

CDS I 2021 PYSP General Knowledge: Solution

1. Ans. D.

Brazilian Current - The Brazil Current is a warm water current that flows south along the Brazilian south coast to the mouth of the Río de la Plata.

Gulf Stream - The Gulf Stream is a strong ocean current that brings warm water from the Gulf of Mexico into the Atlantic Ocean.

North Equatorial Current - The North Equatorial Current is a significant Pacific and Atlantic Ocean current that flows east-to-west between about 10° north and 20° north.

California Current - The California Current is a cold water Pacific Ocean current that moves southward along the western coast of North America, beginning off southern British Columbia and ending off southern Baja California Sur.

2. Ans. B.

Territorial jurisdiction extends up to 12 nautical miles from territorial waters closest to the baseline; Beyond the territorial waters is a contiguous zone extending 24 nautical miles; And beyond that is the Special Economic Zone of India at a distance of 200 nautical miles.

3. Ans. A.

Pradhan Mantri Gram Sadak Yojana (PMGSY) is a nationwide scheme in India to provide good all-weather road connectivity to unconnected village settlements with a population of over 500 in the plains and over 250 hilly areas to all. There are plans to connect weather roads. This centrally sponsored scheme was launched in 2000 by the late Prime Minister of India, Late Shri Atal Bihari Vajpayee.

The Assam Tribune has reported that the scheme has begun to change the lifestyle of many villagers as it has resulted in the upgrading of new roads and some inter-village routes in Manipur.

4. Ans. D.

DDU-GKY was launched by Union Ministers Nitin Gadkari and Venkaiah Naidu on 25 September 2014 on the 98th birth anniversary of Pandit Deendayal Upadhyay. The vision of DDU-GKY is to "transform rural poor youth into an economically independent and globally relevant workforce". It aims to target youth aged 15–35 years. DDU-GKY is a part of the National Rural Livelihood Mission (NRLM), which works with the twin

objectives of adding diversity to the income of rural poor families and fulfills the career aspirations of rural youth.

5. Ans. D.

Mission Indradhanush (MI) was one of the world's largest public health programs in 2014 by the Ministry of Health and Family Welfare, which was strategically and strategically prepared. Since then, vaccination has taken a percentage as an important pillar of public health. Mission Indradhanush is targeted to immunize children who are either unvaccinated or partially vaccinated, ie those who have not been covered under regular immunization due to various reasons.

6. Ans. B.

The Pradhan Mantri Sahaj Bijli Har Ghar Yojana (Saubhagya) scheme aims to achieve universal household electrification in India by providing last-mile connectivity and electricity connections to all households in rural and urban areas by 31 March 2019. Its goal is 100% electrification nationwide. The scheme was launched in September 2017.

7. Ans. A.

NATIONAL INITIATIVE FOR DEVELOPING AND HARNESSING INNOVATIONS (NIDHI) - PRomoting and Accelerating Young and ASpiring innovators & startups (NIDHI-PRAYAS), is an umbrella programme conceived and developed by the Innovation & Entrepreneurship division, Department of Science & Technology, Government of India, for nurturing ideas and innovations (knowledge-based and technology-driven) into successful startups. Hence option A is correct.

8. Ans. A.

Knowledge Involvement Research Advancement through Nurturing (KIRAN) program by the Department of Science and Technology to provide various career opportunities to women scientists. It is primarily aimed at bringing gender equality in the field of science and technology by involving more women talent in the field of research and development through various programs. It provides fellowship assistance from 25000 to 55000 rupees to women in the age group of 27 to 57 to continue higher education in Science and Technology after a break in career.

9. Ans. D.

The Amara-nayaka system was a major political innovation of the Vijayanagara Empire. Most probably many features of this system were derived from the iqta system of Delhi Sultanate. Nayakas were warriors

holding an office bestowed on them by the central government on the condition of rendering military service.

10. Ans. A.

Treaty of Bassein, a pact between Baji Rao II, the Maratha Peshwa of Poona (now Pune) in India, and the British was signed on Dec. 31, 1802. This was a decisive step in the breakup of the Maratha confederacy. The treaty led directly to the East India Company's annexation of the Peshwa's territories in western India in 1818.

11. Ans. B.

ACT No. V. OF 1843 relating to Slavery in India: Passed on the 7th April 1843, An Act for declaring and amending the Law regarding the condition of Slavery within the Territories of the East India Company. According to this ACT, No rights arising out of an alleged property in the person and services of another as a slave shall be enforced by any Civil or Criminal Court or Magistrate within the territories of the East India Company.

12. Ans. D.

Gopal Krishna Gokhale was a member of the Imperial Legislative Council. He was popular in India for the first time as a great champion of compulsory primary education. He publicly calls for the introduction of "compulsory primary education" in India. He wanted the government to pass an Act on the lines of the English Education Act of 1870, giving local authorities in India the right to free and compulsory primary education for boys between the ages of 6 and 10 years. GK Gokhale introduced a private bill in the council on 16 March 1911 as an informal member's bill. The bill is popular as Gokhale's personal bill of 1911.

13. Ans. D.

Amritlal Vitthal Das Thakkar, also known as Thakkar Bapa, was an Indian social worker who worked for the upliftment of tribal people in the state of Gujarat in India. He became a member of the Servants of India Society founded in 1905 by Gopal Krishna Gokhale. In 1922, he founded the Bhil Seva Mandal.

14. Ans. D.

Gandhi-Irwin Pact: Indian National Congress (INC) agreed to participate in the Second Round Table Conference. INC promised to stop the civil disobedience movement. The Govt on the other hand agreed for:

- Withdrawal of all ordinances that curb Congress activities.

- Return of all prosecutions except for violent crimes.
- The release of those arrested for participating in the Civil Disobedience Movement.
- Removal of the salt tax.

15. Ans. B.

The nominal interest rate is either of two distinct things:

the rate of interest before adjustment for inflation, OR for interest rates "as stated" without adjustment for the full effect of compounding (also referred to as the nominal annual rate). An interest rate is called nominal if the frequency of compounding (e.g. a month) is not identical to the basic time unit in which the nominal rate is quoted (normally a year).

16. Ans. B.

The term collateral refers to an asset that a lender accepts as security for a loan. Depending on the purpose of the loan, collateral can take the form of real estate or other types of property. Collateral serves as a security for the lender.

17. Ans. A.

The crowding out effect suggests rising public sector spending drives down private sector spending. There are three main reasons for the crowding out effect to take place: economics, social welfare, and infrastructure. Crowding in, on the other hand, suggests government borrowing can actually increase demand and hence private spending.

18. Ans. C.

Stagflation is characterized by slow economic growth and relatively high unemployment or economic stagnation - coupled with rising prices (i.e. inflation) at the same time. The period of inflation can also be defined alternatively with the fall in the gross domestic product (GDP). So here the correct answer is option C.

19. Ans. A.

Structural unemployment is a form of unemployment caused by a mismatch between the skills that workers in the economy can offer, and the skills demanded of workers by employers (also known as the skills gap), mismatch in the regional or occupational pattern of job vacancies and the pattern of worker availability. However it requires either

migration or re-training, structural unemployment can be chronic or long-term and slow to fix. Option A is the correct answer.

20. Ans. C.

Nominal GDP measures a country's gross domestic product using current prices, without adjusting for inflation. Contrast this with real GDP, which measures a country's economic output adjusted for the impact of inflation.

Nominal GDP is calculated using the following equation:

$$\text{GDP} = C + I + G + (X - M)$$

Where:

C – Private consumption

I – Gross investment

G – Government investment

X – Exports

M – Imports

21. Ans. B.

The 'basic needs' approach introduced by the International Labour Organization's World Employment Conference in 1976. According to ILO report, it indicates two crucial elements in the Basic Needs approach: "First, they include certain minimum requirements of a family for private consumption: adequate food, shelter and clothing, as well as certain household equipment and furniture. Second, they include essential services provided by and for the community at large, such as safe drinking water, sanitation, public transport and health, education and cultural facilities." Hence the correct answer is option B.

