

# UPSC PRELIMINARY QUESTIONS PAPER – I - 2017 WITH ANSWERS

SET D

- 1. Which one of the following was a very important seaport in the Kakatiya kingdom?
  - (a) Kakinada
  - (b) Motupalli
  - (c) Machilipatnam (Masulipatnam)
  - (d) Nelluru

# **Explanation:**

Marco Polo referred to the kingdom as Mutfili, which was the name for the area around a major port of the Kakatiya dynasty, now known as Masulipatnam.

- 2. With reference to 'Global Climate Change Alliance', which of the following statements is/are correct?
  - 1) It is an initiative of the European Union.
  - 2) It provides technical and financial support to targeted developing countries to integrate climate change into their development policies and budgets.
  - It is coordinated by World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD).

Select the correct answer using the codes given below:

# (a) 1 and 2 only

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

#### **Explanation:**

The GCCA was established by the European Union (EU) in 2007 to strengthen dialogue and cooperation with developing countries, in particular least developed countries (LDCs) and small island developing States (SIDS).

By fostering effective dialogue and cooperation on climate change, the Alliance

helps to ensure that poor developing countries most vulnerable to climate change increase their capacities to adapt to the effects of climate change, in support of the achievement of the Millenium Development Goals (MDGs).

Where this benefits their poverty reduction objectives, the Alliance also helps such countries to participate in the global climate change mitigation effort.

As such, it is becoming clear that the option 2 is correct.

#### Source:

http://www.gcca.eu/about-the-gcca/what-is-the-gcca

- 3. With reference to the religious history of, India, consider the following statements:
  - 1) Sautrantika and Sammitiya were the sects of Jainism.
  - 2) Sarvastivadinleld that the 'constituents of phenomena were not wholly momentary, but existed forever in a latent form.

Which of the statements given above is/are correct?

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

#### **Explanation:**

#### Statement 1 is wrong

 Sautrāntika & Sammitīya are both schools of Buddhism,

# Statement 2 is correct

- The word Sarvastivadin is derived from the Sanskrit terms 'sarvam', 'all things' and 'asti', 'exist'
- The word Sarvastivadin in Sanskrit denotes 'those who believe that all things exist'



- 4. Mediterranean Sea is a border of which of the following countries?
  - 1) Jordan
  - 2) Iraq
  - 3) Lebanon
  - 4) Syria

Select the correct answer using the codes given below:

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

# **Explanation:**



The countries with coastlines on the Mediterranean Sea are Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Morocco, Monaco, Montenegro, Slovenia, Spain, Syria, Tunisiaand Turkey. In addition, the Gaza Strip and the British Overseas Territories of Gibraltar and Akrotiri and Dhekelia have coastlines on the sea.

#### Source:

https://en.wikipedia.org/wiki/Mediterrane an\_Sea

- 5. With reference to 'National Investment and Infrastructure Fund', which of the following statements is/are correct?
  - 1) It is an organ of NITI Aayog.
  - 2) It has a corpus of 4,00,000 crore at present.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2

# (d) Neither 1 nor 2

# **Explanation:**

Its creation was announced in the Union Budget 2015-16. NIIF got registered with SEBI as Category II Alternative Investment Fund (AIF) on December 28, 2015 under the SEBI (Alternative Investments Funds) Regulations, 2012 ("AIF Regulations").

The corpus of the Fund is proposed to be of the order of Rs.40,000 cr (US\$6 billion) wherein the Government of India would invest 49%, circa Rs.20,000 cr (US\$3 billion). NIIF is expected play the role of a catalyst for supporting investments in infrastructure with the objective economic impact through maximizing investments in commercially viable projects, both greenfield and brownfield, including stalled projects. NIIF shall also consider other nationally important projects, if found commercially viable.

NIIF will raise third party capital for the remaining Rs.20,000 crore (US\$ 3 billion), from long term international investors, such as a Sovereign Wealth Funds, Insurance and Pension Funds, endowments etc. National Investment and Infrastructure Fund (NIIF) is formed as a trust (set up under the provisions of Indian Trusts Act 1882) created by the Government of India.

#### Source:

http://niifindia.com/home-page.html



- 6. The Global Infrastructure Facility is a/an
  - (a) ASEAN initiative to upgrade infrastructure in Asia and financed by credit from the Asian Development Bank.
  - (b) World Bank collaboration that facilitates the preparation and structuring of complex infrastructure Public-Private Partnerships (PPPs) to enable mobilization of private sector and institutional investor capital.
  - (c) Collaboration among the major banks of the world working with the OECD and focused on expanding the set of infrastructure projects that have the potential to mobilize private investment.
  - (d) UNCTAD funded initiative that seeks to finance and facilitate infrastructure development in the world.

The Global Infrastructure Facility (GIF) is a partnership among governments, multilateral development banks, private sector investors, and financiers. It is designed to provide a new way to collaborate on preparing, structuring, and implementing complex projects that no single institution could handle on its own. The comprehensive project support provided by the GIF draws on the combined expertise of its technical and advisory partners. This group, which includes commercial banks and institutional investors, ensures that well-structured and infrastructure projects brought to market in a way that sustainably meet the needs of governments and service users. Funding partners provide financial contributions to the GIF. The partnership is overseen by a Governing that supervises Council programming and funds management as well as the development of operational policies and procedures. It also holds the GIF's management accountable

delivering on objectives and principles. The Governing Council comprises representatives of funding and technical partners and representatives of emerging markets and developing economies, and is co-chaired by the World Bank Group and a Funding Partner.

#### Source:

http://www.globalinfrafacility.org/what-is-the-gif

- 7. For election to the Lok Sabha, a nomination paper can be filed by
  - (a) anyone residing in India.
  - (b) a resident of the constituency from which the election is to be contested.
  - (c) any citizen of India whose name appears in the electoral roll of a constituency.
  - (d) any citizen of India.

# **Explanation:**

For contesting an election as a candidate a person must be registered as a voter. Sec 4 (d) of Representation People Act, 1951 precludes a person from contesting unless he is an elector in any parliamentary constituency. Section 5 (c) of R. P. Act, 1951 has a similar provision for Assembly Constituencies.

#### Source:

http://eci.nic.in/eci\_main1/Contesting.aspx

- 8. Consider the following statements:
  - 1) In India, the Himalayas are spread over five States only.
  - 2) Western Ghats are spread over five States only.
  - 3) Pulicat Lake is spread over two States only.

Which of the statements given above is/are correct?

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



# Statement 1 is wrong

 The Indian Himalayan Region is the section of the Himalayas within India, spanning the states of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh, as well as the hill regions of two states - Assam and West Bengal.

# Statement 2 is wrong

 Western Ghats are spread in six states viz. Gujarat, Maharashtra, Goa, Karnataka, Tamil Nadu, Kerala and two Union Territories viz. Dadra & Nagar Haveli and Pondicherry

#### Statement 3 is correct

- Pulicat Lake formerly Pralaya Kaveri is the second largest brackish water lake or lagoon in India, after Chilika Lake.
- It straddles the border of Andhra Pradesh and Tamil Nadu states with over 40% of it in Andhra Pradesh and 60% in Tamil Nadu
- 9. Biological Oxygen Demand (BOD) is a standard criterion for
  - (a) Measuring oxygen levels in blood
  - (b) Computing oxygen levels in forest ecosystems
  - (c) Pollution assay in aquatic ecosystems
  - (d) Assessing oxygen levels in high altitude regions

# **Explanation:**

Biochemical oxygen demand or BOD is a chemical procedure for determining the amount of dissolved oxygen needed by aerobic biological organisms in a body of water. It is not a precise quantitative test, although it is widely used as an indication of the organic quality of water.

The consequences of high BOD are the same as those for low dissolved oxygen: aquatic organisms become stressed, suffocate, and die.

- 10. With reference to the role of UN-Habitat in the United Nations programme working towards a better urban future, which of the statements is/are correct?
  - 1) UN-Habitat has been mandated by the United Nations General Assembly to promote socially and environmentally sustainable towns and cities to provide adequate shelter for all.
  - 2) Its partners are either governments or local urban authorities only.
  - 3) UN-Habitat contributes to the overall objective of the United Nations system to reduce poverty and to promote access to safe drinking water and basic sanitation.

Select the correct answer using the codes given below:

(a) 1, 2 and 3

# (b) 1 and 3 only

- (c) 2 and 3 only
- (d) 1 only

#### **Explanation:**

UN-Habitat is the United Nations programme working towards a better urban future. Its mission is to promote socially and environmentally sustainable human settlements development and the achievement of adequate shelter for all.

In many places around the world, the effects can already be felt: lack of proper housing and growth of slums, inadequate and out-dated infrastructure – be it roads, public transport, water, sanitation, or electricity – escalating poverty and unemployment, safety and crime problems, pollution and health issues, as well as poorly managed natural or man-made disasters and other catastrophes due to the effects of climate change.

Through drawing together cooperation with committed partners, relevant stakeholders, and urban actors, including at all levels of government **as well as the** 



**private sector,** UN-Habitat is applying its technical expertise, normative work and capacity development to implement the New Urban Agenda and Sustainable Development Goal 11 – to make cities inclusive, safe, resilient and sustainable.

Mandated by the **UN General Assembly** in 1978 to address the issues of urban growth, it is a knowledgeable institution on urban development processes, and understands the aspirations of cities and their residents. For forty years, UN-Habitat has been working in human settlements throughout the world, focusing on building a brighter future for villages, towns, and cities of all sizes. Because of these four decades of extensive experience, from the highest levels of policy to a range of specific technical issues, UN-Habitat has gained a unique and a universally acknowledged expertise in all things urban.

#### Source:

https://unhabitat.org/about-us/un-habitat-at-a-glance/#

- 11. With reference to 'National Skills Qualification Framework (NSQF)', which of the statements given below is/are correct?
  - 1) Under NSQF, a learner can acquire the certification for competency only through formal learning.
  - 2) An outcome expected from the implementation of NSQF is the mobility between vocational and general education.

Select the correct answer using the code given below:

(a) 1 only

# (b) 2 only

- (c) Both 1 and 2
- (d) Neither 1 nor 2

# **Explanation:**

Under NSQF, the learner can acquire the certification for competency needed at any level through formal, non-formal or informal learning.

Specific outcomes expected from implementation of NSQF are:

Mobility between vocational and general education by alignment of degrees with NSOF

#### Source:

http://www.skilldevelopment.gov.in/nsqf.html

- 12. In the context of Indian history, the principle of `Dyarchy (diarchy)' refers to
  - (a) Division of the central legislature into two houses.
  - (b) Introduction of double government i.e., Central and State governments.
  - (c) Having two sets of rulers; one in London and another in Delhi.
  - (d) Division of the subjects delegated to the provinces into two categories.

### **Explanation:**

- The principle of dyarchy was a division of the executive branch of each provincial government into authoritarian and popularly responsible sections.
- The Act provided a dual form of government (a "diarchy") for the major provinces
- In each such province, control of some areas of government, the "transferred list", were given to a Government of ministers answerable to the Provincial Council



- 13. Consider the following in respect of 'National Career Service':
  - 1) National Career Service is an initiative of the Department of Personnel and Training, Government of India.
  - 2) National Career Service has been launched in a Mission Mode to improve the employment opportunities to uneducated youth of the country.

Which of the above statements is/are correct?

