

# CDS - I 2017

## General Knowledge Question Paper

1. Polynucleotide chain of DNA contains
  - A. a nitrogenous base, deoxyribose sugar and phosphate group
  - B. a nitrogenous base, ribose sugar and phosphate group
  - C. deoxyribose sugar, ribose sugar and phosphate group
  - D. a nitrogenous base and phosphate group only
2. The process of copying genetic information from one strand of DNA into RNA is termed as
  - A. translation
  - B. transcription
  - C. replication
  - D. mutation
3. AIDS is caused by the Human Immunodeficiency Virus (HIV). The transmission of HIV infection generally occurs through
  - A. eating contaminated food and water
  - B. transfusion of contaminated blood and blood products
  - C. inhaling polluted air
  - D. shaking hand with infected person
4. In human body, the cell growth and differentiation are highly controlled and regulated, but in cancer cells
  - A. there is breakdown of these regulatory mechanisms leading to formation of benign and malignant tumors
  - B. controlled cell division and over-production of genetic material occur
  - C. RNA is mutated and produced in less amount
  - D. DNA is mutated and produced in less amount
5. Most viruses that infect plants possess
  - A. single-stranded DNA
  - B. single-stranded RNA
  - C. double-stranded DNA and RNA
  - D. double-stranded RNA only
6. Syngamy results information of
  - A. haploid zygote
  - B. diploid zygote
  - C. non-motile male gametes
  - D. motile male gametes
7. Bleeding of gums, falling of teeth, fragile bones and delayed wound healing occur due to the deficiency of which one of the following vitamins?
  - A. Vitamin C
  - B. Vitamin K
  - C. Vitamin D
  - D. Vitamin B
8. When a piece of pure silicon is doped with aluminium, then
  - A. the conductivity of the doped silicon piece will remain the same
  - B. the doped silicon piece will become n-type
  - C. the doped silicon piece will become p-type
  - D. the resistivity of the doped silicon piece will increase
9. Suppose voltage  $V$  is applied across a resistance  $R$ . The power dissipated in the resistance is  $P$ . Now the same voltage  $V$  is applied across a parallel combination of three equal resistors each of resistance  $R$ . Then the power dissipated in the second case will be
  - A.  $P$
  - B.  $3P$
  - C.  $P/3$
  - D.  $2P/3$
10. Which one of the following is not a semiconductor?
  - A. Silicon
  - B. Germanium
  - C. Quartz
  - D. Gallium arsenide
11. A parallel-plate capacitor, with air in between the plates, has capacitance  $C$ . Now the space between the two plates of the capacitor is filled with a dielectric of dielectric constant 7. Then the value of the capacitance will become
  - A.  $C$
  - B.  $\frac{C}{7}$
  - C.  $7C$
  - D.  $14C$
12. For which one of the following does the centre of mass lie outside the body?
  - A. A fountain pen
  - B. A cricket ball
  - C. A ring
  - D. A book
13. Which one of the following is a physical change?
  - A. Burning of coal
  - B. Burning of wood
  - C. Heating of a platinum crucible
  - D. Heating of potassium chlorate
14. The pH value of a sample of multiple-distilled water is
  - A. zero
  - B. 14
  - C. very near to zero
  - D. very near to seven
15. Which one of the following is the most characteristic property of an element?
  - A. Density
  - B. Boiling point
  - C. Mass number
  - D. Atomic number

16. There are two elements-calcium (atomic number 20) and argon (atomic number 18). The mass number of both the elements is 40. They are therefore known as
  - A. isotones
  - B. isochores
  - C. isobars
  - D. isotopes
17. 'Plum Pudding Model' for an atom was proposed by
  - A. Antoine Lavoisier
  - B. Robert Boyle
  - C. Ernest Rutherford
  - D. J. J. Thomson
18. What is the number of atoms in 46 g of sodium-23 ( $N = \text{Avogadro constant}$ )?
  - A.  $N/2$
  - B.  $N$
  - C.  $2N$
  - D.  $23N$
19. Which one of the following statements is correct?  
For the purpose of Census 2011
  - A. a person aged seven and above who can both read and write with understanding in any language is treated as a literate
  - B. a person aged eight and above who can both read and write with understanding in any language is treated as a literate
  - C. a person aged nine and above who can both read and write with understanding in any language is treated as a literate
  - D. a person aged ten and above who can both read and write with understanding in any language is treated as a literate.
20. In which one of the following States is Loktak Lake situated?
  - A. Sikkim
  - B. Himachal Pradesh
  - C. Manipur
  - D. Meghalaya
21. The ratio of gross cropped area to the net sown area is called
  - A. cropping intensity
  - B. intensity of crop rotation
  - C. crop productivity
  - D. cropping diversity
22. Which one of the following is the correct sequence of occurrences of rivers from Chennai to Kolkata when travelled by road (shortest distance)?
  - A. Krishna, Kaveri, Godavari, Mahanadi, Subarnarekha
  - B. Krishna, Periyar, Godavari, Mahanadi, Subarnarekha
  - C. Penneru, Krishna, Godavari, Mahanadi, Subarnarekha
  - D. Penneru, Mahanadi, Subarnarekha, Godavari, Krishna
23. Which one of the following statements with regard to volcanoes is not correct?
  - A. Stratovolcanoes produce lava flows that initially follow valleys but are highly resistant to erosion.
  - B. The surrounding areas can remain highlands, lava ridges or mesas.
  - C. Hawaiian shield volcanoes are eroded by streams that form deeply carved valleys with steeply sloping heads.
  - D. The system of streams on a dissected volcano cone is not a radial drainage pattern.
24. Kwashiorkor disease in children is caused by
  - A. sufficient carbohydrates but less fats in diet
  - B. sufficient carbohydrates and fats but deficient proteins in diet
  - C. sufficient vitamins but deficient fats in diet
  - D. sufficient fats but deficient vitamins in diet
25. The mammalian heart is myogenic and it is regulated by nerves. The heartbeat originates from
  - A. sinoatrial node
  - B. QRS wave
  - C. T wave
  - D. hepatic portal system
26. The plant growth regulators are small, simple molecules of diverse chemical composition. They are
  - A. carbohydrates, fats and proteins
  - B. indole compounds, adenine derivatives, carotenoids and terpenes
  - C. fatty acids, glucose and vitamins
  - D. vitamin C, vitamin D and glucose
27. Consider the electromagnetic radiations having wavelengths 200 nm, 500 nm and 1000 nm. Which wavelength (s) of the following can make visual sensation to a human eye?
  - A. 200 nm and 500 nm
  - B. 500 nm and 1000 nm
  - C. 500 nm only
  - D. 200 nm and 1000 nm

28. A copper wire of radius  $r$  and length  $l$  has a resistance of  $R$ . A second copper wire with radius  $2r$  and length  $l$  is taken and the two wires are joined in a parallel combination. The resultant resistance of the parallel combination of the two wires will be
- A.  $5R$                       B.  $\frac{5}{4}R$   
 C.  $\frac{4}{5}R$                       D.  $\frac{R}{5}$
29. A parallel-plate capacitor of capacitance  $C_1$  is made using two gold plates. Another parallel-plate capacitor of capacitance  $C_2$  is made using two aluminium plates with same plate separation, and all the four plates are of same area. If  $\rho_g$  and  $\rho_a$  are respectively the electrical resistivities of gold and aluminium, then which one of the following relations is correct?
- A.  $C_1 > C_2$                       B.  $C_2 > C_1$   
 C.  $C_1\rho_a = C_2\rho_g$                       D.  $C_1 = C_2$
30. A photon of X-ray has energy of 1 keV. A photon of visible radiation has energy of 3 eV. In this context, which one of the following statements is not correct?
- A. The wavelength of X-ray photon is less than the wavelength of visible radiation photon.  
 B. Both the photons have different energies.  
 C. The speeds of both the photons in vacuum are different  
 D. The frequency of X-ray photon is higher than the frequency of visible radiation photon.
31. The optical phenomenon that is primarily responsible for the observation of rainbow on a rainy day is
- A. diffraction                      B. interference  
 C. dispersion                      D. reflection
32. With regard to 'Project Tiger', which one of the following statements is **not** correct?
- A. It was launched in India in the years 1973.  
 B. The objective of the project is to preserve the habitats and tigers therein as natural heritage.  
 C. The project emphasized to ensure viable population of tigers in India.  
 D. There are no Tiger Reserves in north-eastern part of India.
33. Which one of the following is not a biosphere reserve of India?
- A. Agasthyamalai    B. Nokrek  
 C. Great Nicobar    D. Great Himalayan
34. Which one of the following statements with regard to the Indian Railways is not correct?
- A. The Indian rail networks have been developed throughout the Konkan coast.  
 B. There is very low density of railway lines in the Himalayan region.  
 C. The north Indian plain has a dense network of railway.  
 D. At present, India has the largest railway network in the world.
35. Which of the following statements with regard to the Mediterranean agriculture is/are correct?
1. The Mediterranean agriculture is highly specialized commercial agriculture.
  2. It is intensive subsistence agriculture dominated by wet paddy cultivation.
  3. It is a primitive subsistence agriculture.
  4. Viticulture is a speciality of the Mediterranean region.
- Select the correct answer using the code given below.
- A. 1 only                      B. 2 and 3  
 C. 1 and 4 only                      D. 1, 3 and 4
36. Which one of the following statements with regard to the winter solstice is correct?
- A. The South Pole experiences 24 hours of darkness.  
 B. It occurs on June 21.  
 C. The North Pole experiences 24 hours of darkness.  
 D. The Sun is at aphelion.
37. Tropical evergreen rain forest biome provides optimum environmental conditions for the growth of plants and animals. Which one among the following statements regarding this is **not** correct?
- A. It has heavy rainfall and high temperature throughout the year.  
 B. This biome is also called mega-thermal biome.  
 C. The evergreen rain forest biome extended between  $10^\circ$  N and  $10^\circ$  S latitudes.  
 D. The maximum development of this biome has taken place in central and southern California, and north-western coastal lands of Africa.

