

Bihar Board Class 10 Social Science 2024 Question Paper (Set G) with Solutions

Time Allowed :2 hours 45 Minutes

Maximum Marks :80

Total Questions :112

General Instructions

Instructions for the candidates:

1. Candidates must enter his / her Question Booklet Serial No. (10 digits) in the OMR Answer Sheet.
2. Candidates are required to give their answers in their own words as far as practicable.
3. Figures in the right hand margin indicate full marks.
4. 15 minutes of extra time have been allotted for the candidates to read the questions carefully.

Section A

Question Nos. 1 to 80 have four options each, out of which only one is correct.
Answer any 40 questions.

1. Which river is known as the ‘Sorrow of Bengal’?

- (A) Kosi
- (B) Ganga
- (C) Damodar
- (D) Gandak

Correct Answer: (C) Damodar

Solution:

The river Damodar is known as the ‘Sorrow of Bengal’ due to its frequent floods in the Bengal region. It has caused significant damage to the area over the years, especially during the monsoon season.

💡 Quick Tip

For river-related questions, remember that the “Sorrow of Bengal” refers to the Damodar River.

2. The tremor of the ocean bottom is related to:

- (A) Cyclone
- (B) Tsunami
- (C) Tide
- (D) None of these

Correct Answer: (B) Tsunami

Solution:

A tsunami is caused by a sudden disturbance at the ocean bottom, such as an earthquake or volcanic eruption.

 Quick Tip

For ocean-related phenomena, remember that tsunamis are often caused by seismic activity on the ocean floor.

3. From which state was Meghalaya carved out?

- (A) Manipur
- (B) Tripura
- (C) Arunachal Pradesh
- (D) Assam

Correct Answer: (D) Assam

Solution:

Meghalaya was carved out of Assam in 1972 to form a separate state.

 Quick Tip

Meghalaya was created by bifurcating Assam, particularly due to cultural and ethnic differences.

4. Who has the right to make laws on the subjects of the concurrent list?

- (A) State
- (B) Union
- (C) Both (A) and (B)
- (D) None of these

Correct Answer: (C) Both (A) and (B)

Solution:

Both the Union and State governments have the power to make laws on subjects of the Concurrent List.

 Quick Tip

The Concurrent List allows both the State and Union governments to legislate on specific matters.

5. Who is the head of village court?

- (A) Panch
- (B) Sarpanch
- (C) Mayor
- (D) Nyaya Mitra

Correct Answer: (B) Sarpanch

Solution:

The head of a village court is the Sarpanch, who oversees the functioning of the Panchayat.

 Quick Tip

The Sarpanch is the elected head of the village council and judicial functions in rural areas.

6. The government based on public opinion is:

- (A) Monarchy
- (B) Dictatorship
- (C) Democracy
- (D) None of these

Correct Answer: (C) Democracy

Solution: A democracy is a government where the public has the power to participate in decision-making and elect leaders.

 Quick Tip

In a democracy, public opinion and participation are crucial for the functioning of the government.

7. Who elects the Sarpanch?

- (A) Members of Gram Sabha
- (B) State Government
- (C) Mukhiya and Panch
- (D) Panch

Correct Answer: (A) Members of Gram Sabha

Solution: The Sarpanch is elected by the members of the Gram Sabha, a local governing body in rural areas.

Quick Tip
The Gram Sabha plays a key role in local governance, including the election of the Sarpanch.

8. Where was the seven-party alliance formed?

- (A) India
- (B) Pakistan
- (C) Myanmar
- (D) Nepal

Correct Answer: (D) Nepal

Solution: The seven-party alliance was formed in Nepal in 2005 to address political issues and demand a constitutional monarchy.

Quick Tip
The seven-party alliance played a pivotal role in the political transformation of Nepal in the early 21st century.

