Gram Sabhas for people living in the Scheduled Areas of India. Scheduled Areas are areas identified by the Fifth Schedule of the Constitution of India. PESA sought to enable the Panchayats at appropriate levels and Gram Sabhas to implement a system of self-governance with respect to a number of issues such as customary resources, minor forest produce, minor minerals, minor water bodies, selection of beneficiaries, sanction of projects, and control over local institutions.

53. Ans: (B)

**Explanation:**

Article 29. (1) says Any section of the citizens residing in the territory of India or any part thereof having a distinct language, script or culture of its own shall have the right to conserve the same.

54. Ans: (A)

**Explanation:**

- **Lapse rate**, rate of change in temperature observed while moving upward through the Earth's atmosphere
- It is a result of terrestrial radiation as well as convection
- **Temperature inversion**, a reversal of the normal behaviour of temperature in the troposphere, in which a layer of cool air at the surface is overlain by a layer of warmer air
- Inversion can lead to pollution such as smog, suppress convection
- This can occur when, for example, a warmer, less-dense air mass moves over a cooler, denser air mass
- This type of inversion occurs in the vicinity of warm fronts, and also in areas of oceanic upwelling



55. Ans: (A)

**Explanation:**

- The Union government recently approved setting up Rail Development Authority (RDA), an independent regulator to recommend passenger and freight fares. It will act within parameters of Railway Act, 1989 and undertake the following broad functions: tariff determination, ensuring fair play and level playing field for stakeholder investment in Railways, setting efficiency and performance standards, dissemination of information. The RDA will help the government take appropriate decisions on important policy and operational issues, including pricing of services commensurate with costs, suggest measures for enhancement of non-fare revenue, ensure protection of consumer interests, promote competition, encourage market development, create positive environment for investment and promote efficient resource allocation.
- It will also benchmark service standards, suggest measures for absorption of new technologies and human resource development and provide a framework for non-discriminatory open access to the dedicated freight corridor infrastructure. **Hence, statements 1 and 2 are correct.**

RDA will only be a recommendatory body and the final decisions on setting fares will be made by the Railway Ministry. **Hence, statement 3 is not correct.**

56. Ans: (D)

**Explanation:**

- Melinda Panha is an account of the discussion between Indo-Greek ruler Menander and the Buddhist monk Nagasena
- **Hinayanism**
- It is a narrow sect of Buddhism where emphasis is given to maintain the original purity of Buddha's teachings
- They do not believe in idol worship
- Their pali canonical texts are the Tripitakas, the most important of them being the Sutta Pitaka
- The sect is popular in Sri Lanka and Burma
- **Mahayanism**
- They believe in the heavenliness of the Buddha and sought the help of Buddha and Bodhisattava for their salvation
- They have 2 schools: Madhyamika (middle way) and Yogachara (way of union)
- Their Tripitakas are in Sanskrit and the most important among them is Saddharmapundarika

57. Ans: (B)

58. Ans: (B)

**Explanation:**

Secondary pollutants are not emitted directly to the air, water, or soil. Secondary pollutants are synthesized in the environment by chemical reactions involving primary, or emitted chemicals.



The best known of the secondary pollutants are certain gases that are synthesized by photochemical reactions in the lower atmosphere. The primary emitted chemicals in these reactions are hydrocarbons and gaseous oxides of nitrogen such as nitric oxide and nitrogen dioxide. These emitted chemicals participate in a complex of ultraviolet-driven photochemical reactions on sunny days to synthesize some important secondary pollutants, most notably ozone, peroxy acetyl nitrate, hydrogen peroxide, and aldehydes. These secondary compounds, especially ozone, are the harmful ingredients of oxidizing or photochemical smogs that cause damages to people and vegetation exposed to this type of pollution.

59. **Ans: (C)**

**Explanation:**

Article 38. (1) says that the State shall strive to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of the national life.

Article 39. (e) states that the State shall, in particular, direct its policy towards securing that the health and strength of workers, men and women, and the tender age of children are not abused and that citizens are not forced by economic necessity to enter avocations unsuited to their age or strength

60. **Ans: (C)**

**Explanation:**

- Israel shares border with Lebanon, Syria, Jordan, Palestine and Egypt

61. **Ans: (B)**

**Explanation:**

Shankara Acharya Committee

The four-member-committee constituted by the Finance Ministry will be headed by Dr. Shankar Acharya (former Chief Economic Adviser) and will consist of PV Rajaraman (former Finance Secretary, Tamil Nadu), KM Chandrasekhar (former Cabinet Secretary) and Dr. Rajiv Kumar (Senior Fellow, Centre for Policy Research) as its members.