22. Ans. A.

Shifting Cultivation is known as Milpa in Central America & Mexico, Ray in Vietnam, Taungya in Myanmar, Tamrai in Thailand, Chena in Sri Lanka, Conuco in Venezuela, Roca in Brazil, Masole in central Africa and Ladang in Indonesia, Caingin in the Philippines. In India, Shifting Cultivation is known by various local names like 'Jhum' cultivation.

23. Ans. A.

The English philosopher John Locke created the philosophical school empiricism. John Locke wrote, "Democracy is a government based on law, that is created after long consideration by appropriate elected representatives of the people and proclaimed in a way, that all men can become acquainted with them." hence the correct answer is option A.

24. Ans. C.

Legal positivism is a school of thought of analytical jurisprudence developed largely by legal philosophers during the 18th and 19th centuries, such as Jeremy Bentham and John Austin. While Bentham and John Austin developed legal positivist theory, empiricism provided the theoretical basis for such developments to occur. so here the correct answer is option C.

25. Ans. A.

Article 14: equality before the law, the state shall not deny to any person equality before the law or the equal protection of the laws within the territory of India. The equality before the law is guaranteed to all without regard to race, colour, or nationality.

Article 15: Non-discrimination on grounds of religion, race, caste, sex, or place of birth.

Article 16: Equality of opportunity in public employment, no citizen shall on grounds only of religion, race, caste, sex, descent, place of birth, residence, or any of them, be ineligible for or discriminated against in respect of any employment or office under the state.

Article 22: Safeguards against Arbitrary Arrest and Detention

It guarantees the right of every person who is arrested to be informed of the cause of his arrest; secondly, his right to consult and to be defended by a lawyer of his choice. Thirdly, every person arrested and detained in custody shall be produced before the nearest Magistrate within twenty-four hours and shall be kept in continued custody only with his authority.

26. Ans. B.

A casting vote is a vote that someone may exercise to resolve a deadlock or in the case of equality of votes. A casting vote is typically by the presiding officer of a council, legislative body, committee, etc., In some legislatures, a casting vote may be exercised however the presiding officer wishes, according to her party affiliation or according to her personal beliefs. So the option B is correct.

27. Ans. A.

The Government of India (GOI) set up a High-Powered Committee (HPC) in August 1999 and a National Committee after the Gujarat earthquake, for making recommendations on the preparation of Disaster Management plans and suggesting effective mitigation mechanisms. The Tenth Five-Year Plan document also had, for the first time, a detailed chapter on Disaster Management. The Twelfth Finance Commission was also mandated to review the financial arrangements for Disaster Management.

On 23 December 2005, the Government of India enacted the Disaster Management Act, which envisaged the creation of National Disaster Management Authority (NDMA), headed by the Prime Minister, and State Disaster Management Authorities (SDMAs) headed by respective Chief Ministers, to spearhead and implement a holistic and integrated approach to Disaster Management in India.

28. Ans. B.

The Regulating Act (1773) and William Pitt the Younger India Act (1784) established government control of political policy through a regulatory board for Parliament. The company then gradually lost commercial and political control. Its commercial monopoly was broken in 1813. In 1833, the jealously-protected monopoly of the East India Company was finally abolished and the China trade was opened to the competition of dozens of British companies, who had been petitioning the government, and from 1834 it was the only managing agency for the British Government of India. It was deprived of that role after the Indian Rebellion (1857), and it did not exist as a legal entity in 1873.

29. Ans. C.

British Indian Medical Service (IMS) organization began with the establishment of the Bengal Medical Service on 20 October 1763 after that by 1764 in both Madras and Bombay also. In Bengal, increasing military actions required the separation of Military Surgeons from Civil Surgeons. The first Indian to join the service was Soorjo Coomar Goodeve Chuckerbutty who entered the service on 24 January 1855 followed by Rajendra Chandra Chandra on 27 January 1858. The Medical Services of the Madras, Bengal and Bombay Presidencies were united after 1857. Hence the correct answer is option C.

30. Ans. D.

Three major systems of land revenue collection existed in India. They were – Zamindari, Ryotwari and Mahalwari. Where Ryotwari System was introduced by Thomas Munro in 1820. Mainly introduced in Madras,

Bombay, parts of Assam and Coorg provinces of British India. according to this, the ownership rights were handed over to the peasants. British Government collected taxes directly from the peasants. The revenue rates of Ryotwari System were 50% where the lands were dry and 60% in irrigated land.

31. Ans. B.

A no-confidence motion can be passed against the entire council of ministers only.

As a parliamentary motion, it exhibits to the head of state that the elected parliament no longer has confidence in (i.e. one or more members of) the appointed government. In some nations, if a no-confidence motion is proceeded against an individual minister they have to resign along with the entire council of ministers.

A no-confidence motion, or a vote of no confidence, or no-confidence motion, is a vote or statement about whether a person in a position of responsibility (i.e. at government, managerial, etc.) is no longer deemed fit to hold that position, perhaps as they are inadequate in some aspect, are failing to accomplish obligations, or are making decisions that other members feel as being detrimental.

32. Ans. A.

The Vice President's election is slightly different from that of the election of the President as the members of state legislatures are not involved in the electoral college but the nominated members of both the houses are part of the electoral college for the vice-presidential election.

- * The Vice President holds office for a period of five years.
- * He/She may be re-elected any number of times.
- * Although the office may be terminated earlier by death, resignation/removal, the Constitution doesn't provide a mechanism of succession to the Vice President's Office in the event of an extraordinary vacancy, apart from re-election.
- * Although the Deputy Chairman of the Rajya Sabha can perform the duties of Vice President as the Chairman of the Rajya Sabha in such an event.

As in the President's case, in order to be qualified to be elected as Vice President, a person must:

- * Be a citizen of India
- * Have completed more than thirty-five years of age
- * Not hold any office of profit

33. Ans. C.

Fundamental Rights (FRs) are the social and political claims without which, a man cannot give his best to the society or can not realize his/her best self.

The Fundamental Rights guaranteed by the Articles 14, 20, 21, 21A, 22, 23, 24, 25, 26, 27 and 28 are available to all persons whether he/she is citizens or foreigners.

The Fundamental Rights guaranteed by Articles 15, 16, 19, 29, and 30 are provided only to citizens of India.

34. Ans. A.

Elections to the Rajya Sabha are indirect; members those represents states are elected by elected members of legislative assemblies of the States comparatively with the system of proportional representation by means of the single transferable vote, STV, and those representing Union Territories are chosen in such manner as Parliament may by law prescribe.

Parliament has empowered by the Indian Constitution to prescribe the manner of selecting the representatives of the union territories in the Lok Sabha. It has passed the Union Territories (i.e. Direct Election to the House of the People) Act, which provides that Lok Sabha members from the Union Territories will be selected by direct elections.

The Indian Constitution provides that the Rajya Sabha shall comprise of 250 members, out of which 12 members shall be nominated by the President from amongst persons having specific knowledge or practical experience in respect of such matters like literature, science, art and social service; and not greater than 238 representatives of the States and the Union Territories.

Some seats are reserved in Lok Sabha for the members of the Scheduled Castes & Scheduled Tribes. According to the order issued by the Delimitation Commission in the year 2008, 412 are general, 84 seats are reserved for Scheduled Castes and another 47 seats for the Scheduled Tribes.

35. Ans. D.

Statement D is not correct as a person from outside the Parliament can be appointed a member of the Cabinet.

Two articles, i.e., Article 74 & Article 75 of the Indian Constitution deals with the Council of Ministers. Where Article 74 mentions that the council will be headed by the PM of India and will aid and advise the President, Article 75 mentions the following things:

- * They are appointed by the Indian President on the advice of Prime Minister.
- * They along with the Indian Prime Minister form 15% of the total strength of the Lok Sabha. (The number cannot exceed 15%.)
- * 91st Amendment Act provided for the disqualification of the minister when he stands disqualified as an MP, Member of Parliament.
- * A Minister ceased to exist as one if he is not a member of either Parliament's House for six consecutive months.
- * The Parliament decides the salary & allowances of the council of ministers.

