

## CDS-II 2016 GK Solution

### 1. Ans. C.

Decomposing waste in the landfills, by the action of microorganisms, produce methane and carbon dioxide. Landfill gas consists of 40-60% of methane and rest is carbon dioxide. Trace amount of volatile organic compounds (<1) are also present which mainly comprise of hydrocarbons.

### 2. Ans. A.

Amphibians are one of the most sensitive groups to change, whether that is caused by habitat loss, invasive species, disease, trade or climate change. Their sensitivity to environmental threats has been generally linked to the observation that amphibians are characterized by a rather permeable skin. Given their complex life cycles and other traits, amphibians are often recognized as indicators of ecosystem health.

### 3. Ans. C.

About 65% of the electricity consumed in India is generated by thermal power plants, 22% by hydroelectric power plants, 3% by nuclear power plants and rest by 10% from other alternate sources like solar, wind, biomass etc.

India is the sixth largest in terms of power generation.

### 4. Ans. D.

The HIV virus continuously invades and destroys T-cells (lymphocytes). Eventually the body can't replace the T-cells fast enough, and the immune system deteriorates. When the immune system has deteriorated to the point that it is unable to fight off diseases, a person is diagnosed with AIDS.

### 5. Ans. C.

Carbon monoxide (CO) is very dangerous because it binds with the haemoglobin more efficiently than oxygen does. It "hogs the seats" so that oxygen can't get a ride. And those CO molecules keep riding around, never giving their seats up to the oxygen. This means there is no way to get oxygen to the brain, heart, or other cells and those cells start to die. And finally, it leads to suffocation and even death of a person.

### 6. Ans. D.

In animals, parthenogenesis means development of an embryo from an unfertilized egg cell. In plants parthenogenesis is a component process of apomixis.

Apogamy is a type of reproduction, occurring in some ferns, in which the sporophyte develops from the gametophyte without fusion of gametes.

Adventitious embryony also called sporophytic budding, is a type of apomixis in which an embryo develops directly from nucellus or integument tissue.

So, all three are correct.

### 7. Ans. A.

Allotropy is the property of some chemical elements to exist in two or more different forms, or allotropes, when found in nature. There are several allotropes of carbon like diamond, graphite, graphene, fullerene, etc.

Coal is not an allotrope of carbon because it is not 100% carbon. It contains lot of silica, sulphur and other compounds of carbon apart from carbon.

### 8. Ans. C.

Paper production is basically a two-step process in which a fibrous raw material is first converted into pulp, and then the pulp is converted into paper. The harvested wood is first processed so that the fibres are separated from the unusable fraction of the wood, the lignin. Pulp making can be done mechanically or chemically. In the chemical pulping process, alkali (e.g., sodium hydroxide in the form of a lye or caustic soda) is usually used to remove the lignin that binds the fibres. So, for degumming of raw material, caustic soda is used.

### 9. Ans. A.

Dolomite is a limestone compound that contains calcium and magnesium. It provides valuable nutrients to plants and helps change the pH of the soil by raising it to match the plants' needs.

It even provides more nutrients than straight lime. It is often used in addition to balanced fertilizers, particularly with seeding fruit.

**10. Ans. A.**

Fluoride deficiency is a disorder which may cause increased dental caries due to a lack of fluoride in the diet. Dental caries or tooth decay is the breakdown of dental tissues by the acidic products released by the "bacterial fermentation of dietary carbohydrates".

**11. Ans. A.**

Excessive use of nitrate including manure may be responsible for the presence of toxic substance in groundwater. Phosphate can also enter the groundwater via excessive use of fertilizers. High application rates of nitrogen containing fertilizers combined with the high-water solubility of nitrate, leads to increased runoff into surface water as well as leaching into groundwater, thereby causing groundwater pollution.

Only a fraction of the nitrogen-based fertilizers, is converted to produce and other plant matter. Nitrate pollution in groundwater comes from pit latrines, it can cause blue baby syndrome.

**12. Ans. D.**

Potassium bicarbonate (also known as potassium hydrogen carbonate or potassium acid carbonate) is the inorganic compound with the chemical formula  $\text{KHCO}_3$ . It is a white solid

Sodium bicarbonate is a white solid that is crystalline, but often appears as a fine powder.

$\text{LiHCO}_3$  is found in solution form while rest alkali metals hydrogen carbonates are solid due to the anomalous properties of Li and its diagonal relationship with the Mg.

**13. Ans. A.**

Kerala	33,387,677
Jharkhand	32,988,134
Assam	31,169,272
Punjab	27,704,236

**14. Ans. B.**

Epicentre of Earthquakes can be over both oceanic and continental surface. Epicentres above oceanic surface are cause of tsunamis of large intensity.

An earthquake's hypocentre is the position where the strain energy stored in the rock is first released, marking the point where the fault begins to rupture.

**15. Ans. A.**

Madhya Pradesh has the largest Tribal population. It has more than 1.6 crore Schedule Tribe population who are 21% of state population according to 2011 census. Second highest is Odisha by numbers.