38. Tsunami waves are the undersea occurrence of earthquake exceeding 7.5 on Richter scale. Which one of the following statements regarding this is **not** correct?
- It often generates strong waves
  - The pacific coasts are most vulnerable to Tsunami waves.
  - Tsunami waves are also called high-energy tidal waves or seismic sea waves.
  - Tsunami is a Latin word.
39. Which of the following statements with regard to cloudburst is/are correct?
- It is defined as sudden localized very heavy downpour with cloud thunder and lightning.
  - It mostly occurs in the hilly areas.
  - It results into very high intensity of rainfall, i.e., 250 mm-300 mm in a couple of hours.
  - It occurs only during daytime.
- Select the correct answer using the code given below.
- 1, 2 and 3
  - 1, 3 and 4
  - 2 and 3 only
  - 2 only
40. Which one of the following with regard to Aridisol, one of the soil orders, is **not** correct?
- Lack of water for plants during most part of the years
  - High organic matter
  - Large accumulation of carbonates at depth
  - Absence of deep wide cracks
41. What is the maximum number of states of matter?
- Three
  - Four
  - Five
  - Variable
42. The chemical properties of an element depend upon
- the number of isotopes of the element
  - the mass number of the element
  - the total number of neutrons in the element
  - the number of electrons in the outermost shell of the element
43. Which one of the following statements is not correct?
- The cathode rays originate from cathode and proceed towards the anode in a cathode-ray discharge tube.
  - The television picture tubes are nothing but cathode ray tubes.
  - The cathode rays themselves are not visible.
  - The characteristics of cathode rays depend upon the nature of the gas present in the cathode-ray tube.
44. The molecular mass of sulphuric acid is 98. If 49 g of the acid is dissolved in water to make one litre of solution, what will be the strength of the acid?
- Two normal
  - One normal
  - 0.5 normal
  - Four normal
45. Which one of the following statements with regard to Jet stream, an upper level tropospheric wave, is **not** correct?
- It is narrow band of high-velocity wind.
  - It follows the wave path near the tropopause at elevations of 8 km to 15 km.
  - Jet streams are typically continuous over long distances.
  - In summer, the polar front jet achieves its maximum force.
46. The Gulf Stream is a poleward flowing current in the Atlantic Ocean. Which one of the following statements with regard to this is **not** correct?
- It is similar to the Kuroshio current in the North Pacific Ocean.
  - It transports warm, tropical water towards polar region.
  - This current is a major factor in weather along the east coast of the USA.
  - The warm water of the Gulf Stream sustains the coral reefs of West Pacific Coast.
47. Which one of the following about sugar industry of Peninsular India is **not** correct?
- High yield per hectare of sugarcane
  - Higher sucrose content
  - Long crushing season
  - Most of the mills in the Peninsula are located mainly along the east coast
48. 'Rand/ZAR' is the currency of
- Burundi
  - Libya
  - Sudan
  - South Africa
49. Which one of the following ports is located on estuary?
- Kandala
  - Marmagao
  - Kolkata-Haldia
  - Tuticorin

50. Which one of the following statements is not correct?
- Pavo cristatus is the national bird of India.
  - Nelumbo nucifera gaertn is the national flower of India.
  - Ficus benghalensis is the national tree of India.
  - Mangifera indica is the national animal of India.
51. Which one of the following statements is correct in relation to the GST Bill passed by the Rajya Sabha in August 2016?
- It will replace all central taxes, duties, etc, only by a single tax.
  - It will subsume central as well as State taxes, duties, etc.
  - GST will be levied on alcoholic liquor for human consumption at a uniform rate of 25 percent.
  - Petroleum and petroleum products shall not be subject to the levy of GST.
52. The sensitive information leaked in August 2016 concerns which one of the following defence platforms of India?
- Fifty Generation Fighter Aircraft
  - Combat Helicopters
  - Submarines
  - Unmanned Aerial Vehicles
53. How many medals were won by India in 2016 Summer Olympics?
- One silver and one Bronze
  - Two Gold
  - Two Bronze
  - None
54. India became a member of which one of the following in 2016?
- Non-Proliferation Treaty
  - Missile Technology Control Regime
  - Nuclear Suppliers Group
  - Wassenaar Arrangement
55. India signed an agreement in 2016 to develop a strategic port in one of its neighbouring countries. What is the name of the port?
- Chabahar
  - Gwadar
  - Hambantota
  - Mongla
56. Which one of the following statements is **not** correct in respect of the South Asian Association for Regional Cooperation (SAARC)?
- Its Headquarters is located in Kathmandu.
  - China is the only country with an Observer status in SAARC.
  - The first SAARC Summit was held in Dhaka.
  - The Eighteenth SAARC Summit was held in Nepal.
57. Which of the following statements about the Ilbert Bill (1883) is/are correct?
- It proposed to grant limited criminal jurisdiction to native officials.
  - It proposed to grant complete civil and criminal jurisdiction to native officials.
  - The proposed Bill generated opposition from England's European subjects in India.
  - In spite of opposition to the Bill, it was passed without any modifications.
- Select the correct answer using the code given below.
- 1 and 2
  - 2 only
  - 1 and 3
  - 3 and 4
58. Consider the following statements about the Second Five-Year Plan :
- It was drafted under the leadership of K. N. Raj
  - It proposed that industries like electricity, railways, steel, machineries and communication could be developed in the public sector.
  - The drafters found balancing industry and agriculture very difficult.
  - The drafters found balancing industry and agriculture really easy.
- Which of the statements given above is/are correct?
- 1 only
  - 1 and 2
  - 2 and 3
  - 3 and 4
59. Consider the following statements about the different meanings of 'Swaraj' as articulated by Mahatma Gandhi :
- Swaraj is intimately linked with Ahimsa (non-violence) and Satyagraha (adherence to truth).
  - Swaraj has two senses-one political and one beyond the realm of politics.
  - Swaraj is something that requires time and patience to acquire.
  - With determination, Swaraj could be obtained easily and quickly.
- Which of the statements given above is/are correct?
- 1 only
  - 1 and 2 only
  - 3 and 4
  - 1, 2 and 3