It was mandated with the task of studying the merits of government think-tank NITI Aayog's suggestion to position the financial year with the calendar year.

**Recommendations:**

- India can shift to a January to December financial year.

**Advantages:**

- This change will align the fiscal year with the monsoon cycle and the country's agricultural harvests.
- Calendar options such as Samvat followed by the stock markets and the farm harvest that begins from July were weighed before the panel settled for the January to December financial cycle.
- More than 156 countries and several multinational companies follow the calendar year as the accounting period.



- Since agriculture contributes more than 15% to India's GDP and above 58% rural households depend on farm yields, many experts have supported this move.
- In case of a drought, which happens between June and September, a change in the accounting period from January to December will help in better budgeting. If the Union budget is presented in November, then early allocations will help the agro-economy and farmers.

These factors tilted the balance for a changed fiscal.

62. **Ans: (A)**

**Explanation:**

Article 148. (4) says the Comptroller and Auditor-General shall not be eligible for further office either under the Government of India or under the Government of any State after he has ceased to hold his office

Central Vigilance Commission Act 2003 Section (6) says On ceasing to hold office, the Central Vigilance Commissioner and every other Vigilance Commissioner shall be ineligible for— (a) any diplomatic assignment, appointment as administrator of a Union territory and such other assignment or appointment which is required by law to be made by the President by warrant under his hand and seal. (b) further employment to any office of profit under the Government of India or the Government of a State

There is no constitutional prohibition for the Chief Justice of India and the Chairman of the Election Commission of India for further employment either under the Government of India or under the Government of a State after their retirement.

63. **Ans: (A)**

**Explanation:**

In astronomy, a trojan is a minor planet or moon that shares the orbit of a planet or larger moon, wherein the trojan remains in the same, stable position relative to the larger object.

The Jupiter trojans, commonly called Trojan asteroids or just Trojans, are a large group of asteroids that share the planet Jupiter's orbit around the Sun.

64. **Ans: (A)**

**Explanation:**

- 'Panduranga Mahathyam' was written by Tenali Rama
- Krishnadevaraya belongs to the Tuluva dynasty
- He wrote the book 'Amukatamalyada' in Telugu on Polity, 'Jambawanti Kalyanam' in Sanskrit

65. **Ans: (A)**

**Explanation:**

- The Indian Council of Agricultural Research (ICAR) through the Indian Agricultural Research Institute (IARI) has formulated a collaborative research project entitled "SENSAGRI: SENsor based Smart AGRiculture" involving six partner Institutes (Agriculture & IT) to be funded by



Information Technology Research Academy (ITRA), Department of Information and Information Technology (MCIT), Govt. of India and ICAR.

- The major objective is to develop indigenous prototype for drone based crop and soil health monitoring system using hyperspectral remote sensing (HRS) sensors. This technology could also be integrated with satellite-based technologies for large scale applications.
- Drone technology based unmanned aerial vehicle (UAV) has ability for smooth scouting over farm fields, gathering precise information and transmitting the data on real time basis.
- This capability could be used for the benefit of farming sector at regional/local scale for assessing land and crop health; extent, type and severity of damage besides issuing forewarning, post-event management and settlement of compensation under crop insurance schemes.

66. Ans: (D)

**Explanation:**

Article 41 says that the State shall, within the limits of its economic capacity and development, make effective provision for securing the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement, and in other cases of undeserved want.

Article 48A. says that the State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country.

Article 46 states that the State shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes and the Scheduled Tribes, and shall protect them from social injustice and all forms of exploitation.

Article 44 states that the State shall endeavour to secure for the citizens a uniform civil code throughout the territory of India

67. Ans: (C)

**Explanation:**

- **Summer solstice** occurs between June 20 and June 22 in the Northern Hemisphere and between December 20 and December 23 each year in the Southern Hemisphere
- **Winter solstice** occurs Between December 21 and December 23 in the Northern Hemisphere and between June 20 and June 21 in the Southern Hemisphere
- Summer solstice occurs in both the hemispheres when the respective side is tilted towards the sun on the earth's axis

68. Ans: (C)

**Explanation:**

Self-Explanatory.