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

# **Explanation:**

National Career Service (NCS) project<sup>[1]</sup> is an initiative launched by the Ministry of Labour and Employment (India)Government of India as a Mission Mode Project for establishing quick and efficient career related services. It was launched by Prime Minister Narendra Modi on 20 July 2015 as part of government's focus on providing right skills and generating employment.<sup>[2]</sup>

The key success factors of NCS initiative revolve around strengthening the existing employment exchange ecosystem with an ICT enabled platform and reaching out to masses through multiple delivery channels and partnerships with existing job market players. Caught in a vicious cycle of decreasing job seeker registrations and vacancy notifications by employers, these exchanges needed a transformation for better delivery of employment services.[3] Employment exchanges have been transformed to focus more on counselling related needs of candidates with establishment of career centers[4]

NCS is the converging point for Government of India three major initiatives, Skill India, Digital India and Make in India, that aim to provide skilled manpower, improve digital infrastructure and generate employment opportunities for all.

The Career Centres will serve as a platform for addressing all career related needs of the youth and students seeking counselling, job search assistance services and employment

#### Source:

https://en.wikipedia.org/wiki/National\_Career\_Service\_(India)

- 14. Which of the following statements best describes the term 'Scheme for Sustainable Structuring of Stressed Assets (S4A)', recently seen in the news?
  - (a) 'It is a procedure for considering ecological costs of developmental schemes formulated by the Government.
  - (b) It is a scheme of RBI for reworking the financial structure of big corporate entities facing genuine difficulties.
  - (c) It is a disinvestment plan of the Government regarding Central Public Sector Undertakings.
  - (d) It is an important provision in 'The Insolvency and Bankruptcy Code' recently implemented by the Government.

#### **Explanation:**

The scheme was launched by RBI in June 2016 to deal with the large stressed assets of the corporate sector with banks.

The debt will be bifurcated into Sustainable and Unsustainable loans evaluated by an independent agency hired by the lending bank.

#### Source:

https://www.rbi.org.in/scripts/BS\_PressRe leaseDisplay.aspx?prid=37210 http://www.thehindubusinessline.com/opinion/columns/slate/all-you-wanted-to-know-about-s4a/article9288558.ece



- 15. Consider the following statements:
  - 1) Climate and Clean Air Coalition (CCAC) to Reduce Short Lived Climate Pollutants is a unique initiative of G20 group of countries.
  - 2) The CCAC focuses on methane, black carbon and hydrofluorocarbons.

Which of the statements given above is/are correct?

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

### **Explanation:**

The Climate and Clean Air Coalition formed in 2012 is the only global effort that unites governments, civil society and private sector, committed to improving air quality and protecting the climate in next few decades by reducing short-lived climate pollutants across sectors.

United Nations Environment Programme (UNEP) hosts CCAC Secretariat

Short-lived climate pollutants (SLCPs) are agents that have a relatively short lifetime in the atmosphere - a few days to a few decades - and a warming influence on climate. The main short lived climate pollutants are black carbon, methane and tropospheric ozone.

The option (1) is wrong while the option (2) is correct.

# Source:

http://www.ccacoalition.org/en/science-resources

- 16. With reference to 'Indian Ocean Dipole (IOD)' sometimes mentioned in the news while forecasting Indian monsoon, which of the following statements is/are correct?
  - 1) IOD phenomenon is characterized by a difference in sea surface temperature between tropical Western Indian Ocean and tropical Eastern Pacific Ocean.

2) An IOD phenomenon can influence an El Nino's' impact on the monsoon.

Select the correct answer using the codes given below:

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

# **Explanation:**

#### Statement 1 is correct

 The Indian Ocean Dipole (IOD), also known as the Indian Niño, is an irregular oscillation of sea-surface temperatures in which the western Indian Ocean becomes alternately warmer and then colder than the eastern part of the ocean

#### Statement 2 is correct

- Indian monsoon depends upon not only El Nino La Nina but also IOD and other such ocean phenomena. As mentioned above, an IOD can either aggravate or weaken the impact of El Nino on Indian monsoon. If there is a positive IOD, it can bring good rains to India despite of an El Nino year.
- 17. If you want to see gharials in their natural habitat, which one of the following is the best place to visit?
  - (a) Bhitarkanika Mangroves
  - (b) Chambal River
  - (c) Pulicat Lake
  - (d) Deepor Beel

### **Explanation:**

Gharials, sometimes called gavials, are a type of Asian crocodilian distinguished by their long, thin snouts. Crocodilians are a group that includes crocodiles, alligators, caimans, and more.

Once found from Pakistan to Myanmar (Burma), the reptile's range has shrunk to two countries: India, along the Chambal,



Girwa, and Son Rivers; and Nepal, along the Narayani River.

The gharial reserves of India are located in three States – Uttar Pradesh, Madhya Pradesh and Rajasthan.

#### Source:

http://www.nationalgeographic.com/animals/reptiles/g/gharial/

- 18. Consider the following in respect of Indian Ocean Naval Symposium (IONS):
  - Inaugural IONS was held in India in 2015 under the chairmanship of the Indian Navy.
  - 2) IONS is a voluntary initiative that seeks to increase maritime co-operation among navies of the littoral states of the Indian Ocean Region.

Which of the above statements is/are correct?

(a) 1 only

# (b) 2 only

- (c) Both 1 and 2
- (d) Neither 1 nor 2

#### **Explanation:**

The inaugural IONS-2008 was held in New Delhi, India on 14 Feb 08. CNS, Indian Navy was designated the Chairman IONS for the period 2008-10. A 'Charter of Business' was mutually agreed to by the Chiefs of the member-navies, which has been forwarded to all the member navies for ratification. The theme of the IONS-2008 was "Contemporary Trans-national Challenges – International Maritime Connectivities".

The 'Indian Ocean Naval Symposium' (IONS) is a voluntary initiative that seeks to increase maritime co-operation among navies of the littoral states of the Indian Ocean Region by providing an open and inclusive forum for discussion of regionally relevant maritime issues.

Source:

http://ions.gov.in/about\_ions

19. The painting of Bodhisattva Padmapani is one of the most famous and oft-illustrated paintings at

# (a) Ajanta

- (b) Badami
- (c) Bagh
- (d) Ellora

# **Explanation:**

- The most famous painting in **Ajanta** is the Bodhisattva Padmapani (Padmapani in Sanskrit literally translates into "one who holds the lotus").
- Paintings at Badami are housed in rock-cut cave temples, mostly belong to 6th and 8th centuries AD
- The caves at Vatapi were fully decorated with murals; many of them were inspired from Puranas.
- The Badami caves were a major source of inspiration to the monuments at Mahabalipuram
- **The Bagh** Caves are a group of nine rock-cut monuments located in Madhya Pradesh
- The paintings on the wall and ceilings of the viharas of Bagh were executed in tempera
- These paintings are materialistic rather than spiritualistic
- Ellora Caves is one of the largest rockcut monastery-temple caves complexes in the world
- The site presents monuments and artwork of Buddhism, Hinduism and Jainism
- Cave 16 of Ellora features the largest single monolithic rock excavation in the world, the Kailasha temple, a



chariot shaped monument dedicated to Shiva



# 20. Consider the following pairs:

#### **Traditions**

#### **Communities**

- Chaliha Sahib Sindhis Festival
- Nanda Raj Jaat Gonds Yatra
- 3) Wari-Warkari Santhals Which of the above pairs is/are correctly matched?

# (a) 1 only

- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) None of the above
  - Chalio / Chaliho also called Chaliho Sahib is a forty-day-long festival celebrated by Hindu Sindhi community
  - This is a thanks-giving celebration in honor of Varuna Deva and Jhulelal for listening to their prayers
  - Nanda Devi Raj Jat is a pilgrimage and festival of Uttarakhand in India
  - The Jaat means Yatra or pilgrimage
  - Pandharpur Wari or Wari (Vari) is an annual pilgrimage (yatra) to Pandharpur
  - Santhals mainly celebrate the Karam festival which falls in the month of September and October
  - Gonds fair and festivals are influenced from the Hindu traditions. Keslapur Jathra is the important festival of the Gonds. In this festival they worship the snake deity called Nagoba
- 21. Which of the following practices can help in water conservation in agriculture?
  - 1) Reduced or zero tillage of the land
  - 2) Applying gypsum before irrigating the field
  - 3) Allowing crop residue to remain in the field

Select the correct answer using the codes given below:

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

# **Explanation:**

Improved water infiltration, less runoff and reduced evaporative losses in no-till systems can save from 5 to 12 inches per year, making more water available for crop production. Therefore, the statement (1) is correct.

Throughout the year, residue protects the soil from the sun and wind, reducing losses through evaporation. In winter it traps moisture through winter snowfall. Crop residue also reduces evaporation from the soil and keeps the soil surface cooler. It reflects some sunlight energy back to the air and acts as insulation to keep the soil cooler in the heat of the summer. This cooler, moist surface allows better root development during the growing season, improving the standability of corn. This makes the statement (3) correct.

While gypsum is mainly used to treat acidic soils, as a calcium supplement and soil structure. Hence the statement (2) is wrong.

#### Source:

http://cropwatch.unl.edu/tillage/water http://cropwatch.unl.edu/conserving-soiland-water-no-till-and-crop-residue-unlcropwatch-april-5-2013

22. Consider the following statements:

The nation-wide 'Soil Health Card Scheme' aims at

- 1) expanding the cultivable area under irrigation.
- 2) enabling the banks to assess the quantum of loans to be granted to farmers on the basis of soil quality.
- 3) checking the overuse of fertilizers in farmlands.



Which of the above statements is/are correct?

(a) 1 and 2 only

# (b) 3 only

- (c) 2 and 3 only
- (d) 1, 2 and 3

# **Explanation:**

The measures to improve minimum support price and assistance like improved irrigation and rural electrification, the incumbent NDA regime has laid emphasis on the **Soil Health Card Scheme**.

Launched by the central government in February 2015, the scheme is tailor-made to issue 'Soil card' to farmers which will recommendations carry crop-wise nutrients and fertilizers required for the individual farms. This is aimed to help farmers to improve productivity through judicious use of inputs.

In the words of the union Agriculture Minister Radha Mohan Singh, this pathbreaking initiative would create a golden opportunity for the farmers to improve the productivity of their crops and also go for diversification. This will certainly contribute significantly to ensuring food security of the country.

#### Source:

http://pib.nic.in/newsite/mbErel.aspx?reli d=133855

23. Consider the following pairs:

	Commonly used/ consumed		Unwanted or controversial chemicals likely to
	materials		be found in them
1)	Lipstick	-	Lead
2)	Soft drinks	-	Brominated
			vegetable oils
3)	Chinese fast	-	Monosodium
	food		glutamate

Which of the pairs given above is/are correctly matched?

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

# (d) 1, 2 and 3

# **Explanation:**

Daily use consumables such as turmeric, vermillion or cosmetics such as kajal and lipstick (both branded and unbranded), can contain high lead content.

Brominated vegetable oil (BVO) is a complex mixture of plant-derived triglycerides that have been reacted to contain atoms of the element bromine bonded to the molecules. Brominated vegetable oil is used primarily to help emulsify citrus-flavored soft preventing them from separating during distribution.

Monosodium glutamate It was originally **J**apanese synthesized by biochemist Kikunae Ikeda. He called this flavor umami.

http://www.thehindu.com/news/cities/ba ngalore/high-lead-content-in-everydayconsumables/article7296361.ece http://www.environmentalhealthnews.org /ehs/news/2011/brominated-battle-in-

http://www.foxnews.com/fooddrink/2014/11/12/foods-didnt-knowcontain-msg.html

- 24. Organic Light Emitting Diodes (OLEDs) are used to create digital display in many devices. create digital display in many devices. What are the advantages of OLED displays over Liquid Crystal displays?
  - 1) OLED displays can be fabricated on flexible plastic substrates.
  - 2) Roll-up displays embedded in clothing can be made using OLEDs.
  - 3) Transparent displays are possible using OLEDs.