60. What was/were the formative influence(s) on the philosophy of Mahatma Gandhi?
1. Gandhiji was influenced by the 18th century Pranami sect that advocated the unity of faiths.
  2. Gandhiji was influenced by the theosophists.
  3. Gandhiji was an admirer of the writings of Romantics like Wordsworth.
- Select the correct answer using the code given below.
- A. 1 and 2 only      B. 2 and 3 only  
C. 1, 2 and 3      D. 1 only
61. Which of the following statements about the Shiromani Gurudwara Prabandhak Committee (SGPC) are correct?
1. It began as the political wing of the Singh Sabhas in the late 19th century.
  2. It was formed in 1920 as part of the upcoming Akali movement.
  3. It was founded to reclaim control of the Sikh shrines from the government manipulated loyalist committees.
  4. It formed the Akali Dal to coordinate groups (Jathas) to reclaim control of the shrines.
- Select the correct answer using the code given below.
- A. 1, 3 and 4      B. 2, 3 and 4  
C. 2 and 4 only      D. 2 and 3 only
62. Which of the following statements with regard to the speech of Mahatma Gandhi at the opening of the Banaras Hindu University are correct?
1. He charged the Indian elite with a lack of concern for the laboring poor.
  2. He asserted that our salvation can come only through the farmers.
  3. He highlighted the plight of the untouchables.
  4. He promised to take up the cause of the mill owners of Ahmedabad.
- Select the correct answer using the code given below.
- A. 1, 2, 3 and 4      B. 1 and 2 only  
C. 1, 2 and 3 only      D. 3 and 4 only
63. To be eligible to contest election under the Haryana Panchayati Raj (Amendment) Act, 2015, a candidate should
1. have a functional toilet at home
  2. have payment slips of power bills
  3. not be a cooperative loan defaulter
  4. have studied minimum matriculation irrespective of category.
- Select the correct answer using the code given below.
- A. 1, 2 and 3 only      B. 1, 2 and 4 only  
C. 1, 2, 3 and 4      D. 3 and 4 only
64. Arrange the following Commissions chronologically on the basis of their date of setting :
1. The Second Administrative Reforms Commission
  2. The Eleventh Finance Commission
  3. Punchhi Commission
  4. Sarkaria Commission
- Select the correct answer using the code given below.
- A. 4, 2, 1, 3      B. 4, 3, 2, 1  
C. 3, 2, 4, 1      D. 3, 4, 1, 2
65. Who among the following won a Gold medal for India in Men's Javelin Throw event at the 2016 Rio Paralympic Games?
- A. Rinku Hooda
  - B. Devendra Jhajharia
  - C. Sundar Singh Gurjar
  - D. Mariyappan Thangavelu
66. Which of the following statements with regard to Panchayats in India are correct?
1. Seats in a Panchayat are filled by direct election from the territorial constituencies in the Panchayat area.
  2. The Gram Sabha is the body of persons registered in the electoral rolls relating to a village within the Panchayat area.
  3. The Panchayats work on the principle of constitutional autonomy.
  4. The State Legislature may be law endow the Panchayats with the power and authority to enable them to function.
- Select the correct answer using the code given below.
- A. 1, 2 and 3      B. 2, 3 and 4  
C. 1, 2 and 4      D. 1 and 4 only
67. Which of the following statements regarding Indian federal system is/are correct?
1. All States have equal representation in the Rajya Sabha.
  2. Consent of a State is not required for altering its boundaries.
  3. There is no dual citizenship in India.
- Select the correct answer using the code given below.
- A. 1, 2 and 3      B. 2 and 3 only  
C. 1 and 3 only      D. 2 only

68. Which of the following are the powers of the Supreme Court of India?
1. Original jurisdiction in a dispute between the Government of India and one or more States.
  2. The power to hear appeals from the High Courts
  3. Passing decrees and orders for doing justice in any matter before it
  4. Render advice to the President of India in matters of law
- Select the correct answer using the code given below.
- A. 1, 2, 3 and 4      B. 1, 2 and 3 only  
C. 1 and 2 only      D. 3 and 4 only
69. Which one of the following is not a component of Revenue Receipts of the Union Government?
- A. Corporate tax receipts
  - B. Dividends and profits
  - C. Disinvestment receipts
  - D. Interest receipts
70. TRIPS Agreement pertains to
- A. international tariff regime
  - B. intellectual property protection
  - C. international practices on trade facilitation
  - D. international taxation of property
71. The 7.6% growth rate registered by Indian economy during the year 2015-16 is based on
- A. Gross National Product at market prices
  - B. Gross Value Added at constant prices
  - C. Gross Domestic Product at market prices
  - D. Gross Domestic Product at constant prices
72. Which of the following statements about the Trans-Pacific Partnership (TPP) is /are correct?
1. The TPP was signed by 12 Pacific Rim nations in the year 2015.
  2. The TPP is likely to be a game-changer in global trade as member countries account for about 40 percent of global GDP.
  3. India is a founder member of TPP.
- Select the correct answer using the code given below.
- A. 1, 2 and 3      B. 1 and 2 only  
C. 2 and 3 only      D. 1 only
73. Which of the following statements about Bitcoin is/are correct?
1. It is a decentralized virtual currency.
  2. It is generated through complex computer software systems.
  3. The Reserve Bank of India recognized it as a legal tender in January 2016.
- Select the correct answer using the code given below.
- A. 1 only      B. 1 and 2 only  
C. 2 and 3 only      D. 1, 2 and 3
74. Hindustan Aeronautics Limited handed over the first two indigenously designed and manufactured light combat aircrafts to the Indian Air Force in 2016. What is the name of these new combat aircrafts?
- A. Marut
  - B. Garud
  - C. Tejas
  - D. Pushpak
75. Consider the following statement about a famous football player :
- "He was diagnosed with a growth hormone deficiency during his childhood but went on to win three European Golden Shoes in his career".
- Who is that player?
- A. Andres Iniesta
  - B. Lionel Messi
  - C. Cristiano Ronaldo
  - D. Zinedine Zidane
76. Which of the following statements is/are correct?
1. In June 2016, the LIGO group of scientists announced the detection of a second set of gravitational waves.
  2. Gravitational waves were generated due to merger of two black holes at about 1.4 billion light-years distant.
  3. Gravitational waves were inserted due to collision of two white dwarf stars at about 1.4 billion light-years distant.
- Select the correct answer using the code given below.
- A. 1 only      B. 1 and 2 only  
C. 2 and 3 only      D. 1, 2 and 3
77. In the year 2016, the Government of India announced a ₹ 6,000 crore special package for the textile and apparel sector to
1. create one crore jobs within three years
  2. create jobs equally for men and women
  3. provide tax and production incentives for the entrepreneurs
- Select the correct answer using the code given below.
- A. 1 only      B. 2 and 3 only  
C. 1 and 3 only      D. 1, 2 and 3

78. Which one of the following is not an Inter-Services establishment?  
 A. Officers Training Academy  
 B. National Defence Academy  
 C. National Defence College  
 D. Armed Forces Medical College
79. Which one of the following is a Peacetime Gallantry Award?  
 A. Shaurya Chakra  
 B. Vir Chakra  
 C. Yudh Seva Medal  
 D. Param Vir Chakra
80. The Headquarters of the Southern Naval Command of the Indian Navy is located at which one of the following places?  
 A. Karwar  
 B. Kochi  
 C. Thiruvananthapuram  
 D. Chennai
81. Match List-I with List-II and select the correct answer using the code given below the Lists :
- | <b>List-I</b><br><b>(Act/Event)</b> | <b>List-II</b><br><b>(Year)</b> |
|-------------------------------------|---------------------------------|
| A. Rowlatt Act                      | 1. 1922                         |
| B. Salt March                       | 2. 1931                         |
| C. Chauri Chaura Incident           | 3. 1930                         |
| D. Second Round Table Conference    | 4. 1919                         |
- Code :**
- |       |   |   |   |
|-------|---|---|---|
| A     | B | C | D |
| (a) 4 | 3 | 1 | 2 |
| (b) 3 | 1 | 4 | 2 |
| (c) 4 | 3 | 2 | 1 |
| (d) 3 | 4 | 2 | 1 |
82. Consider the following statements about the Salt March :
1. The Salt March was deliberately ignored by the European media.
  2. The Salt March was widely covered by the American and European press.
  3. The Salt March was the first nationalist activity in which women participated in large numbers.
  4. The Salt March impressed upon the British the urgent need to devolve more power to Indians.
- Which of the statements given above are correct?
- |                 |                 |
|-----------------|-----------------|
| A. 1, 2 and 4   | B. 2, 3 and 4   |
| C. 3 and 4 only | D. 2 and 3 only |
83. In the elections to the provincial legislatures in 1937 in British India
1. only about 10 to 12 percent of the population had the right to vote
  2. the untouchables had no right to vote
  3. the Congress won an absolute majority in five out of eleven provinces
  4. the Muslim League won more than 80 percent of the seats reserved for Muslims
- Select the correct answer using the code given below.
- |                 |                 |
|-----------------|-----------------|
| A. 1, 3 and 4   | B. 1 and 4 only |
| C. 1 and 3 only | D. 2, 3 and 4   |
84. Which of the following statements about the social base of the Arya Samaj in British India is/are correct?
1. It was located mainly in Punjab and western Uttar Pradesh.
  2. It mainly comprised the trading castes.
  3. It was much more limited than that of the Brahmo Samaj.
- Select the correct answer using the code given below.
- |                 |                 |
|-----------------|-----------------|
| A. 1 and 2 only | B. 2 and 3 only |
| C. 1 only       | D. 1, 2 and 3   |
85. Who among the following is the author of the book, A comparison between Woman and Men?
- |                     |
|---------------------|
| A. Pandita Ramabai  |
| B. Sarojini Naidu   |
| C. Tarabai Shinde   |
| D. Rameshwari Nehru |
86. The fact that the planets move around the Sun, not in circles but in ellipses, was first demonstrated by
- |                    |                  |
|--------------------|------------------|
| A. Galileo         | B. Martin Luther |
| C. Johannes Kepler | D. Copernicus    |
87. During the mid 19<sup>th</sup> century Industrial Revolution, the average life span of workers in Manchester was
- |             |             |
|-------------|-------------|
| A. 17 years | B. 30 years |
| C. 55 years | D. 62 years |
88. George Washington was made the commander in chief of the American forces
- |   |
|---|
| A. in December 1773, after the Boston tea party                                     |
| B. at the First Continental Congress in September 1774                              |
| C. at the Second Continental Congress in 1775                                       |
| D. by the Continental Congress at the Declaration of Independence on 4th July, 1776 |



89. Alexander Kerensky was
- the head of the Provisional Government in Russia before the October Revolution
  - a close confidant of Lenin, with whose help the Czar was dethroned
  - the head of the Czar's army
  - an advisor of Joseph Stalin

90. The Twelfth Five-year Plan focused on inclusive growth. Which of the following were considered as challenges for inclusiveness?