69. Ans: (A)

**Explanation:**

- In the quest of more sustainable energy sources, scientists have developed grassoline a biofuel derived from grass that could power aircraft. Researchers investigated methods that can disintegrate and treat grass until it can be used as a fuel.



- To improve its biodegradability, the grass is pre-treated at first. Then bacteria are added which convert the sugars in the grass into lactic acid and its derivatives, researchers said. This lactic acid can serve as an intermediate chemical to produce other compounds such as biodegradable plastics (PLA) or fuels.

70. Ans: (B)

**Explanation:**

Oligotrophic lakes are those that are unproductive: net primary production is only between 50 and 100 milligrams of carbon per square metre per day, nutrients are in poor supply, and secondary production is depressed.

Eutrophic lakes, on the other hand, are productive: net primary production is between 600 and 8,000 milligrams of carbon per square metre per day, nutrients are in good supply, and secondary production is high.

Mesotrophic lakes are lakes of intermediate productivity: net primary production is between 250 and 1,000 milligrams of carbon per square metre per day.

71. Ans: (B)

**Explanation:**

- **Madhvacharya** also known as Purna Prajña and Ananda Teertha, was the chief proponent of the Dvaita (dualism) school of Vedanta
- He called his philosophy as "Tattvavada" meaning "the realist viewpoint"
- **Ramanuja** was a Hindu theologian, philosopher, and one of the most important exponents of the Sri Vaishnavism tradition within Hinduism
- His philosophical foundations for devotionalism were influential to the *Bhakti movement*
- He is famous as the chief proponent of Vishishtadvaita subschool of Vedānta (qualified monism)
- **Shankaracharya** was a philosopher and theologian who consolidated the doctrine of Advaita Vedanta (monism)
- He is credited with unifying and establishing the main currents of thought in Hinduism
- **Nimbarka** is known for propagating the Vaishnava Theology of Dvaitadvaita (dvaita-advaita or "dualistic non-dualism")

72. Ans: (D)

**Explanation:**

- Sikkim is bordered by the countries China, Bhutan and Nepal and the state of West Bengal within India

73. Ans: (A)

**Explanation:**

Article 51(A) (c) says that it shall be the duty of every citizen of India to uphold and protect the sovereignty, unity and integrity of India



Article 51(A) (e) says that it shall be the duty of every citizen of India to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women; Article 51(A) (j) says that it shall be the duty of every citizen of India to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement

74. Ans: (A)

**Explanation:**

- Syed **Hassan Ali** Khan Barha and Syed **Hussain Ali** Khan Barha were powerful Mughal Army and were referred Sayyid brothers
- They were the regents of Emperor **Mohammad Shah**
- They became highly influential in the Mughal Court then and became kingmakers
- **Rajaram** Chhatrapati was the younger son of Maratha ruler Shivaji, and half-brother of Sambhaji
- After his death, his widow, **Tarabai** proclaimed her young son, Shivaji II as the Chhatrapati and ruled as his regent
- **Jijabai** Shahaji Bhosale sometimes referred to as Rajmata Jijabai or even simply Jijai, was the mother of Shivaji, founder of Maratha Empire

75. Ans: (A)

**Explanation:**

**The money procured from selling bonds under MSS is kept with the RBI**

**Note:**

MSS -Bonds

- Market Stabilization scheme (MSS) is a monetary policy intervention by the RBI to withdraw excess liquidity (or money supply) by selling government securities in the economy.
- Introduced in April 2004
- The MSS was launched to withdraw the excess liquidity in the system generated as a result of RBI's purchase of foreign currencies in the foreign exchange market. The bonds issued to absorb this excess liquidity to prevent inflation are called Market Stabilization Scheme Bonds or MSS Bonds.
- These bonds are used when there is high liquidity in the system. These securities are **owned by the government** though they are **issued by the RBI**. Usually, government's securities (bonds/treasury bills) are sold or issued by the RBI as the central bank is the banker to the government.
- **The money procured from selling bonds under MSS is kept with the RBI**. At the same time, interest payments have to be given to the institutions who buy bond, which is done by the Finance Ministry.
- Government will not use the proceeds of these bonds to fund its expenditure. The Amount collected by these bonds will be maintained in a special account with RBI



- The amount equivalent to which MSS bonds must be issued is fixed depending on the amount (excess liquidity) that needs to be absorbed from the system.
- At present, MSS Bonds are to be issued to a limit of 6 lakh crores, meaning, 6 lakh crores of excess liquidity can be absorbed now.

