1. Ans: a

A geostationary satellite is an earth-orbiting satellite, placed at an altitude of approximately 35,800 kilometers (22,300 miles) directly over the equator, that revolves in the same direction the earth rotates (west to east). At this altitude, one orbit takes 24 hours, the same length of time as the earth requires to rotate once on its axis. The term geostationary comes from the fact that such a satellite appears nearly stationary in the sky as seen by a ground-based observer.

A single geostationary satellite is on a line of sight with about 40 percent of the earth's surface. Three such satellites, each separated by 120 degrees of longitude, can provide coverage of the entire planet, with the exception of small circular regions centered at the north and south geographic poles. A geostationary satellite can be accessed using a directional antenna, usually a small dish, aimed at the spot in the sky where the satellite appears to hover.

The principal advantages of this type of satellite are

- 1. An earthbound directional antenna can be aimed and then left in position without further adjustment.
- Because highly directional antennas can be used, interference from surface-based sources, and from other satellites, is minimized.

Geostationary satellites have two major limitations.

- Because the orbital zone is an extremely narrow ring in the plane of the equator, the number of satellites that can be maintained in geostationary orbits without mutual conflict (or even collision) is limited.
- The distance that an electromagnetic (EM) signal must travel to and from a geostationary satellite is a minimum of 71,600 kilometers or 44,600 miles. Thus, a latency of at least 240 milliseconds is introduced when an EM signal, traveling at 300,000 kilometers per second (186,000 miles per second), makes a round trip from the surface to the satellite and back.

Ans: c

Constitution of India has adopted adult suffrage as the basis for elections to Parliament and State Legislatures only. It is the state legislature that decides how the elections to local bodies are to be conducted.

Ans: c

In a Compact Fluorescent Lamp (CFL), an electric current is driven through a tube containing argon and a small amount of mercury vapor. This generates invisible ultraviolet light that excites a fluorescent coating (called phosphor) on the inside of the tube, which then emits visible light.

A Light-Emitting Diode (LED) is a two-leaded semiconductor light source. It is a p-n junction diode that emits light when activated. When a suitable voltage is applied to the leads, electrons are able to recombine with electron holes within the device, releasing energy in the form of photons. This effect is called electroluminescence, and the color of the light (corresponding to the energy of the photon) is determined by the energy band gap of the semiconductor.

4. Ans: a

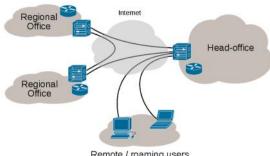
India follows the concept of democratic socialism, which holds a faith in mixed economy. It is not following state socialism (communist socialism) which involves the nationalization of all means of production

Positive secularism implies all religions have the same support from the state irrespective of their strength.

A virtual private network (VPN) extends a private network across a public network, and enables users to send and receive data across shared or public networks as if their computing devices were directly connected to the private network. VPNs may allow employees to securely access a corporate intranet while located outside the office. They are used to securely connect geographically separated offices of an organization, creating one cohesive network.

Individual Internet users may secure their transactions with a VPN, to circumvent geo-restrictions and censorship, or to connect to proxy servers for the purpose of protecting personal identity and location in order to stay anonymous on the internet. However, some Internet sites block access to known VPN technology to prevent the circumvention of their geo-restrictions. Therefore, many personal use VPN providers have been developing technologies to bypass the blocking of proxies.

Internet VPN



Remote / roaming users

Ans: d

- A democratic polity can be classified into two categories—monarchy and republic. In a monarchy, the head of the state (usually king or queen) enjoys a hereditary position, that is, he comes into office through succession, eg, Britain.
- In a republic, on the other hand, the head of the state is always elected directly or indirectly for a fixed period, eg, USA. Therefore, the term 'republic' in our Preamble indicates that India has an elected head called the president. He is elected indirectly for a fixed period of five years.

A republic also means two more things: **one**, vesting of political sovereignty in the people and not in a single individual like a king; **second**, the absence of any privileged class and hence all public offices being opened to every citizen without any discrimination.

7. Ans: c

Graphene is a crystalline allotrope of carbon with 2-dimensional properties. Its carbon atoms are densely packed in a regular atomic-scale chicken wire (hexagonal) pattern. It is the basic structural element of many other allotropes of carbon, such as graphite, diamond, charcoal, carbon nanotubes and fullerenes.

Graphene has many unusual properties. It is the strongest material ever tested, efficiently conducts heat and electricity, and is nearly transparent. Graphene shows a large and nonlinear diamagnetism. Its single layer is of 0.335 nanometers thickness. It can be used to create hard or flexible Graphene displays and also can be used in electronic products such as e-readers and wearable smart devices

8. Ans: b

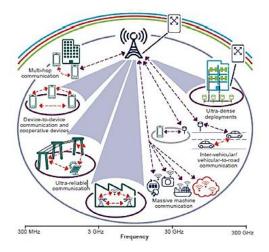
	Sources	Features Borrowed
1	Government	Federal Scheme, Office of governor, Judiciary, Public Service
	of India Act of 1935	Commissions, Emergency provisions and administrative details.
2	British Constitution	Parliamentary government, Rule of Law, legislative procedure, single citizenship, cabinet system, prerogative writs, parliamentary privileges and bicameralism.
3	US Constitution	Fundamental rights, independence of judiciary, judicial review, impeachment of the president, removal of Supreme Court and high court judges and post of vice-president.
4	Irish Constitution	Directive Principles of State Policy, nomination of members to Rajya Sabha and method of election of president.
5	Canadian Constitution	Federation with a strong Centre, vesting of residuary powers in the Centre, appointment of state governors by the Centre, and advisory jurisdiction of the Supreme Court.
6	Australian Constitution	Concurrent List, freedom of trade, commerce and intercourse, and joint sitting of the two Houses of Parliament
7	Weimar Constitution of Germany	Suspension of Fundamental Rights during Emergency.
8	Soviet Constitution	Fundamental duties and the ideal of justice (social, economic and political) in the Preamble.
9	French Constitution	Republic and the ideals of liberty, equality and fraternity in the Preamble.
10	South African Constitution	Procedure for amendment of the Constitution and election of members of Rajya Sabha.
11	Japanese Constitution	Procedure established by Law