9. Which of the following is an abiotic resource?

- (A) Human
- (B) Bird
- (C) River
- (D) Tree

Correct Answer: (C) River

Solution: A river is considered an abiotic resource as it is a non-living resource.

 Quick Tip

Abiotic resources are non-living elements, like water bodies, minerals, etc.

10. What is regur called?

- (A) Red soil
- (B) Black soil
- (C) Alluvial soil
- (D) Laterite soil

Correct Answer: (B) Black soil

Solution: Regur soil is commonly known as black soil, which is rich in iron and calcium and is ideal for growing cotton.

 Quick Tip

Regur soil is highly fertile and is often found in areas like Maharashtra and Gujarat.

11. Where is the Sharavati River Valley Project located?

- (A) Bihar
- (B) Karnataka
- (C) Uttar Pradesh
- (D) Tamil Nadu

Correct Answer: (B) Karnataka

Solution: The Sharavati River Valley Project is located in the state of Karnataka, where the Sharavati river originates.

 Quick Tip

This project involves harnessing the river's water resources for irrigation and power generation.

12. What percentage of India is covered by forest?

- (A) 21-25%
- (B) 24-62%
- (C) 33%
- (D) 18%

Correct Answer: (B) 24-62

Solution: According to the latest forest surveys, approximately 24-62

💡 Quick Tip

Forest cover is a critical component of India's ecosystem, supporting biodiversity and controlling climate.

13. Where is the Naharkatia oil field located?

- (A) Arunachal Pradesh
- (B) Assam
- (C) Nagaland
- (D) Tripura

Correct Answer: (B) Assam

Solution: The Naharkatia oil field is located in the state of Assam, which is one of the main oil-producing regions in India.

💡 Quick Tip

Assam is home to several significant oil fields, including Naharkatia and Digboi.

14. When was the first National Water Policy adopted?

- (A) 1975
- (B) 1982
- (C) 1987
- (D) 2002

Correct Answer: (C) 1987

Solution: India's first National Water Policy was adopted in 1987 to address issues related to water resources and their efficient management.

 Quick Tip

The policy laid down strategies to address water scarcity, conservation, and equitable distribution.

15. In which year did the most severe earthquake occur in Bihar?

- (A) 1931
- (B) 1932
- (C) 1933
- (D) 1934

Correct Answer: (D) 1934

Solution: The 1934 Bihar earthquake was one of the most destructive in the history of India, causing widespread damage and loss of life.

 Quick Tip

The 1934 earthquake had a magnitude of 8.1 and affected many regions, including Nepal and Bihar.

16. Where among the following is the thermal power generation plant located?

- (A) Barauni
- (B) Kahalgaon
- (C) Kanti
- (D) All of these

Correct Answer: (D) All of these

Solution: Thermal power generation plants are located in all of these places: Barauni, Kahalgaon, and Kanti.

 Quick Tip

Thermal power plants in these regions play a vital role in meeting Bihar's electricity demands.

17. Which economic activity is predominant in rural areas?

- (A) Primary
- (B) Secondary

- (C) Tertiary
- (D) None of these

Correct Answer: (A) Primary

Solution: Primary activities, such as agriculture, fishing, and mining, are predominantly carried out in rural areas.

 Quick Tip

Primary sector activities are related to the extraction and harvesting of natural resources.

18. Which sector has benefited the least by the policy of globalization?

- (A) Agriculture
- (B) Service
- (C) Manufacturing
- (D) None of these

Correct Answer: (A) Agriculture

Solution: Agriculture has been impacted the least by globalization compared to other sectors such as manufacturing and services.

 Quick Tip

While globalization has led to growth in manufacturing and services, agriculture has faced challenges like price instability.

19. Dinar is the currency of which country?

- (A) Iran
- (B) Iraq
- (C) Saudi Arabia
- (D) Afghanistan

Correct Answer: (B) Iraq

Solution: The Dinar is the official currency of Iraq, also used in other countries like Jordan and Kuwait.