**76. Ans: (C)**

**Explanation:**

- The world's largest artificial sun, called Synlight, by the German Aerospace Centre (DLR) was switched on the 23rd of March 2017, with the intention of innovating the production of renewable energy.

Synlight is housed in a three-storey building in Jülich, Germany and is composed of 149 Xenon short-arc lamps which can produce a scorching heat of up to 3,000 degrees Celsius.

**77. Ans: (D)**

**Explanation:**

Self explanatory

**78. Ans: (D)**

**Explanation:**

**Battle of Koppam**

- Fought in 1054
- Between the Medieval Chola kings Rajadhiraja Chola and Rajendra Chola II with the Chalukya king Someshvara I
- Cause: Rajadhiraja Chola desired to subjugate the Chalukyas and incorporate their territories into the Chola Empire
- Place: Koppam (It was a city on "the Great River" (Krishna))
- Result: Strategic Chola victory but Tactical victory of the Western Chalukyas

**Battle of Kudal-Sangamam**

- Fought in 1062
- Between the Chola king Rajendra Chola II and the Western Chalukya king Someshvara I
- Cause: To avenge for the Battle of Koppam
- Place: Kudal-Sangamam, where the Krishna and the Tungabhadra meet
- Result: Chola victory

**First Battle of Tarain**

- Fought in 1191
- Between Muhammad of Ghor and Prithviraj Chauhan
- Place: In Tarain, near Thanesar in present-day Haryana
- Result: Prithviraj Chauhan victorious

**Battle of Talikota**

- Fought in 26th January 1565
- Between the Vijayanagara Empire and the Deccan sultanates
- Place: Talikota, in northern Karnataka
- Result: Defeat of Vijayanagara empire by the united forces of the Deccani Sultanates



79. Ans: (B)

**Explanation:**

Article 67(b) says that a Vice-President may be removed from his office by a resolution of the Council of States passed by a majority of all the then members of the Council and agreed to by the House of the People; but no resolution for the purpose of this clause shall be moved unless at least fourteen days' notice has been given of the intention to move the resolution

80. Ans: (B)

**Explanation:**

**Battle of Chausa**

- Fought on 26 June 1539
- Between the Mughal emperor, Humayun, and the Afghan, Sher Shah Suri
- Place: Chausa near Buxar in modern day Bihar
- Result: Sher Shah was victorious

**Battle of Khanwa**

- Fought on March 17, 1527
- Between the invading forces of the Mughal Emperor Babur and the Rajput forces led by Rana Sanga of Mewar
- The battle took place after the Battle of Panipat
- Place: near the village of Khanwa, about 60 km west of Agra
- Result: Babar victorious and consolidated the Mughal position in India

**Battle of Chanderi**

- Fought in January 1528
- Between Mughal Emperor Babur and Medini Rai, the ruler of Malwa and a strong supporter of Rana Sanga
- Causes: Took place in the aftermath of the Battle of Khanwa
- Result: Babur captured the Fortress of Chanderi

**Battle of Kannauj**

- Fought on 17 May 1540
- Between Sher Shah and Humayun
- Place: Kannauj, in modern day Uttar Pradesh
- Result: Sher Shah was victorious

81. Ans: (C)

**Explanation:**

Statement 2 is wrong

Compensation will be provided for a period of five years from when the State GST Act comes into force.

82. Ans: (B)

**Explanation:**

- The Lodis were the first Afghan rulers of India.



- Its founder Bahlul Lodi is the first Afghan ruler of India
- Sher Shah introduced Patta (the amount each peasant had to pay and Qabuliat (deed of agreement)
- Both of them fixed peasant rights and taxes

83. Ans: (B)

**Explanation:**

- A threatened breed of sheep found only in coastal Jagatsinghpur and Kendrapara districts of Odisha has been conferred 'rare and singular species' tag by the Central government. The National Bureau of Animal Genetic Resources (NBAGR) has accorded genetic recognition to the breed of sheep, locally called 'kuji mendha'.
- The sheep that are reared in this part are delicate domestic animals. Sheep in other parts of Odisha are not known for giving multiple birth. This characteristic makes them distinctive from other species.
- In Sundarbans area of West Bengal, Garol breed sheep are found who are multiple-breeders. Kendrapara district accounts for about 75,000 'kuji' breed of sheep. Because of multiple-birth characteristics, rearing of 'kuji' sheep is a profitable livelihood source.

