

1. Gandhiji's Champaran Movement was for _____?

- A. The security of rights of Harijans
- B. Civil Disobedience Movement
- C. Maintaining the unity of Hindu Society
- D. Solving the problem of Indigo Workers

Ans. D

Sol. The **Champaran peasant movement** was launched in **1917-18**. Its objective was to create awakening among the peasants against the **European planters**. These planters resorted to **illegal and inhuman methods** of indigo cultivation at a cost which by **no canons** of justice could be called an **adequate remuneration** for the labor done by the **peasants**.

2. Sea breeze occurs at/in _____ and Land Breeze at/in_____.

- A. Midnight/ Midnight
- B. Day/Night
- C. Night/ Day
- D. Noon/Midnight

Ans. B

Sol.

- Sea breezes occur during hot, summer **days** because of the unequal heating rates of land and water and Land breezes occur during **night**.
- Both are induced by **differences that occur between the heating or cooling of the water surface and the adjacent land surface**.
- The land breeze is typically shallower than the sea breeze since the cooling of the atmosphere over land is confined to a shallower layer at night than the heating of the air during the day.

3. Which of the following is called the master gland?

- A. Thyroid gland
- B. Adrenal gland
- C. Endocrine gland
- D. Pituitary gland

Ans. D

Sol. The pituitary gland is called the master gland as it produces hormones that control other glands. The pituitary gland in the brain produces hormones that help the body and organs function.

4. Bile juice that is stored in a sac called

- A. Stomach
- B. Mouth
- C. Gall bladder
- D. Pancreas

Ans. C

Sol. Bile juice that is stored in a sac called the gall bladder. The bile plays an important role in the digestion of fats.

5. Who gave Vallabh Bhai Patel the title of Sardar?

- A. C. Rajagoplachari
- B. M.K. Gandhi
- C. J.L. Nehru
- D. None of these

Ans. B

Sol. Sardar Vallabh bhai Patel was given the title of 'Sardar' during the Bardoli satyagraha (1928) by Mahatma Gandhi.

6. Under which one of the following Articles, the procedure for removal of the President of India through the

process of impeachment has been laid down?

A. Article 53 B. Article 61

C. Article 74 D. Article 13

Ans. B

Sol. Under Article 61, the President can be removed from his post by impeachment process. Process of impeachment against the President can be operated by any House of Parliament, in violation of its constitutional provisions.

7. Who can initiate impeachment proceedings against the President of India?

8. The longest river of peninsular India is _____

A. Narmada B. Godavari

C. Mahanadi D. Cauvery

Ans. B

Sol. Godavari is known as the longest river in the peninsular India. It is also known as Dakshin Ganga. It originates in the Brahmagiri Mountain in Triambakeshwar, Maharashtra and ends in the west Godavari district of Andhra Pradesh.

9. Which article of Indian Constitution stipulates about the Vacancy in the President's Office ?

A. Article 65 B. Article 62

C. Article 61 D. Article 74

Ans. B

Sol. **Article 62** of the Indian Constitution stipulates about the Vacancy in the President's office can occur in any of the following ways

- On the expiry of his tenure of 5 years. Or By his resignation.
- On his removal by the process of impeachment.
- By his death.

A. Prime Minister

B. Either House of Parliament

C. Vice-President

D. Chief Justice of India

Ans. B

Sol. Either House of Parliament can initiate impeachment proceedings. Article 61 tells about the procedure for impeachment of President of India. sarkaribook.in

- An election to fill the vacancy must be held before the expiry of the term.

- In the office fall vacant by resignation, removal, death or otherwise then election to fill the vacancy should be completed **within 6 month** from the date of the occurrence of such a vacancy.

- The newly elected President remains in office for a full term of **five years from the date he assumed charge of his office.**

10. Bubbles of air rise up through liquids due to:

A. Surface tension and adherence

B. viscosity and buoyancy.

C. air current over the liquid and buoyancy

D. Up thrust and surface tension.

Ans. B

Sol. Bubbles of air rise up through liquid due to Viscosity and buoyancy. Bubbles are comprised of gases, which have a lesser density than water. Since they are less dense, they get pushed up to the surface, and they rise, lighter than the liquid around them.