 Quick Tip

Be aware that different countries in the Middle East use the Dinar as their currency.

20. What is the duration of the eleventh five-year plan?

- (A) 1996 - 2002
- (B) 2002 - 2007
- (C) 2007 - 2012
- (D) 2012 - 2017

Correct Answer: (C) 2007 - 2012

Solution: The eleventh five-year plan of India was implemented from 2007 to 2012.

 Quick Tip

The five-year plans are part of India's planning process, focusing on economic development.

21. Gas and electricity production are placed in which sector?

- (A) Primary sector
- (B) Secondary sector
- (C) Tertiary sector
- (D) None of these

Correct Answer: (B) Secondary sector

Solution: Gas and electricity production belong to the secondary sector, which involves the transformation of raw materials into finished goods.

 Quick Tip

The secondary sector includes manufacturing, energy production, and other industrial activities.

22. The process of economic development which raises the standard of living of all the sections of society is called:

- (A) Sustainable Development
- (B) Inclusive Development
- (C) Economic Growth

(D) All of these

Correct Answer: (B) Inclusive Development

Solution: Inclusive development focuses on raising the standard of living for all sections of society, including marginalized groups.

 Quick Tip

Inclusive development ensures that the benefits of growth reach all sections of society.

23. Who prepared India's first Human Development Report?

- (A) Planning Commission
- (B) National Development Council
- (C) World Bank
- (D) United Nations Development Programme (UNDP)

Correct Answer: (A) Planning Commission

Solution: India's first Human Development Report was prepared by the Planning Commission of India in 1999.

 Quick Tip

The Human Development Report is prepared to analyze the human development index and associated factors.

24. The secondary sector is also known as:

- (A) Agriculture sector
- (B) Industrial sector
- (C) Service sector
- (D) All of these

Correct Answer: (B) Industrial sector

Solution: The secondary sector involves industrial activities such as manufacturing, construction, and energy production.

 Quick Tip

The secondary sector is crucial for transforming raw materials into finished goods and products.

25. Who was the king of Sardinia?

- (A) Victor Emmanuel
- (B) Napoleon
- (C) Charles X
- (D) None of them

Correct Answer: (A) Victor Emmanuel

Solution: Victor Emmanuel was the king of Sardinia and later became the first king of unified Italy in the 19th century.

 Quick Tip

Victor Emmanuel played a key role in the unification of Italy in the mid-1800s.

26. Who founded the Third International in 1919?

- (A) Karl Marx
- (B) Lenin
- (C) Friedrich Engels
- (D) Robert Owen

Correct Answer: (B) Lenin

Solution: The Third International, also known as the Comintern, was founded by Lenin in 1919 to promote global communist revolution.

 Quick Tip

Lenin's establishment of the Third International marked the global expansion of socialist ideologies.

27. Who was the chief hero of the unification of Italy?

- (A) Mazzini
- (B) Cavour
- (C) Garibaldi
- (D) All of them

Correct Answer: (D) All of them

Solution: Mazzini, Cavour, and Garibaldi all played significant roles in the unification of Italy, each contributing in different ways.

 Quick Tip

Mazzini was a nationalist leader, Cavour was a diplomat, and Garibaldi was a military leader.

28. By what name is the first Russian Revolution of 1917 known?

- (A) October Revolution
- (B) March Revolution
- (C) February Revolution
- (D) November Revolution

Correct Answer: (C) February Revolution

Solution: The first Russian Revolution of 1917 is known as the February Revolution, which led to the abdication of Tsar Nicholas II.

 Quick Tip

The February Revolution was followed by the October Revolution, which brought Lenin to power.

29. Which of the following is not a liberal leader?

- (A) Dadabhai Naoroji
- (B) Firoz Shah Mehta
- (C) Bipin Chandra Pal
- (D) Surendranath Banerjee

Correct Answer: (C) Bipin Chandra Pal

Solution: Bipin Chandra Pal was an extremist leader, while the others were associated with the moderate or liberal faction of Indian leaders.