84. Ans: (B)

**Explanation:**

- Bombogenesis is an ominous sounding term frequently used in the winter to describe powerful low pressure systems that intensify rapidly. The process of bombogenesis begins as cyclogenesis, meaning the development or strengthening of an area of low pressure or trough.
- To be classified as a weather bomb, or having undergone bombogenesis or "bombing-out", the central pressure of a low pressure system must drop at least 24 millibars within 24 hours.
- Bombogenesis results when there is a large temperature gradient, usually between a cold continental air mass and warm sea-surface temperatures. However, it can also be the product of a cold polar air mass and much warmer air from the south, say, over the Plains states.
- Over that temperature contrast, a powerful, intensifying jet-stream disturbance triggers air to rise and kicking off the bombogenesis process. This happens most often from October through March, but can happen any time of year.

85. Ans: (A)

**Explanation:**

Article 124(4) says that A Judge of the Supreme Court shall not be removed from his office except by an order of the President passed after an address by each House of Parliament supported by a majority of the total membership of that House and by a majority of not less than two-thirds of the members of that House present and voting has been presented to the President in the same session for such removal on the ground of proved misbehaviour or incapacity.

86. Ans: (A)

**Explanation:**

Eutrophication is an enrichment of water by nutrient salts that causes structural changes to the ecosystem such as: increased production of algae and aquatic plants, depletion of fish species, general deterioration of water quality and other effects that reduce and preclude use.

- Phosphorus is the nutrient usually controlling freshwater lake eutrophication.



- In contrast, eutrophication in most coastal marine ecosystems is primarily controlled by nitrogen.
- Even though nitrogen usually controls eutrophication of coastal systems, it is important to manage both phosphorus and nitrogen inputs since phosphorus is important in some of systems and since managing only nitrogen without also managing phosphorus inputs can lead to a situation where phosphorus becomes the nutrient controlling eutrophication.

87. Ans: (B)

**Explanation:**

GDP Market price will be calculated using GVA at Basic Prices.

Note:

- The Government's statistics wing made two changes to the GDP calculation.
  - One was a change in the **base year** for the calculation which is done routinely every five years or so.
- The other was to adopt a **new method to measure output**.
- The new GDP incorporates **more comprehensive data** than the old one.
- Earlier, data from the **Annual Survey of Industries (ASI)**, which comprises over **two lakh factories**, was used to gauge activity in the **manufacturing sector**.
- **Now**, annual accounts of companies filed with the **Ministry of Corporate Affairs — MCA21 —** has been used.
- This is said to **include around five lakh companies, bringing in more companies** from the **unlisted and informal sectors**.
  - **Until now, the manufacturing data** was compiled factory-wise. Now, activity at the enterprise-level is taken. This means **selling and marketing expenses** are also reckoned, instead of just production costs.
  - Starting now, Indian **GDP** will be measured by using gross value added (GVA)@Basic prices **at market price**, rather than factor cost.
  - **GVA at basic price represents what accrues to the producer, before the product is sold.**
  - $GVA @ \text{Basic Prices} = GVA @ \text{Factor Cost} + (\text{Production tax} - \text{Production subsidies})$
  - **$GDP = GVA@BP + \text{Product Taxes} - \text{Product Subsidies}$**

88. Ans: (A)

**Explanation:**

- **Aurangzeb** took the title Alamgir and also called as Zinda Pir (a living saint)
- He compiled Fatwa-i-Alamgiri
- He built Moti Masjid in the Red Fort
- He reintroduced Jizyah
- Raja Todar Mal, the finance minister of Akbar brought a new system of taxation called **Dahsala System**
- It was brought to alleviate the problems arising due to fixing prices every year and doing settlements of revenues of previous years



- Average produce of ten years was derived.
- One third of this average produce was fixed in Rupees per Bigha and fixed as share of the state (Mal).
- Rest two third share was left to the cultivators (Kharaj).
- Furthermore, the land revenue, assessed in kind, was converted into cash on the basis of **Dastur-ul-amal** which was prepared at regional level keeping into consideration food crops
- Each revenue circle had a separate schedule of dastur-ul-amal for various crops. Thus the peasant was required to pay on the basis of local produce as well as local prices

89. Ans: (C)

**Explanation:**

Article 107 (4) says that a Bill pending in the Council of States which has not been passed by the House of the People shall not lapse on a dissolution of the House of the People.