- Poverty
- Group inequality
- Regional imbalance
- Unemployment

Select the correct answer using the code given below.

- 1, 3 and 4 only
- 1, 2, 3 and 4
- 1, 2 and 4 only
- 2 and 3 only

91. Which of the following statements are correct about 'Saakshar Bharat' scheme?

- It is a centrally sponsored scheme which was launched during the Eleventh Five-year Plan.
- The scheme applies to women in particular and disadvantaged groups in general.
- The scheme applies to persons above the age of 10 years.
- The scheme is anchored with Panchayati raj Institutions and Local self-Government.

Select the correct answer using the code given below.

- 1, 2 and 3
- 2, 3 and 4
- 1, 2 and 4
- 1, 3 and 4

92. BRICS Summit, 2016 was held in

- Brazil
- China
- India
- South Africa

93. Which country signed a Memorandum of Understanding with India for promoting the production of Pigeon peas/Tur and other pulses in July 2016?

- South Africa
- Syria
- Egypt
- Mozambique

94. Which of the following statements relating to the powers of the President of India is/are correct?

- The executive power of the Union shall be vested in the President.
- The executive power shall be exercised by the President only through officers subordinate to him.
- The supreme command of the defence forces of the Union shall be vested in the President.

Select the correct answer using the code given below.

- 1, 2 and 3
- 1 and 2 only
- 1 and 3 only
- 3 only

95. Which of the following statements regarding Article 21 of the Constitution of India is/are correct?

- Article 21 is violated when the under-trial prisoners are detained under judicial custody for an indefinite period.
- Right to life is one of the basic human rights and not even the State has the authority to violate that right.
- Under Article 21, the right of a woman to make reproductive choices is not a dimension of personal liberty.

Select the correct answer using the code given below.

- 1, 2 and 3
- 1 and 2 only
- 1 and 3 only
- 2 only

96. Which of the following statements is/are correct regarding Right to Education in India?

- Free and compulsory education should be provided to all children of the age of six to fourteen years.
- The imperative of the provision of the Right to Education Act, 2009 is that schools must have qualified teachers and basic infrastructure.
- There should be quality education without any discrimination on the ground of economic, social and cultural background.

Select the correct answer using the code given below.

- 1, 2 and 3
- 1 and 2 only
- 1 and 3 only
- 3 only

97. Which one of the following statements regarding freedom to manage religious affairs as per the Constitution of India is **not** correct?

- A. Every religious denomination shall have the right to manage its own affairs in matters of religion except some minor communities.
  - B. Every religion or any section thereof shall have the right to own and acquire movable and Immovable property.
  - C. Every religious community has the right to establish and maintain institutions for religious and charitable purpose.
  - D. Every community has the right to manage its own affairs in matters of religion.
98. Which one of the following statements relating to protection against arrest and detention of individuals under Article 22 is **not** correct?
- A. No person who is arrested shall be detained in custody without being informed of the grounds for such arrest.
  - B. No person shall be denied the right to consult, and be defended by, a legal practitioner of his/her choice.
  - C. Every person who is arrested and detained in custody shall be produced before the nearest magistrate within a period of one week of such arrest.
  - D. The right to protection against is not available to a person in jail pursuant to a judicial order.
99. Which one of the following intellectual property rights is protected without making any registration?
- A. Copyright                      B. Patent
  - C. Industrial design   D. Trademark
100. Which one of the following indices is now used by the Reserve Bank of India to measure the rate of inflation in India?
- A. NASDAQ Index
  - B. BSE Index
  - C. Consumer Price Index
  - D. Wholesale Price Index
101. The Most Favoured Nation (MFN) Clause under WTO regime is based on the principle of
- A. non-discrimination between nations
  - B. discrimination between nations
  - C. differential treatment between locals and foreigners
  - D. uniform tariff across commodities
102. Goods and Services Tax likely to be levied in India is not a
- A. gross value tax
  - B. value-added tax
  - C. consumption tax
  - D. destination-based tax
103. Amartya Sen was awarded the Nobel Prize for his contribution to
- A. Monetary Economics
  - B. Welfare Economics
  - C. Environmental Economics
  - D. Development Economics
104. The rank of Captain of the Indian Navy is equivalent to which one of the following?
- A. Captain of the Indian Army
  - B. Group Captain in the Indian Air Force
  - C. Lieutenant Colonel of the Indian Army
  - D. Wing Commander of the Indian Air Force
105. Which one of the following statements is correct in relation to the Indian Air Force?
- A. It has bases in many friendly countries.
  - B. It does not carry out joint exercises with any country.
  - C. It has a separate Maintenance Command.
  - D. No officer has ever been elevated to the rank of Marshal of the Indian Air Force.
106. The Indian Navy in October 2016 commissioned the highly maneuverable fast attack craft INS Tihayu. INS Tihayu would be based in
- A. Kochi                      B. Panaji
  - C. Visakhapatnam   D. Mumbai
107. Which one of the following sectors is not affected by the changes made in the Foreign Direct Investment Policy in June 2016?
- A. Multi-brand retailing
  - B. Defence
  - C. Private security agencies
  - D. Manufacturing of small arms and ammunitions covered under the Arms Act, 1959
108. BREXIT refers to the Great Britain leaving which one of the following?
- A. International Monetary Fund
  - B. Commonwealth
  - C. World Trade Organization
  - D. European Union

109. In which one of the following cities are the Summer Olympics, 2020 going to be held?
- A. London                      B. Paris  
C. Tokyo                        D. Moscow
110. Who among the following is the President of Republic of the Union of Myanmar?
- A. Aung San Suu Kyi  
B. Htin Kyaw  
C. Myint Swe  
D. Henry Van Thio

**Direction :**

The following **two(2)** items consist of two statements, statement I and statement II. Examine these two statements carefully and select the correct answer using the code given below.

**Code :**

- A. Both the statements are individually true and Statement II is the correct explanation of Statement I  
B. Both the statements are individually true but Statement II is not the correct explanation of Statement I  
C. Statement I is true but Statement II is false  
D. Statement I is false but Statement II is true
111. Statement I :  
The passing of the Coercive Acts made reconciliation between Britain and her American colonies virtually impossible.  
Statement II :  
The British Parliament, having issued the Stamp Act in 1765, repealed it later.
112. Statement I :  
The Poona Pact provided for 151 reserved seats for the scheduled castes to be elected by a joint, not separate, electorate.  
Statement II :  
Dr. B. R. Ambedkar withdrew from active politics for almost a decade when the Communal Award was revoked.
113. Which one of the following statements about the All India Depressed Classes Association is **not** correct?
- A. The All India Depressed Classes Association was formed in Nagpur with M. C. Rajah as its first elected President.

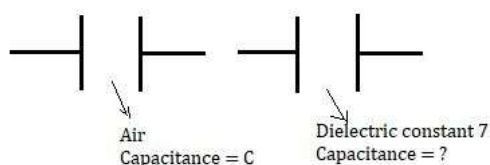
- B. The All India Depressed Classes Association was not attended by Dr. B. R. Ambedkar in 1926  
C. Ambedkar resigned from the All India Depressed Classes Association and formed his own All India Depressed Classes Congress in 1930.  
D. The All India Depressed Classes association favoured Ambedkar's demand for separate electorate for the depressed classes.
114. Which one of the following statements about the justice Party is not correct?
- A. It clamoured for the same kind of separate communal representation for the Non-Brahmins as had been granted to the Muslims by the Morley-Minto Reforms.  
B. It was patronized mainly by richer landowning and urban middle class Non- Brahmins.  
C. It succeeded in getting the provision for 28 reserved seats for the Non-Brahmins in the Montagu-Chelmsford Reforms.  
D. It supported the call given by the Congress to boycott elections in 1920.
115. The Ryotwari experiment in land revenue was started by
- A. Henry Dundas  
B. Alexander Reed  
C. David Ricardo  
D. Mountstuart Elphinstone
116. Which of the following statements is/are correct regarding the Preamble of the Indian Constitution?
1. The Preamble by itself is not enforceable in a Court of Law.
  2. The preamble states the objectives which the Constitution seeks to establish and promote.
  3. The Preamble indicates the source from which the Constitution derives its authority.
- Select the correct answer using the code given below.
- A. 1, 2 and 3                      B. 1 and 2 only  
C. 1 and 3 only                      D. 2 only
117. Which one of the following statements relating to cultural and educational rights in India is not correct?