36. Ans. D.

According to Article 243K, elections to the Panchayats, the superintendence, direction & control of the preparation of electoral rolls for, and the conduct of, whole elections to the Panchayats shall be vested in a State Election Commission comprising of a State Election Commissioner to be appointed by the Governor.

The Governor appoints the State Election Commissioner. The ECI (Election Commission of India) conducts elections to Parliament (including President & Vice President) and State Legislative Assemblies. The President appoints Election Commissioners of India (presently 3 commissioners).

To ensure Commissioner's independence it is laid down that State Election Commissioner can be removed only in a similar manner and on the same grounds as Judge of a High Court. The State Legislatures possess the power to legislate on all matters concerning elections to Panchayats.

37. Ans. B.

- * All the Panchayat's seats shall be filled by persons chosen by a direct election from territorial constituencies in the Panchayat area. The

electorate has been named Grama Sabha comprising of persons registered in the electoral rolls which relate to a particular village comprised within the area of a Panchayat.

* The "Gram Sabha" means a body comprising of persons registered in the electoral rolls which relate to a village comprised within the area of Panchayat at the village level;

* The Chairperson of every Panchayat shall be elected as per the law passed by a State and such State Law shall even provide for the representation of Chairpersons of Village & Intermediate Panchayats in the District Panchayat, and also members of the Union and State Legislature in the Panchayats above the village level.

* All states in India don't have a three-tier system of Panchayats. According to Article 243M of the Constitution, State of Meghalaya, Nagaland, Mizoram, Sixth Schedule Areas and hill regions of Manipur are exempted from the application of Part IX of the Constitution.

38. Ans. C.

The Transcription Service had started on 3rd April 1954 and entrusted with the major function of preparing transcription of speeches of all dignitaries with main focus on the Prime Ministers & Presidents of the country.

This office has the following functional units –

- o Central Archives
- o Programme Exchange Unit (PEU)
- o Transcription Unit
- o Refurbishing Unit
- o Digital Sound Archives
- o Commercial Release & Marketing

39. Ans. C.

* All three, i.e., Atal Pension Yojana, Pradhan Mantri Jeevan Jyoti Bima Yojana and Pradhan Mantri Suraksha Bima Yojana are social security scheme (s).

* Atal Pension Yojana is a pension scheme under the Govt. of India. This scheme replaces the Swavalamban Yojana and was set up to provide old age income security to the workers belonging to the unorganised sector.

The scheme was launched by PM Modi on 9th May 2015 in Kolkata. The scheme mainly focuses on encouraging workers of unorganised sectors to save for their future.

* The Pradhan Mantri Jeevan Jyoti BimaYojana (PMJJBY) is a government scheme launched on 9th May 2015 by PM Modi in Kolkata.

* This is a life insurance scheme that was first-ever introduced by Arun Jaitley, the Finance Minister of India on his Budget Sheet of 2015. The scheme is implemented by the Life Insurance Corporation of India.

* The Pradhan Mantri Suraksha BimaYojana (PMSBY) is a government scheme launched on 8th May by PM Modi in Kolkata. This scheme is an insurance scheme for accidental death that was first-ever announced by Finance Minister Arun Jaitley during his Budget speech of 2015 in February 2015.

40. Ans. B.

Different names of cyclones in Different countries

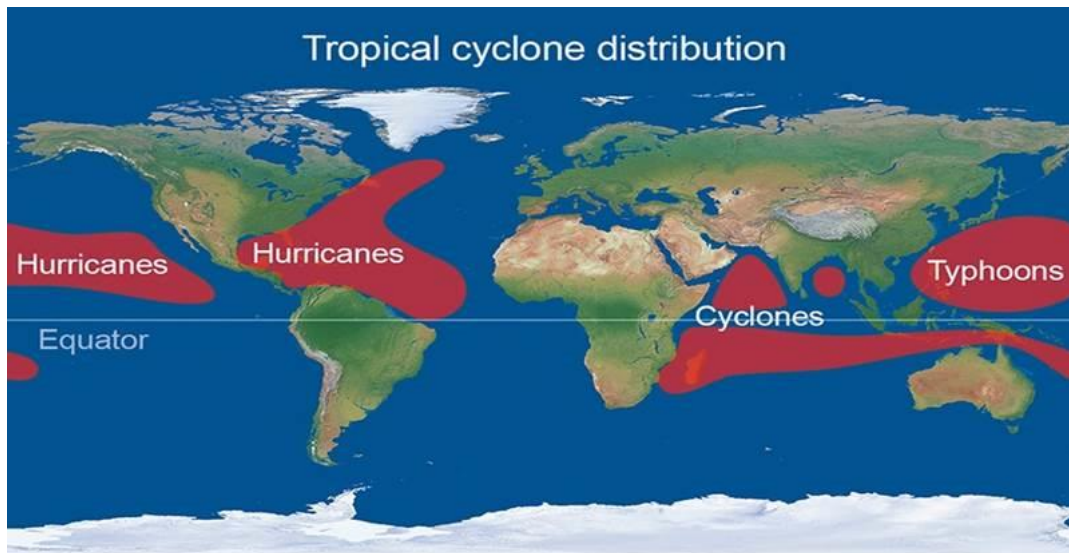
* West Indies & the coast of Florida. In these areas, tropical cyclones are known as Hurricanes.

* Philippine Islands, The coast of China & Japan. These are known as Typhoons.

* Bay of Bengal (in India) & the Arabian Sea, where these are known as Cyclones.

* North-east & North-western coast of Australia, these are known as Willy-Willies.

* USA & Mexico, these are known as Tornadoes.



41. Ans. B.

* The standard meridian of India is 82.5 degrees east of the Greenwich Meridian, i.e., 82°30' E. This meridian passes through Mirzapur in Uttar Pradesh.

* It runs through the centre of the nation. In the year 1905, this longitude was opted as the meridian to create the Indian Standard Time.

* The standard meridian is used for reckoning standard time all over the world: standard meridians are those meridians whose longitudes are exactly divisible by 15 Degree.

* We need a standard meridian for India as there is a time lag of about 2 hours between Gujarat & Arunachal Pradesh. In order to avoid confusion of time in different states, India selected a standard meridian which is 82 degrees 30 East and it passes via Mirzapur in Uttar Pradesh.

* 82°30' E has been adopted as the Standard Meridian of India as it is situated in the centre of all longitudes & latitudes in which our country is situated.

42. Ans. B.

* The Ten Degree Channel, a segment of the Parallel corresponding to 10 degree North Latitude, separates the Andaman & Nicobar Islands in the Bay of Bengal.

* The two groups of islands together form the Indian Union Territory of Andaman & Nicobar Islands.

* This channel is 150 km wide.

* It is also said that when Western Trade wind was used by Arabians they crossed via this channel in the fifteenth Century.

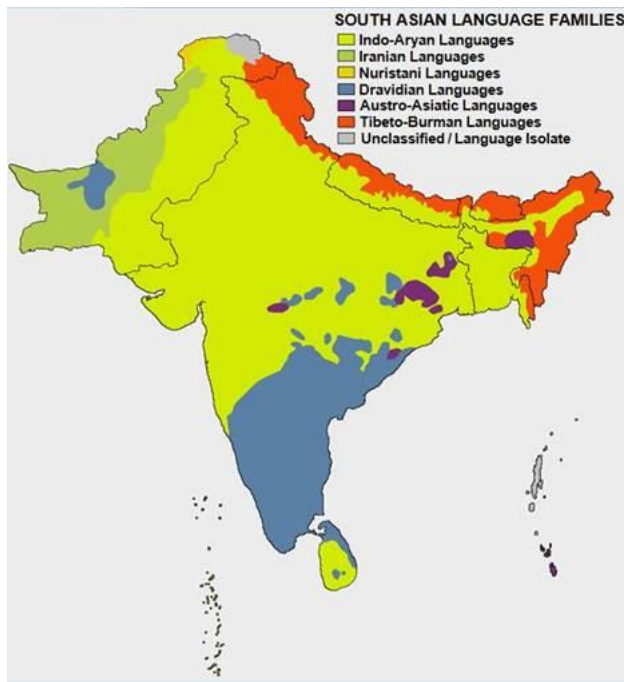


43. Ans. C.

The Indo-Aryan is the largest linguistic group of India.