Article 107 (5) says that a Bill which is pending in the House of the People, or which having been passed by the House of the People is pending in the Council of States, shall, subject to the provisions of article 108, lapse on a dissolution of the House of the People.

90. Ans: (A)

**Explanation:**

**Warren Hastings (1772-1785)**

- First Governor General of Bengal
- Dual government was abolished
- Introduced Quinquennial settlement (5 year settlement)
- Codified Hindu and Muslim laws
- First Anglo-Maratha War and signed 'Treaty of Salbai' in 1782
- Second Anglo-Mysore war
- Regulating Act of 1773
- Pitt's India Act of 1784

**Lord Cornwallis (1786-1793)**

- Created Covenanted Civil Services of India
- Set up courts at different levels and separated revenue administration from judicial administration
- District collectors were given the overall control of revenue collection
- Permanent Land Revenue Settlement also known as Zamindari System
- Third Anglo-Mysore war and signed 'Treaty of Seringapatnam' in 1792

**Lord Ellenborough (1842-1844)**

- First Anglo-Afghan war ended
- Annexation of Sindh

**Lord Dalhousie (1848-1856)**

- Doctrine of Lapse (or) Law of Escheat
- Development of Railways, First line between Bombay and Thane began operation
- Post Office Act was passed



- First telegraph lines were constructed
- Second Anglo-Sikh War
- Annexation of Punjab
- Shimla was made summer capital
- Competitive exams for ICS
- Hindu Widow Remarriage Act
- Annexed lower Burma (or) Pegu

91. Ans: (C)

**Explanation:**

Basel covers hazardous wastes that are explosive, flammable, reactive, poisonous, infectious, corrosive, toxic or ecotoxic.

Rotterdam covers pesticides and industrial chemicals that have been banned or severely restricted for health or environmental reasons by Parties.

Stockholm covers 14 pesticides, and 7 industrial chemicals and by-products.

Common Link

- Most POPs are covered by all three Conventions
- Many pesticides are subject to the three Conventions

Basel contains a prior informed consent procedure for the export and import of hazardous and other wastes. Party has the right to prohibit the import or to limit/ban the export of hazardous and other wastes

Rotterdam establishes a compulsory Prior Informed Consent procedure. It provides mechanism for Parties to take informed decisions on future import of chemicals assisted by Decision Guidance Documents (DGDs).

Stockholm restricts import/export of POPs. It permits if for environmentally sound disposal or for an exempted use that is permitted for the importing Party.

Article 15 of CBD deals with Prior Informed Consent. It says that access to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources, unless otherwise determined by that Party.

92. Ans: (A)

**Explanation:**

- **Statement 1 is correct.** India has recently joined the Hague Code of Conduct (HCoC), a global initiative to prevent ballistic missile proliferation. With this, India has become the 138th country in the world to subscribe to an international code of conduct against the proliferation of ballistic missiles.
- **Statement 2 is not correct.** It is a multilateral code negotiated outside the context of the United Nation System

**Statement 3 is not correct.** The HCoC is a voluntary, legally non-binding international confidence building and transparency measure that seeks to prevent the proliferation of ballistic missiles that are capable of delivering weapons of mass destruction.



93. Ans: (D)

**Explanation:**

(NFSM), was launched in October 2007. The National Food Security Mission (NFSM) during the 12th Five Year Plan will have five components (i) NFSM- Rice; (ii) NFSM-Wheat; (iii) NFSM-Pulses, (iv) NFSM-Coarse cereals and (v) NFSM-Commercial Crops.

94. Ans: (C)

**Explanation:**

- Small ground motions known as microseisms are commonly recorded by seismographs. These weak wave motions are not generated by earthquakes, and they complicate accurate recording of the latter. However, they are of scientific interest because their form is related to the Earth's surface structure.
- Some microseisms have local causes—for example, those due to traffic or machinery or due to local wind effects, storms, and the action of rough surf against an extended steep coast.
- Using computer models of the ocean, winds and seafloor, the scientists found that colliding ocean waves could generate seismic waves that take 13 seconds or less to complete one ripple. When it came to slower waves, they found that ocean waves moving over the seafloor could generate seismic waves with a frequency of 13 to 300 seconds. Most of the mystery hum comes from these longer waves. The pressure of these longer ocean waves on the seafloor causes most of the Earth's bell-like ringing.