11. The first Nobel prize winner of India.

A. Rabindranath Tagore

B. Dr. Amartya Sen

C. Dr. C V Raman

D. Mother Teresa

Ans. A

Sol.

- Rabindranath Tagore was the first Indian ever to receive a Nobel Prize.
- He was awarded the Nobel Prize in 1913.
- Recognised for literature and awarded for his collection of poems Geetanjali.

12. Todar Mal was minister for which department in Akbar's reign?

A. Agriculture

B. Finance

C. Security

D. Prime Minister

Ans. B

Sol.

- Todar Mal was the Finance Minister of the Mughal empire during Akbar's reign.
- He was one of the Navratnas.
- He introduced standard weights and measures.

Sol.

- Steven Sasson invented the first portable digital camera.

- Fibre optical cable was invented by Narinder Singh Kapany.

- **Printing Press was invented by Johannes Gutenberg.**

- J L Baird was the man who invented Television

13. Who was awarded the first Rajiv Gandhi National Sabdhavan Diwas award

A. Mother Teresa

B. J.R.D Tata

C. Acharya Tulsi

D. Dr. Pensgaswamy

Ans. A

Sol. First recipient was Mother Teresa.

- It was first awarded in 1992.
- The award was instituted by All India Congress Committee of the Indian National Congress Party.

14. Who invented the Printed Press?

A. Steven Sasson

B. Narinder Singh Kapany

C. Johannes Gutenberg

D. J L Baird

Ans. C

15. The famous 'Pamchamirtham Prasadam' got the Geographical Indication (GI) tag. Pamchamirtham Prasadam belongs to which state?

A. Haryana B. Maharashtra

C. Tamil Nadu D. Assam

E. Uttar Pradesh

Ans. C

Sol. Pamchamirtham Prasadam' from Tamil Nadu has recently received Geographical Indication (GI) tag.

16. Who has won the 2018 Nobel Prize in Chemistry?

A. Frances H. Arnold, George P. Smith and sir Gregory P. Winter

B. Jeffrey C. Hall, Michael Rosbash and Michael W. Young

C. Arthur Ashkin, Gerard Mourou and Donna Strickland

D. Rainer Weiss, Barry C Barish and Kip S. Thorne

E. Joachim Frank, Richard Henderson and Jacques Dubochet

Ans. A

Sol. Two American scientists (Frances H. Arnold & George P. Smith) and a British researcher (sir Gregory P. Winter) have won the Nobel Prize in Chemistry for evolution research. The Nobel Prize in Chemistry is awarded annually by the Royal Swedish Academy of Sciences to scientists in various fields of chemistry.

17. Who translated the Tuzuk-i-Babri or Babarnama into Persian language ?

A. Amir Khusro

B. Humayun

C. Abdul Rahim Khan-i-Khana

D. Akbar

Ans. C

Sol. **Abdul Rahim Khan-i-Khana** translated **Tuzuk-i-Babri or Babarnama** into **Persian** language.

• He was also known as **Rahim**. • He was one of the nine important ministers in his court, also known as the **Navaratnas**. • It was written by **Babur**. • **Madam Bebridge** translated this book in English language.

18. Which of the following protein is found in hair?

A. Histone B. Keratin

C. Elastin D. Actin

Ans. B

Sol.

19. What is the process of conversion from solid to gas is known as?

A. Fusion

B. Solidification

C. Sublimation

D. Condensation

Ans. C

Sol. The process of conversion from solid to gas is known as sublimation. The process of conversion from liquid or gas to solid is known as solidification. The process of conversion from liquid to gas is known as vaporization. The process of conversion from gas or vapour to liquid is known as condensation. Hence, option C is the correct answer.