Select the correct answer using the codes given below:

- (a) 1 and 3 only
- (b) 2 only
- (c) 1, 2 and 3
- (d) None of the above statements is correct

# **Explanation:**

An OLED has a substrate made of clear plastic, glass or foil. The substrate supports the OLED.

The plastic, organic layers of an OLED are thinner, lighter and more flexible than the crystalline layers in an LED or LCD.

Transparent OLEDs have only transparent components (substrate, cathode and anode) and, when turned off, are up to 85 percent as transparent as their substrate. When a transparent OLED display is turned on, it allows light to pass in both directions.

#### Source:

http://electronics.howstuffworks.com/oled 1.htm

http://electronics.howstuffworks.com/oled 4.htm

http://electronics.howstuffworks.com/oled 5.htm

- 25. Which of the following is/are famous for Sun temples?
  - 1) Arasavalli
  - 2) Amarakantak
  - 3) Omkareshwar

Select the correct answer using the code given below:

### (a) 1 only

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

# **Explanation:**

 Arasavalli Sun Temple which is dedicated to the Hindu solar deity Surya, located in this village

- Amarkantak is a Hindu Tirtha place in Madhya Pradesh, a site where three rivers Son, Johila and Narmada start
- Omkareshwar is a Hindu temple dedicated to God Shiva. It is one of the 12 revered Jyotirlinga shrines of Shiva

# 26. Consider the following statements:

- 1) In the election for Lok Sabha or State Assembly, the winning candidate must get at least 50 percent of the votes polled, to be declared elected.
- 2) According to the provisions laid down in the Constitution of India, in Lok Sabha, the Speaker's post goes to the majority party and the Deputy Speaker's to the Opposition.

Which of the statements given above is/are correct?

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

# **Explanation:**

A **first-past-the-post** (abbreviated as **FPTP**, **1stP**, **1PTP** or **FPP**) voting

method is one in which voters indicate on a ballot the candidate of their choice, and the candidate who receives most votes wins. First-past-the-post voting is one of several plurality voting methods.

Under a first-past-the-post voting method the highest polling candidate (or a group of candidates for some cases) is elected. In this real-life example, Mr.X obtained a greater number than the other candidates, and so was declared the winner, even though a majority of voters did not vote for him.

The **Speaker of the Lok Sabha** is the presiding officer of the Lok Sabha,<sup>[1]</sup>the lower house of the Parliament of India. The speaker is elected in the very first meeting of the Lok Sabha following general elections. Serving for a term of five



years, the Speaker chosen from amongst the members of the Lok Sabha, and is by convention a member of the ruling party or alliance.

The **Deputy Speaker of the Lok Sabha** is the vice-presiding officer of the Lok Sabha, the lower house of the Parliament of India. S/He acts as the presiding officer in case of leave or absence caused by death or illness of the Speaker of the Lok Sabha. It is by convention that position of Deputy Speaker is offered to opposition party in India.

#### Source:

https://en.wikipedia.org/wiki/First-past-the-post\_voting#Example
https://en.wikipedia.org/wiki/Speaker\_of\_t
he\_Lok\_Sabha
https://en.wikipedia.org/wiki/Deputy\_Spe
aker\_of\_the\_Lok\_Sabha

- 27. Which of the following has/have occurred in India after its liberalization of economic policies in 1991?
  - 1) Share of agriculture in GDP increased enormously.
  - 2) Share of India's exports in world trade increased.
  - 3) FDI inflows increased.
  - 4) India's foreign exchange reserves increased enormously.

Select the correct answer using the codes given below:

(a) 1 and 4 only

# (b) 2, 3 and 4 only

- (c) 2 and 3 only
- (d) 1, 2, 3 and 4

# **Explanation:**

Share of agriculture in GDP is showing a decreasing tend. An analysis of the sources of reserves accretion during the entire reform period from 1991 onwards reveals that the increase in forex reserves has been facilitated by an increase in the annual quantum of foreign direct investment (FDI) from US \$ 129 million in 1991-92 to US\$ 4.7

billion in 2003-04. Since 1991, share of India's export in world trade started increasing.

#### Source:

https://www.rbi.org.in/scripts/Publication ReportDetails.aspx?ID=444 http://statisticstimes.com/ economy/sectorwise-gdp- contribution-ofindia.phphttps://tradingeconomics.com/in dia/exports

- 28. What is the application of Somatic Cell Nuclear Transfer Technology?
  - (a) Production of biolarvicides
  - (b) Manufacture of biodegradable plastics
  - (c) Reproductive cloning of animals
  - (d) Production of organisms free of diseases **Explanation**:

Somatic cell nuclear transfer (SCNT), technique in which the nucleus of a somatic (body) cell is transferred to the cytoplasm of an enucleated egg (an egg that has had its own nucleus removed). Once inside the egg, the somatic nucleus is reprogrammed by egg cytoplasmic factors to become a zygote (fertilized egg) nucleus.

It can be used in embryonic stem cell research, or in regenerative medicine where it is sometimes referred to as "therapeutic cloning."

#### Source:

https://www.britannica.com/science/somatic-cell-nuclear-transfer

- 29. Consider the following statements:
  - 1) National Payments Corporation of India (NPCI) helps in promoting the financial inclusion in the country.
  - 2) NPCI has launched RuPay, a card payment scheme.

Which of the statements given above is/are correct?

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



National Payments Corporation of India (NPCI) initiated the launch of RuPay card in India.

#### Source:

http://www.npci.org.in/aboutus.aspx# http://www.businesstandard.com/article/pf/five-things-youwanted-to-know-about-the-rupay-card-114080100278\_1.html

- 30. The term `M-STrIPES'is sometimes seen in the news in the context of
  - (a) Captive breeding of Wild Fauna
  - (b) Maintenance of Tiger Reserves
  - (c) Indigenous Satellite Navigation System
  - (d) Security of National Highways

# **Explanation:**

The National Tiger Conservation Authority (NTCA), which has been upgrading monitoring mechanism for the large cats, brought in field officials and technical staff of 11 tiger reserves (TRs) of the country to Baripada to introduce them to Monitoring System for Tiger-Intensive Protection and Ecological Status, known as M-STrIPES.

The android-based monitoring software M-STrIPES will be used across all the TRs of the country.

#### Source:

http://www.newindianexpress.com/states/odisha/2017/feb/08/m-stripes-to-monitor-str-from-april-1568257.html

- 31. What is/are the most likely advantages of implementing 'Goods and Services Tax (GST)'?
  - 1) It will replace multiple taxes collected by multiple authorities and will thus create a single market in India.
  - 2) It will drastically reduce the 'Current Account Deficit' of India and will enable

- it to increase its foreign exchange reserves.
- 3) It will enormously increase the growth and size of economy of India and will enable it to overtake China in the near future.

Select the correct answer using the codes given below:

# (a) 1 only

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

# **Explanation:**

Statement 1 is correct.

GST will reduce the price of manufactured goods thus makes exports more competitive. When export increases, we might have a favourable forex and current account deficit. But Current Account also includes role of imports which the GST does not cover. As the statements is ambiguous, a conclusion cannot be arrived certainly. According to various estimates implementing GST might boost the GDP growth by 80 to 100 basis point. But will it enormously increase the growth and size of Cannot be said with the economy? certainty. In near future, it may or may not overtake China's growth. But that also depends on China's performance. As the statements is ambiguous, a conclusion cannot be arrived certainly.

32. 'Broad-based Trade and Investment Agreement (BTIA)' is sometimes seen- in the news in the context of negotiations held between India and

#### (a) European Union

- (b) Gulf Cooperation Council
- (c) Organization for Economic Cooperation and Development
- (d) Shanghai Cooperation Organization



Obtaining greater access to the market for services in the European Union (EU) is key for the progress of the Broadbased Trade and Investment Agreement (BTIA) between the EU and India

But from the period when the negotiations for BTIA started in June 2007 till today, the economic scenario has worsened and become gloomier for both India and the European Union.

#### Source:

http://www.thehindu.com/business/Econo my/market-access-for-indias-services-keyto-btia-nirmalasitharman/article8414503.ece http://pib.nic.in/newsite/mbErel.aspx?reli d=87453

- 33. Consider the following statements:
  - 1) India has ratified the Trade Facilitation Agreement (TFA) of WTO.
  - 2) TFA is a part of WTO's Bali Ministerial Package of 2013.
  - 3) TFA came into force in January 2016. Select the correct answer using the codes given below:

#### (a) 1 and 2 only

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

#### **Explanation:**

India has ratified the new Trade Facilitation Agreement (TFA). India's WTO ambassador Anjali Prasad handed over her country's instrument of acceptance to Director-General Roberto Azevêdo on 22 April.

Concluded at the WTO's 2013 Bali Ministerial Conference, the TFA contains provisions for expediting the movement, release and clearance of goods, including goods in transit.

The TFA will enter into force once twothirds of the WTO membership has formally accepted the Agreement. India is the 76th WTO member to accept the TFA.

WTO members concluded negotiations at the 2013 Bali Ministerial Conference on the landmark Trade Facilitation Agreement (TFA), which entered into force on 22 February 2017 following its ratification by two-thirds of the WTO membership.

#### Source:

https://www.wto.org/english/news\_e/new s16\_e/fac\_21apr16\_e.htm https://www.wto.org/english/tratop\_e/tra dfa\_e/tradfa\_e.htm

- 34. What is the importance of developing Chabahar Port by India?
  - (a) India's trade with African countries will enormously increase.
  - (b) India's relations with oil-producing Arab countries will be strengthened.
  - (c) India will not depend on Pakistan for access to Afghanistan and Central Asia.
  - (d) Pakistan will facilitate and protect the installation of a gas pipeline between Iraq and India.

### **Explanation:**

No other international port has seen the level of involvement and enthusiasm from Chabahar as India. The port will make way for India to bypass Pakistan in transporting goods to Afghanistan using a sea-land route.

This will also give momentum to the International North-South Transport Corridor of which both are initial signatories along with Russia. Iran is the key gateway in this project. It entails the ship, rail, and road routes for moving freight between India, Russia, Iran, Europe and Central Asia. The route primarily involves moving freight from India, Iran, Azerbaijan and Russia. The objective of the corridor is to increase trade connectivity



between major cities such as Mumbai, Moscow, Tehran, Baku, Astrakhan etc. It would counter Chinese presence in the Arabian sea through the support to Pakistan in developing Gwadar port. It can be used to station security vessels for merchant ships off the African coast apart from giving the country a foothold in the western Arabian Sea, which is important as many of its energy imports pass through the route.

#### Source:

http://economictimes.indiatimes.com/new s/politics-and-nation/five-things-about-chabahar-port-and-how-india-gains-from-it/articleshow/52400399.cms

- 35. In India, it is legally mandatory for which of the following to report on cyber security incidents?
  - 1) Service providers
  - 2) Data centres
  - 3) Body corporate

Select the correct answer using the code given below:

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

### (d) 1, 2 and 3

# **Explanation:**

CERT-IN has today released advertisements in news papers reiterating the rules that require mandatory reporting of cyber incidents. The circular makes a reference to the notification dated 16th 2014 titled "Information January, Technology (The Indian Computer Emergency Response Team and Manner of Performing Functions and Duties) Rules ,2013" (Copy available here) in which under Section 12(1)(a), it is stated that "Any individual, organization or corporate entity

affected by cyber security incident may report the incident to CERT-IN".