The study of languages is known as linguistic. In this process, different areas such as phonetics, phonology, morphology etc. are involved so that the method of speaking & communication can be understood.

The Indo-Aryan is considered as a language spoken by close to one billion people of India & it is derived from Indo-European language family. This particular language is a group of 219 different languages spoken in countries such as India, Pakistan, Bangladesh, Nepal, and Sri Lanka.



44. Ans. C.

* Article 3 deals with the formation of new states & alteration of areas, boundaries or names of existing States: -

* The Parliament may by law form a new State by separation of any territory from any State or by uniting two or more States or even parts of States or by uniting any territory to a part of any State;

o increase the area of any State;

o diminish the area of any State;

o alter the boundaries of any State;

o alter the name of any State;

* Such a Bill can be introduced in either Houses only after the recommendation of the President .

* Further, where the proposal comprised in the Bill affects the area, boundaries/name of any of the States, the Bill must be referred by the Indian President to the Legislature of that State for expressing its views thereon within such period as may be specified in the reference or within such further time as the President may allow and the period so specified or allowed has expired.

* The bill can be passed by simple majority of both the Houses.

45. Ans. D.

There are currently 16 Navratna CPSEs as following:

- * Bharat Electronics Limited (BEL)
- * Container Corporation of India Limited
- * Engineers India Limited
- * Hindustan Aeronautics Limited
- * Hindustan Petroleum Corporation Limited
- * Mahanagar Telephone Nigam Limited
- * National Aluminium Company Limited
- * National Buildings Construction Corporation Limited
- * NMDC Limited
- * Neyveli Lignite Corporation Limited
- * Oil India Limited
- * Power Finance Corporation Limited
- * Power Grid Corporation of India Limited
- * RashtriyaIspat Nigam Limited
- * Rural Electrification Corporation Limited
- * Shipping Corporation of India Limited

46. Ans. A.

Bal Gangadhar Tilak was an Indian freedom activist and social reformer. He was one of the prime architects of present India and probably the strongest advocates of Swaraj or Self Rule for India.

Towards his nationalistic aims, Bal GangadharTilak published two newspapers, i.e., 'Maharatta' in English and 'Kesari' in Marathi. Both these newspapers stressed on making the Indians aware of the glorious past and also encouraged the masses to be self-reliant.

In other words, these newspapers actively propagated the cause of national freedom.

47. Ans. B.

M.M Punchhi Commission on Centre-State Relations had made a recommendation for the disposal of a bill reserved for the consideration of the Union Executive within six months.

In the month of April 2007, a three-member commission headed by the former chief justice of India M.M. Punchhi was formed by the UPA Government to take a fresh look at relative roles & responsibilities of several levels of government and their inter-relations.

This particular commission had submitted its report in the year 2010 to the then Home Minister P. Chidambaram.

48. Ans. A.

The NCRWC (National Commission to review the working of the Constitution) also known as Justice Manepalli Narayana Rao Venkatachaliah Commission was established by a resolution of the NDA Government of India headed by Atal Bihari Vajpayee on 22nd February 2000 for suggesting possible amendments to the Indian Constitution.

It submitted its report in the year 2002.

The eleven-member commission was led by Retired Chief Justice of India Justice M.N. Venkatachaliah.

The other members of the Commission were

- * B.P. Jeevan Reddy (designated as Chairman of the Law Commission),
- * R.S. Sarkaria (designated as Former Judge of the Supreme Court of India),
- * K.Punnayya (designated as Former Judge of Andhra Pradesh High Court),
- * Soli Sorabjee (designated as Attorney-General of India),
- * K. Parasaran (designated as Former Attorney-General of India),
- * Subhash C. Kashyap (designated as Former Secretary-General of Lok Sabha),

- * C.R. Irani (designated as Chief Editor & Managing Director of the Statesman),
- * Abid Hussain (designated as Former Ambassador of India to the USA),
- * Sumitra Kulkarni (designated as Former Member of Parliament) and
- * P. A. Sangma (designated as Former Speaker of Lok Sabha).

49. Ans. B.

* It was Faizi, who translated 'Lilavati', the celebrated Sanskrit work in Maths by Bhaskaracharya, into Persian. The celebrated work Akbarnama was accomplished by his brother Abul Fazal.

* Faizi was a Persian poet who joined Akbar's suite during the seize of Chittor in the year 1568. In 1588 was given the status of Malik-ush-Shu'ara (i.e. Court Poet) of Akbar.

* He was one among the Navratnas of Akbar. He was born in Agra to a scholar in philosophy & Islamic theology, he was educated mostly by his father.

* Akbar was greatly impressed by the scholarly aptitude of Faizi and appointed him the tutor of princess Murad, Salim and Daniyal.

50. Ans. B.

The Shiva Sankirtan advocates that it once consisted of 100,000 verses set out in twelve Samhitas (i.e. books). The book was written by Rameshwar Bhattacharya, a disciple of Vyasa belonging to Suta class.

A flawless translation of the greatest Mangalkavya written in Bengali literature. The Chandimangal of Kavikankan Mukundaram Chakravarti is an impeccable work of epic scale that recounts the story of the Goddess Chandi's continuous battle to establish her cult among humans.

The Chaitanya Charitamrita composed by Krishnadasa Kaviraja is written in Bengali literature with a great proportion of Sanskrit verses in its devotional, poetic construction, involving Siksastakam. It is one of the primary biographies detailing the life & teachings of Chaitanya Mahaprabhu, the founder of Gaudiya Vaishnavism.

The Chaitanya Mangala of Brindavan Dasa is a critical hagiographical work on the Supreme Personality of Godhead, Sri Krishna Chaitanya, i.e., Chaitanya Mahaprabhu in Bengali. This work of Brindavan Dasa is greatly influenced by the Sanskrit Kadacha of Murari Gupta. The full text is

divided into four sections: theAdiKhanda, the Sutra Khanda, the Madhya Khanda and the SheshKhanda.

51. Ans. B.

The growing of two or more crops in a definite row pattern is known as intercropping.

About Intercropping:

- * It is a crop cultivation method where two or more different kinds of crops are cultivated together within the same field but following a specific pattern, such as planting in rows.
- * The seeds of these various varieties of crops are sown in rows following the particular pattern but they are not combined during sowing.
- * The specific needs of each crop such as fertilizer, pesticide etc. are catered to specifically and not as a full.
- * This method does not lead to competition between the crops and thus yields more production.
- * In mixed cropping or mixed farming, two independent crops are mixed together and grown in an area without following any pattern.

52. Ans. C.

* The KLIP (Kaleshwaram Lift Irrigation Project) is a multi-purpose irrigation project on the river Godavari in Kaleshwaram, Bhupalpally, Telangana, India.

- * Presently the world's largest multi-stage lift irrigation project, it's farthest upstream influence is at the convergence of the Pranhita & Godavari rivers.
- * The KLIP is divided into seven links and twenty-eight packages spanning a distance of approx. 500 km through 13 districts and utilizing a canal network of more than 1,800 km.
- * The project targets to produce a total of 240 TMC (i.e. 195 from Medigadda Barrage, 20 from SripadaYellampalli project and 25 from groundwater), out of which 169 has been allotted for irrigation, 30 for Hyderabad municipal water, 16 for the miscellaneous industrial uses and 10 for drinking water in nearby villages, with the remainder being estimated evaporation loss.

53. Ans. A.

In the year 2020, Panna National Park of Madhya Pradesh was declared a UNESCO Biosphere Reserve.

About Panna Tiger Reserve:

- * The Panna tiger reserve is located in the Vindhya mountain range in Madhya Pradesh's northern part.
- * The Ken river (which is a tributary of the Yamuna River) flows through the reserve.
- * The region is even famous for Panna diamond mining.
- * The Ken-Betwa river interlinking project will be situated within the tiger reserve.

54. Ans. C.

India had dispatched INS Kesari, carried medical assistance, food items to the nations in the Southern Indian Ocean as part of a 'Mission Sagar' initiative to deal with the Coronavirus pandemic.