9. **Ans:** c

Millimeter waves are broadcasted at frequencies between 30 and 300 GHz, compared to the bands below 6 GHz that were used for mobile devices in the past. They are called millimeter waves because they vary in wavelength from 1 to 10 mm, compared to the radio waves that serve today's smartphones, which measure tens of centimeters in length, High resolution and bi-directional large bandwidth shaping. There are several advantages of 5G technology

- Technology to gather all networks on one platform.
- More effective and efficient.
- Technology to facilitate subscriber supervision tools for the quick action.
- Most likely, will provide a huge broadcasting data (in Gigabit), which will support more than 60,000 connections.
- Easily manageable with the previous generations.
- Technological sound to support heterogeneous services (including private network).
- Possible to provide uniform, uninterrupted, and consistent connectivity across the world.

There is one major drawback to millimeter waves, though—they can't easily travel through buildings or obstacles.



- 10. Ans: d
 - Informative and self-explanatory
- 11. Ans: c
- 12. **Ans: b**

In *Berubari Union* case (1960), Supreme Court has recognised the importance of Preamble, but opined that Preamble is **not** a part of the Constitution.

In *Kesavananda Bharati* vs *State of Kerala* Case (1973), the amendablity of preamble under Article 368 was questioned before the Scupreme Court, based in *Berubari* judgement. Court revoked its stand on *Berubari* case and held that Preamble is a part of the constitution and hence can be amended, provided that the basic structure of the constitution is not altered.

In *LIC of India* vs *Consume Education and Research Centre* case (1995), court again held that Preamble is a part of the constitution. *Minerva Mills* vs *Union of India* case (1980) applied and evolved the doctrine of 'basic structure'. Supreme Court provided key clarifications on the interpretation of the basic structure doctrine. The court unanimously ruled that the power of the Parliament of India to amend the constitution is limited by the constitution. Hence the parliament cannot exercise this limited power to grant itself an unlimited power. In addition, a majority of the court also held that the parliament's power to amend is not a power to destroy. Hence the parliament cannot emasculate the fundamental rights of individuals, including the right to liberty and equality.

- 13. Ans: a
- 14. Ansd
 - President's prior permission is needed to introduce a bill to reorganise a state in the parliament.
 - The President is bound to take the opinion of the respective state legislature, towards reorganisation before permitting such a bill in the parliament. However he is not bound by the views of the state legislature. It is not necessary to make a fresh reference to the state legislature, every time an amendment to the bill is moved and accepted in the Parliament.
 - An amendment of the constitution is required for the cession of Indian Territory to a foreign country as per Article 368, while an amendment is not required for the admission or establishment of new state.

The question of whether the power of Parliament to diminish the areas of a state (under Article 3) include also the power to cede Indian territory to a foreign country came up for examination before the Supreme Court in a reference made by the President in 1960. The decision of the Central government to cede part of a territory known as Berubari Union (west Bengal) to Pakistan led to political agitation and controversy and thereby necessitated the Presidential reference. The Supreme Court held that the power of Parliament to diminish the area of a state (under Article 3) **does not cover cession** of Indian Territory to a foreign country. Hence, Indian Territory can be ceded to a foreign state only by amending the Constitution under Article 368. Consequently, the 9th Constitutional Amendment Act (1960) was enacted to transfer the said territory to Pakistan.

15. Ans: d

Both Uttarakhand and Telangana are situated almost within the same longitudinal limits

Ten Degree Channel separates Andaman & Nicobar while Eight Degree Channel separates Lakshadweep and Maldives

16. **Ans:** d

With Citizenship (Amendment) Act, 2015, the nomenclature of Over Seas Citizen of India has been changed to Overseas Citizen of India Cardholder. It merged PIO card scheme to OCI Card scheme and all PIO cardholders became OCI Cardholders since January 9th, 2015.

17. **Ans: b**

Madhya Pradesh has boundaries with UP, Chhattisgarh, Maharashtra, Gujarat and Rajasthan **Chattisgarh** shares boundary with Madhya Pradesh, Mahrashtra, Andhra Pradesh, Telengana, Odisha, UP and Jharkhand

Assam has boundary with West Bengal, Arunachal Pradesh, Meghalaya, Tripura, Mizoram, Manipur and Nagaland

18. Ans: a

Most of the fundamental rights are available against the arbitrary action of the State, with a few exceptions like those against the State's action and against the action of private individuals. When the rights that are available against the State's action only are violated by the private individuals, there are no constitutional remedies but only ordinary legal remedies.

According to the Supreme Court, even a private body or an agency working as an instrument of the State falls within the meaning of the 'State' under Article 12. In such a scenario, constitutional remedies are available against them.

For example, Article 15 says that there is a prohibition of discrimination on grounds of religion, race, caste, sex or place of birth

- 1. The State shall not discriminate against any citizen on grounds only of religion, race, caste, sex, place of birth or any of them
- 2. No citizen shall, on grounds only of religion, race, caste, sex, place of birth or any of them, be subject to any disability, liability, restriction or condition with regard to
 - a. access to shops, public restaurants, hotels and palaces of public entertainment; or
 - b. the use of wells, tanks, bathing ghats, roads and places of public resort maintained wholly or partly out of State funds or dedicated to the use of the general public

15(1) is applicable only to state while 15(2) is applicable to State as well as private individuals.

Article 13 declares that all laws that are inconsistent with or in derogation of any of the fundamental rights shall be void. In other words, it expressively provides for the doctrine of judicial review. This power has been conferred on the Supreme Court (Article 32) and the high courts (Article 226) that can declare a law unconstitutional and invalid on the ground of contravention of any of the Fundamental Rights.