#### Source:

Page no. 4

http://meity.gov.in/writereaddata/files/G\_S\_R%2020%20%28E%292\_0.pdf

- 36. Right to vote and to be elected in India is a
  - (a) Fundamental Right
  - (b) Natural Right
  - (c) Constitutional Right

# (d) Legal Right

# **Explanation:**

Article 326. Elections to the House of the People and to the Legislative Assemblies of States to be on the basis of adult suffrage. -The elections to the House of the People and to the Legislative Assembly of every State shall be on the basic of adult suffrage that is to say every person who is a citizen of India and who is not less than eighteen years of age on such date as may be fixed in that behalf by of under any law made by the appropriate Legislature and is not disqualified under this otherwise Constitution or any law made by the appropriate Legislature on the ground of non-residence, unsoundness of mind, crime or corrupt or illegal practice shall be entitled to be registered as a voter at any such election.

Section 62 of Representation of People Act, 1951:- **Right to vote-** (1) No person who is not, and except as expressly provided by this Act, every person who is, for the time being entered in the electoral roll of any constancy shall be entitled to vote in that constituency.

#### Source:

http://eci.nic.in/archive/handbook/CANDI DATES/cap3/cap3\_1.htm



- 37. What is the purpose of 'evolved Laser Interferometer Space Antenna (eLISA)' project?
  - (a) To detect neutrinos

# (b) To detect gravitational waves

- (c) To detect the effectiveness .of missile defence system
- (d) To study the effect of solar flares on our communication systems

# **Explanation:**

The Laser Interferometer Space Antenna (LISA) is a joint NASA-ESA project to develop and operate a space-based gravitational wave detector. LISA detects gravitational-wave induced strains in space-time by measuring changes of the separation between fiducial masses in three spacecraft 5 million kilometers apart.

#### Source:

https://lisa.nasa.gov/

38. What is the purpose of Tidyanjali Yojana'?

- 1) To enable the famous foreign educational institutions to open their campuses in India.
- 2) To increase the quality of education provided in government schools by taking help from the private sector and the community.
- 3) To encourage voluntary monetary contributions from private individuals and organizations so as to improve the infrastructure facilities for primary and secondary schools.

Select the correct answer using the codes given below:

#### (a) 2 only

- (b) 3 only
- (c) 1 and 2 only
- (d) 2 and 3 only

# **Explanation:**

**Vidyanjali** is an initiative to enhance community and private sector involvement in Government run elementary schools across the country under the overall aegis of the Sarva Shiksha Abhiyan. Through this initiative people from the Indian Diaspora, retired teachers. retired government officials including retired defence retired professionals personnel. and women who are home makers can volunteer at a school that requests for one. Vidyanjali will also cover initiatives under the Corporate Social Responsibility (CSR) and Public Private Partnership (PPP), with **Public** Sector Undertaking (PSU) Companies, private corporate and others.

A very large number of people who are not part of the government have expressed a desire to give back to society and particularly to children in government schools. This includes retired government and other professionals, home makers and also members of the Indian Diaspora and their children.

At the same time, there is a huge gap in the provisioning of educational services to children in government schools particularly for co-scholastic areas.

This programme has been envisaged to bring together people willing to volunteer their services at schools which really need them.

The aim of the programme is to strengthen implementation of co-scholastic activities in government schools through services of volunteers.

# the volunteers will not teach any subject in school or take regular class.

The purpose of a Volunteer at a school is to strengthen and enrich the implementation of co-scholastic activities. Volunteers would be able to bring diverse talents and skills, thereby making valuable contribution to the learning process at school. Volunteer sunder he **Vidyanjali** programme will offer their services to government schools without receiving compensation. The Volunteers

UPSC 2017 Preliminary Exam Q&A Video Discussion with Smart Leaders IAS will be available in our youtube channel "Smart Leaders IAS Online" at 9:00pm



will conduct one or more from among the following co-scholastic activities with children in standards 1 to 8.

- reading to children;
- helping children with creative writing;
- public speaking;
- play acting;
- preparing story books with children;
- There will be no fees charged from the Volunteer at any stage of the programme.
- In case of all girls' schools, only female volunteers would be allowed.
- The volunteers are requested not to offer gifts to individual students or teachers. Only very small and inexpensive gifts which are in the nature of mementos would be allowed to be received from the volunteer, but these need to be handed over to the Head Teacher.

#### Source:

http://vidyanjali.mygov.in/index.php/front end/guideline

- 39. What is the aim of the programme `Unnat Bharat Abhiyan'?
  - (a) Achieving 100% literacy by promoting collaboration between voluntary organizations an government's education system and local communities.
  - (b) Connecting institutions of higher education with local communities to address development challenges through appropriate technologies.
  - (c) Strengthening India's scientific research institutions in order to make India a scientific and technological power.
  - (d) Developing human capital by allocating special funds for health care and education of rural and urban poor, and organizing skill development programmes and vocational training for them.

### **Explanation:**

**Unnat Bharat Abhiyan** is inspired by the vision of transformational change in rural development processes by leveraging knowledge institutions to help build the architecture of an Inclusive India. Their mission is conceptualised as a movement to enable processes that connect institutes of higher education with local communities to address the development challenges of rural India through participatory processes technologies and appropriate accelerating sustainable growth. It also aims to create a virtuous cycle between the society and an inclusive university system by providing knowledge and practices for emerging professions and to upgrade the capabilities of both the public and the private sectors.

#### Source:

http://unnat.iitd.ac.in/index.php/en/frame work/introduction

- 40. Consider the following statements :
  - 1) The Election Commission of India is a five-member body.
  - 2) Union Ministry of Home Affairs decides the election schedule for the conduct of both general elections and bye-elections.
  - 3) Election Commission resolves the disputes relating to splits/mergers of recognised political parties.

Which of the statements given above is/are correct?

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

# (d) 3 only

# **Explanation:**

At present, the Election Commission of India is a three-member body, with one Chief Election Commissioner and two Election Commissioners.



It was not a multi member body from the beginning. It was a single - member body when it was first set up in 1950 and up to 15th October, 1989 with only the Chief Election Commissioner. From 16th October, 1989 upto the 1st January, 1990, it became a three-member body with R.V.S.Peri Sastri (C.E.C) and S.S.Dhanoa and V.S.Seigell as Election Commissioners. From 2nd January, 1990 to 30th September, 1993, it was a single-member Commission and again from 1st October, 1993 it has become a three-member Commission.

The Election Commission decides the schedule for election.

The Commission normally announces the schedule of elections in a major Press Conference a few weeks before the formal process is set in motion.

Splits, mergers and alliances have frequently disrupted the compositions of political parties. This has led to a number of disputes over which section of a divided party gets to keep the party symbol, and how to classify the resulting parties in terms of national and state parties. The Election Commission has to resolve these disputes, although its decisions can be challenged in the courts.

#### Source:

http://eci.nic.in/eci\_main1/the\_function.as px#splitsandmergers

- 41. In India, if a species of tortoise is declared protected under Schedule I of the Wildlife (Protection) Act, 1972, what does it imply?
  - (a) It enjoys the same level of protection as the tiger.
  - (b) It no longer exists in the wild, a few individuals are under captive protection; and now it is impossible to prevent its extinction.

- (c) It is endemic to a particular region of India.
- (d) Both (b) and (c) stated above are correct in this context.

# **Explanation:**

The Schedule 1 of the Wildlife Protection Act 1972 ensures the maximum legal protection for wild animals. As Tiger is a schedule 1 animal under the WPA, 1972, a species of tortoise will enjoy the same status as Tiger.

#### Source:

Page no.9 and 48

http://nbaindia.org/uploaded/Biodiversity india/Legal/15.%20Wildlife%20%28Prote ction%29%20Act,%201972.pdf

- 42. In India, Judicial Review implies
  - (a) the power of the Judiciary to pronounce upon the constitutionality of laws and executive orders.
  - (b) the power of the Judiciary to question the wisdom of the laws enacted by the Legislatures.
  - (c) the power of the Judiciary to review all the legislative enactments before they are assented to by the President.
  - (d) the power of the Judiciary to review its own judgements given earlier in similar or different cases.

### **Explanation:**

Judicial review is the power of a court to enquire whether a law, executive order or other official action conflicts with written constitution and, if the court concludes that it does, declare it unconstitutional and void".

#### Source:

http://www.legalservicesindia.com/article/article/judicial-review-in-india-and-usa-1734-1.html



- 43. With reference to Indian freedom struggle, consider the following events :
  - 1) Mutiny in Royal Indian Navy
  - 2) Quit India Movement launched
  - 3) Second Round Table Conference

What is the correct chronological sequence of the above events?

- (a) 1-2-3
- (b) 2-1-3
- (c) 3-2-1
- (d) 3-1-2

# **Explanation:**

- RIN 18–23 February 1946
- Quit India Movement 8 August 1942
- Second Round Table Conference -December 1931
- 44. Consider the following statements:
  - 1) Tax revenue as a percent of GDP of India has steadily increased in the last decade.
  - 2) Fiscal deficit as a percent of GDP of India has steadily increased in the last decade.

Which of the statements given above is/are correct?

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

#### **Explanation:**

Fiscal Deficit as percent of GDP is getting decreased.

#### Source:

http://economictimes.indiatimes.com/new s/economy/policy/eco-survey-2016-raise-taxpayers-to-gdp-ratio-not-exemption-threshold/articleshow/51153610.cms http://pibphoto.nic.in/documents/graphic/gbig298.JPG

- 45. Recently there was a proposal to translocate some of the lions from their natural habitat in Gujarat to which one of the following sites?
  - (a) Corbett National Park

# (b) Kuno Palpur Wildlife Sanctuary

- (c) Mudumalai Wildlife Sanctuary
- (d) Sariska National Park

# **Explanation:**

The Asiatic Lion Reintroduction Project is an initiative of the Indian Government to provide safeguards to the Asiatic lion (Panthera leo persica) from extinction in the wild by means of reintroduction. The last wild population of the Asiatic lion is found in the Gir Forest region of the state of Gujarat. The single population faces the threats of epidemics, natural disasters and other anthropogenic factors.

The process of translocation of a few Asiatic lions from Gir National Park to Palpur Kuno is a "long-term action.

The whole programme encompasses action for over 25 years. The Ministry of Environment and Forest has constituted an Experts Committee for planning and implementation of translocation of Asiatic lions from Gir to Kuno. The group includes representatives of Madhya Pradesh and Gujarat

### Source:

http://www.livemint.com/Politics/niSTqjT WnYXmlhogS55tuM/Gir-Lions-Forestministry-cites-challenges-in-Madhya-Prades.html

- 46. Which of the following are **not** necessarily the consequences of the proclamation of the President's rule in a State?
  - 1) Dissolution of the State Legislative Assembly
  - 2) Removal of the Council of Ministers in the State
  - 3) Dissolution of the local bodies Select the correct answer using the code given below
  - (a) 1 and 2 only
  - (b) 1 and 3 only
  - (c) 2 and 3 only
  - (d) 1, 2 and 3



The proclamation of president's rule under Article 356 necessarily results in the removal of council of ministers in the state, but not necessarily the dissolution of state assembly or local bodies.

As per the provisions of Article 356 of Indian Constitution, the state Assembly can be dissolved when any of the following factors prevent the state government from functioning as per the Constitution:

When the state Assembly fails to form a government and elect a leader as Chief Minister Whenever there's a breakdown of a coalition If Assembly elections are postponed for unavoidable reasons Insurgencies and internal subversions Prevention or facilitation of bifurcation of states.