The population of Mizoram in 2001 Census has been 888,573. Of them, 839,310 are Scheduled Tribes (STs) constituting 94.5 per cent of the total population of the state.

The population of Nagaland in 2001 Census has been 1,990,036. Of these, 1,774,026 are Scheduled Tribes (STs) constituting 89.1 per cent of the total population of the state.

The total population of Arunachal Pradesh in 2001 Census has been 1,097,968. Of these 705,158 persons are Scheduled Tribes (STs), constituting 64.2 per cent of the total population.

**16. Ans. D.**

In dealing with a coil spring the spring constant will depend on the stiffness of the spring **material**, the **thickness** of the wire from which the spring is wound and, **diameter** of the turns of the coil, the number of turns per unit length and the overall length of the spring.

**17. Ans. D.**

The emission of gamma rays does not alter the number of protons or neutrons in the nucleus but instead has the effect of moving the nucleus from a higher to a lower energy state (unstable to stable)

**18. Ans. D.**

In terms of concentration of impurity (a.k.a impurity doping concentration, often abbreviated to doping concentration), from the highest to the lowest among the three regions of a bipolar junction, emitter, collector, and base are the correct order. The above order is independent of the type of BJT, npn or pnp.

**19. Ans. B.**

1 atm: It was originally defined as the pressure exerted by 760 mm of mercury at 0 °C and standard gravity ( $g = 9.80665 \text{ m/s}^2$ ).

**20. Ans. B.**

In S.I. System unit of angular momentum is "joule.Second".

SI unit of Planck's constant is joule-seconds (j-s).

So, dimensions of linear momentum are dimensions of mass times velocity  
SI unit of Potential energy is Joule (J).  
1 newton of force is the force required to accelerate an object with a mass of 1 kilogram 1 meter per second per second

21. **Ans. B.**

The human ear can respond to minute pressure variations in the air if they are in the audible frequency range, roughly 20 Hz - 20 kHz. In fact, tests conducted show an increased sensitivity in the 3000 Hz range which is the optimal amplification frequency in the human ear. So, the sensitivity of the human ear varies with the frequency of the sound.

22. **Ans. C.**

Insulin is an anabolic hormone that stimulates glucose and fatty acid uptake into adipose cells, promoting triglyceride synthesis.

Glucagon is a peptide hormone, produced by alpha cells of the pancreas. It works to raise the concentration of glucose and fatty acids in the bloodstream, and is considered to be the main catabolic hormone of the body.

23. **Ans. B.**

The absence of a nucleus is an adaptation of the red blood cell for its role. It allows the red blood cell to contain more haemoglobin and, therefore, carry more oxygen molecules  
Like red cells, platelets (thrombocytes) have no nucleus.

Monocytes have a small spherical nucleus and has abundant dark staining condensed chromatin.

There are 5 organelles found in a root hair cell. They are the: nucleus, cytoplasm, cell membrane, cell wall and vacuole.

24. **Ans. B.**

Enzymes are biological catalysts. Enzymes are the catalysts involved in biological chemical reactions.

A fundamental task of proteins is to act as enzymes—catalysts that increase the rate of virtually all the chemical reactions within cells. A catalyst remains chemically unchanged itself at the end of a reaction.

Each enzyme has a temperature that it works optimally in, which in humans is around 98.6 degrees Fahrenheit, 37 degrees Celsius – the normal body temperature for humans.

25. **Ans. B.**

Altitude sickness, the mildest form being acute mountain sickness (AMS), is the negative health effect of high altitude, caused by rapid exposure to low amounts of oxygen at high elevation.

26. **Ans. C.**

Mg	Traps the energy of sunlight in photosynthesis
Ca	Control of muscle contraction
Sr	Gives red colour to flame
Ba	Sulphate compound used in medicine to examine the alimentary canal of a patient

27. **Ans. D.**

Hydrogen has two possible oxidation numbers: +1 and -1.

-1 in case of hydrides.

28. **Ans. A.**

The Standard hydrogen electrode (abbreviated SHE), is a redox electrode which forms the basis of the thermodynamic scale of oxidation-reduction potentials. Its absolute electrode potential is estimated to be  $4.44 \pm 0.02$  V at 25 °C, but to form a basis for comparison with all other electrode reactions, hydrogen's standard electrode potential (E<sub>0</sub>) is declared to be zero volts only at 298K

29. **Ans. B.**

O= 65%

C= 18%

H= 9.5%

N= 3.2%

Ca= 1.5%

Ph=1.2%

30. **Ans. C.**

<b>Central Inland Water Transport Corporation</b>	Kolkata
<b>Inland Waterways Authority of India</b>	Noida
<b>National Inland Navigation Institute</b>	Patna
<b>First National Inland Waterway</b>	Between Haldia and Allahabad

**31. Ans. C.**

Delhi: Latitude-28.38 N, Longitude-77.12 E

Chandigarh: Latitude-30.44 N, Longitude-76.47 E

Puducherry: Latitude- 11° 54' N, Longitude-79° 48' E

Goa: Latitude- 15°29'N. N, Longitude- 73°48'E.