The five island nations, i.e., Maldives, Madagascar, Mauritius, Comoros and Seychelles had requested India for medical & food assistance to deal with the COVID-19 pandemic.

The Mission includes two major ministries of India, i.e., Ministry of Defence & Ministry of External Affairs-- along with various other Government agencies.

55. Ans. C.

* The Peninsula Shield Force is the military arm of the GCC (Gulf Cooperation Council).

* The shield force purpose is to deter and respond to, military aggression against any of the GCC member countries: Bahrain, Saudi Arabia, Kuwait, Oman, Qatar, and the United Arab Emirates.

* The Peninsula Shield Force was commanded by Saudi Major General Mutlaq bin Salem al-Azima and has around 40,000 troops & continues to have its permanent base at King Khalid Military City near Hafar al Batin.

* As per Peninsula Shield Force commander al-Azima, any intervention by the force must involve participation from all the GCC member states.

56. Ans. B.

Bangladesh & United States navies launched the 'CARAT (Cooperation Afloat Readiness and Training) Bangladesh 2020' to expand relationships and to broaden maritime awareness between the two countries.

About the Exercise:

- * The exercise demonstrates the United States continuing commitment to work with the Bangladesh military to address shared maritime security concerns in the region and to strengthen partnership to ensure a free and open Indo-Pacific region.
- * The sea phase of the exercise took place in the Bay of Bengal with ships from both countries.
- * The events are set to enhance interoperability between the two navies. US & Bangladesh will work via the coordinated deployment of surface ships, to include tactical manoeuvres among other activities.
- * The CARAT 2020 underscores the shared vision of the US & Bangladesh for a free, open, secure, inclusive, and peaceful Indo-Pacific region.

57. Ans. A.

- * The CCEA (Cabinet Committee on Economic Affairs) chaired by Prime Minister Modi has approved the investment of Rs.1810.56 crore for 210 MW Luhri Stage-I Hydro Electric Project situated on river Satluj which is located in Shimla & Kullu districts of Himachal Pradesh. This project will generate 758.20 million units of electricity yearly.
- * This project is being implemented by SJVNL (Satluj Jal Vidyut Nigam Limited) on BOOM (Build-Own-Operate-Maintain) basis with active support from the Government of India & State Government.

58. Ans. D.

- * Sir Sean Connery has died at the age of 90.
- * The Scottish actor was best remembered for his portrayal of James Bond, being the first-ever to bring the role to the big screen & appearing in seven of the spy thrillers.
- * His acting career spanned seven decades and he won an Oscar in 1988 for his role in The Untouchables.
- * Sir Sean's other films included The Hunt for Red October, Highlander, Indiana Jones and the Last Crusade and The Rock.

- * He first played James Bond in Dr No in 1962 and went on to appear in five other official films - and the unofficial Never Say Never Again in 1983.
- * He was largely regarded as being the best actor to have played 007 in the long-running franchise, often being named as such in polls.

59. Ans. C.

- * The 24th edition of the MALABAR naval exercise was scheduled in two phases in November 2020.
- * The Phase 1 of the Exercise MALABAR 2020 involving participation by IN (Indian Navy), USN (United States Navy), JMSDF (Japan Maritime Self Defence Force), and RAN (Royal Australian Navy) had commenced off Visakhapatnam in the Bay of Bengal from 03rd to 06th November 2020.
- * MALABAR series of maritime exercises commenced in the year 1992 as a bilateral India-USA naval exercise. The JMSDF joined MALABAR in the year 2015. The 2020 edition had witnessed participation of the RAN in this joint maritime exercise.

60. Ans. A.

- * Quad group consisting of Japan, India, Australia and the United States. Quad is not an alliance but a grouping of nations which are interested in strengthening a rule-based order in the region of Indo-Pacific.
- * The four countries had in the year 2017 given shape to the long-pending proposal of forming up the "Quad" or the Quadrilateral coalition to counter China's aggressive behaviour in the Indo-Pacific region.
- * The idea behind QUAD was first conceptualised by the then Japanese PM Shinzo Abe in 2007.
- * QUAD has been revitalized as a group of democracies coming together to uphold peace, freedom and rule-based order in the face of a belligerent China.

61. Ans. A.

- * Pinaka is an indigenous MBRL (Multi-Barrel Rocket Launch) system developed by DRDO for the Indian Army. It is one of the most reliable and effective weapon systems of the Indian Army.
- * Whole Pinaka MBRL has six launcher vehicles, each comprising 12 rockets with six loader-replenishment vehicles & two command post vehicles with DIGICORA MET radar and a fire control computer.

* It was used in the year 1999 Kargil war in which it proved its worth.

62. Ans. D.

Osmosis can be defined as the spontaneous movement of solvent molecules from a region of high solvent potential to a region of lower solvent potential through a partially semi-permeable membrane. This is a process that can be used to purify water.

63. Ans. B.

Mitochondria, and plastids contain their own DNA and ribosomes because of that they are able to synthesize some of their own proteins and replicate independently of the nucleus. This genetic material is also called mtDNA or mitochondrial DNA.

64. Ans. C.

Cytokinins are essential to plant hormones that influence growth, and the stimulation of cell division. Cytokinins are known to regulate axillary bud growth and apical dominance. They help in the production of new leaves, chloroplasts, and adventitious shoots.

65. Ans. B.

In the self-pollination process, the pollen grains transfer from the stigma of the same or genetically similar flower. A flower is self-pollinated if pollen is transferred to it from any flower of the same plant. Genes are not diverse in nature, therefore, the purity of the race is maintained. The plants do not depend on external factors for pollination.

66. Ans. D.

Cell wall is made up of cellulose, and they are present in most prokaryotes (except mollicute bacteria), in fungi, algae, and eukaryotes including plants cell. Cell walls are absent in animals. Humans have skeleton support and cell walls function is to provide skeletal support.

67. Ans. D.

Cardiac muscles (the heart muscle) are branched and cylindrical in shape. They are uninucleated cells, and they are under involuntary control. The cardiac muscle performs coordinated contractions which allowed the heart to pump blood through the circulatory system.

68. Ans. D.

Planarians are free-living flatworms, they are not directly dependent on another organism for survival. They inhabit freshwater, and they are carnivorous (even they don't have teeth) or scavengers.

69. Ans. A.

African trypanosomiasis is also known as sleeping sickness. It is due to microscopic parasites of the *Trypanosoma brucei* species, transmitted through the tsetse fly. That is found only in sub-Saharan Africa.

70. Ans. D.

Viruses are different from bacteria, they have a different structure and a different way of surviving. They also don't have cell walls that can be attacked by antibiotics, instead, viruses are surrounded by a protective protein coat. Viruses actually digress into, live in, and make new copies of themselves within a host cell. They can't reproduce on their own, as bacteria do, Instead, they attach themselves to healthy cells and reprogram those cells to make new viruses. It is because of these reasons antibiotics are not effective on viruses.

71. Ans. B.

Aluminum is manufactured through two phases- the Bayer process and the Hall-Heroult process. Aluminum originates from bauxite ore to obtain aluminum oxide. By refining and smelting, the aluminum oxide then releases pure aluminum. A white powder from which aluminum can be extracted. The extraction is done by electrolysis. During electrolysis- positively charged aluminum ions gain electrons and form molten aluminum from the cathode, and oxide ions lose electrons and form oxygen molecules at the anode.

72. Ans. C.

73. Ans. B.

Sodium is kept immersed in Kerosene oil to protect it and to prevent accidental fire. Sodium is a highly reactive metal. It vigorously reacts with the oxygen, carbon dioxide, and moisture present in the air that causes a fire. For preventing this explosive reaction, Sodium is kept immersed in kerosene because it does not react in kerosene oil. Like sodium, potassium is also a highly reactive metal.

74. Ans. A.

The silver article becomes black after reacts with sulfur which is present in the atmosphere. Then sulfur forms silver sulfide on the surface of the

silver article, so they appear as dull or black. This layer of silver sulfide can be removed by rubbing the article with toothpaste because toothpaste consists of several abrasive substances like Aluminum hydroxide that makes silver metal all shiny.