Article 13 declares that a constitutional amendment is not a law and hence cannot be challenged. However, the Supreme Court held in the *Kesavananda Bharati* case (1973) that a Constitutional amendment can be challenged on the ground that it violates a fundamental right that forms a part of the 'basic structure' of the Constitution and hence, can be declared as void.

19. Ans: a

Narmada is flowing through the area where the land is not sloping towards the west from central India, but it is flowing west because of the rift valleys only

20. Ans: c

All fundamental rights except the below mentioned ones are applicable for Indians as well as foreigners

- 1. Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth (Article 15)
- 2. Equality of opportunity in matters of public employment (Article 16).
- 3. Protection of six rights regarding freedom of: (i) speech and expression, (ii) assembly, (iii) association, (iv) movement, (v) residence, and (vi) profession (Article 19).
- 4. Protection of language, script and culture of minorities (Article 29).
- 5. Right of minorities to establish and administer educational institutions (Article 30).
- 21. **Ans: b**
- 22. Ans: b

Forests is under the Concurrent List.

23. Ans: a

Westerlies blow in the middle latitudes between 30 and 60 degree, and originate from the high pressure area in the horse latitudes towards the poles. Under the effect of the Coriolis force, they become south westerlies in the northern hemisphere and north westerlies in the southern hemisphere. Please note that in the southern hemisphere, there is more ocean and less land in comparison to the northern hemisphere. Due to this reason, the pressure distribution and belt formation is more or less uniform and the westerlies blow with much greater force in southern hemisphere in comparison to northern hemisphere.

24. Ans: d

Vice-Chairperson of NITI Aayog is appointed by the Prime Minister. He enjoys the rank of a Cabinet Minister.

25. Ans: c

The vertical stability in the water column is disturbed at the junction of mixing of hot and cold currents. This disturbance helps in better mixing of oxygen in water and also helps in the upwelling of nutrients from deeper parts of the oceans (where marine deposits would have been settled). Hence with better dissolved oxygen and rich nutrient in the water, primary producers in the ocean flourish which is conducive for other marine organisms to multiply. As we know phytoplankton are foundation of oceanic food chain so it is obvious fishes would be in plenty there

26. Ans: d

CAG is appointed by the president of India by a warrant under his hand and seal. He holds office for a period of **six years or upto the age of 65 years**, whichever is earlier. He is provided with the security of tenure. He can be removed by the president only in accordance with the procedure mentioned in the Constitution. Thus, he does not hold his office till the pleasure of the president, though he is appointed by him. **His salary and other service conditions are determined by the Parliament**. His salary is equal to that of a judge of the Supreme Court. The administrative expenses of the office of the CAG, including all salaries, allowances and pensions of persons serving in that office are charged upon the Consolidated Fund of India. He compiles and maintains the

accounts of state governments. In 1976, he was relieved of his responsibilities with regard to the compilation and maintenance of accounts of the Central Government due to the separation of accounts from audit, that is, departmentalisation of accounts.

27. Ans: a

Cotton is grown between latitudes of 37° north and 30° south in temperate, subtropical and tropical regions and on every continent. Ideal conditions for the cotton plant are:

- Long vegetation periods (175 to 225 days) without frost.
- Constant temperatures between 18 and 30°.
- Ample sunshine and fairly dry conditions.
- A minimum of 500 mm of water between germination and boll formation.
- Deep, well-drained soils with a good nutrient content.

28. Ans: b

If a member goes out of his party as a result of a merger of the party with another party, the defection will not be applicable. A merger takes place when two-thirds of the members of the party have agreed to such merger.

29. Ans: b



30. Ans: d

Informative and self-explanatory.

31. Ans: c

In-situ conservation is the conservation of species in their natural habitats. It is considered the most appropriate way of conserving biodiversity. Conserving the areas where populations of species exist naturally is an underlying condition for the conservation of biodiversity. That's why protected areas form a central element of any national strategy to conserve biodiversity. Ex-situ conservation is the preservation of components of biological diversity outside their natural habitats.

32. Ans: a

The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), also known as TPP11 is an agreed in principle trade agreement between Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam.

The CPTPP incorporates most of the Trans-Pacific Partnership (TPP) provisions by reference, but suspended 22 provisions the United States favored that other countries opposed, and lowered the threshold for enactment so the participation of the U.S. is not required. The TPP was signed on 4 February 2016, but never entered into force as a result of the withdrawal of the United States.

All original TPP signatories, except the U.S., agreed in May 2017 to revive it and reached agreement in January 2018 to conclude the Comprehensive and Progressive Agreement for Trans-Pacific Partnership. **The formal signing** ceremony was held on March 8, 2018 in **Santiago**, **Chile**

In January 2018 the United Kingdom government stated it is exploring becoming a member of the Trans-Pacific Partnership to stimulate exports after Brexit in March 2019 and has held informal discussions with the members.

On January 25, 2018, U.S. President Donald Trump in an interview announced his interest in possibly rejoining the TPP if it were a "substantially better deal" for the United States. He withdrew the U.S. from the original agreement in January 2017

33. **Ans: b**

The Indian Forest (Amendment) Bill, 2017 was introduced in Lok Sabha by Mr. Harsh Vardhan, Minister of Environment, Forest, and Climate Change on December 18, 2017. The Bill replaces the Indian Forest (Amendment) Ordinance, 2017 and amends the Indian Forest Act, 1927. Consequent to the amendment, felling or transportation of bamboos growing in non-forest areas will not require any permits. It will enable to increase the rural income and provide livelihood to tribals.

34. Ans: a

- Because of narrow export base of countries, they compete with each other in limited goods and there is thus very low complementarity. Political hurdles are self-evident.
- Now there are already many bilateral trade agreements in South Asia. So trade takes the bilateral route as it is easy rather than the multilateral SAFTA route.