**32. Ans. D.**

	Name of the Railway Zone	Zonal Headquarter
1	Central Railway	Mumbai
2	Eastern Railway	Kolkata
3	East Central Railway	Hajipur
4	East Coast Railway	Bhubaneswar
5	Northern Railway	Baroda House, New Delhi
6	North Central Railway	Allahabad
7	North Eastern Railway	Gorakhpur
8	North Frontier Railway	Maligaon, Guwahati
9	North Western Railway	Jaipur
10	Southern Railway	Chennai
11	South Central Railway	Secunderabad
12	South Eastern Railway	Garden Reach, Kolkata
13	South East Central Railway	Bilaspur
14	South Western Railway	Hubli
15	Western Railway	Mumbai CST
16	West Central Railway	Jabalpur

**33. Ans. D.**

In troposphere and mesosphere, temperature declines with increasing altitude. In stratosphere and thermosphere, temperature increases with increasing altitude.

The coldest temperatures in Earth's atmosphere occur at the top of mesosphere, the Mesopause, especially in the summer near the pole.

Transitional layers of atmosphere include tropopause, stratopause, and mesopause. These layers are relatively thin and are

located between major layers of atmosphere. These have contrasting thermal properties. Hence, in these layers there is no change in temperature with change in altitude.

**34. Ans. B.**

Bongaigaon	Petrochemical
Koraput	Aircraft
Pinjore	Machine tools
Sirpur	Paper

**35. Ans. C.**

**Tributaries**

- left: Ramganga, Gomti, Karnali, Gandaki, Koshi, Mahananda

- right: Yamuna, Tamsa, Son, Punpun, Tons, Hindon, Kunta, Gir, Rishiganga, Hanuman Ganga, Sasur Khaderi

**Sharda:** flows southeast another 100 km (62 mi) in Uttar Pradesh to join the Ghaghra (Karnali) as a right-bank tributary. Teesta is a tributary of Jamuna river.

**36. Ans. B.**

They are located on the St. Marys River between Lake Superior and Lake Huron, between the Upper Peninsula of the US state of Michigan and the Canadian province of Ontario.

**37. Ans. B.**

According to wave theories, for Total internal reflection to happen: Light must travel from denser medium to rarer medium. Angle of incidence should be greater than critical angle. As in case of TIR, the image is perfectly clear, it implies that there has been no loss of intensity.

**38. Ans. A.**

A photon's relativistic momentum is given by the equation,

$E = pc$  where  $p$  is the momentum.

$P = 10 \text{ MeV}/c$

So,  $E = 10 \text{ MeV}$

**39. Ans. C.**

On the basis of magnetic properties, substances are classified into three groups namely diamagnetic, paramagnetic and ferromagnetic.

As solids diffuse and reorder very slowly under ambient conditions, the net, directionally dependent (anisotropic) magnetic moment can persist. Conversely, liquids and gases freely tumble and reorder:

water rearranges every few picoseconds ( $10^{12}$  times per second). Hence liquids and gases can never show ferromagnetic properties.

**40. Ans. C.**

In vacuum and in homogeneous, transparent media, such as air, water, and glass, light moves in a straight line. When light encounters a boundary between two different transparent media, some light is reflected and some moves from the first into the second medium.

**41. Ans. D.**

Strait of Hormuz	Gulf of Persia
Strait of Bab-el-Mandeb	Red Sea
Strait of Malacca	Andaman Sea
Strait of Sunda	Java Sea

**42. Ans. B.**

Agulhas Current	South Africa
Humboldt Current	Peru
Labrador Current	Canada
Falkland Current	Argentina

**43. Ans. C.**

Dogger Bank (Dutch: Doggersbank, German: Doggerbank, Danish: Doggerbanke) is a large sandbank

**44. Ans. A.**

Satpura	Madhya Pradesh
Dhuvaran	Gujarat
Tanakpur	Uttarakhand
Dabhol	Maharashtra

**45. Ans. C.**

**Alluvial Soils**

The proportion of nitrogen is generally low, but potash, phosphoric acid and alkalis are adequate, while iron oxide and lime vary within a wide range.

**Black Soils**

Chemically, the black soils are rich in lime, iron, magnesia and alumina. They also contain potash. But they lack in phosphorus, nitrogen and organic matter.

**Laterite Soils**

With rain, lime and silica are leached away, and soils rich in iron oxide and aluminium compound are left behind.

**46. Ans. D.**

In astronomy, a syzygy is a straight-line configuration of three or more celestial bodies in a gravitational system. Solar and lunar eclipses occur at times of syzygy, as do transits and occultations.

**47. Ans. A.**

Demoiselles

These are rock pillars which stand as resistant rocks above soft rocks as a result of differential erosion of hard and soft rocks.