- A. Every section of the citizens has the right to conserve its language, script or culture.
  - B. No citizen shall be denied admission into any educational institution maintained by the State or receiving aid out of State funds on grounds of religion, race or language
  - C. The state shall, in granting aid to educational institutions, discriminate against any educational institution on the ground that it is under the management of a majority community.
  - D. all minorities whether based on religion or language, shall have the right to establish and administer educational institutions of their choice.
118. Which one of the following statements relating to the Directive Principles of State Policy is not correct?
- A. The provisions contained in part IV of the Constitution of India shall not be enforceable by any Court.
  - B. The Directive Principle of State policy are fundamental in the governance of the country.
  - C. It shall be the duty of the State to apply the Directive Principle in making laws.
  - D. The Directive Principle are directed in making India an advanced capitalist country of the world.
119. Which one of the following statements is not correct regarding the Office of the Vice President of India?
- A. The vice President is elected by an electoral college consisting of the elected members of both the Houses of the Parliament.
  - B. The vice President is elected in accordance with the system of proportional representation by means of single transferable vote.
  - C. The Vice President shall not be a member of either House of the Parliament or of a House of the Legislature of any State.
  - D. The Vice President of India shall be ex officio Chairman of the Council of States and shall not hold any office of profit.
120. Which one of the following constitutional authorities inquires and decides in case of doubts and disputes arising out of election of the President and Vice President Of India?
- A. The Supreme Court of India
  - B. The Election Commission of India
  - C. The Parliamentary Committee
  - D. The High Court of Delhi

# Solutions

1. Answer. (a)  
The two DNA strands are called polynucleotides because they are composed of simpler monomer units called nucleotides. Each nucleotide is composed of one of four nitrogen-containing nucleobases (cytosine, guanine, adenine or thymine), a sugar called deoxyribose, and a phosphate group.
2. Answer. (b)  
The process of copying genetic information from one strand of the DNA into RNA is termed as transcription. In transcription, only a segment of DNA and only one of the strands is copied into RNA. This necessitates defining the boundaries that would demarcate the region and the strand of DNA that would be transcribed.
3. Answer. (b)  
AIDS is caused by the Human Immuno deficiency Virus (HIV), a member of a group of viruses called retrovirus, which have an envelope enclosing the RNA genome. Transmission of HIV-infection generally occurs by (a) sexual contact with infected person, (b) by transfusion of contaminated blood and blood products, (c) by sharing infected needles as in the case of intravenous drug abusers and (d) from infected mother to her child through placenta.
4. Answer. (a)  
In cancer cells, there is breakdown of these regulatory mechanisms. Normal cells show a property called contact inhibition by virtue of which contact with other cells inhibits their uncontrolled growth. Cancer cells appears to have lost this property. As a result of this, cancerous cells just continue to divide giving rise to masses of cells called tumors. Tumors are of two types: benign and malignant.
5. Answer. (b)  
Generally viruses that infect plants have single stranded RNA. Viruses infecting animals have double stranded RNA or DNA. Viruses which infect bacteria have double stranded DNA.
6. Answer. (b)  
Syngamy, also known as fertilisation occurs between the male and female gametes. Syngamy may occur either externally, outside the body of organisms or internally, inside the body. Syngamy leads to formation of a specialised cell called diploid zygote.
7. Answer. (a)  
Deficiency of Vitamin C causes Scurvy, Swelling of gums etc. Vitamin K causes Non-clotting of blood, Vitamin D causes Rickets in children and Osteomalasia in adults, Vitamin B<sub>1</sub> causes Beriberi, B<sub>2</sub> causes Cracking of skin, reddish eye, cracking of tongue, B<sub>3</sub> causes Whitening of hair, mentally retardness, B<sub>5</sub> causes Pellagra or 4D syndrome, B<sub>6</sub> causes Anemia, skin disease, B<sub>7</sub> causes Paralysis, hair falling, B<sub>11</sub> causes Dysentery and B<sub>12</sub> causes Jaundice and Pernicious Anemia.
8. Answer. (c)  
p type of semiconductor is obtained when Silicon is doped with a trivalent impurity like Aluminium. Aluminium is a p-type dopant, which means that when a semiconductor i.e. silicon is doped with aluminium, it creates a hole (positively charged carrier) by accepting an electron from the silicon atom. Electrical conductivity of semiconductors increases and resistivity remains the same.
9. Answer. (b)  
 $P = I^2 R$  where,  $I$  = Current,  $P$  = Electric Power,  $R$  = Resistance. Here all the resistance is put in parallel combination and in parallel combination the value of Resistance decreases and dissipation of power increase, hence 3 times more power will be dissipated ( $3P$ ).

10. Answer. (c)  
Semiconductors are the basic materials used in the present solid state electronic devices like diode, transistor, ICs, etc. 2. Lattice structure and the atomic structure of constituent elements decide whether a particular material will be insulator, metal or semiconductor. Semiconductors are elemental (Si, Ge) as well as compound (GaAs, CdS, etc.). Silicon, Germanium, Gallium Arsenide are semiconductors, but Quartz is an insulator.
11. Answer. (c)



- As the capacitance is charged by the factor equal to the value of dielectric constant,  
Hence,  $C' = kC = 7C$
12. Answer. (c)  
For balancing the weight of ring, you need to put your finger or any solid object inside the ring so that you will be able to sustain their own weight because they are not able to sustain their own weight. so its centre of mass lies outside the body.
13. Answer. (c)  
In Burning of coal, burning of wood and Heating of Potassium Chlorate there will be some sort of chemical change, but Heating of a Platinum crucible is a physical change.
14. Answer. (d)  
Water is neutral and has a pH value of 7 and because here it is multiple distilled water, it would be very near to seven.
15. Answer. (d)  
Atomic number is the fundamental properties of an element. Every atom is identified by its unique atomic number. Atomic number is equal to the number of protons present in an atom of the element.
16. Answer. (c)

Isotopes- These are atoms of the elements having the same atomic number but different mass number., Isobars-These are atoms of same mass number but different atomic number., Isotones- These are atoms of different elements having same number of neutrons.

17. Answer. (d)  
The first model of atom was proposed by J. J. Thomson in 1898. According to this model, the positive charge of the atom is uniformly distributed throughout the volume of the atom and the negatively charged electrons are embedded in it like seeds in a watermelon. This model was picturesquely called plum pudding model of the atom.
18. Answer. (c)  
Number of atoms in 46 grams of sodium-23 will be  $2N$ .
19. Answer. (a)  
As per Census, a person aged seven and above who can both read and write with understanding in any language, is treated as literate. A person, who can only read but cannot write, is illiterate. The data provides details of State Code, District Code, Area Name, Age-group, literates, illiterates, Literate without education level, below primary, primary, middle, Matric/Secondary, Higher secondary/Intermediate Pre-University/Senior secondary, Non-technical diploma or certificate not equal to degree, Technical diploma or certificate not equal to degree, Graduate & above and Unclassified education level.
20. Answer. (c)  
Loktak Lake: the largest freshwater (sweet) lake in North - East India, also called the only Floating lake in the world due to the floating phumdis (heterogeneous mass of vegetation, soil, and organic matters at various stages of decomposition) on it, is located near Moirang in Manipur state, India. The etymology of Loktak is Lok = "stream" and tak = "the end"