 Quick Tip

Bipin Chandra Pal was part of the extremist wing that sought more radical methods of political change.

30. Which of the following proposed separate electorates for Muslims for the first

time?

- (A) Simon Commission
- (B) Morley-Minto Reforms
- (C) Delhi Pact
- (D) Montague-Chelmsford Report

Correct Answer: (B) Morley-Minto Reforms

Solution: The Morley-Minto Reforms of 1909 introduced separate electorates for Muslims in British India.

 Quick Tip

The Morley-Minto Reforms were a major step in the political representation of Muslims in India under British rule.

31. Where was the first textile mill established in India?

- (A) Gujarat
- (B) Maharashtra
- (C) Andhra Pradesh
- (D) Uttar Pradesh

Correct Answer: (B) Maharashtra

Solution: The first textile mill in India was established in Maharashtra, at the town of Ahmedabad.

 Quick Tip

Maharashtra, particularly Ahmedabad, became the textile hub of India during the industrial revolution.

32. In which country was the 'corn law' passed?

- (A) Britain
- (B) Russia
- (C) Germany
- (D) France

Correct Answer: (A) Britain

Solution: The Corn Laws were passed in Britain in the early 19th century to regulate the

import and export of grain.

 Quick Tip

The Corn Laws were controversial and were eventually repealed in 1846 due to their negative impact on the working class.

33. What is COPRA?

- (A) Right to Information Act
- (B) Consumer Protection Act
- (C) Human Development Index
- (D) Consumer Right Day

Correct Answer: (B) Consumer Protection Act

Solution: COPRA stands for the Consumer Protection Act of 1986, which provides for the protection of consumers' rights in India.

 Quick Tip

COPRA aims to safeguard consumers from exploitation and ensures fair trade practices.

34. By what name was the Land Development Bank earlier known?

- (A) Regional Rural Bank
- (B) Cooperative Bank
- (C) Land Mortgage Bank
- (D) NABARD

Correct Answer: (C) Land Mortgage Bank

Solution: The Land Development Bank was earlier known as the Land Mortgage Bank, focusing on providing long-term credit for agricultural activities.

 Quick Tip

The Land Development Bank plays a crucial role in agricultural financing and rural development.

35. Railways were started in India during whose reign?

- (A) Lord Dalhousie
- (B) Lord Lytton
- (C) Lord Cornwallis
- (D) Lord Minto

Correct Answer: (A) Lord Dalhousie

Solution: The first railway in India was started during Lord Dalhousie's reign in 1853.

 Quick Tip

Lord Dalhousie is often credited for the expansion of infrastructure during British rule in India, including the railways.

36. When was Louis Sixteen hanged?

- (A) 1748
- (B) 1793
- (C) 1798
- (D) 1854

Correct Answer: (B) 1793

Solution: Louis XVI, the King of France, was executed by guillotine in 1793 during the French Revolution.

 Quick Tip

The execution of Louis XVI marked a significant turning point in the French Revolution and the end of monarchy in France.

37. Who implemented the New Economic Policy (NEP)?

- (A) Lenin
- (B) Metternich
- (C) Bismarck
- (D) Stalin

Correct Answer: (A) Lenin

Solution: The New Economic Policy (NEP) was implemented by Lenin in 1921 in the Soviet Union to encourage economic recovery after the Russian Civil War.

 Quick Tip

The NEP allowed limited market reforms and the reintroduction of private enterprise to boost the Soviet economy.

38. Who succeeded Lenin?

- (A) Mazzini
- (B) Stalin
- (C) Trotsky
- (D) Kerensky

Correct Answer: (B) Stalin

Solution: Stalin succeeded Lenin as the leader of the Soviet Union, consolidating power after Lenin's death in 1924.