20. India's first gallery on robotic dinosaurs was opened to the public in which of the following cities?

A. Udaipur

B. Jamshedpur

C. Kapurthala

D. Surat

E. Tiruchirapalli

Ans. C

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Sol. India's first gallery on robotic dinosaurs was opened to the public at the Pushpa Gujral Science City, Kapurthala, Punjab. A joint initiative of the

union and state governments, the science city is the biggest project of its kind in northern India and has been set up in 72 acres of land in the heart of Punjab, on Jalandhar-Kapurthala road.

21. The naturally occurring anti-coagulant in the human blood is

- A. Hirudin B. Heparin
- C. Fibrinogen D. Serotonin

Ans. B

Sol. Heparin is the naturally occurring anticoagulant which is present in the human body. Anticoagulant, in general, prevents blood from clotting and thus are vital for the functioning of the body as a whole.

22. What is the force behind the working principle of Cream separator?

- A. Centrifugal force
- B. Centripetal force
- C. Impulsive force
- D. None of the above

Ans. A

Sol. Cream separation is a phenomenon by which the milk is separated into cream and skim milk by centrifugal force.

Centrifugal force is supposed to be acting on a body revolving in a circle. Centrifugal force is equal and opposite to the centripetal force, i.e. it acts outwards. The centrifugal force is thousand times greater than gravitational force.

formula is HCOOH or HCO_2H .

It is an important intermediate in chemical synthesis and occurs naturally, most notably in some **ants**.

24. In which state is the Guru Shikhar Peak located ?

- A. Rajasthan
- B. Gujarat
- C. Madhya Pradesh
- D. Maharashtra

Ans. A

Sol. Guru Shikhar Peak is located at a distance of 15 km from Mount Abu in Rajasthan. It is the highest peak point in Rajasthan at an altitude of 5676 ft (1722 m).

23. Ant sting contains acid

- A. Ascorbic acid
- B. Tartaric acid
- C. Lactic acid
- D. Formic acid

Ans. D

Sol. Ant sting contains acid formic acid. It is the simplest carboxylic **acid**. The chemical

25. Time of 'zero-hour' in Parliament is

- A. 9 a.m. to 10 a.m.
- B. 10 a.m. to 11 a.m.

C. 11 a.m. to 12 a.m.
D. 12 noon to 1.00 p.m.
Ans. D
Sol. In both Houses of Parliament, the time immediately after the Question Hour is commonly known as 'shoonyakaal or Zero Hour'. It runs from 12 noon to 1.00 p.m..

is unusually acidic, meaning that it possesses elevated levels of hydrogen ions (low pH). It can have harmful effects on plants, aquatic animals and infrastructure. Scientists have discovered that air pollution from burning of fossil fuels is the major cause of acid rain. The main chemicals in air pollution that create acid rain are sulfur dioxide (SO₂) and nitrogen (NO_x).

26. The gas causing acid rain in an industrial area is

- A. Carbon dioxide
- B. Carbon monoxide
- C. Sulphur dioxide
- D. Methane

27. Which of the following Fundamental Rights is exclusive to Indian citizens?

- A. Freedom to manage religious affairs

Ans. C

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Sol. Acid rain is a rain or any other form of precipitation that

- B. Equality before law
- C. Equality of opportunity in matters of public employment
- D. All the above

Ans. C

Sol. 1. Equality of opportunity in matters of public employment(**Art. 16**) is **exclusive** to **Indian citizens** while **equality before law (Art. 14)** and **freedom to manage religious affairs (Art. 26)** are available to any person on the soil of India.

2. The provisions of **Part III** of **Indian Constitution** which enumerate the **Fundamental Rights** can be classified from the point of view of **persons** to whom they are available. Some **Fundamental rights** are **exclusive** to **Indian citizens** while some are available to any person on the **soil of India**, including **foreigners**.