#### Source:

http://www.elections.in/politicalcorner/when-and-why-is-a-state-assemblydissolved/

- 47. Which of the following are envisaged by the Right against Exploitation in the Constitution of India?
  - 1) Prohibition of traffic in human beings and forced labour
  - 2) Abolition of untouchability
  - 3) Protection of the interests of minorities
  - 4) Prohibition of employment of children in factories and mines

Select the correct answer using the code given below:

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

#### **Explanation:**

**Right against exploitation** is provided under Articles 23 and 24 of Indian constitution. Article 23. provides for Prohibition of traffic in human beings and forced labour

Article 23(1) says Traffic in human beings and begar and other similar forms of forced

labour are prohibited and any contravention of this provision shall be an offence punishable in accordance with law Articles 24 of Indian constitution says No child below the age of fourteen years shall be employed to work in any factory or mine or engaged in any other hazardous employment.

- 48. Which of the following is geographically closest to Great Nicobar?
  - (a) Sumatra
  - (b) Borneo
  - (c) Java
  - (d) Sri Lanka

# **Explanation:**



- 49. Out of the following statements, choose the one that brings out the principle underlying the Cabinet form of Government:
  - (a) An arrangement for minimizing the criticism against the Government whose responsibilities are complex and hard to carry out to the satisfaction of all
  - (b) A mechanism for speeding up the activities of the Government whose responsibilities are increasing day by day.
  - (c) A mechanism of parliamentary democracy for ensuring collective responsibility of the Government to the people.
  - (d) A device for strengthening the hands of the head of the Government whose hold over the people is in a state of decline.



Collective Ministerial Responsibility in the sole crux of Parliamentary democracy. The principle of collective responsibility represents ministerial accountability to the legislature. In India, the doctrine of collective responsibility of the Union Executive to the House of the People and of the State Executive to the Legislative Assembly is specifically enshrined in the Constitution. Article 75(3) lays down that the Council of Ministers shall be collectively responsible to the Lok Sabha. It means that the Government must maintain a majority in the Lok Sabha as a condition of its survival. The obiect of Collective responsibility is to make the whole body of persons holding ministerial office collectively, or, if one may so put it, "vicariously responsible for such acts of the others as are referable to their collective violation so that, even if an individual may not be personally responsible for it, yet, he will be deemed to share the responsibility with those who may have actually committed some wrong."

Lord Salisbury explained the principle of collective responsibility as: "For all that passes in the Cabinet, each member of it who does not resign is absolutely irretrievably responsible, and has no right afterwards to say that he agreed in one sense to a compromise while in another he was persuaded by his colleagues."

#### Source:

https://rostrumlegal.com/the-concept-of-collective-ministerial-responsibility-in-india-theory-practice/

- 50. Which one of the following is not a feature of Indian federalism?
  - (a) There is, an independent judiciary in India.
  - (b) Powers have been clearly divided between the Centre and the States.

- (c) The federating units have been given unequal representation in the Rajya Sabha.
- (d) It is the result of an agreement among the federating units.

# **Explanation:**

Indian constitution is said to be federal, then why not India is a federation but Union. It is mainly for two reasons viz. (a) that the Indian Union is not the result of an agreement by the states and (b) the component states have no freedom to secede from it.

#### Source:

http://www.legallyindia.com/views/entry/india-union-or-federation

- 51. The object of the Butler Committee of 1927 was to
  - (a) Define the jurisdiction of the Central and Provincial Governments.
  - (b) Define the powers of the Secretary of State for India.
  - (c) Impose censorship on national press.
  - (d) Improve the relationship between the Government of India and the Indian States.

#### **Explanation:**

- Indian states committee appointed a committee under the Chairmanship of Sir Harcourt Butler was to Investigate, Improve and clarify the relationship between the paramount power and the Princes of Princely States
- 52. The term 'Domestic Content Requirement' is sometimes seen in the news with reference to
  - (a) Developing solar power production in our country
  - (b) Granting licenses to foreign T.V. channels in our country
  - (c) Exporting our food products to other countries
  - (d) Permitting foreigneducational institutions to set up their campuses in our country



The domestic content requirement (DCR) category, the mandate for solar projects in India to utilize domestically manufactured solar modules and cells, was instituted in the Jawaharlal Nehru National Solar Mission (JNNSM) from the beginning of 2010 in an effort to create a healthy and robust indigenous manufacturing base and to elevate India's status as a solar hub.

# Source:

http://economictimes.indiatimes.com/artic leshow/58398282.cms?utm\_source=conten tofinterest&utm\_medium=text&utm\_campa ign=cppst

- 53. Consider the following statements:
  - 1) The Nuclear Security Summits are periodically held under the aegis of the United Nations.
  - 2) The International Panel on Fissile Materials is an organ of International Atomic Energy Agency.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2

### (d) Neither 1 nor 2

#### **Explanation:**

In his 2009 Prague speech, President Obama stated that nuclear terrorism "is the most immediate and extreme threat to global security." To mitigate this threat, the President urged that "we act with purpose and without delay," announcing "a new international effort to secure vulnerable nuclear material around the world" that would begin with "a Global Summit on Nuclear Security that the United States will host. The first Nuclear Security Summit was held in Washington, DC in 2010, and was followed by additional Summits in Seoul in 2012 and The Hague in 2014.

The United States will host the fourth Nuclear Security Summit in Washington, D.C., on March 31 and April 1, 2016.

The International Panel on Fissile Materials (IPFM) was founded in January 2006 and is an independent group of arms-control and nonproliferation experts from both nuclear weapon and non-nuclear weapon states. The Panel has been co-chaired since 2015 by Professor Alexander Glaser and Dr. Zia Mian of Princeton University and Professor Tatsujiro Suzuki of Nagasaki University, Japan. Previously, it was co-chaired by Goldemberg Professor lose of University of Sao Paolo, Brazil (2006-2007), Dr. R. Rajaraman (2007-2014) Professor Emeritus, of Jawaharlal Nehru University, New Delhi, India, and Professor Frank von Hippel of Princeton University (2006-2014).

Its members include nuclear experts from seventeen countries: Brazil, Canada, China, France, Germany, India, Iran, Japan, Mexico, Norway, Pakistan, South Korea, Russia, South Africa, Sweden, the United Kingdom, and the United States. This group of countries includes seven nuclear-weapon states and ten non-weapon states

#### Source:

http://www.nss2016.org/ http://fissilematerials.org/ipfm/about.html

- 54. Who among the following can join the National Pension System (NPS)?
  - (a) Resident Indian citizens only
  - (b) Persons of age from 21 to 55 only
  - (c) All State Government employees joining the services after the date of notification by the respective State Governments
  - (d) All Central Government employees including those of Armed Forces joining the services on or after 1st April, 2004



- 55. With reference to river Teesta, consider the following statements :
  - 1) The source of river Teesta is the same as that of l3rahmaputra but it flows through Sikkim.
  - 2) River Rangeet originates in Sikkim and it is a tributary of river Teesta..
  - 3) River Teesta flows into Bay of Bengal on the border of India and Bangladesh.

Which of the statements given above is/are correct?

(a) 1 and 3 only

# (b) 2 only

- (c) 2 and 3 only
- (d) 1, 2 and 3

# **Explanation:**

# Statement 1 is wrong

- The source of Teesta River is: located in the state of Sikkim
- Brahmaputra River originates on the Angsi Glacier located on the northern side of the Himalayas in Burang County of Tibet

#### Statement 2 is correct

- The Rangeet River is a tributary of the Teesta river, which is the largest river in the Indian state of Sikkim.
- It originates in the Himalayan mountains in West Sikkim district

#### **Statement 3 is wrong**

 River Teesta meets the Bay of Bengal from Bangladesh after joining Brahmaputra (Jamuna)

### 56. Consider the following statements:

- 1) In tropical regions, Zika virus disease is transmitted by the same mosquito that transmits dengue.
- 2) Sexual transmission of Zika virus disease is possible.

Which of the statements given above is/are correct?

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

# **Explanation:**

Zika virus disease is caused by a virus transmitted primarily by Aedes mosquitoes. Aedes aegypti, the yellow fever mosquito, is a mosquito that can spread dengue fever, chikungunya, Zika fever, Mayaro and yellow fever viruses, and other diseases.

Zika virus is primarily transmitted to people through the bite of an infected mosquito from the Aedes genus, mainly Aedes aegypti in tropical regions. Sexual transmission of Zika virus is also possible. Other modes of transmission such as blood transfusion are being investigated.

#### Source:

http://www.who.int/mediacentre/factshee ts/zika/en/

# 57. Consider the following statements:

- 1) The Standard Mark of Bureau of Indian Standards (BIS) is mandatory for automotive tyres and tubes.
- 2) AGMARK is a quality Certification Mark issued by the Food and Agriculture Organization (FAO).

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

# (a) 1 only

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

#### **Explanation:**

A certification from the Bureau of Indian Standards (BIS) is mandatory for all types of automotive tyres and tubes from May 18,2010.

As per the directive of the BIS, all types of tyres and tubes for two-wheelers, three-wheelers, passenger cars and



commercial vehicles would now need BIS marking to be sold in the city.

**AGMARK** is a certification mark employed on agricultural products in India, assuring that they conform to a set of standards approved by the Directorate of Marketing and Inspection. an agency the Government of India. The AGMARK is legally enforced in India by the *Agricultural* Produce (Grading and Marking) Act of 1937 ammended 1986). The (and in present AGMARK standards cover quality guidelines for 205 different commodities spanning variety a of Pulses, Cereals, Essential Oils, Vegetable Oils, Fruits & Vegetables, and semiprocessed products like Vermicelli. The term agmark was coined by joining the words 'Ag' to mean agriculture and 'mark' for a certification mark. This term was introduced originally in the bill presented parliament of India for the Agricultural Produce (Grading and Marking) Act.

# **Agmark Laboratories**

The Agmark certification is employed through fully state-owned Agmark laboratories located across the nation which act as testing and certifying centres. the Central AGMARK addition to Laboratory (CAL) in Nagpur, there are *Regional* **AGMARK** Laboratories (RALs) in 11 nodal cities (Mumbai, New Delhi, Chennai, Kolkata, Kanpur, Kochi, Gunt ur, Amritsar, Jaipur, Rajkot, Bhopal). Each of the regional laboratories is equipped with and specializes in the testing of products of regional significance. Hence the product range that could be tested varies across the centres.

#### Source:

http://www.thehindu.com/news/cities/chennai/BIS-certification-to-be-made-

mandatory-for-tyres-andtubes/article12079528.ece

http://agritech.tnau.ac.in/amis/food\_agmark.html

- 58. What is/are the advantage/advantages of implementing the 'National Agriculture Market' scheme?
  - 1) It is a pan-India electronic trading portal for agricultural commodities.
  - 2) It provides the farmers access to nationwide market, with prices commensurate with the quality of their produce.

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

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

# **Explanation:**

National Agriculture Market (NAM) is a pan-India electronic trading portal which networks the existing APMC mandis to create a unified national market for agricultural commodities.

NAM addresses these challenges by creating a unified market through online trading platform, both, at State and National level and promotes uniformity, streamlining of procedures across the integrated markets, removes information asymmetry between buyers and sellers and promotes real time price discovery, based on actual demand and supply, promotes transparency in auction process, access and nationwide market for the farmer, with prices commensurate with quality of his payment produce and online availability of better quality produce and at more reasonable prices to the consumer.

#### Source:

http://www.enam.gov.in/NAM/home/abou t\_nam.html#



- 59. With reference to the 'National Intellectual Property Rights Policy', consider the following statements:
  - 1) It reiterates India's commitment to the Doha Development Agenda and the TRIPS Agreement.
  - 2) Department of Industrial Policy and Promotion is the nodal agency for regulating intellectual property rights in India.

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

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

# **Explanation:**

'National Intellectual Property Rights Policy', reiterates India's commitment to the Doha Development Agenda and the TRIPS agreement. 'National Intellectual Property Rights Policy', suggests making the department of industrial policy and promotion (DIPP) the nodal agency for all IPR issues.