 Quick Tip

Stalin's leadership marked a shift to totalitarianism, with centralized control over the Soviet economy and society.

39. Who surrendered after the declaration of Potsdam?

- (A) France
- (B) Japan
- (C) Vietnam
- (D) India

Correct Answer: (B) Japan

Solution: Japan surrendered after the Potsdam Declaration in 1945, marking the end of World War II in the Pacific.

 Quick Tip

The Potsdam Declaration outlined the terms of surrender for Japan during World War II.

40. Who was the first President of Swaraj Dal?

- (A) Motilal Nehru

- (B) Chitta Ranjan Das
- (C) Madan Mohan Malaviya
- (D) Manavendra Nath Roy

Correct Answer: (B) Chitta Ranjan Das

Solution: Chitta Ranjan Das was the first President of the Swaraj Dal, a political party formed in 1923.

 Quick Tip

Swaraj Dal was founded by Chitta Ranjan Das and Motilal Nehru, promoting full self-rule for India.

41. In which state is the Indira Gandhi canal located?

- (A) Kerala
- (B) Maharashtra
- (C) Rajasthan
- (D) Bihar

Correct Answer: (C) Rajasthan

Solution: The Indira Gandhi Canal, one of the largest irrigation projects in India, is located in Rajasthan.

 Quick Tip

The canal plays a vital role in providing irrigation and drinking water in the desert regions of Rajasthan.

42. Where is Rohila National Park?

- (A) West Bengal
- (B) Himachal Pradesh
- (C) Tamil Nadu
- (D) Assam

Correct Answer: (B) Himachal Pradesh

Solution: Rohila National Park is located in Himachal Pradesh, known for its rich biodiversity and scenic beauty.

💡 Quick Tip

Rohila National Park is a popular destination for wildlife enthusiasts and nature lovers in Himachal Pradesh.

43. India is the leading producer of which mineral in the world?

- (A) Manganese
- (B) Copper
- (C) Bauxite
- (D) Mica

Correct Answer: (D) Mica

Solution: India is the leading producer of Mica, which is an important mineral used in various industrial applications such as electronics and cosmetics.

💡 Quick Tip

Mica is mostly found in states like Jharkhand, Bihar, and Rajasthan, where it is mined extensively.

44. Which mineral is needed to make aluminium?

- (A) Tin
- (B) Bauxite
- (C) Manganese
- (D) Iron

Correct Answer: (B) Bauxite

Solution: Bauxite is the primary mineral used in the production of aluminum.

💡 Quick Tip

Aluminum is extracted from bauxite through the Bayer process, which involves refining the bauxite ore.

45. In which state is Damodar Valley Project located?

- (A) Jharkhand
- (B) West Bengal
- (C) Bihar

(D) Odisha

Correct Answer: (B) West Bengal

Solution: The Damodar Valley Project is located in the states of West Bengal and Jharkhand and is one of the most significant multipurpose projects in India.

💡 Quick Tip

The project provides irrigation, flood control, and power generation to the region.

46. Which is the largest sugarcane producing state in South India?

- (A) Andhra Pradesh
- (B) Odisha
- (C) Tamil Nadu
- (D) Maharashtra

Correct Answer: (C) Tamil Nadu

Solution: Tamil Nadu is the leading sugarcane producer in South India due to its fertile soil and favorable climatic conditions.

💡 Quick Tip

Sugarcane cultivation is highly concentrated in tropical and subtropical regions of India, particularly in Tamil Nadu.

47. Where is Visvesvaraya Iron and Steel Limited located?

- (A) Salem
- (B) Bhadravati
- (C) Vijaynagar
- (D) Durgapur

Correct Answer: (B) Bhadravati

Solution: Visvesvaraya Iron and Steel Limited (VISL) is located in Bhadravati, Karnataka, and is one of the premier steel plants in India.

💡 Quick Tip

VISL is part of the public sector steel industry in India, playing a significant role in the country's industrialization.