95. Ans: (A)

**Explanation:**

**Reasons for the defeat of the Revolt of 1857**

- Half the Indian soldiers fought for the British
- Lack of strong leadership excepting Rani of Jhansi, Kunwar Singh and Maulavi Amanullah
- No vision of future and no political perspective
- Revolts were largely localized
- Lack of resources, poor quality of arms compared to the British

96. Ans: (D)

**Explanation:**

Cloud seeding is the process of spreading either dry ice, or more commonly, silver iodide aerosols, into the upper part of clouds to try to stimulate the precipitation process and form rain.

Since most rainfall starts through the growth of ice crystals from super-cooled cloud droplets (droplets colder than the freezing point, 32 deg. F or 0 deg. C) in the upper parts of clouds, the silver iodide particles are meant to encourage the growth of new ice particles.

The usual intent is to increase precipitation (rain or snow), but hail and fog suppression are also widely practiced in airports.

The most common chemicals used for cloud seeding include silver iodide, potassium iodide and dry ice (solid carbon dioxide). Liquid propane, which expands into a gas, has also been used. This can produce ice crystals at higher temperatures than silver iodide.



97. Ans: (C)

**Explanation:**

- Indian Railways is fourth largest railway network in the world
- It has 16 railway zones spread across the country
- Its services cover twenty-six states and three union territories across India, and also has international connectivity to Bangladesh and Pakistan

98. Ans: (A)

**Explanation:**

Article 110. (1) states that for the purposes of this Chapter, a Bill shall be deemed to be a Money Bill if it contains only provisions dealing with all or any of the following matters, namely:— (a) the imposition, abolition, remission, alteration or regulation of any tax; (b) the regulation of the borrowing of money or the giving of any guarantee by the Government of India, or the amendment of the law with respect to any financial obligations undertaken or to be undertaken by the Government of India; (c) the custody of the Consolidated Fund or the Contingency Fund of India, the payment of moneys into or the withdrawal of moneys from any such fund; (d) the appropriation of moneys out of the Consolidated Fund of India; (e) the declaring of any expenditure to be expenditure charged on the Consolidated Fund of India or the increasing of the amount of any such expenditure; (f) the receipt of money on account of the Consolidated Fund of India or the public account of India or the custody or issue of such money or the audit of the accounts of the Union or of a State; or (g) any matter incidental to any of the matters specified in sub-clauses (a) to (f).

99. Ans: (A)

**Explanation:**

Indian Space Research Organisation at its Vikram Sarabhai Space Centre (VSSC) has developed CASPOL (Ceramic Polymer Hybrid), a water based, ready-to-coat and easy-to-use flame proof coating having both societal and advanced enduse applications. It confers excellent flame retardant, waterproofing and thermal control properties to substrates ranging from masonry surfaces, textiles, paper, thatched leaves, wood etc to advanced materials like polyurethane and phenolic based thermal insulation foam pads.

100. Ans: (C)

**Explanation:**

**Relative Humidity:**

- The ratio of the actual amount of water vapor in a given volume of air to the amount which could be present if the air was saturated at the same temperature. It's commonly expressed as a percentage.
- As temperature goes up, relative humidity goes down and vice versa

**Dew Point:**

- The temperature to which a parcel of air must be cooled to reach its saturation point.
- It tells at which temperature clouds and precipitation will occur.



**Mains - 2017**

<b>Course</b>	<b>Batch</b>	<b>Time</b>	<b>Duration</b>	<b>Starts on</b>
GS (MAINS)	Monday To Thursday	02:30pm to 08:00pm	3 Months	July 3 <sup>rd</sup> , 2017
Optional Sociology	Monday To Thursday	11:30am to 01:45pm	3½ Months	July 3 <sup>rd</sup> , 2017
Optional History	Monday To Thursday	11:30am to 01:45pm	3½ Months	July 3 <sup>rd</sup> , 2017
GS (MAINS) Test Batch	Sunday	07:30am to 01:30pm	18 Tests	July 9 <sup>th</sup> , 2017
Optional Sociology Test Batch	Friday	07:30am to 01:30pm	12 Tests	July 14 <sup>th</sup> , 2017
Optional History Test Batch	Friday	07:30am to 01:30pm	12 Tests	July 14 <sup>th</sup> , 2017
ESSAY	Friday & Saturday	10:30am to 01:00pm	3 Months	July 15 <sup>th</sup> , 2017

**Admission Starts on 19.06.2017**

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