#### Source:

http://pib.nic.in/newsite/PrintRelease.asp x?relid=145338

http://www.thehindu.com/business/allyou-need-to-know-about-the-intellectualproperty-rights-policy/article8600530.ece

- 60. According to the Wildlife (Protection) Act, 1972, which of the following animals *cannot* be hunted by any person except under some provisions provided by law?
  - 1) Gharial
  - 2) Indian wild ass
  - 3) Wild buffalo

Select the correct answer using the codes given below:

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

## (d) 1, 2 and 3

# **Explanation:**

The Government of India accorded the highest level of protection to Gharial by bringing it under Schedule I of the Wild Life Protection Act, 1972. In 1976, Project Crocodile was initiated with support from the United Nations Development Programme and Food and Agriculture Organization.

The Indian wild ass is a species with a small distribution range restricted to the salt desert in the Little Rann of Kutch. Due to the various threats faced by Indian wild ass has been listed as EN Endangered by the IUCN Red List and in Schedule I of the Wildlife Protection Act (1972)

The Indian wild buffalo (Bubalus bubalis L.) has been listed as an endangered species in the Red Data book of IUCN and categorized in appendix III of CITES. It is classified in schedule I of Indian wildlife (Protection) act 1972, which indicates that it has been given top priority for conservation. Wild buffalo declared as State Animal of Chhattisgarh state in the year of 2001.

#### **Source:**

http://www.moef.nic.in/downloads/public-information/Gharial%20booklet\_MoEF.pdf http://cza.nic.in/wild%20Ass%20Studbook.pdf

http://envfor.nic.in/legis/wildlife/wildlife2s1.pdf

- 61. Which of the following statements is/are true of the Fundamental Duties of an Indian citizen?
  - 1) A legislative process has been provided to enforce these duties
  - 2) They are correlative to legal duties. Select the correct answer using the code given below:
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2



There is no legal sanction provided for violation or non-performance of Fundamental Duties. There is neither specific provision for enforceability nor any specific prohibition.

# Article 29 (1) of the Universal Declaration of Human rights, 1948, states:

"Everyone has duties to the community in which alone the free and full development of his personality is possible."

It is the basic principle of jurisprudence that every right has a correlative duty and every duty has a correlative Right. But the rule is not absolute. It is subject to certain exceptions in the sense that a person may have a right, but there may not be a correlative duty. The fundamental Duties are not enforceable by mandamus or any other legal remedy

#### Source:

http://cslra.in/blog/2015/11/13/fundame ntal-duties-under-the-constitution-as-legally-enforceable-duties-under-different-statutes/

- 62. Which of the following statements is/are correct?
  - 1) Radhakanta Deb First President of the British Indian Association
  - 2) Gazulu Lakshminarasu Chetty Founder of the Madras Mahajana Sabha
  - 3) Surendranath Banerjee Founder of the Indian Association

Which of the above pairs is/are correctly matched?

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

#### Radhakanta Deb

- Radhakanta Deb was a scholar and a leader of the Calcutta conservative Hindu society
- He was founder-president British Indian Association in 1851, a position he held till his death
- He helped David Hare and funded founding of the Hindu College in Calcutta

# Gazulu Lakshminarasu Chetty

- He was an Indian merchant, Indian independence activist and political activist who founded the Madras Native Association and the first Indian-owned newspaper, The Crescent.
- On the other hand, Madras Mahajana Sabha was established in May 1884. by M. Veeraraghavachariar, G. Subramania Iyer and P. Anandacharlu

# Surendranath Banerjee

- He was one of the earliest Indian political leaders during the British Raj.
   He founded the Indian National Association
- He was editor of "The Bengali" newspaper
- 63. Which one of the following objectives is **not** embodied in the Preamble to the Constitution of India?
  - (a) Liberty of thought
  - (b) Economic liberty
  - (c) Liberty of expression
  - (d) Liberty of belief

#### **Explanation:**

Preamble provides for LIBERTY of thought, expression, belief, faith and worship;

# Source:

http://www.constitution.org/cons/india/preamble.html



- 64. With reference to 'Quality Council of India (QCI)', consider the following statements :
  - 1) QCI was set up jointly by the Government of India and the Indian Industry.
  - 2) Chairman of QCI is appointed by the Prime Minister on the recommendations of the industry to the Government.

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

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

### **Explanation:**

The Quality Council of India (QCI) is a pioneering experiment of the Government of India in setting up organizations in partnership with the Indian industry.

QCI is governed by a Council of 38 members with equal representations of government, industry and consumers. Chairman of QCI is appointed by the Prime Minister on recommendation of the industry to the government.

#### Source

http://www.qcin.org/about-qci.php

- 65. What is the purpose of setting up of. Small Finance Banks (SFBs) in India?
  - 1) To supply credit to small business units
  - 2) To supply credit to small and marginal farmers
  - 3) To encourage young entrepreneurs to set up business particularly in rural areas.

Select the correct answer using the code given below

### (a) 1 and 2 only

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

### **Explanation:**

The objectives of setting up of small finance banks will be to further financial inclusion by (a) provision of savings vehicles, and (ii) supply of credit to small business units; small and marginal farmers; micro and small industries; and other unorganised sector entities, through high technology-low cost operations.

#### Source:

https://rbi.org.in/scripts/BS\_PressRelease Display.aspx?prid=32614

- 66. With reference to 'Asia Pacific Ministerial Conference on Housing and Urban Development (APMCHUD)', consider the following statements:
  - The first APMCHUD was held in India in 2006 on the theme 'Emerging Urban Forms — Policy Responses and Governance Structure'.
  - 2) India hosts all the Annual Ministerial Conferences in partnership with ADB, APEC and ASEAN.

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

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2

#### (d) Neither 1 nor 2

#### **Explanation:**

First conference was held in 2006 in New Delh.The conference theme was , "A vision for sustainable urbanisation in the Asia-Pacific by 2020".

The Conference of APMCHUD is a biennial event. This event is hosted by one of the member countries whose offer is consented to by the members in the previous

 $2^{nd}$  conference of the APMCHUD was held in May, 2008 in Tehran, Iran.

3<sup>rd</sup> conference of the APMCHUD was held in 2010 in Indonesia

4 th conference of the APMCHUD was held in 2012 Amman ,Jordan



 $5^{th}$  conference of the APMCHUD was held in 2014 in Seoul.

6 th conference of the APMCHUD was held in 2016 in New Delhi

#### Source:

http://www.apmchud.com/PDF/1st%20co nference%20proceedings.pdf http://www.apmchud.com/PDF/guidelines -apmc.pdf

67. Democracy's superior virtue lies in the fact that it calls into activity

# (a) the intelligence and character of ordinary men and women.

- (b) the methods for strengthening executive leadership.
- (c) a superior individual with dynamism and vision.
- (d) a band of dedicated party workers.
- 68. Which of the following is a most likely consequence of implementing the 'Unified Payments Interface (UPI)'?
  - (a) Mobile wallets will not be necessary for online payments.
  - (b) Digital currency will totally replace the physical currency in about two decades.
  - (c) FDI inflows will drastically increase.
  - (d) Direct transfer of subsidies to poor people will become very effective.

#### **Explanation:**

Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood. Universal Application for transaction. Single Application for accessing different bank accounts

### **UPI would Replace Many Digital Wallets**

The UPI would end this hassle as well. The payment through the UPI is as easy as payment through the wallets. But a single app is enough to pay anywhere. Also, the UPI does not ask money in advance. Rather,

your money remains in the bank account and keeps earning the interest. Digital wallets don't give any interest.

#### Source:

http://www.npci.org.in/UPI\_Background.as

https://upipayments.co.in/upi-benefits/

- 69. The terms 'Event Horizon', 'Singularity', 'String Theory' and 'Standard Model' are sometimes seen in the news in the context of
  - (a) **Observation and understanding of the Universe**
  - (b) Study of the solar and the lunar eclipses
  - (c) Placing satellites in the orbit of the Earth
  - (d) Origin and evolution of living organisms on the Earth

# **Explanation:**

In the centre of a black hole is a gravitational singularity, a one-dimensional point which contains a huge mass in an infinitely small space, where density and gravity become infinite and space-time curves infinitely, and where the laws of physics as we know them cease to operate. the subatomic composition of the universe is summarized in what is known as the Standard Model of particle physics. It describes both the fundamental building blocks out of which the world is made, and the forces through which these blocks interact.

In the last few decades, string theory has emerged as the most promising candidate for a microscopic theory of gravity. it attempts to provide a complete, unified, and consistent description of the fundamental structure of our universe. (For this reason it is sometimes, quite arrogantly, called a 'Theory of Everything').

#### Source:

http://www.nuclecu.unam.mx/~alberto/physics/string.html



- 70. With reference to agriculture in India, how can the technique of `genome sequencing', often seen in the news, be ' used in the immediate future?
  - 1) Genome sequencing can be used to identify genetic markers for disease resistance and drought tolerance in various crop plants.
  - 2) This technique helps in reducing the time required to develop new varieties of crop plants.
  - 3) It can be used to decipher the host-pathogen relationships in crops.

Select the correct answer using the codes given below:

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

# (d) 1, 2 and 3

#### **Explanation:**

In agriculture, genomics aids to:

- Improve and design crops with enhanced resistance to factors that influence their growth such as pests, diseases, drought, frost, floods and so on.
- To produce large quantities food on the limited amount of land and to cultivate more nutrient-rich foods
- To breed disease resistant, superior quality livestock and to produce healthy herd.
- Genomics helps to accurately predict the genetic merit, to sharpen selective breeding, enhance desirable traits and increase animal health and welfare.

#### Source:

http://www.biotecharticles.com/Biotech-Research-Article/Genomics-and-Its-Applications-in-Agriculture-2164.html https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4807965/

71. The main advantage of the parliamentary form of government is that

- (a) the executive and legislature work independently.
- (b) it provides continuity of policy and is more efficient.
- (c) the executive remains responsible to the legislature.
- (d) the head of the government cannot be changed without election.

# **Explanation:**

The executive branch is dependent upon the direct or indirect support of the legislative branch and often includes members of the legislature.

In the Parliamentary system, the executive is responsible and accountable to the legislature for all its actions since it has the right to seek detailed information about the working of the Ministers. The Council of Ministers remain in office as long as they enjoy the support and confidence of the Lok Sabha, i.e., the House of the People.

#### Source:

https://www.lawctopus.com/academike/is-parliamentary-form-of-government-goodenough-for-india-need-for-a-change/

- 72. In the context of India, which one of the following is the correct relationship between Rights and Duties?
  - (a) Rights are correlative with Duties.
  - (b) Rights are personal and hence independent of society and Duties.
  - (c) Rights, not Duties, are important for the advancement of the personality of the citizen.
  - (d) Duties, not Rights, are important for the stability of the State.

### **Explanation:**

Rights and duties are co relatives. If there are duties towards the public, there are rights as well. There can be no duty unless there is some person to whom that duty is due. Every right or duty involves a bond of obligation.



In Minerva mills ltd v. union of India ,The Supreme Court observed that there may be a rule which imposes an obligation on an individual or authority, and yet it may not be enforceable in court of law, and therefore not give rise to a corresponding enforceable right in another person. But it would still be a legal rule because it prescribes a norm of conduct to be followed by such individual or authority. The law may provide a mechanism for enforcement of this obligation, but the existence of the obligation does not depend upon the creation of such mechanism. The obligation exists prior to and independent of, the mechanism of enforcement.