75. Ans. D.

When we heat lead nitrate [$Pb(NO_3)_2$] in a boiling tube, we observe the emission of brown fumes of NO_2 . It is a thermal decomposition reaction. When [$Pb(NO_3)_2$] is broken down into lead oxide, nitrogen dioxide, and oxygen. In this decomposition reaction, Lead Nitrate gives a yellow-colored Lead oxide, and Nitrogen dioxide is released as brown fumes.

76. Ans. D.

This slaked lime reacts with CO_2 in the air to form a thin layer of $CaCO_3$ to give a shiny finish. The calcium oxide (CaO) is also called quicklime. It is used for whitewashing by producing calcium hydroxide (CaOH). Calcium hydroxide reacts with water and absorbs carbon dioxide (CO_2) from the environment. Then it produces calcium carbonate ($CaCO_3$) which creates a shiny finish on the walls.

77. Ans. A.

Hard water can be softened by washing soda or sodium carbonate Na_2CO_3 . It removes the calcium ions in a precipitation reaction from the hard water. And then the hard water passed through an ion-exchange resin in a column. In the water, sodium ions replace the calcium ions when it passes through the column.

Water is categorized into two types. They are hard, and soft water.

Hard water- water with naturally present minerals like magnesium and calcium. These are beneficial for health.

Soft water- it is left with only cations, and that is sodium. It has a salty taste. Do not leave any spots on dishes after wash. Soap is easily effective.

78. Ans. B.

The formula of soda acid is $NaHCO_3$. The soda acid fire extinguisher contains sodium bicarbonate and sulfuric acid. It is the most effective household fire extinguisher. Sulfuric acid is kept inside the iron vessel. Any fire extinguisher is a cooling of the combustible material, cut off the

air supply. Soda acid fire extinguisher acts on all fire except due to electrical and inflammable liquid.

79. Ans. B.

Citric acid naturally occurring acids is found in abundance in tomato.

Acids are in sour and turn blue litmus paper into red color. Acids are corrosive, and also gives carbon dioxide gas after reacting with metal carbonates and bicarbonates.

Citric acid- a natural source of this acid is found in sour substances like lemon, orange, tomatoes, etc.

Formic acid- is naturally found in red ant sting.

Tartaric acid- found in many fruits, grapes, bananas, tamarinds, etc.

Oxalic acid- naturally found in spinach, etc.

80. Ans. C.

Fission is related to the creation of new individuals through cell division in the unicellular organism of the living cell. In nuclear fission, it is related to the transformation of heavier nuclei into smaller nuclei. Nuclear fission in an atom splits into two or smaller atoms, as a result of neutron bombardment. It is an exothermic reaction. Most fission are binary fission. And they produce two charged fragments.

81. Ans. B.

Gold (Au) has both malleability and ductility properties. The elements which tend to form positive ions are called metals. They are luster, ductile, malleable, a good conductor of heat and electricity, and high melting and boiling points. Metals are also solid at room temperature except for mercury. They have high tensile strength. They are usually hard, except sodium, potassium. They act as reducing agents. They displace hydrogen from acids. They react with water to evolve hydrogen gas.

82. Ans. D.

Iodine is a non-metal, but it is lustrous. It's because iodine going down the size of the atom is increase and shielding effect of the atom and outermost electron decrease. So that iodine becomes excited by absorbing heat energy, and they emit light. So iodine appears to have a lustrous surface but this element is not a metal.

Note-Carbon is also showing lustrous but only in certain forms of diamond, and graphite.

83. Ans. B.

Nanotechnology is the field of research and study of very minute things which can be applied across all the science fields, such as chemistry, biology, physics, materials science, etc. Nanotechnology can be defined as the study and use of those structures whose size is in between 1 nanometre and 100 nanometres.

84. Ans. C.

Weight is a synonym of force that acts at all the times on all objects on the ground. It is the universal force of attraction. The Earth pulls on all objects with a force of gravity downward towards the centre of the Earth. This shows that the weight of an object is due to the force that it exerts on the ground.

85. Ans. D.

Objects in uniform circular motion move along with a circular pathway at a constant speed, so the acceleration can be point perpendicular to the velocity for a change in the direction only. The acceleration vector must point inward toward the centre to turn the object back onto the circular path.

86. Ans. B.

A Primary rainbow is a coloured bow or arc that appears on a "screen" of water drops when light from a bright light source fall upon them. It happens when a sunbeam is being refracted twice and reflected once by the droplet, a primary rainbow will form. So, there is only one total internal reflection of light in water droplets that takes place in the formation of the primary rainbow.

87. Ans. D.

Faraday's law is the basic law of electromagnetism which explains that a magnetic field interacts with an electric circuit to produce an electromotive force (EMF) and this phenomenon is known as electromagnetic induction. He concluded that the Galvanometer did not show any deflection and no induced current was produced in the coil when the coil was moved in a stationary magnetic field. When the magnet was moved away from the loop then the ammeter deflected in the opposite direction. From this experiment, Faraday concluded that whenever there is a relative motion between a conductor and a magnetic field, the flux

linkage with a coil changes, and this change in flux induces a voltage across a coil.

88. Ans. C.

The heating effect of electric current was discovered by James Prescott Joules. When an electric current pass through a conductor, the conductor becomes hot and gives rise to heat after some time. It is due to the conversion of some electric energy while passing through the conductor into heat energy. This effect of electric current is known as the heating effect of current.

89. Ans. B.

A parabolic mirror is a specially designed mirror that is used to capture and focus energy onto a single point. These are also used for distributing the energy from one point to multiple points. Parabolic mirrors can be defined as parabolic reflectors or as parabolic dishes. A parabolic mirror is the most common non-spherical mirror. That's why a non-spherical shining spoon can generally be considered as a parabolic mirror.

90. Ans. C.

Electric charges can flow easily through conductors. The human body is an electric conductor as it contains various salts dissolved in their blood. The cells of a human body contain various ions such as sodium ion, potassium ion, chloride ion, etc. which helps to conduct electricity. A plastic sheet, distilled water and wood are good electrical insulator but not conductors.

91. Ans. D.

Resistivity is defined as an electric resistance of a conductor of the unit cross-sectional area and unit length. Its unit is ohm meter. A characteristic property of each material, resistivity is used to differentiate various materials based on their ability to conduct electric currents. The value of resistivity depends on the temperature of the material. The resistivity of metallic conductors usually increases with a temperature rise. The electrical resistivity can be defined as an electrical resistance per unit length and per unit of cross-sectional area at a specified temperature. Copper is a good conductor of electricity as it provides a low level of resistivity. Thus, all three copper wires of different lengths and different areas of the cross-section will have the same resistivity.

92. Ans. A.

McLeod British firms were taken over by Soorajmull-Nagarmull group.

McLeod is an Indian based tea company. It is currently the largest tea-growing company in the world.

It is part of the Williamson Magor Group. It has 48 tea estates in the Brahmaputra Valley of Assam & five in the Dooars area of West Bengal, 3 factories in Vietnam, six estates in Uganda and the management control of the world Gisovu estate in Rwanda.

The company is associated with Williamson Magor & Company Limited. It claims to produce over 100 million kilograms of quality black tea every year.

93. Ans. D.

François Bernier was a French physician and traveller. He was born in Joue-Etiau in Anjou. He was briefly personal physician to Mughal prince Dara Shikoh, the eldest son of the Mughal emperor Shah Jahan, and after the execution of Dara Shikoh, was attached to the court of the Mughal emperor Aurangzeb, for around twelve years during his stay in India.

94. Ans. B.

Typically, a govt. maintains a fixed exchange rate by either buying/selling its currency on the open market. This is one of the reasons why governments maintain reserves of foreign currencies. If the rate of exchange drifts too far below the desired rate, the govt. buys its currency in the market using its reserves. This results in greater demand on the market and pushes up the price of the currency. If the rate of exchange drifts too far above the desired rate, the govt. sells its currency, thus increasing its foreign reserves.