35. Ans: d

36. Ans: d

Informative and self-explanatory

37. **Ans: b**

The Government of India along with Government of Madhya Pradesh and Government of Uttar Pradesh have planned to link the Ken River with Betwa River. This involves construction of 283m long Daudhan Dam. The project aims to transfer excess water from Ken basin to Betwa basin and thus provide water access to the drought prone region of Bundelkhand. This construction will cause inundation of 400 hectares of land of 4300 hectare Panna Tiger reserve. Environmentalists are afraid that this will adversely affect the population of tigers in the region

38. **Ans: b**

Structural adjustment programmes (SAPs) consist of loans provided by the International Monetary Fund (IMF) and the World Bank (WB) to countries that experienced economic crises. The two Bretton Woods Institutions require borrowing countries to implement certain policies in order to obtain new loans (or to lower interest rates on existing ones). The conditionality clauses attached to the loans have been criticized because of their effects on the social sector.

SAPs are created with the goal of reducing the borrowing country's fiscal imbalances in the short and medium term or in order to adjust the economy to long-term growth. The bank from which a borrowing country receives its loan depends upon the type of necessity. The IMF usually implements stabilization policies and the WB is in charge of adjustment measures.

39. Ans: d

Bhavani Jamakkalam refers to blankets and carpets manufactured in Bhavani in Erode district, Tamil Nadu. It has been recognized with Geographical Indication by the Government of India in 2005-06.



Kathputli is a string puppet theatre, native to Rajasthan, India, and is the most popular form of Indian puppetry. It got GI tag in 2017



GI Tag for **Nilambur Teak**, internationally known for its superior quality and elegant appearance was awarded in 2017. It was the Britishers who identified the superior quality of teak from Nilambur plantations and forests. Later, the region became the major supplier of quality teak in the world

40. Ans: d

World Intellectual Property Organisation (WIPO)

- The Mission of WIPO is to promote innovation and creativity for the economic, social and cultural development of all
 countries.
- It is headquartered at **Geneva**, **Switzerland**.
- WIPO's predecessor was **The United International Bureaux for the Protection of Intellectual Property (BIPRI)** which administered two conventions such as **Paris convention** and **Berne convention** for the protection of Industrial property and literary & artistic works respectively.
- Marrakesh Treaty of the WIPO is to facilitate access to published works for persons who are blind, visually impaired and print disabled. India was the first country to sign this treaty

41. Ans: d

In a major development, India-based Neutrino Observatory (INO) project in Bodhi West Hills, Theni in the Kerala-Tamilnadu border, which suffered multiple delays having caught-up in political activism, has been cleared by the Expert Appraisal Committee (Infra-2) (EAC) of the Union Ministry of Environment, Forests and Climate Change (MoEF&CC). The project leaders are awaiting the state level clearances indicating that it is a basic science project to unravel the mystery of the universe.

42. Ans: b

It originated in Calcutta. It helped to understand the stature of British India



43. **Ans: b**

44. Ans: d

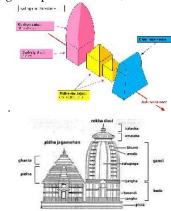
After Mahaparinirvana of Buddha, Stupas were built at 9 places namely Rajagriha, Vaishali, Kapilavastu, Kusinagara, Pava, Vethapida, Ramagrama, Pippalivana and Allakappa.

45. Ans: a

Three densely populated regions of the world, including South Asia, could see internal climate migrants of over 140 million people in the next three decades if climate change impacts continue, a new World Bank Group report finds. However, with concerted actions -- including global efforts to cut greenhouse gas emissions and robust development planning at the country level -- this scenario could be dramatically reduced by up to 80 per cent

46. **Ans: b**

Jagamohana is the name of hall mandapa in Kalinga temple architecture, which is a sub school of Nagara style



47. Ans: d

Cape Town is set to become **first major city to run out of water**. Day Zero does not mean that there is no water in dams. It means, however, that the dams are at a crucial low. This crucial low means that dam storage will be at 13. 5%. This is when the City will turn off most taps, leaving only vital services with access to water.

48. Ans: b

It was translated to French and English only.

Rest is informative

49. Ans: b

50. **Ans: b**

Bharata Muni enunciated the eight Rasas in the Nātyasāstra, an ancient Sanskrit text of dramatic theory and other performance arts, written between 200 BC and 200 AD. In the Indian performing arts, a rasa is a sentiment or emotion evoked in each member of the audience by the art. The Natya Shastra mentions six rasa in one section, but in the dedicated section on rasa it states and discusses eight primary rasa.

- 1. Related to love, eros (Ś ngāra)
- 2. Humorous, comic (Hāsya)
- 3. Pathetic, disgust (Bībhatsa)
- 4. Fury, anger (Raudra)
- 5. Compassion, sympathy (Kāru ya)
- 6. Heroic (Vīra)
- 7. Terrible, horrifying (Bhayānaka)
- 8. Marvellous, amazing (Adbhuta)

A ninth rasa was added by later authors. This addition had to undergo a good deal of struggle between the sixth and the tenth centuries, before it could be accepted by the majority of the Alankarikas, and the expression "Navarasa" (the nine rasas), could come into vogue. The 9th rasa denotes Peace or tranquillity (Śāntam).

51. **Ans:** c

• Xuan Zang spent a lot of time at Harsha's court and left a detailed account of what he saw.

- Aihole, the capital of the Chalukyas, The kingdom of the Pallavas spread from the region around their capital, Kanchipuram, to
 the Kaveri delta, while that of the Chalukyas was centred around the Raichur Doab, between the rivers Krishna and
 Tungabhadra.
- We know about Samudragupta from a long inscription, actually a poem in Sanskrit, composed by his court poet, Harisena nearly 1700 years ago. This was inscribed on the Ashokan pillar at Allahabad While prashastis were composed for some of the rulers, such as Gautamiputra Shri Satakarni, they became far more important from the time of the Guptas.