28. In 1979, the Morarji Desai Government appointed the Backward Classes Commission under the Chairmanship of _____

- A. RK Trivedi
- B. BB Tandon
- C. Navin Chawla
- D. BP Mandal

Ans. D

Sol. In 1979, the Morarji Desai Government appointed the Backward Classes Commission under the Chairmanship of **BP Mandal** . He was the Member of Parliament. This commission was appointed to investigate

the conditions of the socially and educationally backward classes and suggest measures for their advancement. This Commission submitted its report in **1980** and recommended **27%** jobs reservation for Other Backward Classes (OBC).

29. The vice president is elected by members of an electoral college consisting of the members ___?

- A. Council of state and legislative assembly elected members of all state
- B. Council of states and House of people
- C. Elected member of house of people and Council of states
- D. Vice President is appointed by the President

Ans. B

Sol. • **Article 63** of the constitution stipulates a **Vice President for India**. • He elected by the **both the Houses of Parliament**.

30. The only state in India that produces saffron is

- A. Assam
- B. Himachal Pradesh
- C. Jammu and Kashmir
- D. Meghalaya

Ans. C

Sol. The only state in India that produces saffron is Jammu and Kashmir.

31. Which five planets are visible to the naked eyes?

- A. Jupiter, Saturn, Uranus, Neptune, mars
- B. Mercury, Venus, Mars, Jupiter, Saturn
- C. Mercury, Venus, Neptune, Mars, Uranus
- D. None of above

Ans. B

Sol. The five brightest planets - Mercury, Venus, Mars, Jupiter and Saturn can easily be seen with the naked eye and they have been known since ancient times. If one knows when and where to look can easily be seen with the naked eye . They are visible for much of the year, except for short periods of time when they are too close to the Sun to observe because their brightness covered by Sun's brightness.

32. In which year Subhash Chandra Bose passed the Indian Civil Services examination in England ?

- A. 1920 B. 1923
- C. 1919 D. 1918

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Ans. A

Sol. **Subhash Chandra Bose** passed the **Indian Civil Services** examination in **1920** in England. • He resigned from his Civil Service job on **April 23, 1921** after hearing about India's struggle for freedom.

33. Which of the following contains highest amount of Vitamin C?

- A. Capsicum B. Tomato
- C. Grape D. Lemon

Ans. D

Sol. Among the following options, Lemon contains highest amount of Vitamin C. Lemon is a citrus fruit that contains good amount of Vitamin C. Vitamin C plays an important role as an antioxidant, helping to destroy free radicals in your body that might otherwise cause damage to your cells.

34. Dolly was an example of cloned _____.

- A. Dog B. Cow
- C. Sheep D. Hen

Ans. C

Sol. Dolly is a first mammal clone of a female sheep. It was a clone from an adult somatic cell using the process of nuclear transfer. It was discovered on 5 July 1996 in Roslin Institute, Midlothian, Scotland and died in the age of six years on 14 February 2003. She produced six lambs in total.

35. Which among the following type of trees are also called as sun loving trees?

- A. Xerophytes
- B. Heliophytes
- C. Saprophytes
- D. Halophytes

Ans. B

Sol. Heliophytes is also known as Sunstroke plants or sun loving trees. These are the solar plants mullein, ling, thyme and soft velcro, white clover, and most roses. They have increase possibilities for photosynthesis.

Heliophytes have a high light compensation point, and for this they need higher illumination intensity for effective adoption of carbon dioxide. They have a higher basal metabolism comparing to the other leaves.

36. What does CO stand for?

- A. Carbon
- B. Carbon monoxide
- C. Coal
- D. Carbon dioxide

Ans. B

Sol.

- **Carbon monoxide (CO)** is a colorless, odorless, and tasteless gas that is slightly less dense than air.

- It is toxic to animals.
- Carbon monoxide consists of one carbon atom and one oxygen atom, connected by a triple bond that consists of two covalent bonds as well as one dative covalent bond.

37. Which of the following is most reactive in nature?

A. Potassium B. Calcium C. Lead D. Copper

Ans. A

Sol. Potassium is the most reactive in nature from the above given elements as it has only one valence electron and easily lose this electron to react with other elements. Hence, option A is the correct answer.