Zeugen

A table-shaped area of rock found in arid and semi-arid areas formed when more resistant rock is reduced at a slower rate than softer rocks around it.

A Dreikanter

It is a type of ventifact that typically forms in desert or periglacial environments due to the abrasive action of blowing sand.

A wind gap is a gap through which a waterway once flowed that is now dry as a result of stream capture.

**48. Ans. D.**

Indian Wild Ass Sanctuary also known as the Wild Ass Wildlife Sanctuary is located in the Little Rann of Kutch in the Gujarat state of India.

**49. Ans. D.**

The temperate forests are called Sholas in the Nilgiris, Anaimalai and Palani hills.

Moist deciduous forests: Major Species: Teak, sal, shisham, hurra, mahua, amla, semul, kusum, and sandalwood etc. are the main species of these forests.

**50. Answer: A**

Rajiv Gandhi Centre for Biotechnology	Thiruvananthapuram
Central Arid Zone Research Institute	Jodhpur
Centre for Social Forestry and Eco-Rehabilitation	Allahabad
Institute of Forest Productivity	Ranchi

**51. Ans. A.**

Sources of the seventeenth century refer to two kinds of peasants – khud-kashta and pahi-kashta. The pahi-kashta were non-resident cultivators who belonged to some other village but cultivated lands elsewhere on a contractual basis. People became pahi-kashta either out of choice – for example, when terms of revenue in a distant village were more favourable – or out of compulsion – for example, forced by economic distress after a famine.

**52. Ans. B.**

During the Mughal Empire, zamindars belonged to the nobility and formed the ruling class. Emperor Akbar granted them mansabs and their ancestral domains were treated as jagirs.

In some respects of zamindars and the peasants were natural allies in any struggle against the Mughal government.

The *Zamindars* often received the support of the peasantry in many agrarian uprisings in North India in the seventeenth century.

**53. Ans. D.**

Edict 13 on the Edicts of Ashoka Rock Inscriptions reflect the great remorse the king felt after observing the destruction of Kalinga: The lethal war with Kalinga transformed the vengeful Emperor Ashoka into a stable and peaceful emperor, and he became a patron of Buddhism.

He ended the military expansion of the empire. The Kalinga war became his first and last war. He made some significant changes in the state policy of Magadh.

**54. Ans. B.**

T-55, T-72 and T-90 battle are USSR/Russian origin battle tanks and are respectively based on first, second and third generation battle tank technologies.

**55. Ans. A.**

In Hinduism, the guardians of the cardinal directions are called the Lokapālas (लोकपाल), or Dikpalaka.

Aṣṭa-Dikpāla ("Guardians of Eight Directions")

1. Kubera (North)
2. Yama (South)
3. Indra (East)
4. Varuṇa (West)

5. Īśāna (Northeast)
6. Agni (Southeast)
7. Vayu (Northwest)
8. Nirṛti (Southwest)

**56. Ans. A.**

A395. Repeals The Indian Independence Act, 1947, and the Government of India Act, 1935, together with all enactments amending or supplementing the latter Act, but not including the Abolition of Privy Council Jurisdiction Act, 1949.

**57. Ans. B.**

Some provisions of the Constitution pertaining to citizenship, elections, provisional parliament, temporary and transitional provisions, and short title contained in Articles 5, 6, 7, 8, 9, 60, 324, 366, 367, 379, 380, 388, 391, 392 and 393 came into force on November 26, 1949 itself.

**58. Ans. D.**

In India, the Universal Adult Franchise was introduced only in the post-independence period during the first general elections to the Lok Sabha and the State Assemblies.

Under the Cabinet Mission Plan of 1946, elections were held for the first time for the Constituent Assembly.

Constituent Assembly members were elected indirectly by members of the newly elected provincial assemblies, and initially included representatives for those provinces that formed part of Pakistan (some of which are now in Bangladesh).

**59. Ans. D.**

CSE in its recommendation asked Indian regulator FSSAI to act immediately and ban the two chemicals.

It says that Indian bread manufacturer' use two chemicals, banned in many countries but not in India, being used by bread industry are potassium bromate (KBrO<sub>3</sub>) and potassium iodate (KIO<sub>3</sub>).

The government (FSSAI) banned the use of potassium bromate as a food additive on the basis of the above recommendation.

The regulator had recommended to the health ministry removal of potassium bromate from the list of permissible food additives after a study by the Centre for Science and Environment (CSE).

**60. Ans. B.**

The decision by the electorate was to "Leave the European Union" which won by a majority of 1,269,501 votes (3.78%) over those who had voted in favour of "Remain a member of the European Union" with England and Wales voting to "Leave" whilst Scotland and Northern Ireland voted to "Remain".

**61. Ans. A.**

May 23, 2016 ISRO successfully flight-tested India's first winged body aerospace vehicle operating in hypersonic flight regime. In this experimental mission, the HS9 solid rocket booster carrying RLV-TD lifted off from the First Launch Pad at Satish Dhawan Space Centre, Sriharikota at 07:00 hr IST. After a successful flight of 91.1second, HS9 burn out occurred, following which both HS9 and RLV-TD mounted on its top coasted to a height of about 56 km. At that height, RLV-TD separated from HS9 booster and further ascended to a height of about 65 km.