52. **Ans: b**

In a major move aimed at promoting transparency in political funding, Finance Minsiter had in last year's Budget speech announced capping of anonymous cash donations to political parties at Rs 2,000 and introduced the concept of electoral bonds. The government had also asked political parties to offer a better suggestion on the proposed electoral bond mechanism. As per the electoral bond mechanism announced in the Budget, the proposed bonds will resemble a promissory note and not an interest-paying debt instrument. They will be sold by authorised banks and can be deposited in notified accounts of political parties within the duration of their validity. The bonds will not carry the name of the donor and routing of the money through banks will ensure that only tax paid money comes into the political system. The advantage of the electoral bond system over donations through cheques is that many donors expressed reluctance to use cheques because it becomes transparent and leads to political vendetta by rivals. The other reason that donors did not want their names to be known was that, following the donation, if they legitimately win a contract, then they open themselves up to suspicion of benefiting from a quid pro quo arrangement with the party in power.

53. Ans: d

- In the Tamil region, large landowners were known as vellalar.
- In many cities, archaeologists have found rows of pots, or ceramic rings arranged one on top of the other. These are known as
 ring wells. These seem to have been used as toilets in some cases, and as drains and garbage dumps. These ring wells are
 usually found in individual houses.
- The earliest coins which were in use for about 500 years were punch marked coins. They have been given this name because the designs were punched on to the metal silver or copper.
- Many crafts persons and merchants now formed associations known as shrenis. These shrenisof crafts persons provided training, procured raw material, and distributed the finished product. Then shrenis of merchants organised the trade. Shrenisalso served as banks, where rich men and women deposited money. In the Tamil region, large landowners were known as vellalar, ordinary ploughmen were known as uzhavar, and landless labourers, including slaves, were known askadaisiyarandadimai.

54. **Ans:** c

The National Anti-Profiteering Authority is tasked with ensuring the full benefits of a reduction in tax on supply of goods or services flow to the consumers.

When constituted by the GST Council, the National Anti-Profiteering Authority shall be responsible for applying anti-profiteering measures in the event of a reduction in rate of GST on supply of goods or services or, if the benefit of input tax credit is not passed on to the recipients by way of commensurate reduction in prices.

The National Anti-Profiteering Authority shall be headed by a senior officer of the level of a Secretary to the Government of India and shall have four technical members from the Centre and/or the States.

The constitution of the National Anti-Profiteering Authority is expected to bolster consumer confidence and ensure all stakeholders reap the intended benefits of GST.

In the event the National Anti-Profiteering Authority confirms the necessity of applying anti-profiteering measures, it has the power to order the business concerned to reduce its prices or return the undue benefit availed along with interest to the recipient of the goods or services. If the undue benefit cannot be passed on to the recipient, it can be ordered to be deposited in the Consumer Welfare Fund. In extreme cases the National Anti-Profiteering Authority can impose a penalty on the defaulting business entity and even order the cancellation of its registration under GST.

55. Ans: a

- Most of Ashoka's inscriptions were in Prakrit and were written in the Brahmi script.
- The Rampurva bull capital was the capitals of Ashoka Pillar, located in the West Champaran district of the Indian state of Bihar.

56. **Ans: b**

Produce of foreign nationals is taken while calculating GDP

57. Ans: a

- Zoroastrianism was a major religion in Iran. Zoroaster was an Iranian prophet. His teachings are contained in a book called the Avesta. For more than a thousand years, Zoroastrianism was a major religion in Iran. Later, some Zoroastrians migrated from Iran and settled down in the coastal towns of Gujarat and Maharashtra. They were the ancestors of today's Parsis.
- Buddha believed that the results of our actions (called karma), whether good or bad, affect us both in this life and the next.
- Upanishad thinkers felt that there was something permanent in the universe that would last even after death. They described
 this as the atman or the individual soul and the brahman or the universal soul. They believed that ultimately, both the atman
 and the brahman were one.

58. Ans: c

59. **Ans:** c

- The practice of erecting megaliths began about 3000 years ago, and was prevalent throughout the Deccan, south India, in the north-east and Kashmir.
- Daojali Hading is a Neolithic site on the hills near the Brahmaputra Valley, close to routes leading into China and Myanmar.
- About 2500 years ago, some janapadas became more important than others, and were known as mahajanapadas. Most
 mahajanapadashad a capital city,many of these were fortified. This means that huge walls of wood, brick or stone were built
 around them.
- Mehrgarh is located in a fertile plain, near the Bolan Pass, which is one of the most important routes into Iran. Findings at Mehrgarh include remains of square or rectangular houses. Each house had four or more compartments, some of which may have been used for storage.

60. Ans: a

CSO publishes IIP monthly. Recently the base year has been changed to 2011-12

61. Ans: a

- The Ahoms migrated to the Brahmaputra valley from present-day Myanmar in the thirteenth century. They created a new state by suppressing the older political system of the bhuiyans(landlords). During the sixteenth century, they annexed the kingdoms of the Chhutiyas (1523) and of Koch-Hajo (1581) and subjugated many other tribes. The Ahoms built a large state, and for this they used firearms as early as the 1530s. By the 1660s they could even make highquality gunpowder and cannons. The Ahom state depended upon forced labour. Those forced to work for the state were called paiks. A census of the population was taken. Each village had to send a number of paiks by rotation.
- Guru Gobind Singh, born Gobind Rai, was the tenth Sikh Guru.
- The town of Masulipatnam or Machlipatnam (literally, fish port town) lay on the delta of the Krishna river. In the seventeenth century it was a centre of intense activity. Both the Dutch and English East India Companies attempted to control Masulipatnam as it became the most important port on the Andhra coast. The fort at Masulipatnam was built by the Dutch.