21. Answer. (a)  
Cropping intensity refers to raising of a number of crops from the same field during one agriculture year. It can be expressed as.  $\text{Cropping intensity} = (\text{Gross cropped area} / \text{Net sown area}) \times 100$ .
22. Answer. (c)  
From south to northeast. Penneru- Andhra Pradesh, Krishna- Karnataka, Godavari- Maharashtra, Mahanadi- Odisha, Subarnarekha- Jharkhand.
23. Answer. (d)  
Stratovolcano, also known as a composite volcano, is a conical volcano built up by many layers (strata) of hardened lava, tephra, pumice and ash. Because it is stratified, therefore it will definitely form a volcano cone.
24. Answer. (b)  
Kwashiorkor is produced by protein deficiency unaccompanied by calorie deficiency. It results from the replacement of mother's milk by a high calorie-low protein diet in a child more than one year in age. Like marasmus, kwashiorkor shows wasting of muscles, thinning of limbs, failure of growth and brain development.
25. Answer. (a)  
The mammalian heart is called myogenic (myo = muscle, genie = originating from). It means the heart beat or the activities of the heart are auto regulated which originates from a muscle called nodal tissue. In the human heart, heart beat originates and contraction is initiated by a special modified heart muscle known as sinoatrial node. It is located in the right atrium; while the QRS waves are the depolarisation of the ventricles, which initiates the ventricular contraction. The T-wave represents the repolarisation, that is, the return of the ventricles from excited to normal state. Hepatic portal system is the unique vascular connection that exists between the digestive tract and liver. This vein carries blood from intestine to the liver.
26. Answer. (b)  
The plant growth regulators are small, simple molecules of diverse chemical composition. They can be in form of indole compounds, adenine derivatives, carotenoids derivatives, terpenes or gases like ethylene etc. The plant growth regulators are bifurcated into two groups according to their functions in a living plant body. First group of plant growth regulators are found in growth activities, for instance, cell division, flowering, fruiting and seed formation. The second group of Plant growth regulators are involved in plant responses to wounds and stresses of biotic and abiotic origin.
27. Answer. (c)  
Visual image of human eye is 390-700 nanometer. So, approximate value is 500 nanometer only.
28. Answer. (d)  
1<sup>st</sup> copper wire:  $R = \rho l/A = \rho l/ \pi r^2$   
2<sup>nd</sup> copper wire:  $R' = \rho l'/A' = \rho l/(4 \pi r^2) = R/4$   
If joined in parallel,  
 $(1/R_{eq}) = (1/R) + (1/R')$   
 $= 1/R + 4/R$   
 $1/R_{eq} = 5/R$   
 $R_{eq} = R/5$
29. Answer. (a)  
 $C_1$  = capacitance of gold plates  
 $C_2$  = capacitance of aluminium plates  
 $r_g$  = Gold's resistivity  
 $r_a$  = Aluminium's resistivity  
As the capacitance depends on the shape, size & geometrical placing of the conductors & the medium between them, hence, the value of capacitance will be independent of resistivity.  
Therefore,  $C_1 = C_2$
30. Answer. (c)  
$$E = \frac{hc}{\lambda} = h\nu$$
  
The speed of all the electromagnetic radiation are always same and equal to the numerical value  $3 \times 10^8$  m/sec.

31. Answer. (c)  
A rainbow is a natural spectrum appearing in the sky after a rain shower. It is caused by dispersion of sunlight by tiny water droplets, present in the atmosphere. A rainbow is always formed in a direction opposite to that of the Sun. The water droplets act like small prisms. They refract and disperse the incident sunlight, then reflect it internally, and finally refract it again when it comes out of the raindrops.
32. Answer. (d)  
There are three Tiger reserves in Northeast India: Dampa Tiger Reserve, Pakul Tiger Reserve, Namdapha Tiger Reserve.
33. Answer. (d)  
Biosphere Reserves are established for the conservation of biodiversity for economic and social development and maintenance of associated cultural values. There are 18 Biosphere Reserves in the country. Agasthyamala Biosphere reserve is located at the southern-most part of the Western Ghats and spread over two states, Kerala and Tamil Nadu. It was established in 2001; Nokrek Biosphere Reserve is a national park situated in West Garo Hills district of Meghalaya. UNESCO made it the Biosphere Reserves in May 2009; The Great Nicobar Biosphere Reserve has such ecosystems that include tropical wet evergreen forests, mountain ranges and coastal plains. The region is well known for its rich biodiversity. It was made a biosphere reserve in January 1989; while The Great Himalayan is a National Park situated in Kullu region of Himachal Pradesh. The park was established in 1984.
34. Answer. (d)  
At present US has the largest railway network in the world. Second is China and third is India.
35. Answer. (c)  
Mediterranean agriculture is practised on the either side of the Mediterranean Sea in Europe and in north Africa from Tunisia to Atlantic coast, southern California, central Chile, south western parts of South Africa and south and south western parts of Australia. This region is an important supplier of citrus fruits. Viticulture or grape cultivation is a speciality of the Mediterranean region.
36. Answer. (c)  
On December 21, the earth is in an equivalent position on the opposite points in its orbit, So the South pole is tipped towards the sun and North pole away from it resulting in 24 hours of darkness at the North pole, as the sun is overhead on the Tropic of Capricorn. This phenomenon is winter solstice; while on June 21, North pole is tipped towards the Sun but the South pole is tipped away from the sun resulting in 24 hours of darkness on the South Pole, as the sun is overhead on the Tropic of Cancer. This phenomenon is summer solstice; while Aphelion is the position of the earth in its orbit when it is at its distant point from the sun.
37. Answer. (d)  
Tropical rainforests are such rainforests that occur in the region of tropical rainforest climate where there is no dry season and it remain hot and wet. Tropical evergreen rainforest biome provides optimum environmental conditions for the growth of plants and animals because it experience heavy rainfall and high temperature, and extend between 10° N and 10° S latitudes. The biome Tropical rain forests are of mega thermal type because the organisms are adapted to high temperature and wet and humid condition. The maximum development of this biome has taken place in South America, lowland regions in Africa, and the islands off of Southeast Asia, Central America and parts of Australia.
38. Answer. (d)  
All are correct except D, as Tsunami is a Japanese word.



39. Answer. (a)  
All are correct except 4 as a cloudburst can occur anytime and at any place which is affected by convective weather systems.
40. Answer. (b)  
All are correct except B as Aridisols are just like sand like soil as in Arid region e.g. In Rajasthan, so there will be very less amount of organic matter.
41. Answer. (c)  
There are five known states of matter: solids, liquids, gases, plasma and Bose-Einstein condensates. The main difference in the structures of each state is in the densities of the particles.
42. Answer. (d)  
Chemical properties of an element depend on the number and the configuration of their (valence) electrons.
43. Answer. (d)  
Cathode ray is a beam of electrons emitted from the cathode of a vacuum tube. It is invisible. Cathode ray tubes are also found in televisions and computer monitors. Since cathode ray is a beam of electrons and all electrons are identical, charge to mass ratio is same for all the gases and does not depend on the nature of gas.
44. Answer. (b)  
Normality is a way of expressing concentration of a solution and can be calculated by the formula-  
Normality (N) = No. of gram equivalent of solute/ volume of solution (in litre)  
Gram equivalent weight of  $H_2SO_4$  = Molecular weight/ No. of Hydrogen atom =  $98/2 = 49$  gm  
No. of gram equivalent in 49 gm of  $H_2SO_4 = 1$   
So, Normality in 1 litre of solution =  $1/1 = 1$  N
45. Answer. (b)  
All are correct except D, as Jet streams are phenomena of winter. It is believed that jet stream exercises an important influence on the winter weather in India.
46. Answer. (d)  
All are correct except D. The Kuroshio is a north-flowing ocean current on the west side of the North Pacific Ocean. It is similar to the Gulf Stream in the North Atlantic and is part of the North Pacific ocean gyre. Like the Gulf stream, it is a strong western boundary current. Gulf stream is not present in west Pacific coast.
47. Answer. (d)  
All are true except D, as most of the Sugar industries are located along the west coast, not east coast.
48. Answer. (d)  
Burundi- Bur Franc, Libya- Libyan Dinar, Sudan- Sudanese Pound, South Africa- Rand/ZAR.
49. Answer. (b)  
Kandla is Tidal port, Kolkata Haldia is a riverine port, Tuticorin is a river port, Marmagao is in Goa, is situated on estuary on eastern coast of India. Delta formation and estuary formation take place mostly on western coast and Goa is in western coast.
50. Answer. (d)  
All are correct except D, as *Mangifera indica* is scientific name of Mango.
51. Answer. (b)  
Goods and Services Tax (GST) will replace all central as well as state taxes by a single tax. GST will subsume various Central indirect taxes, including the Central excise duty, Countervailing duty, Service tax, etc. It also subsumes State Value Added Tax (VAT), Octroi and entry tax, Luxury tax, etc. Petroleum products like kerosene, naphtha and LPG will be under GST, while five items, including crude oil, natural gas, aviation fuel, diesel and petrol have been excluded. Alcohol for human consumption will be out of GST.
52. Answer. (c)  
In August 2016, The Government of India is seized of the reported leak of documents related to the ongoing Indian Scorpene submarine programme as reported