**62. Ans. D.**

The Sukhoi Su-30MKI is a twinjet multirole air superiority fighter developed by Russia's Sukhoi and built under licence by India's Hindustan Aeronautics Limited (HAL) for the Indian Air Force (IAF).

The BrahMos is a medium-range ramjet supersonic cruise missile that can be launched from submarine, ships, aircraft, or land. It is a joint venture between the Russian Federation's NPO Mashinostroyeniya and India's Defence Research and Development Organisation (DRDO) who together have formed BrahMos Aerospace

The name BrahMos is a portmanteau formed from the names of two rivers, the Brahmaputra of India and the Moskva of Russia.

**63. Ans. B.**

Documents from Western India – Rajasthan, Gujarat and Maharashtra – record petitions sent by women to the village panchayat, seeking redress and justice. Wives protested against the infidelity of their husbands or the neglect of the wife and children by the male head of the household, the grihasthi. While male infidelity was not always punished, the state and "superior" caste groups did intervene when it came to ensuring that the

family was adequately provided for. In most cases when women petitioned to the panchayat, their names were excluded from the record: the petitioner was referred to as the mother, sister or wife of the male head of the household.

**64. Ans. C.**

While it has been conducted every 10 years, beginning in 1872, the first complete census was taken in the year 1881. Post 1949, it has been conducted by the Registrar General and Census Commissioner of India under the Ministry of Home Affairs, Government of India.

**65. Ans. A.**

Sumit Sarkar	The Swadeshi Movement in Bengal, 1903-1908
Shahid Amin	Event, Metaphor, Memory—Chauri Chaura, 1922-1992
Ranjit Guha	A Rule of Property for Bengal
Bipan Chandra	The Rise and Growth of Economic Nationalism in India

**66. Ans. D.**

The most prominent form of Shiva in Brihadeshvara Temple built by Chola dynasty is Tripurantaka. Tripurantaka is a manifestation of the Hindu god Shiva. In this aspect, Shiva is depicted with four arms wielding a bow and arrow. Shiva as Tripurantaka is accredited with destroying three mythical cities of the Asuras. It is believed that the Rudraksha came from lord Shiva's eyes, when he destroyed Tripura.

**67. Ans. A.**

The Golaknath Case of 1967 relates to the power of the Parliament to curtail the Fundamental Rights provided in the Constitution.

In 1967, the Supreme Court reversed its earlier decisions in Golaknath v. State of Punjab. It held that Fundamental Rights included in Part III of the Constitution are given a "transcendental position" and are beyond the reach of Parliament. It also declared any amendment that "takes away or abridges" a Fundamental Right conferred by

Part III as unconstitutional. By 1973, the basic structure doctrine triumphed in Justice Hans Raj Khanna's judgment in the landmark decision of Kesavananda Bharati v. State of Kerala.

**68. Ans. C.**

**Fundamental Rights available to only citizens and not foreigners**

- Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth (Article 15).
- Equality of opportunity in matters of public employment (Article 16).
- Six basic freedoms subject to reasonable restrictions (Article 19).
- Protection of language, script and culture of minorities (Article 29).
- Right of minorities to establish and administer educational institutions (Article 30).

**69. Ans. C.**

The Citizenship Act, 1955, prescribes three ways of losing citizenship whether acquired under the Act or prior to it under the Constitution, viz. renunciation, termination and deprivation:

1. By Renunciation: Any citizen of India of full age and capacity can make a declaration renouncing his Indian citizenship.
2. By Termination: When an Indian citizen voluntarily (consciously, knowingly and without duress, undue influence or compulsion) acquires the citizenship of another country.
3. By Deprivation:

It is a compulsory termination of Indian citizenship by the Central government, if:

- the citizen has obtained the citizenship by fraud;
- the citizen has shown disloyalty to the Constitution of India;
- the citizen has unlawfully traded or communicated with the enemy during a war;
- the citizen has, within five years after registration or naturalisation, been imprisoned in any country for two years; and
- the citizen has been ordinarily resident out of India for seven years continuously

**70. Ans. A.**

Article-20 of the Constitution grants protection against arbitrary and excessive punishment to an accused person. It contains three provisions in that direction No Ex-post-facto Law No person shall be convicted of any offence except for violation of a law in force at the time of the commission of the Act nor subjected to a penalty greater than that prescribed by the law in force at the time of the commission of the Act.

No Double Jeopardy No person shall be prosecuted and punished for the same offence more than once.

No Self-incrimination No person accused of any offence shall be compelled to be a witness against himself.

As per the Constitution, a person/entity can be tried retrospectively in certain instances as provided by the law.

**71. Ans. D.**

Neil O'Brien (10 May 1934 – 24 June 2016) was a quiz master who was often credited for conducting the first formal well-organised quiz in Calcutta, India.