62. Ans: b

It uses 3 dimensions to measure opportunity cost namely reproductive health, empowerment and labour market participation

63. Ans: d

• *Pir* is a Persian word meaning a spiritual guide. This term included saints or Sufis and other religious personalities, daring colonisers and deified soldiers, various Hindu and Buddhist deities and even animistic spirits. The cult of pirs became very popular and their shrines can be found everywhere in Bengal

64. Ans: c

Lorenz curve maps the relationship between percentage of income or wealth earned and percentage of people earned that particular percentage of income.

Kuznet curve says that in a developing country initially inequality will increase and with increase in growth inequality will come down

65. Ans: a

- The term mansabdar refers to an individual who holds a mansab, meaning a position or rank. It was a grading system used by the Mughals to fix (1) rank, (2) salary and (3) military responsibilities. Rank and salary were determined by a numerical value called zat. The higher the zat, the more prestigious was the noble's position in court and the larger his salary.
- The mansabdar's military responsibilities required him to maintain a specified number of sawar or cavalrymen. The mansabdar brought his cavalrymen for review, got them registered, their horses branded and then received money to pay them as salary.

66. Ans: b

In disguised unemployment people are actually employed but there marginal product is zero.

Marginal product is the produce added to the existing production due to addition of new employee or worker Statement 3 is about open unemployment

67. **Ans: b**

- European cloth manufacturers therefore had to depend on another plant called woad to make violet and blue dyes. Being a
 plant of the temperate zones, woad was more easily available in Europe. It was grown in northern Italy, southern France and in
 parts of Germany and Britain.
- Worried by the competition from indigo, woad producers in Europe pressurised their governments to ban the import of indigo.

68. Ans: c

Railway budget was separated as a result of Acworth committee report in 1921.

Article 202 speaks about state budget.

69. Ans: c

Colonial rule introduced several new art forms, styles, materials and techniques which were creatively adapted by Indian artists for local patrons and markets, in both elite and popular circles

70. **Ans: d**

Prior approval is not needed. President can meet the expenditure and later get the approval of parliament.

71. **Ans: d**

First Carnatic War (1744 - 48) is an extension of the Anglo-French War in Europe which was caused by the Austrian war of succession (which broke out in March 1740). The war ended with the Treaty of "Aix-La Chapelle" in 1748. This treaty brought the Austrian war of Succession to a conclusion.

Third Mysore War (1790 - 92) Conflict between Travancore and Cochin. Cochin was a feudatory of Tipu, he declared War against Travancore. English siding with Travancore. In 1791, Cornwallis took the leadership. With the Support of Nizam and Maratha – British forced Tippu to Sign "Treaty of Seringapatam". As war indemnity Tipu lost many territories and money. Tippu's two sons were taken as hostages by the English.

First Anglo-Maratha War (1775-82) In this war, the Maratha army was Commanded by a power Maratha Military officer called "Mahadji Sindhia". In the Beginning, his army defeated the British, but later he surrendered and signed "Treaty of Salbai" with Warren Hastings.

72. Ans: c

Treasury bills are zero coupons bond since they are non-interest bearing. They are issued at a discounted rate (for example 1000Rs Treasury Bill is issued for 900 Rs). Market loans have a maturity of 12 months or more. Treasury bills are short term debt instrument.

73. **Ans: b**

- On reaching Calcutta Clive concluded a Treaty with the Nawab of Awadh and Shah Alam II. The Treaty was signed in 16
 August 1765 at Calcutta. As per the Treaty, the Nawab of Awadh agrees to pay Rs. 50 lakhs to company and surrenders
 Allahabad and Kara. This Treaty made Nawab a firm friend of the Company and created Awadh as a buffer state, by not
 Annexed it.
- Emperor Shah Alam was taken under the Company's protection and was to reside at Allahabad, as a mere pensioner. Company secured the Diwani of Bengal, Bihar and Orissa. But British demanded him to surrender the "Nizamat" right. Thus the company got Diwani from the Emperor, and Nizamath from the Nawab. Company appointed both Deputy Diwan and Deputy Subahdar. Thus the whole admin was exercised through Indian Agency, though the actual power rested with the company, without any responsibility. This system of government came to be remembered as "Dual System or Dyarchy", i.e., rule of two, the Company and the Nawab.

74. Ans: b

Revenue expenditure is a one way payment. It is spend to meet the day to day expenditure of the government

75. **Ans:** c

Since the acquisition of Diwani in 1765 the civil jurisdiction had passed into the Company's control and was exercised by the Deputy Diwan. In 1772, Warren Hastings set up – Diwani Adalat and Faujdari Adalat – at district level.

Diwani Adalat

- For Civil matters.
- Presided over by Collector.
- Jurisdiction Property, inheritance, caste, marriage, debts..etc.,,
- Hindu laws for Hindus, Muslim laws for Muslims.
- Appeals:- Sadar Diwani Adalat at Culcatta.
- SDA president + 2 members of Supreme council + 2 Indian assistance.

Faujdari Adalat

- For Criminal cases.
- Presided by officers of the Company assisted by Qazis and Muftis.
- The Mohammadean Law followed in Faujdari Adalat.
- Appeals Sadar Nizamat Adalat.
- SNA presided by Deputy Nazim + Chief Qazi + Chief Mufti + three Maulavis.

76. Ans: d

77. Ans: a

Reforms of Dalhousie

Educational:-

- In 1854 the famous "Wood's Dispatch", scheme of education from the Primary School to the University.
- Charles Wood was the President of Board of Control.
- In 1849, JED Bethune opened a Girls School in Calcutta.
- "Wood's Dispatch", is known as the 'Magna Carta' of English education in India.
- He established the first Engineering College, Thomson College (Now an IIT) for civil engineering at Roorkee, Uttarakhand.

Railway:-

- Railway system was introduced in India.
- First Train service –
- 16th April 1853.
- From Bombay to Thane.