38. Spirit in contact with body gives cool sensation because it is :

- A. Liquid
- B. transparent
- C. Highly volatile
- D. A good conductor

Ans. C

Sol. Chemical formula for spirit is C_2H_5OH that it is ethyl alcohol. But spirit is made unfit for drinking by adding Pyridine or methyl alcohol- CH_3OH or copper sulphate- $CuSO_4$. The formula for pyridine is C_5H_5N . Mineral spirits have a characteristic unpleasant kerosene-like odor. Chemical manufacturers have developed a low odor version of mineral turpentine which contains less of the highly volatile shorter hydrocarbons. Therefore

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Spirit in contact with body gives cool sensation.

39. Which of the following vitamins is also known as 'Tocopherol'?

- A. Vitamin K
- B. Vitamin E
- C. Vitamin A
- D. Vitamin C

Ans. B

Sol. '**Tocopherol**' is the chemical name of **vitamin E**. Vitamin E is a **fat-soluble** vitamin that is essential for the maintenance of **healthy skin**. Vitamin E is found mainly in foods that contain fat like **margarine**,

vegetable oil, wheat germ, nuts, nut butters, and seeds.

40. Dentists use a _____ to focus light on the tooth of a patient.

- A. concave mirror
- B. convex mirror
- C. plane mirror
- D. cylindrical mirror

Ans. A

Sol. **Concave mirrors** are used by **dentists** because at a short range they **produce magnified**, upright images. It is useful to have a magnified **image** of a **tooth** when you're looking for or **repairing cavities**, cracks, other **abnormalities**.

41. Which base is present in milk of magnesia?

- A. Magnesium hydroxide
- B. Ammonium hydroxide
- C. Sodium hydroxide
- D. Calcium hydroxide

Ans. A

Sol. It's the Magnesium hydroxide which is present in Milk of Magnesia. It is a laxative that is used to treat constipation, by drawing water into the intestines. Moreover it is also used as an antacid that works by lowering the amount of acid in the stomach.

42. A burning matchstick is brought in contact with hydrogen gas :

- A. The matchstick continues to burn brilliantly
- B. The matchstick continues to burn silently with pale blue flame
- C. Matchstick extinguishes and the gas burns with a 'pop' sound
- D. None of the above

Ans. C

Sol. A burning matchstick is brought in contact with hydrogen gas then Matchstick extinguishes and the gas burns with a 'pop' sound.

43. Brass gets discoloured in air due to constant exposure in presence of:

- A. Aluminium phosphide
- B. Hydrogen sulphide
- C. Hydrogenated wafers
- D. Aluminium Sulphide

Ans. B

Sol. The normal brown coloration on brass which slowly forms is primarily due to the oxidation of the copper (which makes up about 70% or more of the Brass alloy) to copper oxide. The greenish patina that forms on brass (especially in inclement environments) can be a complex of copper carbonates and acetates (acetates come from

naturally or artificially occurring contaminants or droppings in the atmosphere depending on the presence of Industry).

44. German silver is an alloy of _____?

- A. copper, nickel and silver
- B. silver, copper and aluminium
- C. zinc, copper and nickel
- D. silver, zinc and copper

Ans. C

Sol. **German silver** is a copper alloy with nickel and often zinc. The usual formulation is **60% copper, 20% nickel and 20% zinc**.

45. Recently a Sub-Saturn sized Exoplanet is discovered by which country?

- A. Japan B. USA
- C. China D. India

Ans. D

Sol. ● A team from Physical Research Institute Laboratory(PRL),

Ahmedabad has discovered a Sub Saturn size planet which is about 27 times of Earth's mass and 6 times bigger than Earth.

● This planet named as EPIC 211945201b or K2-236b.