**72. Ans. B.**

"If you feel you are trapped in a black hole, don't give up. There is a way out." — Stephen Hawking.

**73. Ans. C.**

The Dhanush is a 155 mm towed howitzer used by the Indian Army.

The gun has been developed by the Ordnance Factory Board (OFB), Kolkata, after going through design documents running into over 12,000 pages. These documents were given to India as part of the first phase of "Transfer of Technology" (ToT) under the Bofors gun deal.

**74. Ans. C.**

2016 Australian Open – Men's Singles. Novak Djokovic was the defending champion and successfully defended his title, defeating Andy Murray, 6–1, 7–5, 7–6 in a rematch of the previous year's final, and the fourth Australian Open final between the pair.

**75. Ans. B.**

Adi Shankara or Shankara, was an early 8th century Indian philosopher and theologian who consolidated the doctrine of Advaita Vedanta.



He is credited with unifying and establishing the main currents of thought in Hinduism. It is with his teacher Govinda, that Shankara studied Gaudapadiya Karika, as Govinda was himself taught by Gaudapada.

**76. Ans. D.**

In 1861, civil war broke out in the USA. USA was the largest supplier of cotton to Britain. Once the civil war broke out, the demand for cotton from India became high and this led to a surge in cotton cultivation in India and there was a period of 'boom' then.

In May and June 1875, peasants of Maharashtra in some parts of Pune, Satara and Ahmednagar districts revolted against increasing agrarian distress. The Deccan Riots of 1875 targeted conditions of debt peonage (kamiuti) to moneylenders.

In 1879, the Agriculturists Relief Act was passed which ensured that the farmers could not be arrested and imprisoned if they were unable to pay their debts.

**77. Ans. D.**

Gypsies are believed to have arrived in Europe from northern India in the 1400s. They were called Gypsies because Europeans thought they came from Egypt. This ethnic minority is made up of distinct groups called "tribes" or "nations." Most of the Gypsies in German-occupied Europe belonged to the Sinti and Roma tribes.

Romani (romani čhib) Romani, or Romany, is an Indo-Aryan language spoken by about 5-6 million Roma people throughout Europe and the USA. The largest concentrations of Roma people live in Turkey, Spain and Romania. In English these people are often called Gypsies.

**78. Ans. B.**

Upari refers to a category of tenancy tenure held under the Maratha Regime.

The Government used to assign land to various cultivators for cultivation and getting maximum revenue. The land allotted to original settlers of villages came to be known as Mirasi land whereas the land assigned to the migrant settlers was known as the Upari land.

**79. Ans. C.**

In 1769 Arkwright patented the invention that made him rich, and his country an economic powerhouse: The spinning frame. The

spinning frame was a device that could produce stronger threads for yarns.

**80. Ans. A.**

Founded in 1912, the Kuomintang is the oldest still active political party in the Chinese-speaking world. Its main leader was Sun Yat-Sen. He divided the livelihood into four parts: clothing, food, housing and transportation.

**81. Ans. D.**

Tokyo officially became the Japanese capital after Emperor Meiji moved his seat to the city from the old capital of Kyoto in 1868; at that time Edo was renamed Tokyo.

**82. Ans. B.**

Silappadikaram is one of The Five Great Epics of Tamil Literature. Epic revolves around Kannagi, who having lost her husband to a miscarriage of justice at the court of the Pandyan Dynasty, wreaks her revenge on his kingdom.

**83. Ans. B.**

Rakshasa marriage is the marriage of a maiden involving her forcible abduction from her home after her kinsmen have been slain or wounded much like its practice in Khazakh and Uzbek cultures where it is still practised as a ritual.

**84. Ans. B.**

**Solution**

The Copa América Centenario Final was an association football match that took place on 26 June 2016 at the MetLife Stadium in East Rutherford, New Jersey, United States to determine the winner of the Copa América Centenario.

The match was contested by Argentina and Chile, making it a rematch of the 2015 final. Chile ultimately won on penalty kicks 4–2 after a 0–0 draw.

**85. Ans. D.**

Cheyenne Mountain Zoo	6,800 feet
Himalayan Zoological Park, Gangtok	5839.895 feet
Padmaja Naidu Himalayan Zoological Park	7000 feet

**86. Ans. D.**

The Missile Technology Control Regime (MTCR) is a multilateral export control regime. It is an informal and voluntary partnership among 35 countries to prevent the

proliferation of missile and unmanned aerial vehicle technology capable of carrying above 500 kg payload for more than 300 km.

The Missile Technology Control Regime (MTCR) was established in April 1987 by the G7 countries

The People's Republic of China is not a member of the MTCR but has agreed to abide by the original 1987 Guidelines and Annex, but not the subsequent revisions.

Israel, Romania and Slovakia have also agreed to voluntarily follow MTCR export rules even though not yet members.

**87. Ans. A.**

All squadrons of Tejas will be made up of 20 aircrafts, including four in reserve.