Communication:-

- Telegraph was first introduced in India by Dalhousie in 1853.
- First Telegraph line between Calcutta and Agra.
- He also introduced Modern Postal system.
- Postal system under British was introduced by Clive in 1766.
- In 1774, first GPO was opened in Calcutta (Warren Hastings).
- Dalhousie passed Post office Act of 1854.
- During his time Postage stamp was first issued in India.

Others:-

- He Abolished 'Titles' and 'Pension'.
- During his period the Santhal uprising occurred 1855-56.
- He introduced 'Widow Remarriage Act' in 1856.
- Charter Act of 1853 was enacted during his time.
- Delhousie was the Gov.Gen who made Shimla as the 'Summer Capital'.
- Considering all these measures, He is known as the "Maker of the Modern India".

78. **Ans: b**

When a tax is buoyant tax revenue increases without increase in tax rate. In tax elasticity tax revenue changes with a change in tax rate.

79. Ans: c

In the 6th option, it was James I of England and not the Elizabeth I.

80. Ans: c

At lower tax rate tax collection is low according to Laffers Curve. At optimum tax rate tax revenue reaches maximum since there is no tax evasion.

81. Ans: c

Due to Ambedkar's prominence and popular support amongst untouchable community, he was invited to attend Round Table Conference in London in 1932. Gandhi fiercely opposed a separate electorate for untouchables, saying he feared that such an arrangement would split Brahmins and Dalits, dividing the Hindu community into two groups.

In 1932, when the British had agreed with Ambedkar and announced a Communal Award of a separate electorate, Gandhi protested by fasting while imprisoned in the Yerwada Central Jail of Poona. The fast provoked huge civil unrest across India and orthodox Hindu leaders, Congress politicians and activists such as Madan Mohan Malaviya and Palwankar Baloo organised joint meetings with Ambedkar and his supporters at Yerwada. Fearing a communal reprisal and genocidal acts against untouchables, Ambedkar was forced into agreeing with Gandhi. This agreement, which saw Gandhi end his fast and Ambedkar drop his demand for a separate electorate, was called the Poona Pact. Instead, a certain number of seats were reserved specifically for untouchables (who in the agreement were called the "Depressed Class")

82. Ans: c

Union finance minister is the chairperson of the council.

83. Ans: c

Maulana Abul Kalam Azad became the president of Congress in 1940 (Ramgarh) and remained in the post till 1946. He was a staunch opponent of partition and supported a confederation of autonomous provinces with their own constitutions but common defense and economy. Partition hurt him great(y ant shattered his dream of an unified nation where Hindus and Muslims can coexist and prosper together.

Maulana Abul Kalam Azad served as the Minister of Education (the first education minister in independent India) in Pandit Jawaharlal Nehru's cabinet from 1947 to 1958. He died of a stroke on February 22, 1958. For his invaluable contribution to the nation, Maulana Abul Kalam Azad was posthumously awarded India's highest civilian honour, Bharat Ratna in 1992.

84. Ans: c

Bank Rate is the rate at which commercial banks rediscounts bill of exchange with RBI. A bill of exchange is a document that assures a payment of money by the purchaser to a seller for the goods purchased at a future date. If the seller needs urgent money before the future date specified on the Bill of Exchange he goes to a bank and discounts it. For a 1000 rs bill of exchange bank pays 920Rs 8% is the interest. The bank will get full money from purchaser but if bank needs urgent money it approaches RBI and converts it into money at a lesser discount rate i.e. 6% of 1000 bank gets 940Rs. Means 20Rs profit. Here rediscounting take place and the rate is called bank rate or discount rate. If RBI increases bank rate the profit of banks decreases. To counter that banks may increase the interest rate during the first discounting done by seller. During inflation RBI increases bank rate so that money supply reduces.

85. **Ans: b**

Tilak made it very clear that he did not want to overthrow the British government. What he wanted instead was Swaraj. These words of his brought him closer to the moderates. This stand of Tilak was responsible for the merger of the two streams (moderates and extremists) at the Lucknow session of Congress.

86. Ans: d

87. Ans: d

The annual session of the Congress parties as well as Muslim League were held in Lucknow in 1916. Separately they passed the same resolution, which we know as —Lucknow Pact. Via this:

- Congress accepted the provision of Separate Electorate for Muslims, given through Indian Council Act of 1909. This was
 earlier opposed by the Congress.
- For Provincial Legislative Assembly, seats for Muslims was to be reserved. The Muslim leaders accepted under representation in Muslim-majority areas (for instance 40% of seats in Bengal, though the Muslim population in Bengal was 52%) in return for over-representation in provinces like Bombay or United Provinces (30%). It is clear that the UP-based Muslim politicians dominated in the League. One-third elected seats of Central Legislative Assembly were reserved for Muslims, whose members had to come through separate electorate.
- If 3/4th members of any community in a Legislative Assembly objects on any Resolution on the ground that it is against their interests, it would not be passed.
- More autonomy to the provinces in financial matters.
- 80% members of both central and provincial Legislative Assembly should be elected.
- Half of the strength at least, of central and provincial Executive body shall come from elected Legislative body.
- Except army and External Affairs, the Legislative Council should have control over all departments.
- India should be treated as 'Dominion Status country'.

88. Ans: b

CRR is kept with RBI but it didn't pay interest for it. It is maintained only in the form of cash

89. Ans: d

The Moderates wanted to achieve self-government, they did not aim for total independence. They demanded certain reforms and concessions from British government because they wanted to develop India under the guidance of benevolent British rule. On the other hand, Extremists wanted Swaraj ie, complete independence. Moderates were loyal to British rule and English crown. They considered British rule a gift for India. The Extremists were not loyal to British rule and they considered i t as a curse and wanted to uproot it from India.

'Swaraj is better than best form of foreign rule' -Bal Gangadhar Tilak. The moderates believed in adopting constitutional and peaceful method to achieve their objective. They had full faith in British sense of justice. Extremists believed in non-cooperation and adopted method of boycott against foreign goods and propagation of swadeshi and national education. They believed in Indian culture, c ivilization, religion and tradition. Whereas Moderates believed in British culture.