- in sections of the media. The documents that have been posted on the website by an Australian news agency have been examined and do not pose any security compromise as the vital parameters have been blacked out.
53. Answer. (a)  
India competed at the 2016 Summer Olympics in Rio de Janeiro, Brazil, from 5 to 21 August 2016. The Indian roster featured three Olympic medallists from London, including badminton star Saina Nehwal, freestyle wrestler and four-time Olympian Yogeshwar Dutt, and rifle shooter Gagan Narang. Medals Ranked 67th: Gold 0, Silver 1, Bronze 1, Total 2 Competitors: 117 in 15 sports
54. Answer. (b)  
In a boost to its non-proliferation credentials, India joined the Missile Technology Control Regime (MTCR) at a ceremony in South Block. India's MTCR membership would help in furtherance of international non-proliferation objectives, India would enjoy full participation in organisational activities, India had intensified efforts at gaining membership of the MTCR, the NSG, the Australia Group and Wassenaar Arrangement since getting a waiver at the NSG in 2008. Membership of these groups would help India trade more effectively in critical high-tech areas.
55. Answer. (a)  
India signed a historic deal to develop the strategic port of Chabahar in Iran and agreed on a three-nation pact to build a transport-and-trade corridor through Afghanistan that could help halve the time and cost of doing business with Central Asia and Europe. Developing the Chabahar port was seen as crucial for India because it will not only allow New Delhi to bypass Pakistan and access global markets but also counter China's expanding influence in the Indian Ocean region. But the project's land route through Afghanistan remains a security headache.
56. Answer. (c)  
All are correct except C, as First SAARC Summit was held in Kathmandu.
57. Answer. (b)  
Ilbert Bill was introduced in 1883 by Viceroy Ripon. It proposed to grant limited criminal jurisdiction to native officials over European British subjects living in the districts under their charge. It also allowed Indian judges and magistrates the jurisdiction to try British offenders in criminal cases. After opposition from Europeans in Britain as well as India, the bill was withdrawn and reintroduced after amendment saying that a jury of 50% Europeans was required if an Indian judge was to face a European.
58. Answer. (c)  
The Second Five-year plan was drafted under the leadership of P. C. Mahalanobis. It focused on heavy industries and followed socialist pattern of society as its goal. Since savings and investment were growing in this period, a bulk of these industries like electricity railways, steel, machineries and communication could be developed in the public sector. However it had its problems as well, because industry attracted more investment than agriculture, the possibility of food shortage became adverse. So, the planners found balancing industry and agriculture really difficult; while K. N. Raj drafted sections of India's first Five-Year Plan.
59. Answer. (d)  
Swaraj movement was initiated by Mahatma Gandhi which focuses on self-rule or self-governance and is intimately linked with Ahimsa (non-violence) and Satyagraha (adherence to truth), moreover it referred to Gandhi's concept Indian independence from British rule. The movement had two meanings, political and non-political. It was

- political in the sense that it opposed being ruled by foreigners, and non-political in the sense that every person has right to be ruled by himself or herself. Swaraj is a virtue which need time and patience to achieve and cannot be obtained easily and quickly
60. Answer. (c)  
All are correct.
61. Answer. (b)  
All are correct except 1. The Shiromani Gurdwara Parbandhak Committee (or SGPC) is an organization in India responsible for the management of gurdwaras, Sikh places of worship in three states of Punjab, Haryana, and Himachal Pradesh and union territory of Chandigarh. SGPC also administers Harmandir Sahib in Amritsar. In 1920, Sikhs held their scheduled meeting and elected a bigger committee consisting of 175 members and named it Shiromani Gurdwara Parbandhak Committee.
62. Answer. (b)  
Only 1 and 2 are correct, as Mahatma Gandhi's speech in BHU on 4 February, 1916 did not include plight of untouchables and there was no issue of the mill owners on Ahmedabad in 1916.
63. Answer. (b)  
Following are the qualifications which have to be met for contesting elections under the Haryana Panchayat raj: For general candidate men must have passed class X, class VIII for women and Scheduled cast/ST, class V for schedule cast/ST women for elections contesting in the Zila Parishad, Panchay Samiti and Post of the Sarpanch. The candidate must have the functional toilet in his/her home. There should not be any insolvency or failure to pay the arrears in any case such as, like to any cooperative society, any bank or electricity bill. The candidate must be clean in character likewise there should not be any charge sheet filed which may lead to imprisonment of upto 10 years against the candidate in any court in India. In case of Rajasthan, the candidate must not be the Leprosy Patient.
64. Answer. (a)  
Sarkaria commission- 1983, Punchhi commission-2007, Eleventh Financial commission 2000-2005, Second Administrative Reform commission - 2005.
65. Answer. (b)  
Only Indian who won consecutive two Gold medals was Devendra Jhajharia in Javelin throw.
66. Answer. (c)  
All are correct except 3, as Panchayats don't have constitutional autonomy to work.
67. Answer. (b)  
Besides some federal features, the Constitution of India also has some unitary features as well. All States have no equal representation in the Rajya Sabha, because in India the states are given representation in the Rajya Sabha on the basis of population. Hence, the number of representatives varies from state to state, for instance, Uttar Pradesh has 31 members whereas Tripura has only 1 member. This principle is considered as a safeguard for smaller states. States in India also have no right to territorial integrity. The Parliament can change the area, boundaries or name of any state by unilateral action, So the consent of a State is not required for altering its boundaries, Moreover, despite dual Polity, the Constitution of India adopted the system of Single citizenship. There is only Indian citizenship and no separate state citizenship.
68. Answer. (a)  
All are correct.
69. Answer. (c)  
Revenue receipts are regular source of Government of India, but Disinvestment receipts are not regular source of Income of Government and all other given are regular.

70. Answer. (b)

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is an international legal agreement between all the member nations of the World Trade Organization (WTO). It sets down minimum standards for the regulation by national governments of many forms of intellectual property (IP) as applied to nationals of other WTO member nations. TRIPS was negotiated at the end of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) in 1994 and is administered by the WTO

71. Answer. (d)

The Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation, has released the provisional estimates of national income for the financial year 2015-16 and quarterly estimates of Gross Domestic Product (GDP) for the fourth quarter (January-March) of 2015-16, both at constant (2011-12) and current prices.

72. Answer. (b)

3 is incorrect, as India is not a member of TPP.

73. Answer. (b)

Bitcoin is the world's first cryptocurrency, a form of electronic cash. It is the first decentralized digital currency: the system was designed to work without a central bank or single administrator. Bitcoins are sent from user to user on the peer-to-peer bitcoin network directly, without the need for intermediaries. These transactions are verified by network nodes through cryptography and recorded in a public distributed ledger called a block chain. Bitcoin was invented by an unknown person or group of people using the name Satoshi Nakamoto. Bitcoins are not recognised as a legal tender by Reserve Bank of India.

74. Answer. (c)

Tejas is an Indian single-seat, single-jet engine, multirole light fighter designed by the Aeronautical Development Agency (ADA) and Hindustan Aeronautics Limited (HAL) for the Indian Air Force and Indian Navy. It came from the Light Combat Aircraft (LCA) programme, which began in the 1980s to replace India's ageing MiG-21 fighters. In 2003, the LCA was officially named "Tejas".

75. Answer. (b)

He is Lionel Messi.

76. Answer. (d)

All are correct. Gravitational waves don't get distorted or altered by interactions with matter as they go through space. gravitational waves have pure information about the objects and events that created them. The Government of India has given approval for the world's third advanced Laser Interferometer Gravitational Wave Observatory (LIGO-India) to set up in India.

77. Answer. (c)

In textile industry there is women majority, so it is impossible for government to create jobs equally for men and women.

78. Answer. (a)

B, C, and D are inter-service establishment because one can go into different services through them but through Officers Training Academy, one can go only into Indian Army.

79. Answer. (a)

Peacetime Gallantry Awards recognize courage or self-sacrifice away from battlefield and include Ashok Chakra, Kirti Chakra and Shaurya Chakra which is first, second and third respectively in order of precedence ; while Param Vir Chakra and Vir Chakra are Wartime Gallantry Awards and recognizes self-sacrifice at battlefield. Yudh Seva Medal is military decorations for service during wartime.