### Source:

https://www.legalcrystal.com/blog/constit utional-law/jurisprudence-relationshipbetween-rights-and-duties

73. The mind of the makers of the Constitution of India is reflected in which of the following?

# (a) The Preamble

- (b) The Fundamental Rights
- (c) The Directive Principles of State Policy
- (d) The Fundamental Duties

#### **Explanation:**

The Preamble of the Constitution like the preamble of any statute furnish the key to open the mind of the makers of the Constitution more so because the Constituent Assembly took great pains in formulating it so that it may reflect the essential features and basic objectives of the Constitution.

#### Source:

http://www.legalservicesindia.com/article/article/role-of-preamble-interpretation-with-indian-constitution-1390-1.html

74. If you travel by road from Kohima to Kottayam, what is the minimum number of

States within India through which you can travel, including the origin and the destination?

- (a) 6
- (b) **7**
- (c) 8
- (d) 9

# **Explanation:**

- Nagaland, Assam, West Bengal, Odisha, Andhra Pradesh, Tamil Nadu, Kerala
- 75. The Parliament of India exercises control over the functions of the Council of Ministers through
  - 1) Adjournment motion
  - 2) Ouestion hour
  - 3) Supplementary questions

Select the correct answer using the codes given below:

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

### (d) 1, 2 and 3

# **Explanation:**

During the law making process, members of the legislature get an opportunity to deliberate on the policy direction of the executive and the ways in which policies are implemented. Apart from deliberating on bills, control may also be exercised during the general discussions in the House. The Question Hour, which is held every day during the sessions of Parliament, where Ministers have to respond to searching questions raised by the members; Zero Hour where members are free to raise any matter that they think is important (though the ministers are not bound to reply), halfan - hour discussion on matters of public importance, adjournment motion etc. are some instruments of exercising control

#### Source:

http://www.ncert.nic.in/ncerts/l/keps205.pdf



- 76. With reference to the Parliament of India, consider the following statements :
  - 1) A private member's bill is a bill presented by a Member of Parliament who is not elected but only nominated by the President of India.
  - 2) Recently, a private member's bill has been passed in the Parliament of India for the first time in its history.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2

### (d) Neither 1 nor 2

# **Explanation:**

Any MP who is not a minister is a private member and he or she can submit a legislative proposal for enacting it as law..

Out of 14 private members' bills enacted so far since the commencement of Parliament in 1952, five were introduced in the Rajya Sabha and became law of the land.

The Rights of Transgender Persons Bill, 2014, passed by the Rajya Sabha in 2015 is the first private member's bill to get the upper house's approval in the past 45 years. Members of parliament other than ministers are called private members and bills presented by them are known as private member's bills.

The last Private Member's Bill passed by parliament was the Supreme Court (Enlargement of Criminal Appellate Jurisdiction) Bill, 1968, which became an act on August 9, 1970

In Lok Sabha, the last two and a half hours of a sitting on every Friday are generally allotted for transaction of "Private Members' Business", *i.e.*, Private Members' Bills and Private Members' Resolutions. Every member of Parliament, who is not a Minister, is called a Private Member.

#### Source:

http://www.business-standard.com/article/news-ians/only-14-

private-members-bills-passed-since-independence-115042400948\_1.html http://164.100.47.132/LssNew/abstract/private\_members.htm

- 77. With reference to the difference between the culture of Rigvedic Aryans and Indus Valley people, which of the following statements is/are correct?
  - 1) Rigvedic Aryans used the coat of mail and helmet in warfare whereas the people of Indus Valley Civilization did not leave any evidence of using them
  - 2) Rigvedic Aryans knew gold, silver and copper whereas Indus Valley people knew only copper and iron.
  - 3) Rigvedic Aryans had domesticated the horse whereas there is no evidence of Indus Valley people having been aware of this animal.

Select the correct answer using the codes given below:

# (a) 1 only

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

#### **Explanation:**

#### Statement 1 is correct

- Rig Vedic Aryans used the coat of mail and helmet
- These elements were not a feature of the IVC

#### Statement 2 is wrong

 While Rig Vedic Aryans knew gold, the Harappans knew and used silver

### Statement 3 is wrong

- The Rig Vedic Aryans have domesticated horses.
- The IVC people while they did not domesticate horses, they were aware of the existence of horses as their remains have been found in various sites such as:
  - Mohenjo-Daro, Harappa ("small horse"),
  - Lothal (e.g., a terracotta figurine and a molar horse tooth, dated to 2200 BC).
  - Surkotada (dated to 2400-1700 BC)



- 78. 'Recognition of Prior Learning Scheme' is sometimes mentioned in the news with reference to
  - (a) Certifying the skills acquired by construction workers through traditional channels.
  - (b) Enrolling the persons in Universities for distance learning programmes.
  - (c) Reserving some skilled jobs to rural and urban poor in some public sector undertakings.
  - (d) Certifying the skills acquired by trainees under the National Skill Development Programme.

It is a scheme to certify the skills acquired by workers in the unorganised sectors through traditional, non-formal learning channels.

#### Source:

http://indianexpress.com/article/india/india-others/formal-badge-for-non-formal-skill/

79. From the ecological point of view, which one of the following assumes importance in being a good link between the Eastern. Ghats and the Western Ghats?

# (a) Sathyamangalam Tiger Reserve

- (b) Nallarnala Forest
- (c) Nagarhole National Park
- (d) Seshachalam Biosphere Reserve

# **Explanation:**

- Sathyamangalam Wildlife Sanctuary and Tiger Reserve is a protected area and tiger reserve along the Western Ghats in the Indian state of Tamil Nadu
- It is the largest wildlife sanctuary in Tamil Nadu
- Sathyamangalam forest range is a significant wildlife corridor in the Nilgiri Biosphere Reserve between the Western Ghats and the rest of the Eastern Ghats

# It is a genetic link between the four other protected areas which it adjoins:

- Billigiriranga Swamy Temple Wildlife Sanctuary,
- Sigur Plateau,
- Mudumalai National Park
- Bandipur National Park
- 80. One of the implications of equality in society is the absence of

# (a) Privileges

- (b) Restraints
- (c) Competition
- (d) Ideology

**Explanation:** equality doesn't mean uniformity, but rather the absence of privilege based on power over others

#### Source:

http://www.bmartin.cc/pubs/08sa.html

- 81. Consider the following statements in respect of Trade Related Analysis of Fauna and Flora in Commerce (TRAFFIC):
  - 1) TRAFFIC is a bureau under United Nations Environment Programme (UNEP).
  - 2) The mission of TRAFFIC is to ensure that trade in wild plants and animals is not a threat to the conservation of nature.

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

(a) 1 only

#### (b) 2 only

- (c) Both 1 and 2
- (d) Neither 1 nor 2

### **Explanation:**

TRAFFIC was established in 1976.

TRAFFIC is governed by the TRAFFIC Committee, a steering group composed of members of TRAFFIC's partner organizations, WWF and IUCN.

TRAFFIC, the wildlife trade monitoring network, works to ensure that trade in wild plants and animals is not a threat to the conservation of nature.

#### Source:

http://www.traffic.org/overview/



- 82. Which principle among the following was added to the Directive Principles of State Policy by the 42<sup>nd</sup> Amendment, to the Constitution?
  - (a) Equal pay' for equal work for both men and women

# (b) Participation of workers in the management of industries

- (c) Right to work, education and public assistance
- (d) Securing living wage and human conditions of work to workers

# **Explanation:**

**Article 43A** {Participation of workers in management of industries} inserted by 42 Amendment Act 1976

#### Source:

http://indiacode.nic.in/coiweb/amend/amend42.htm

- 83. Which one of the following statements is correct?
  - (a) Rights are claims of the State against the citizens.
  - (b) Rights are privileges which are incorporated in the Constitution of a State.
  - (c) Rights are claims of the citizens against the State.
  - (d) Rights are privileges of a few citizens against the many.

#### **Explanation:**

"The Fundamental Rights are meant for promoting the ideal of political democracy. They prevent the establishment of an authoritarian and despotic rule in the country, and protect the liberties and freedoms of the people against the invasion by the State. They operate as limitations on the tyranny of the executive and arbitrary laws of the legislature."

#### Source:

Indian Polity - Laxmikanth

84. Which of the following gives 'Global Gender Gap Index' ranking to the countries of the world?

# (a) World Economic Forum

- (b) UN Human Rights Council
- (c) UN Women
- (d) World Health Organization

### **Explanation:**

Through the Global Gender Gap Report, the World Economic Forum quantifies the magnitude of gender disparities and tracks their progress over time, with a specific focus on the relative gaps between women and men across four key areas: health, education, economy and politics.

#### Source:

http://reports.weforum.org/global-gender-gap-report-2016/

- 85. Which of the following statements is/are correct regarding Smart India Hackathon 2017?
  - 1) It is a centrally sponsored scheme for developing every city of our country into Smart Cities in a decade.
  - 2) It is an initiative to identify new digital technology innovations for solving the many problems faced by our country.
  - 3) It is a programme aimed at making all the financial transactions in our country completely digital in a decade.

Select the correct answer using the code given below:

(a) 1 and 3 only

#### (b) 2 only

- (c) 3 only
- (d) 2 and 3 only

### **Explanation:**

About 10,000 students from across the country are set to produce digital solutions for problems faced by people in India.

#### Source:

http://www.hindustantimes.com/india-news/smart-india-hackathon-2017-10-000-students-to-develop-digital-solutions/story-vvHrb0wqlYJFQ6VkutQhMI.html



- 86. Which of the following statements is/are correct regarding the Monetary Policy Committee (MPC)?
  - 1) It decides the RBI's benchmark interest rates.
  - 2) It is a 12-member body including the Governor of RBI and is reconstituted every year.
  - 3) It functions under the chairmanship of the Union Finance Minister.

Select the correct answer using the code given below:

# (a) 1 only

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

# **Explanation:**

The Monetary Policy Committee would be entrusted with the task of **fixing the benchmark policy rate (repo rate)** required to contain inflation within the specified target level. As per the provisions of the RBI Act, out of the six Members of Monetary Policy Committee, three Members will be from the RBI and the other three Members of MPC will be appointed by the Central Government.

The Governor of the Bank—Chairperson, ex officio:

# Source:

http://pib.nic.in/newsite/PrintRelease.asp x?relid=151264

- 87. With reference to Manipuri Sankirtana consider the following statements
  - 1) It is a song and dance performance.
  - 2) Cymbals are the only musical instruments used in the performance.
  - 3) It is performed to narrate the life and deeds of Lord Krishna.

Which of the statements given above is/are correct?

(a) 1, 2 and 3

# (b) 1 and 3 only

- (c) 2 and 3 only
- (d) 1 only

# **Explanation:**

#### Statement 1 is correct

 Manipuri Sankirtana is a form of performing art involving ritual singing, drumming and dancing performed in the temples and domestic spaces in Manipur

# Statement 2 is wrong

 Not just cymbals, but drums are also used as mentioned earlier

#### Statement 3 is correct

- The performers narrate the many stories of Krishna. It is practiced primarily by the Vaishnava community
- 88. Who among the following was/were associated with the introduction of Ryotwari Settlement in India during the British rule?
  - 1) Lord Cornwallis
  - 2) Alexander Read
  - 3) Thomas Munro

Select the correct answer using the codes given below:

- (a) 1 only
- (b) 1 and 3 only

### (c) 2 and 3 only

(d) 1, 2 and 3

# **Explanation:**

- Ryotwari system was one of the three principal methods of revenue collection in British India.
- The system was devised by Capt. Alexander Read and Thomas (later Sir Thomas) Munro at the end of the 18th century and introduced by the latter



when he was governor (1820-27) of Madras

- It was prevalent in most of southern India, being the standard system of the Madras Presidency
- The Permanent Settlement was concluded in 1793 by the Company administration headed by Charles, Earl Cornwallis, also known as Lord Cornwallis
- 89. In the context of solving pollution problems, what is/are the advantage/advantages of bioremediation technique?
  - 1) It is a technique for cleaning up pollution by enhancing the same biodegradation process that occurs in nature.
  - 2) Any contaminant with heavy metals such as cadmium and lead can be readily and completely treated by bioremediation using microorganisms.
  - 3) Genetic engineering can be used to create microorganisms specifically designed for bioremediation.