48. Which shipyard makes warships for India?

- (A) Mazagaon
- (B) Kolkata
- (C) Chennai
- (D) None of these

Correct Answer: (A) Mazagaon

Solution: Mazagaon Dock Limited in Mumbai is known for constructing warships and submarines for the Indian Navy.

💡 Quick Tip

Mazagaon Dock is one of the key shipyards for India's naval defense.

49. Which of the following is the headquarters of North Central Railways?

- (A) Allahabad
- (B) Hajipur
- (C) Jabalpur
- (D) Mumbai Central

Correct Answer: (A) Allahabad

Solution: The headquarters of North Central Railways is located in Allahabad, Uttar Pradesh.

💡 Quick Tip

North Central Railways serves a large region in the northern and central parts of India.

50. When did All India Radio start?

- (A) 1930
- (B) 1936
- (C) 1957
- (D) 1965

Correct Answer: (B) 1936

Solution: All India Radio (AIR) started in 1936, serving as the national public radio broadcaster of India.

 Quick Tip

All India Radio played a crucial role in disseminating information, culture, and news across the country.

51. Which state has the first position in terms of length of roads in India?

- (A) Gujarat
- (B) Karnataka
- (C) Maharashtra
- (D) Rajasthan

Correct Answer: (C) Maharashtra

Solution: Maharashtra has the largest network of roads in India, reflecting its extensive infrastructure development.

 Quick Tip

The state's well-developed road network supports economic growth and facilitates trade across India.

52. Which of the following states is most affected by cyclonic storms?

- (A) Odisha
- (B) Bihar
- (C) Madhya Pradesh
- (D) Jharkhand

Correct Answer: (A) Odisha

Solution: Odisha is the state most prone to cyclonic storms due to its geographical location along the Bay of Bengal.

 Quick Tip

The coastal regions of Odisha frequently experience devastating cyclones, requiring effective disaster management.

53. Which of the following is a first-aid equipment?

- (A) Life jacket
- (B) Fire extinguisher
- (C) Rope
- (D) Bandage and Tape

Correct Answer: (D) Bandage and Tape

Solution: Bandage and tape are essential first-aid equipment used to secure dressings and manage minor injuries.

 Quick Tip

First-aid kits typically include items like bandages, tape, antiseptics, and other emergency supplies.

54. Aswan Dam is built on which river?

- (A) Nile
- (B) Amazon
- (C) Krishna
- (D) Godavari

Correct Answer: (A) Nile

Solution: The Aswan Dam is located on the Nile River in Egypt and is one of the largest dams in the world.

 Quick Tip

The Aswan Dam helps regulate the flow of the Nile and provides hydroelectric power.

55. Richter scale is used in which disaster?

- (A) Flood
- (B) Cyclone
- (C) Earthquake
- (D) Drought

Correct Answer: (C) Earthquake

Solution: The Richter scale is used to measure the magnitude of earthquakes, giving a numeric value to their severity.

 Quick Tip

The Richter scale quantifies the energy released by an earthquake, known as its magnitude.

56. Eastern Bihar is prone to which calamity?

- (A) Earthquake
- (B) Flood
- (C) Drought
- (D) None of these

Correct Answer: (B) Flood

Solution: Eastern Bihar is particularly prone to flooding due to its proximity to the Ganges and its low-lying geography.

 Quick Tip

Floods in Eastern Bihar are often caused by the overflow of rivers during the monsoon season.

57. Who among the following suggested democratic decentralization?

- (A) Balwant Rai Mehta Committee
- (B) Tendulkar Committee
- (C) Narsimham Committee
- (D) Chelliah Committee

Correct Answer: (A) Balwant Rai Mehta Committee

Solution: The Balwant Rai Mehta Committee of 1957 suggested the idea of democratic decentralization in India, focusing on strengthening Panchayati Raj.

 Quick Tip

Democratic decentralization promotes local governance by empowering rural self-government institutions.