80. Answer. (b)  
Headquarter are located in Kochi.
81. Answer. (a)  
Rowlatt act in 1919, Salt March in 1930, Chauri Chaura in 1922, Second Round Table Conference in 1931.
82. Answer. (d)  
In Salt march Peasants, Tribal and women participated in large numbers. A business federation published a pamphlet on the salt issue. The government tried to crush the movement through brutal action against peaceful satyagrahis. Thousands were sent to jail. Salt march was widely covered by American and European media.
83. Answer. (b)  
Provincial elections in British India (1937) under the Government of India Act 1935 were held in eleven provinces, including Madras, Bihar, Orissa. Indian National Congress won in eight of the provinces except three i.e. Bengal, Punjab, and Sindh and won an absolute majority in five out of eleven provinces. The All-India Muslim League won 106 seats about 80% of total Muslim seats. Untouchables were allowed to vote. Around 30.1 million people, including 4.25 million women, had the right to vote which was 12% of the total population.
84. Answer. (c)  
Arya Samaj was an Indian religious movement based on Vedas and was founded by Dayananda Saraswati on April 7, 1875 and was based in Punjab and western Uttar Pradesh states like, Aligarh, Varanasi, etc. It was against caste system and supported equality of men and women, moreover it mainly comprised the trading castes; while Brahmo Samaj, founded by Raja Rammohan Roy, was limited because it was popular only among elite and educated society.
85. Answer. (c)  
Tarabai Shinde is the author.
86. Answer. (c)  
Kepler's laws of planetary motion state that (a) All planets move in elliptical orbits with the Sun at one of the focal points (b) The radius vector drawn from the sun to a planet sweeps out equal areas in equal time intervals. This follows from the fact that the force of gravitation on the planet is central and hence angular momentum is conserved. (c) The square of the orbital period of a planet is proportional to the cube of the semi major axis of the elliptical orbit of the planet.
87. Answer. (a)  
The Industrial Revolution was the transition to new manufacturing processes in the period from about 1760 to sometime between 1820 and 1840. Average life span of worker was 17 years.
88. Answer. (c)  
At second continental congress in 1775, George Washington was made commander in chief of American forces.
89. Answer. (a)  
Alexander Fyodorovich Kerensky was a Russian lawyer and revolutionary who was a key political figure in the Russian Revolution of 1917. After the February Revolution of 1917 he joined the newly formed Russian Provisional Government.
90. Answer. (a)  
All are correct except 2, as group inequality was not a challenge.
91. Answer. (c)  
Saakshar Bharat scheme was launched on 8th September 2009 during the 11th Five Year Plan, with an aim to raise literacy rate to 80%, to bridge gender gap to 10% .The scheme is anchored with Panchayati Raj Institutions and Local Self-government to decrease regional and social disparities and to focus on women, SCs, STs, minorities and other disadvantaged groups. It focused mainly on adult education, with emphasis on non-literates in the age group of 15-36 years.

92. Answer. (c)  
BRICS summit 2016 was held in Goa, India.
93. Answer. (d)  
In 2016, India and Mozambique entered a new deal by signing three Memoranda of Understanding (MoU) in fields related to drug trafficking, pulse trading and sports. These MoUs will mutually benefit the current issues faced by both countries. Mozambique will be focusing on the production of tur dal (Pigeon Peas) to facilitate the long-term trade goals with India
94. Answer. (d)  
The President of India is the head of the executive of the Union Government and all executive powers are exercised by him or her either directly or through the subordinate officers. President can appoint the important officers in Central Government including the Attorney-General for India. The supreme commander of all the defence services is the President and in this capacity, he appoints the chief of the Army, the Naval and the Air Force.
95. Answer. (b)  
All are correct except 3, as women always have the right to make reproductive choices.
96. Answer. (a)  
All are correct.
97. Answer. (a)  
All are correct except A, as every religious denomination including minor communities shall have right to manage its own affairs.
98. Answer. (c)  
Every person who is arrested and detained in custody shall be produced before the nearest magistrate within a period of twenty-four hours of such arrest excluding the time necessary for the journey from the place of arrest to the court of the magistrate and no such person shall be detained in custody beyond the said period without the authority of a magistrate.
99. Answer. (c)  
Registration for Industrial design is not made. For instance, if Coca Cola is making bottle for soft drink then Pepsi can also make same designed bottles for its own soft drinks.
100. Answer. (c)  
The Wholesale Price Index (WPI) was main index for measurement of inflation in India till April 2014 when RBI adopted new Consumer Price Index (CPI) as the key measure of inflation.
101. Answer. (a)  
In Most-favoured-nation countries cannot normally discriminate between their trading partners.
102. Answer. (a)  
GST is a destination-based tax, it means end users consuming any goods or services is liable to pay the Goods and Services Tax. The tax is collected by the State in which the goods or services are consumed and not by the state in which goods are manufactured and If there are exports, the seller of the goods or services is exempted from paying the tax. GST is a consumption-based tax, it means the state where the goods were consumed will receive GST and where goods were sold should not get any taxes. GST is a value added tax as it is based on the increase in value of a product or service at each stage of production or distribution. GST is not gross value tax.
103. Answer. (b)  
Amartya Sen, Indian economist who was awarded the 1998 Nobel Prize in Economic Sciences for his contributions to welfare economics and social choice theory and for his interest in the problems of society's poorest members.
104. Answer. (b)  
Rank of captain of Indian Navy is equivalent to Group captain of Indian Air Force.
105. Answer. (c)  
Maintenance Command is a command of the Indian Air Force. It was raised as Maintenance Group at Chakeri in Kanpur in 1950. In 1955, it was designated as Maintenance Command.

106. Answer. (c)

The Indian Navy commissioned the highly manoeuvrable fast attack craft INS Tihayu at the Eastern Naval Command on 19 October 2016. The ship was commissioned at Visakhapatnam under the Naval Officer-in-Charge (Andhra Pradesh) and would be deployed for coastal patrol and surveillance operations along the Eastern Coast.

107. Answer. (d)

Changes made in FDI policy in June 2016 will not affect manufacturing of small arms and ammunition.

108. Answer. (d)

Brexit is the withdrawal of the United Kingdom from the European Union. In a referendum on 23 June 2016, 51.9% of the participating UK electorate voted to leave the EU, out of a turnout of 72.2%.

109. Answer. (c)

The 2020 Summer Olympics will be held in the Japanese capital city of Tokyo. Tokyo previously hosted the Games in 1964, and in 2020 will become the fifth city (and the first Asian city) to host the Summer Games more than once.

110. Answer. (b)

Htin Kyaw is the president of Republic of Union of Myanmar.

111. Answer. (b)

The Coercive Acts included a series of laws passed by the British Parliament in 1774, including Boston Port Act, the Massachusetts Government Act, the Administration of Justice Act, and the Quartering Act of 1774, which were meant to punish American colonies for throwing a large tea shipment into Boston Harbour, so, the passing of the Coercive Acts made reconciliation between Britain and her American colonies virtually impossible. The Stamp Act of 1765 was passed by Parliament of Great Britain to impose a direct tax on the colonies of British America. It was later repealed on March 18, 1766 after protest.

112. Answer. (c)

The Poona Pact was an agreement between Dr. Babasaheb Ambedkar and Mahatma Gandhi which was signed on 24 September 1932 at Yerwada Central Jail in Pune, India, which asserted that there will be a single Hindu electorate, with scheduled castes having seats reserved within it, So the representation of these classes was based on the standards of joint electorates and reserved seats. The Communal Award was made by the British Prime Minister Ramsay MacDonald on 16 August 1932 which allowed separate electorates in India, and it was supported by Ambedkar.

113. Answer. (c)

Dr. B. R. Ambedkar never resigned from All India Depressed class association.

114. Answer. (d)

The Justice Party was a political party in the Madras Presidency of British India. It was founded by T. M. Nair and P. Theagaraya Chetty in 1916. Communal division between Brahmins and non-Brahmins began in the presidency during the late-19th and early-20th century, mainly due to caste prejudices and disproportionate Brahminical representation in government jobs. The Justice Party's foundation marked the culmination of several efforts to establish an organisation to represent the non-Brahmins in Madras. Founders of Justice Party thought that Congress was mainly Brahmin party, so it started opposing Congress

115. Answer. (b)

The Ryotwari system was introduced by Sir Thomas Munro and Captain Alexander Read in 1820. This system was in operation for nearly 30 years and had many features of revenue system of the Mughals, Under the Ryotwari System every registered holder of land is recognised as its proprietor and pays direct to Government.

116. Answer. (a)

All are correct. Preamble is non-justiciable in nature i.e. its provisions are not enforceable in court of law. Preamble is neither a source of power to legislature nor a prohibition upon the powers of legislature.

117. Answer. (c)

The Indian constitution guarantees Cultural and Educational Rights under articles 29 and 30. Under article 29, this article seeks to protect the interests of the minority communities. This article confers the freedom to all citizens, residing in different parts of the land, to conserve their distinct languages, scripts or cultures state shall not impose upon it any culture other than the community's own culture. This article further assures that no citizen shall be denied admission into any state-run or state-aided educational institution on grounds only of religion, race, caste, language or any of them. And Under article 30, It provides that all minority communities—religion or linguistic, have the right to establish and administer educational institutions of their choice. In granting aid to educational institutions, the state shall not discriminate on the grounds of religion or language.

118. Answer. (d)

The Directive Principles of State Policy are enumerated in Part IV of the Constitution from Articles 36 to 51. The Directive Principles are non-justiciable in nature, that is, they are not legally enforceable by the courts for their violation. So, the Governments cannot be compelled to implement them. Although the Constitution in Article 37 itself says that these principles are fundamental in the governance of the country and it shall be the duty of the State to apply these principles in making laws. These principles reflect the ideology of socialism, Gandhian and liberalism.

119. Answer. (a)

The Vice-President is elected by an electoral college consisting of both elected and nominated members of both Houses of Parliament, in accordance with the system of proportional representation by means of the single transferable vote and the voting in such election is by secret ballot. The Vice-President is not a member of either House of Parliament or of a House of a Legislature of any state.

120. Answer. (a)

Supreme Court inquires and decides in case of doubts and disputes arising out of elections of President and Vice president.

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