Select the correct answer using the codes given below:

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

### **Explanation:**

Bioremediation processes typically involve the actions of many different microbes acting in parallel or sequence to complete the degradation process.

A widely used approach to bioremediation involves stimulating naturally occurring microbial communities, providing them with nutrients and other needs, to break down a contaminant.

Not all contaminants are easily treated by bioremediation using microorganisms. For example, heavy metals such as cadmium and lead are not readily absorbed or captured by microorganisms. A recent experiment, however, suggests that fish bones have some success absorbing lead from contaminated soil. Bone char has been shown to bioremediate small amounts of cadmium, copper, and zinc.

#### Source:

https://en.wikipedia.org/wiki/Bioremediat ion

- 90. The Trade Disputes Act of 1929.provided for
  - (a) the participation of workers in the management of industries.
  - (b) arbitrary powers to the management to quell industrial disputes.
  - (c) an intervention by the British Court in the event of a trade dispute.
  - (d) a system of tribunals and a ban on strikes.

#### **Explanation:**

- This was a British Act of Parliament passed in response to the General Strike of 1926 in the UK, introduced by the Attorney General for England and Wales, Sir Douglas Hogg MP
- The Act declared unlawful secondary action and any strike whose purpose was to coerce the government of the day directly or indirectly
- An unlawful strike was made a criminal offence, punishable by imprisonment for up to two year
- 91. Local self-government can be best explained as an exercise in
  - (a) Federalism
  - (b) Democratic decentralization
  - (c) Administrative delegation
  - (d) Direct democracy

### **Explanation:**

In this report on Local Governance, the Administrative Reforms Commission has



examined in detail the issues relating to rural and urban local governance in India with a special focus on the need for real democratic decentralisation in the country in order to usher in genuine grass roots democracy as envisaged by the founding fathers of our republic and as now specifically mandated by our Constitution.

### Source:

http://arc.gov.in/6-1.pdf

92. Consider the following statements:

With reference to the Constitution of India, the Directive Principles of State Policy constitute limitations upon

- 1) legislative function.
- 2) executive function.

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

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

For this question, there lies some ambiguity. According to Article 37 of the Indian Constitution, it prescribes DPSP as fundamental to the governance of the country. Therefore, it limits both legislative and executive arms of the tate.

At the same time, DPSP is not enforceable and considered as instrument of instructions. Therefor it attains a positive tone which requests State to realise these principles. In this aspect, it is not to be considered as limitation rather in the form of positive rapproachment for its implementation.

- 93. The term 'Digital Single Market Strategy' seen in the news refers to
  - (a) ASEAN
  - (b) BRICS
  - (c) EU
  - (d) G20

#### **Explanation:**

A Digital Single Market (DSM) is one in which the free movement of persons, services and capital is ensured and where individuals and businesses seamlessly access and exercise online of activities under conditions fair competition, and a high level of consumer and personal data protection, irrespective of their nationality or place of residence.

On 10 May 2017 the European Commission published the mid-term review of the Digital Single Market Strategy. It shows the progress made in implementing the Strategy since 2015 and where further actions are needed.

The European Commission has identified the completion of the Digital Single Market (DSM) as one of its 10 political priorities.

#### Source:

- 94. At one of the places in India, if you stand on the seashore and watch the sea, you will find that the sea water recedes from the shore line a few kilometres and comes back to the shore, twice a day, and you can actually walk on the sea floor when the water recedes. This unique phenomenon is seen at
  - (a) Bhavnagar
  - (b) Bheemunipatnam
  - (c) Chandipur
  - (d) Nagapattinam

# **Explanation:**

- Chandipur also known as Chandipur-onsea is a small sea resort in Odisha
- The beach is unique in that the water recedes up to 5 km during the ebb tide.
- Ebb tide means the period between high tide and low tide during which water flows away from the shore
- Due to its unique circumstances, the beach supports bio-diversity



- 95. With reference to the 'Prohibition of Benami Property Transactions Act, 1988 (PBPT Act)', consider the following statements
  - 1) A property transaction is not treated as a benami transaction if the owner of the property is not aware of the transaction.
  - 2) Properties held benami are liable for confiscation by the Government.
  - 3) The Act provides for three authorities for investigations but does not provide for any appellate mechanism.

Which of the statements given above is/are correct?

(a) 1 only

# (b) 2 only

- (c) 1 and 3 only
- (d) 2 and 3 only

Section 5(1). Property held benami liable to acquisition. All properties held benami shall be subject to acquisition by such authority, in such manner and after following such procedure, as may be prescribed.

As per Sec 2 which defines the various terms included in the Act, clause (b) says that a transaction or an arrangement in respect of a property where the owner of the property is not aware of, or, denies knowledge of, such ownership will be considered as Benami transaction.

Section 23 of the Act says that the Initiating Officer, after obtaining prior approval of the Approving Authority, shall have power to conduct or cause to be conducted any inquiry or investigation in respect of any person, place, property, assets, documents, books of account or other documents, in respect of any other relevant matters under this Act

#### Source:

http://www.incometaxindia.gov.in/page s/acts/prohibition-of-benami-property-transactions-act-1988.aspx

- 96. Due to some reasons, if there is a huge fall in the population of species of butterflies, what could be its likely consequence/consequences?
  - 1) Pollination of some plants could be adversely affected.
  - 2) There could be a drastic increase in the fungal infections of some cultivated plants.
  - 3) It could lead to a fall in the population of some species of wasps, spiders and birds.

Select the correct answer using the code given below:

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

# **Explanation:**

Butterflies are an important pollination. Hence if they disappear, it will affect the plant's reproductive functions. It makes the statement (1) correct.

As such there is no link between fungal

infections of plants and butterflies. Thus, when butterflies disappear, it may not have a considerable impact on fungal infection. Therefore, the statement (2) is wrong. Some of the common predators of butterflies include but are certainly not limited to: wasps, ants, parasitic flies, birds, snakes, toads, rats, lizards, dragonflies and even monkeys. Hence, when the butterflies are lost, it will have an impact on species that depend on it. This makes the statement

## Source:

(3) correct.

http://archive.naplesnews.com/lifestyle/h ome/wings-at-work-butterflies-pollinate-plants-but-in-ways-different-from-all-others-ep-394968174-339851142.html http://www.thebutterflysite.com/whateats-butterflies.shtml



- 97. It is possible to produce algae based biofuels, but what is/are the likely limitation(s) of developing countries in promoting this industry
  - 1) Production of algae based biofuels is possible in seas only and not on continents.
  - 2) Setting up and engineering the algae based biofuel production requires high level of expertise/technology until the construction is completed.
  - 3) Economically viable production necessitates the setting up of large scale facilities which may raise ecological and social concerns.

Select the correct answer using the code given below

(a) 1 and 2 only

# (b) 2 and 3 only

(c) 3 only

(d) 1, 2 and 3

# **Explanation:**

There are two main methods of algae cultivation – ponds and Photobioreactors. Ponds can be based both in continents and seas.

In brief, there are significant challenges for engineers to either design photobioreactors (PBRs) that are cheap enough for large-scale deployment, or for engineers and biologists to combine forces to develop species that grow efficiently in low-cost open systems.

Oil extraction is another challenge that is most easily addressed from the engineering side. There are three major strategies for extracting oil from algae: oil press/expeller, hexane extraction, and supercritical CO2 fluid extraction. These technologies have all been successfully demonstrated but are relatively expensive, either in terms of equipment needed or energy required to extract the oil.

Algae grown in open ponds have water requirements per unit area similar to that

of cotton or wheat, but less than that of corn, to replenish the water lost in evaporation. Water will remain a central issue for algae biofuels production and will need to be considered carefully as the industry expands.

Photosynthetic efficiency in string sunlight falls short of the theoretical potential resulting in low yields which are the major culprits for the forbiddingly high production cost of algal cell mass.

#### Source:

https://en.wikipedia.org/wiki/Algae\_fuel https://www.ncbi.nlm.nih.gov/pmc/article s/PMC3152439/

- 98. Which of the following are the objectives of 'National Nutrition Mission'?
  - 1) To create awareness relating to malnutrition among pregnant women and lactating mothers.
  - 2) To reduce the incidence of anaemia among young children, adolescent girls and women.
  - 3) To promote the consumption of millets, coarse cereals and unpolished rice.
  - 4) To promote the consumption of poultry eggs.

Select the correct answer using the codes given below:

### (a) 1 and 2 only

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

The key objectives of these programmes are as under:

- To create awareness relating to malnutrition amongst pregnant women, lactating mothers, promote healthy lactating practices and importance of balanced nutrition;
- To improve maternal and child undernutrition in 200 high burdened districts and to prevent and reduce the under-



nutrition prevalent among children below 3 years;

 To reduce incidence of anaemia among young children, adolescent girls and women.

http://pib.nic.in/newsite/PrintRelease.asp x?relid=103192

# 99. Consider the following statements:

- 1) The Factories Act, 1881 was passed with a view to fix the wages of industrial workers and to allow the workers to form trade unions.
- 2) N.M. Lokhande was a pioneer in organizing the labour movement in British India.

Which of the above statements is/are correct?

(a) 1 only

# (b) 2 only

- (c) Both 1 and 2
- (d) Neither 1 nor 2

#### **Explanation:**

#### Statement 1 is wrong

- The factories act of 1881 dealt primarily with the problem of child labour. Its provisions were:
- Those children between the age of 7 and 12 would not work for more than 9 hours a day
- Children would get four holidays per month
- Proper fencing off of dangerous machinery

# Statement 2 is correct

- Narayan Meghaji Lokhande was a pioneer of the labour movement in India.
- Lokhande is acclaimed as the Father of the Trade Union Movement in India
- He is remembered not only for ameliorating the working conditions of textile mill-hands in the 19th century but also for his courageous initiatives on caste and communal issues

- 100. In the context of mitigating the impending global warming due to anthropogenic emissions of carbon dioxide, which of the following can be the potential sites for carbon sequestration?
  - 1) Abandoned and uneconomic coal seams
  - 2) Depleted oil and gas reservoirs
  - 3) Subterranean deep saline formations Select the correct answer using the codes given below:
  - (a) 1 and 2 only
  - (b) 3 only
  - (c) 1 and 3 only

# (d) 1, 2 and 3

#### **Explanation:**

In nature, coal seams also contain gases such as methane. If CO2 is injected into a coal seam it displaces the methane, which can then be recovered. The CO2 will remain stored within the seam, providing the coal is never disturbed.

Carbon dioxide storage in geologic formations includes oil and gas reservoirs, unmineable coal seams, and deep saline reservoirs. These are structures that have stored crude oil, natural gas, brine and CO2 over millions of years.

In some cases, production from an oil or natural gas reservoir can be enhanced by pumping CO2 into the reservoir to push out the product, which is called enhanced oil recovery.

Storage of CO2 in deep saline formations does not produce value-added by-products, but it has other advantages. First, the estimated carbon storage capacity of saline formations in the United States is large, making them a viable long-term solution.

#### Source:

https://energy.gov/fe/scienceinnovation/carbon-capture-and-storageresearch/carbon-storage-rd