Another, way of maintaining a fixed exchange rate is by simply making it illegal to trade currency at any other rate. This particular method is rarely used as it is difficult to enforce and often leads to a black market in foreign currency. Some nations, such as China in the 1990s, are highly successful at using this method because of government monopolies overall money conversion. China used this particular method against the U.S. dollar.

95. Ans. B.

Fiscal Deficit is the excess of total expenditure over total receipts excluding borrowings. In other words, it gives the amount needed by the government to meet its expenses. Therefore, a large Fiscal Deficit signifies a large borrowings.

Primary Deficit is Fiscal Deficit of the present year minus interest payments on previous borrowings. Whereas Fiscal Deficit represents the government's total borrowing involving interest payments, it shows the amount of borrowing excluding interest payments.

The current account deficit is a measurement of a nation's trade where the value of the goods & services it imports exceeds the value of the products it exports.

A capital account deficit takes place when the equity in a business turns negative. This signifies that the total amount of liabilities exceeds the total amount of assets.

96. Ans. A.

A recessionary gap occurs when real GDP is less than potential GDP and which brings a falling price level. A recessionary gap occurs when the SRAS (Short Run Aggregated Supply) curve and the AD (Aggregate Demand) curve intersect to the left of the potential GDP line.

An inflationary gap is a macroeconomic phenomenon that measures the difference between the current level of real GDP and the GDP that would exist if an economy was operating at full employment.

The Demand-pull inflation is inflation that starts due to aggregate demand increases. The Demand-pull inflation can be started by any of the factors which increase aggregate demand, but can only be sustained by growth in the quantity of money.

The Cost-push inflation is inflation which begins with an increase in cost. The two major sources of cost increases are increases in the money wage rate & increases in the money prices of raw materials, like oil.

97. Ans. D.

Money has taken various forms through the ages, but money consistently has three functions, they are:

- Store of value
- Unit of account
- Medium of exchange

The present-day economies use fiat money-money that is neither a commodity nor represented or 'backed' by a particular commodity. Even forms of money which share these function may be more or less useful based on the characteristics of money.

98. Ans. D.

Marmagao Port, located at the entrance of the Zuari estuary, is a natural harbour in Goa. The port gained significance after its remodelling in the year 1961 to handle iron-ore exports to Japan. The construction of Konkan railway has considerably extended the hinterland of this particular port. Goa, Karnataka, Southern Maharashtra constitute its hinterland.

99. Ans. A.

There are more than 100 coffee species, but the main commercial varieties are Robusta, Arabica, and – to a lesser extent – Liberica. Robusta, Arabica, and Liberica are three common coffee beans used all over the world.

Coffee is considered more than a beverage. It has developed from an energising drink into an international phenomenon. When the plant of coffee, and the beans it produced, was first-ever discovered in Ethiopia in the tenth century, its fame quickly spread throughout the Arabian Peninsula and by the fifteenth-century coffee cultivation and trade was soaring, mainly in Yemen.

100. Ans. D.

The Black soil stretch over the parts of Maharashtra, Gujarat, Western parts of Madhya Pradesh, North- Western Andhra Pradesh, Karnataka, Rajasthan, Tamil Nadu, Chhattisgarh, Jharkhand up to Raj Mahal hills.

Below are the properties of Black soil:

- The Black soil has clayey texture and is highly fertile
- It is rich in calcium carbonate, magnesium, potash, and lime but poor in nitrogen & phosphorous
- It is highly retentive of moisture, extremely compact & tenacious when wet
- It is contractible and develops deep wide cracks on drying
- It is calcareous and neutral to mild alkaline in reaction
- It is high in carbon exchange capacity & low in organic matter
- It is self-ploughing and comparatively less fertile on the uplands than that of the lowlands.

101. Ans. D.

Bihzad was not associated with Humayun. Bihzad was a Persian painter and head of the royal ateliers in Tabriz and Herat during the late Timurid and in early Safavid Persian periods.

The Mughal painting's foundation was laid by Humayun during his exile from India in Afghanistan and Persia. Some great painters include Maulana Dost Musawir, Maulana Yusuf etc. Two of Persia's greatest painters Abdus Samad and Mir Sayyid Ali came with him to Delhi and helped to produce some paintings. Both these painters were the founders of an independent branch of Persian art popularly called the Mughal school of miniature painting. The two most remarkable works accomplished by them during the rule of Akbar was Tutinama & Hamza Nama.

102. Ans. A.

The socialist activist Kamaladevi Chattopadhyay had persuaded Mahatma Gandhi not to restrict the protests to men alone. She was herself one of the numerous women who courted arrest by breaking the salt/liquor laws.

Kamaladevi Chattopadhyay was a key figure in the international socialist feminist movement. From the late part of the 1920s to the 1940s and beyond, she became an emissary for Indian women and political independence. She even advocated transnational causes – like racism, political & economic equity between nations. She even attended the International Alliance of Women in Berlin in the year 1929.

103. Ans. A.

Gopal Hari Deshmukh, popularly known as Lokhitwadi. He was the pioneer of all-sided reformism in the present state of Maharashtra. Deshmukh was a fine product of the new learning of the West. Deshmukh laid the foundation of a wide-based intellectual renaissance in western India.

104. Ans. D.

The alluvial soils vary in nature from that of sandy loam to clay. They are usually rich in potash but poor in phosphorous.

Even otherwise phosphates are available in water or soil in a very small fraction. The reasons are phosphates take the longest time among all other minerals for its complete recycling. Even during the recycling process if not immediately used, a portion of available phosphates gets converted into other compounds which again takes much time for it to come into the cycle.

105. Ans. B.

S waves or secondary waves can travel only through solid materials, not P waves or primary waves.

P waves (or Primary waves) are the first waves to arrive at a seismograph. The P waves are the fastest seismic waves and can move via solid, liquid, or gas. They are similar to sound waves. They leave behind a trail of rarefactions and compressions on the medium they move through. The P waves are also known as pressure waves for this reason. Certain animals, like dogs, can feel the P waves much before an earthquake hits the crust (i.e. surface waves arrive). The humans can only feel the ramifications it has on the crust.

106. Ans. D.

The ozone layer is a part of high ozone concentration in the stratosphere, 15-35 kilometres above Earth's surface. The ozone layer performs as an invisible shield & protects us from harmful UV radiation from the sun. In particular, the ozone layer protects us from the ultraviolet radiation, known as UV-B, which causes sunburn. The long-term exposure to high levels of UV-B threatens human health and it damages most animals, plants & microbes, so the ozone layer protects all life on Earth.

107. Ans. C.

Igneous rocks are defined as the kind of rocks that are formed when molten rock (i.e. rock liquefied by intense heat & pressure) cools to a solid-state.

Some examples of Igneous rocks are:

- Granite
- Basalt
- Diorite
- Mica
- Quartz
- Pegmatite
- Tuff
- Pumice

108. Ans. B.

Characteristics of rice crop:

- Rice is a Kharif crop.
- Rice requires the temperature, above 25 Degree Celcius and annual rainfall above 100 cm.
- The major rice-producing states are Punjab, Haryana, Bihar, Uttar Pradesh, Rajasthan and Madhya Pradesh.
- Rice is the staple food crop.
- Bangladesh possesses three rice seasons, the aus, aman, and boro. The aus season rice crop is planted during the month of March-April and harvested during months of June-July. The aman season rice is planted in months of June-July and harvested during months of November-December. The boro season rice is planted in months of December-January & harvested during May-June.
- About 1/4th of the total cropped area of India is under rice cultivation. Rice is one of the most important food crops and feeds more than 60% population of India. The area under rice crop was 30.81 million per ha in the year 1950-51 which has increased to 43.86 million hectares during the year 2014-15 which is nearly 142% higher.

109. Ans. C.

The 44th amendment act was passed in the year 1978 by the Morarji Desai government. It eliminated the right to property, which was a fundamental right according to Article 19. This particular amendment made right to property only a legal right. It is to be considered that the 25th amendment, 1971 curtailed the fundamental right to property that allowed the government to obtain private property for public use after paying compensation to the owner.

110. Ans. D.

The motion can be made while introducing an ordinary Bill in the Parliament except in statement D.