**88. Ans. C.**

The Economic and Social Commission for Asia and the Pacific (UNESCAP or ESCAP), located in the United Nations Building in Rajadamnern Nok Avenue in Bangkok, Thailand, is one of the five regional commissions of the United Nations Economic and Social Council, under the administrative direction of the United Nations.

**89. Ans. C.**

A bank run occurs when a large number of people withdraw their money from a bank, because they believe the bank may cease to function soon.

A banking panic or bank panic is a financial crisis that occurs when many banks suffer runs at the same time, as people suddenly try to convert their threatened deposits into cash or try to get out of their domestic banking system altogether.

**90. Ans. C.**

Creditors and debtors:

During inflation creditors lose because they receive in effect less in goods and services than if they had received the repayments during a period of low prices. Debtors, on other hand, as a group gain during inflation, since they repay their debts in currency that has lost its value.

The aggregate volume of internal trade tends to increase during inflation due to higher incomes, greater production and larger spending. But the export trade is likely to suffer on account of a rise in the prices of domestic goods.

the same currency unit will now buy less goods and services.

But the bondholders lose as they get a fixed interest the real value of which has already fallen.

**91. Ans. A.**

The classical economists believed in the existence of full employment in the economy. To them, full employment was a normal situation and any deviation from this regarded as something abnormal. According to Pigou, the tendency of the economic system is to automatically provide full employment in the labour market when the demand and supply of labour are equal.

**92. Ans. A.**

Capital deepening is a situation where the capital per worker is increasing in the economy. This is also referred to as increase in the capital intensity. Capital deepening is often measured by the rate of change in capital stock per labour hour.

**93. Ans. D.**

Protection under Article 32 applies only to the fundamental rights as provided by the Constitution.

**94. Ans. A.**

Habeas Corpus: a writ requiring a person under arrest to be brought before a judge or into court, especially to secure the person's release unless lawful grounds are shown for their detention.

**95. Ans. D.**

Article 43 also places upon the State the responsibility of promoting cottage industries, and the federal government has, in furtherance of this, established several Boards for the promotion of khadi, handlooms etc., in coordination with the state governments. It is a DPSP.

**96. Ans. A.**

The 44th Constitutional Amendment Act, replaced the phrase 'internal disturbance' with the 'armed rebellion' to avoid its misuse by the government in power.

**97. Ans. C.**

The Supreme Court has struck down the words "adult male" from the pertinent provision in the DV Act to lay down that a woman can also file a complaint against

another woman, accusing her of domestic violence.

**98. Ans. C.**

The cabinet Committee on Economic Affairs (CCEA) on 27th January, 2005 had approved the constitution of a National Investment Fund (NIF). The Purpose of the fund was to receive disinvestment proceeds of central public sector enterprises and to invest the same to generate earnings without depleting the corpus.

National Investment and Infrastructure Fund (NIIF) is a fund created by the Government of India for enhancing infrastructure financing in the country.

This is different from the National Investment Fund.

Its creation was announced in the Union Budget 2015-16. The operational framework was approved on 20 August 2015. NIIF got registered with SEBI as Category II Alternative Investment Fund (AIF) on December 28, 2015.

**99. Ans. D.**

The Andaman and Nicobar Command is the first and only Tri-service theater command of the Indian Armed Forces, based at Port Blair. It was created in 2001 to safeguard India's strategic interests in Southeast Asia and the Strait of Malacca by increasing rapid deployment of military assets in the region.

**100. Ans. D.**

The senior most member of the Chiefs of Staff Committee (COSC) is appointed as its Chairman. Admiral Sunil Lanba is the current and the 23rd Chief of the Naval Staff of the Indian Navy.

**101. Ans. A.**

Jammu and Kashmir Rifles is an infantry regiment of the Indian Army. It is a truly historic Indian Regiment raised by Maharaja Gulab Singh, the founder of the Dogra Kingdom in 1820.

Amongst all the princely State Forces of India, it was the only one to be absorbed into the Indian Army as a separate Regiment and did not lose its entity by merger into the existing Regiments of the Army.

**102. Ans. B.**

The Infantry Regiment is also known as the Mechanised Infantry Regiment of the Indian Army. Though its aggregate size, it is closer to

that or a full mechanised division with 26 mechanised battalions.

Indian Army Corps of Electronics and Mechanical Engineers are an arms and service branch of Indian Army having varied responsibilities of design, development, trial, inspection and refit of weapon systems and equipment. They also provide technical advice to units on systems and recovery operations in peace and war.

**103. Ans. B.**

The Indian Army is divided into six operational commands and one training command each headed by a Limited General. They are South Western, Northern, Central, Army Training Command, Eastern, Western and Southern Commands.

**104. Ans. A.**

The rank of 2nd Lieutenant/Act. Sub Lieutenant/Pilot Officer were removed because the salary of the officers holding these ranks were less compared to senior Non-Commissioned Officers i.e Subedar Major in army, Master Warrant Officer in air force and Master Chief Petty Officer - 1st Class in navy.