46. What are the Companies which got "The Mahartna Status"?

- I. Engineers India Limited

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II. Bharat Petroleum Corporation Limited

III. National Aluminum Company Limited

IV. Steel Authority of India Limited (SAIL)

- A. Only A & B
- B. Only D & C
- C. Only A& D

D. Only B & D

Ans. D

Sol. • It was in effect from 19th May 2010

- Maharatna Scheme was introduced for Central Public Sector Enterprises (CPSEs),
- Objectives were to empower mega CPSEs to expand their operations and emerge as global giants, to delegate enhanced powers to the Boards of identified large-sized
- To facilitate expansion of their operations, both in domestic as well as global markets.
- It must be listed in Indian Stock Exchange, with minimum prescribed shareholding

47. Which one of the following causes rainfall during winters in north-western part of India ?

- A. Cyclonic depression
- B. Western disturbances
- C. Retreating monsoon
- D. Southwest monsoon

Ans. B

Sol. • The **western cyclonic disturbances** are weather **phenomena** of the winter months brought in by the westerly flow from the **Mediterranean region**.

- They usually influence the weather of the **north & north-western** regions of **India**.
- **Tropical cyclones** occur during the **monsoon** as well as in **October – November**, and are part of the **easterly flow**.

48. Which Article of the Indian Constitution stipulates that It is the duty of every state and local authority to provide adequate facilities for instruction in the mother tongue at the primary stage of education to children belonging to minority classes ?

- A. Article 335
- B. Article 350 A
- C. Article 351

D. Article 354

Ans. B

Sol. **Article 350 A** stipulates that It is the **duty** of **every state** and **local authority** to provide **adequate facilities** for instruction in the **mother tongue** at the **primary stage of education** to children belonging to **minority classes**.

49. In bio fortification technique plant breeders use breeding to overcome

- A. Loss due to insect pests
- B. Decrease in food production
- C. Deficiencies of micronutrients and vitamins
- D. Loss due to plant diseases

Ans. C

Sol. In bio fortification technique plant breeders use breeding to overcome Deficiencies of micronutrients and vitamins. Plants are the source of many essential minerals nutrients. These mineral elements are vital for human beings for their survival and the continuity of life. Some plants are rich for some mineral and have deficiency to the other. No plant alone that contain all mineral elements in efficiently for human beings from in this planet. Breeding strategies through use of bio-fortification is the best option to improve the quality of the cultivated plants. In this review, fortification means the addition of the desired minerals to food stuffs like iodine in salts, iron in flour, fluorine in toothpaste and zinc in flours.

50. Who invented Aerosol can?

- A. Erik Rotheim
- B. Erik Mathew
- C. Erik Tim

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D. Eric Flayer

Ans. A

Sol. Erik Andreas Rotheim was a Norwegian professional chemical engineer and inventor. He is best known for invention of the first aerosol spray can and valve that could hold and dispense fluids.

51. Which one of the following forms of phosphorus is most reactive?

A. Black phosphorus

B. White phosphorus

C. Violet phosphorus

D. Red phosphorus

Ans. B

Sol. Phosphorus is a chemical element with symbol P and atomic number 15. As an element, phosphorus exists in two major forms—white phosphorus and red phosphorus—but because it is highly reactive, phosphorus is never found as a free element on Earth. At 0.099%, phosphorus is the most abundant pnictogen in the Earth's crust. With few exceptions, minerals containing phosphorus are in the maximally oxidized state as inorganic phosphate rocks. Phosphorus occurs in at least 10 allotropic forms, the most common (and reactive) of which is so-called white (or yellow) phosphorus which looks like a waxy solid or plastic. It is very reactive and will spontaneously inflame in air so it is stored under water.

52. The manufacturing of iron from iron-ore involves the process of

A. Oxidation

B. Reduction

C. Electrolysis

D. Fractional distillation

Ans. B

Sol. In the blast furnace the iron ore reduced into iron when it is burnt with Coking coal. In this process the Carbon in the coal is oxidized and forms Carbon dioxide. Removal of oxygen is called reduction.