The member-in-charge of the ordinary Bill moves a motion for consideration of the Bill, it is permissible for any other member of parliament to move, as an amendment to the motion for consideration, that the particular Bill be referred to a Select or Joint Committee or be circulated for eliciting public opinion thereon. If the motion is considered

for reference of the Bill to a Joint Committee comprising of members of both the Houses, the concurrence of the other House is compulsory.

In case, a Bill has been mentioned to a Select or Joint Committee, the Committee considers the Bill clause-by-clause just as the House does. Amendments can be moved to several clauses by members of the Committee. The Committee may also take evidence of associations, public bodies or experts who are interested in the measure. After the Bill has therefore been considered, the Committee submits its report to the House which considers the Bill as reported by the Committee.

111. Ans. A.

Clause (1) of the Article 231 empowers the Parliament of India to set up a common High Court for two or more States or for two or more states & a Union territory. Currently, there are 25 High Courts in India having jurisdiction over 28 states & 8 Union territories. Whereas most of the states have a High Court of their own, few states share a common High Court within the purview of Article 231, such High Courts having jurisdiction over two or more states or two or more states & a Union territory are listed below.

There are in total 6 common High courts, currently, they are:

1. Guwahati High Court (Assam, Mizoram, Nagaland and Arunachal Pradesh)
2. Madras High Court (Tamil Nadu & Pondicherry)
3. Bombay High Court (Maharashtra, Goa, Dadar & Nagar Haveli and Daman and Diu)
4. Kolkata High Court (West Bengal and Andaman & Nicobar Islands)
5. Kerala High Court (Kerala & Lakshadweep)
6. Punjab & Haryana High Court.

112. Ans. D.

The major objectives of NITI Aayog are mentioned below:

- To develop a shared vision of national development sectors, priorities, and strategies with the active involvement of States in the light of national goals.

- To foster cooperative federalism via structured support initiatives & mechanisms with the States on a uniform basis, recognizing that strong States make a strong nation.
- To evolve mechanisms to formulate credible plans at the village level & aggregate these progressively at higher levels of govt.
- To make sure that the interests of national security are incorporated in economic policy and strategy.
- To pay specific attention to the sections of our society that may be at risk of not benefitting adequately from the economic progress.
- To design strategic & long term policy and programme's frameworks & initiatives, and monitor their progress and their efficacy.
- To provide encouragement and advice partnerships between key stakeholders and national & int. like-minded Think Tanks, and also educational and policy research institutions.
- To focus on technology up-gradation & capacity building for implementation of programme's & initiatives.

113. Ans. D.

Centralization refers to the phenomenon in which activities involving planning & decision-making within an organization are concentrated to a particular leader or location. In a centralized institution, the decision-making powers are retained in the head office, & all other offices receive commands from the main office.

Some features of Centralization:

- Centralization provides a standardized process, i.e., uniformity in process
- Better quality of work & high productivity
- Experienced people to take important decisions and to guide
- Consistent focus on the vision of the institution
- Quick decision making & implementation
- Less costly
- National unity

- Prosperity

114. Ans. B.

Madan Mohan Malviya had set up BHU in the year 1915 with the support of few leaders, mainly Annie Besant. Annie Besant had founded the Central Hindu College in the year 1898 in Varanasi and this college was then later gifted to Pandit Madan Mohan Malviya for the later to get it transferred into Banaras Hindu University. Also notable point is that foundation for the BHU's main campus was laid by Lord Hardinge on 4th February 1916, on the occasion of Vasant Panchami.

115. Ans. D.

The leader of the Satara Parallel govt. was "Kratisimha" Nana Patil, who later joined the Communist party & was elected to the Lok Sabha on the CPI ticket from Satara in the year 1957 and again from Beed in the year 1967. The British rule was effectively overthrown in large parts of Satara district of the western side of Maharashtra during those three years.

The Parallel govt. the movement was a guerrilla kind of struggle, and it operated in over 150 villages with solid peasant support. There were raids on taluka armouries and treasuries. The Prati Sarkar took over various of the functions of the government.

The parallel govt. established several public utilities like a market system, supply and distribution of food grains and a judicial system to settle disputes and to penalise dacoits and robbers, pawnbrokers & money lenders.

116. Ans. B.

The Sannyasi & Fakir Rebellion took place in the early colonial rule in Bengal during the rule of Warren Hasting. The rebellion started in the year 1750 onwards but took a violent turn since 1773 when Warren Hastings attained the Governor-Generalship of Bengal. The movement covered an ample range of Bengal and Bihar and continued for a long time.

Between the Hindu Sanyasis the akharas of Dashanami Sampradaya were main participants and even there were several Shaivite Naga Sanyasis who established into armed bands.

Majnu Shah, the leader of a large group of fakirs who were travelling via Bengal, claimed in the year 1772 that 150 of them had been killed without cause in the past year. Such repression was one of the reasons

which result in distress leading to violence, especially in Natore in Rangpur, now in present-day Bangladesh.

117. Ans. A.

On 6th March 1775, the Treaty of Surat was signed between Raghunathrao who was a claimant to the throne of the Peshwa & the British East India Company at Bombay. According to this treaty, Raghunath Rao ceded the territories of Salsette and Bassein to the British, so that the British restore him to Poona.

On 1st March 1776, the Treaty of Purandar was signed between Nana Phadnavis who was a Maratha minister and the Calcutta Council of the East India Company.

Convention of Wadgaon, (on 13th January 1779), compact concluded after the 1st Maratha War in India (i.e. 1775–82), marking the end of British efforts to intervene in Maratha affairs by making Raghunath Rao peshwa (who was the nominal leader of the Maratha confederacy) or at least regent for his infant great-nephew.

The Treaty of Salbai by which First Anglo-Maratha War was ended, was signed in 17th May 1782 between the Marathas and the British East India Company. Salbai is located in Gwalior District of Madhya Pradesh.

118. Ans. C.

- The earth's rotation about its axis affects the direction of the wind and this force is known as the Coriolis force.
- Coriolis force is directly proportional to the angle of latitude.
- It deflects the wind to the right direction in the northern hemisphere and the left direction in the southern hemisphere.
- The deflection is even more when the wind velocity is high.
- Coriolis force is maximum at the poles and is absent at the equator.
- The Coriolis force acts perpendicular to the pressure gradient force.
- The pressure gradient force is perpendicular, i.e., 90 Degree to an isobar.
- The higher the pressure gradient force, the more is the wind's speed and the larger is the deflection in the direction of wind occurs.

119. Ans. D.

When rivers discharge their waters from all directions in a lake/depression, the pattern is known as 'centripetal'. This drainage pattern is even called endorheic drainage. For instance, Loktak lake in Manipur.

When the primary tributaries of rivers travel parallel to each other and secondary tributaries join them at 90 Degree, the pattern is known as 'trellis'. For instance, rivers in the upper part of the Himalayan part and the old folded mountains of the Singhbhum (i.e. Chotanagpur Plateau) have drainage of trellis pattern.

The dendritic type of pattern develops where the river channel follows the slope of the terrain. When the drainage pattern resembles the branches of a tree, it is known as "dendritic" the examples of which are the northern plain rivers. This is the most common stream pattern.

The radial type of pattern develops when streams flow in distinct directions from a central peak or a dome-like structure. For instance, the rivers such as the Narmada, Son & Mahanadi originating from Maikal Hills flow in various directions and are good examples of a radial pattern.

120. Ans. B.

Bhakra Nangal Dam is a concrete gravity dam on the Sutlej River in Bilaspur, Himachal Pradesh in northern India. This dam forms the Gobind Sagar reservoir. The dam is situated at a gorge near the (now submerged) upstream Bhakra village in Himachal Pradesh's Bilaspur district at a height of 226 m.

The dam, i.e., 226 m is one of the highest gravity dams across the world. The 166 km² Gobindsagar Reservoir, named after Guru Gobind Singh, is formed by this dam which is the 3rd largest reservoir in India the first being Indira Sagar Dam & second Nagarjunasagar Dam. The Satluj river used to flow through a narrow gorge between two hills, Ramgarh and Naina Devi, and the site was chosen to dam the river.