Rest of the statements are incorrect.

In modern armies, lieutenant general normally ranks immediately below general and above major general; it is equivalent to the navy rank of vice admiral, and in air forces with a separate rank structure, it is equivalent to air marshal.

**105. Ans. C**

Tatra not an Air Defence Missile System. It is a Czech manufacturer producing vehicles in Koprivnice. It is owned by the Tatra Trucks company, based in Ostrava, and is the third oldest company in the world producing cars with an unbroken history.

**106. Ans. B.**

The growth scenario in India shows that the services sector has become the most dominant in the later part of its growth process. The share of services sector in GDP increased from 28.5 per cent in 1950-51 to 39.6 per cent in 1990-91 and then to 52.6 per cent in 2014-15 while the share of primary sector declined from 56.4 per cent in 1950-51 to 33.4 per cent in 1990-91 and then to only 19.0 per cent in 2014-15.

107. **Ans. D.**

In fact, FPI is often referred to as “hot money” because of its tendency to flee at the first signs of trouble in an economy. These massive portfolio flows can exacerbate economic problems during periods of uncertainty.

108. **Ans. D.**

Some of the Top Credit Rating Agencies in India are:

1. Credit Rating Information Services of India Limited (CRISIL)
2. ICRA Limited
3. Credit Analysis & Research limited (CARE)
4. Brickwork Ratings (BWR)
5. India Rating and Research Pvt. Ltd.
6. Small and Medium Enterprises Rating Agency of India (SMERA)

109. **Ans. C.**

The 14th Finance Commission was constituted in January 2014. Commission's chairman was former RBI governor Y V Reddy and its members were Sushma Nath, M. Govinda Rao, Abhijit Sen, Sudipto Mundle.

110. **Ans. A.**

The North American Free Trade Agreement (NAFTA) is an agreement signed by Canada, Mexico, and the United States and entered into force on 1 January 1994 in order to establish a trilateral trade bloc in North America.

111. **Ans. C.**

Protective arrangements: Such measures as are required to enforce equality, to provide punitive measures for transgressions, to eliminate established practices that perpetuate inequities, etc.

A number of laws were enacted to implement the provisions in the Constitution. Examples of such laws include The Untouchability Practices Act, 1955, Scheduled Caste and Scheduled Tribe (Prevention of Atrocities) Act, 1989, The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993, etc. Despite legislation, social discrimination and atrocities against the backward castes continued to persist

112. **Ans. D.**

The High Courts has similar power under the Article 226 of the Constitution. The high courts can also issue writs to protect the Fundamental Rights of the people.

113. **Ans. A**

The Constitution of India makes special provisions for the administration of the tribal dominated areas in four states viz. Assam, Meghalaya, Tripura and Mizoram. As per article 244 and 6th Schedule, these areas are called “Tribal Areas”, which are technically different from the Scheduled Areas under fifth schedule.

114. **Ans. B.**

Ninth Schedule says that the article mentioned in this are immune from judicial review. It is for the larger good of the society, the government cannot be challenged in the court for his actions. Ninth Schedule was added to the Constitution by First Constitutional Amendment, 1951.

In a landmark ruling on 11th January 2007, the Supreme Court ruled that all laws (including those in the Ninth Schedule) would be open to judicial review, if they violated the basic structure of the Constitution.

115. **Ans. C.**

Harappa cities followed the rectangular grid pattern where roads were straight and cut each other at right angle. But it may not be the case always.

Brick size was uniform in nearly every Harappan city from Sutkagendor in Baluchistan to Alamgirpur in Meerut, from Manda in Jammu Kashmir to Daimabad in Maharashtra.

116. **Ans. C.**

In Tolkappiyam, there is a reference to the five-fold division of lands - Kurinji (hilly tracks), Mullai (pastoral), Marudam (agricultural), Neydal (coastal) and Palai (desert).

117. **Ans. A.**

The laws relating to the delimitation of constituencies are made by the Parliament. The Model Code of Conduct comes into force immediately on announcement of the election schedule by the commission.

118. **Ans. B.**

All the reports of the Commission are presented to the President, who in turn sends them to the both the houses of the Parliament.

119. **Ans. B.**

Article 19 (1) (c) of the Constitution guarantees to all citizens the right “to form associations and unions.” Under clause (4) of Article 19, however, the State may by law impose reasonable restrictions on this right in the interest of public order, morality or sovereignty and integrity of India.

As per the Article 19 of the Constitution, the right to form associations and unions is a fundamental right guaranteed only to citizens.

**120. Ans. C.**

The 119th constitutional amendment bill 2013 sought to ratify the land boundary agreement between the two countries. This amendment needed special majority in the parliament to get passed. The bill proposed to amend the 1st schedule of the constitution to exchange the disputed territories occupied by both the nations in accordance with the 1974 bilateral LBA.

Since, the law is not related to federal matters, only the approval of the Parliament is needed.