Moderates believed that Indians were not fit to rule. Under the moderates, national movement was not a popular movement, it had no touch with people. While under extremists, people came under them.

90. Ans: c

Increase in repo means RBI will lend at a higher interest rate to banks. This will reduce money supply and didn't cause inflation. In fact increasing repo is a response to inflation in the economy. Banks will lend at a higher interest rate and thus borrowing will come down.

91. Ans: b

The Indian Railways will roll out a new Vikalp scheme on April 1, under which waiting listed passengers can get an option to travel in premium trains like Shatabdi and Rajdhani. Under the new reservation scheme called 'Vikalp', or alternate train accommodation scheme (ATAS), passengers who have booked tickets in other mail or express trains, can avail the option of travelling in premium trains to their booked destinations with no extra cost. The aim to roll out such a scheme is to utilise vacant berths in premier trains.

92. Ans: b

 $Urban\ Indians\ now\ form\ about\ one-third\ of\ the\ population\ and\ they\ produce\ more\ than\ three-fifths\ of\ the\ country's\ GDP.$

Municipal bonds are bonds issued by urban local bodies- municipal bodies and municipal corporates (entities owned by municipal bodies) to raise money for financing specific projects specifically infrastructure projects.

SEBI allowed urban local bodies to raise money through the issue of revenue bonds as well. Municipal bonds where the funds raised are kept for one project are termed revenue bonds.

93. **Ans: b**

The scheme is under the ministry of Road Transport & Highways. In addition to this, about 1500 old and worn down bridges will also be improved by replacement/ widening/ strengthening in a phased manner. The Ministry of Road Transport & Highways has also established an Indian Bridge Management System (IBMS) at the Indian Academy for Highway Engineer in Noida, U.P. The aim is to carry out conditions survey and inventorization of all bridges on National Highways in India by using Mobile Inspection Units.

94. Ans: d

- Women Sarpanch, in the country, account for about 43% of total gram Panchayats.
 Highest percentage of women MLAs were from Bihar, Haryana and Rajasthan (14%), followed by West Bengal & Madhya Pradesh (13%) and Punjab (12%).
- It is found that the economies with abundant natural resources have grown less rapidly than resource scarce economies.
 Economists term it as "resource curse".

 However the gains were not passed on equally to all sections of the population. In particular, ST population of the mineral-rich states, which forms the predominant population in these areas, saw only a 17% decline in poverty, smaller than the 22% fall in the other states

95. Ans: a

Pradhan Mantri Jeevan Jyoti Bima Yojana is a government-backed Life insurance scheme in India. It was originally mentioned in the 2015 Budget speech by Finance Minister Arun Jaitley in February 2015. As of May 2015, only 20% of India's population has any kind of insurance, this scheme aims to increase the number. Pradhan Mantri Jeevan Jyoti Bima Yojana is available to people between 18 and 50 years of age with bank accounts. The Service tax exempted on Pradhan Mantri Jeevan Jyoti Bima Yojana. The amount will be automatically debited from the account. In case of death due to any cause, the payment to the nominee will be ₹2 lakh.

96. Ans: b

The Baltic Dry Index (BDI) is a shipping and trade index created by the London-based Baltic Exchange that measures change in the cost of transporting various raw materials. The exchange directly contacts shipping brokers to assess price levels for a given route, a product to transport and time to delivery, or speed. The Baltic Dry Index is a composite of three sub-indices that measure different sizes of dry bulk carriers or merchant ships: Capesize, Panamax and Supramax.

97. Ans: a

Forest Survey of India (FSI), an organization under the ministry is engaged in the assessment of the country's forest resources on regular intervals. Established in 1981, the Forest Survey of India succeeded the 'Pre Investment Survey of Forest Resources' (PISFR), a project initiated in 1965 by the Government of India with the sponsorship of FAO and UNDP. The main objective of PISFR was to ascertain the availability of raw material for establishment of wood based industries in selected areas of the country. In its report in 1976, the National Commission on Agriculture (NCA) recommended the creation of a National Forest Survey Organization for collection of reliable data through countrywide comprehensive forest resources survey at regular intervals. Consequently, PISFR was reorganized into FSI in 1981. It is headquartered at Dehradun and is under MoEFCC.

98. Ans: b

- Language does not seem to be a demonstrable barrier as common language between the origin and destination state is not significant in explaining the flow of the migrants.
- The Census definition of a migrant is as follows: "When a person is enumerated in census at a different place than his/her place of birth, she/he is considered a migrant".
- The largest in-migration was at Delhi region, which accounted for more than half of migration in 2015-16, while Uttar Pradesh and Bihar taken together account for half of total out-migrants.
- **Circular migrants:** Individuals who migrate from place to place for temporary periods.

99. Ans: a

The Central Pollution Control Board (CPCB) performs functions as laid down under The Water (Prevention & Control of Pollution) Act, 1974, and The Air (Prevention and Control of Pollution) Act, 1981. It is responsible for planning and executing comprehensive nationwide programmes for the prevention and control of water and air pollution, for advising the Central Government on matters concerning prevention and control of water and air pollution and for coordinating activities of state pollution control boards/pollution control committees besides providing technical assistance and guidance to them. NAQI covers 8 pollutants only (PM2.5, PM10, CO2, O3, SO2, NO2, NH3, Pb). Ambient Air Quality Index, the index which existed before NAQI covered 12 pollutants and not NAQI.

100. Ans: d

TINXSYS

- It is Tax Information Exchange System.
- To calculate the data on trade, Economic Survey used TINXSYS dataset.
- It is administered and hosted by the Goods and Services Tax Network (GSTN).
- It has Central Sales Tax invoices for trade between states.
- The estimates for interstate trade values and trade balances were calculated using the TINXSYS dataset.