58. Which constitutional amendment is related to urban local self-government?

- (A) 75th
- (B) 74th
- (C) 73rd
- (D) 72nd

Correct Answer: (B) 74th

Solution: The 74th Constitutional Amendment of India, enacted in 1992, deals with urban local self-government and empowers municipalities.

 Quick Tip

The 74th Amendment made provisions for the establishment of urban local bodies in India.

59. Which state is associated with the Chipko movement?

- (A) Uttarakhand
- (B) Himachal Pradesh
- (C) Madhya Pradesh
- (D) Kerala

Correct Answer: (A) Uttarakhand

Solution: The Chipko movement, aimed at preventing deforestation, started in Uttarakhand in the 1970s.

 Quick Tip

The Chipko movement is often regarded as one of the earliest environmental movements in India.

60. Who declares emergency?

- (A) President
- (B) Prime Minister
- (C) Chief Justice
- (D) None of them

Correct Answer: (A) President

Solution: In India, the President has the authority to declare a state of emergency under Article 352 of the Constitution.

 Quick Tip

The declaration of emergency is a significant decision that alters the normal functioning of government and individual rights.

61. Which country does not have a federal system of governance?

- (A) India
- (B) China
- (C) Belgium
- (D) Switzerland

Correct Answer: (B) China

Solution: China has a unitary system of governance, unlike India, which follows a federal structure.

 Quick Tip

China's political system is centralized, with power concentrated in the hands of the central government.

62. Which is the oldest political party in India?

- (A) Janata Dal
- (B) Bharatiya Janata Party
- (C) Indian National Congress
- (D) Nationalist Congress Party

Correct Answer: (C) Indian National Congress

Solution: The Indian National Congress, founded in 1885, is the oldest political party in India and played a significant role in the Indian independence movement.

 Quick Tip

The Indian National Congress is one of the oldest political parties in the world and has led India for much of its post-independence history.

63. In which of the following countries is direct democracy found?

- (A) Switzerland
- (B) India
- (C) America
- (D) Belgium

Correct Answer: (A) Switzerland

Solution: Switzerland is known for its system of direct democracy, where citizens can directly participate in decision-making.

 Quick Tip

In Switzerland, referendums and initiatives are used to involve citizens in political decisions.

64. Due to which quality democracy is considered better than other forms of government?

- (A) Nurturer of equality and liberty
- (B) Public opinion
- (C) Reconciliation of differences
- (D) All of these

Correct Answer: (D) All of these

Solution: Democracy is valued for its ability to nurture equality, respect public opinion, and reconcile differences among people.

 Quick Tip

Democracy thrives on open dialogue, equal opportunities, and reconciling different viewpoints in a peaceful manner.

65. When was the national income estimated for the first time in India?

- (A) 1798
- (B) 1848
- (C) 1868
- (D) 1911

Correct Answer: (C) 1868

Solution: The national income of India was first estimated in 1868 by the government of India, marking the beginning of economic planning.

 Quick Tip

National income estimation is crucial for measuring the economic performance of a country.

66. Circular flow is related to which of the following?

- (A) Production
- (B) Income
- (C) Expenditure
- (D) All of these

Correct Answer: (D) All of these

Solution: Circular flow represents the continuous movement of income, production, and expenditure in an economy.

 Quick Tip

Circular flow of income shows the interdependence of different sectors of the economy.

67. What is the difference between income and consumption called?

- (A) Production
- (B) Saving
- (C) Exchange
- (D) Distribution

Correct Answer: (B) Saving

Solution: The difference between income and consumption is referred to as saving, which represents income that is not spent.

 Quick Tip

Savings play a critical role in economic growth by providing funds for investment.

68. Micro-financial institutions started from which country?

- (A) India
- (B) China
- (C) Bangladesh

(D) Myanmar

Correct Answer: (C) Bangladesh

Solution: Micro-financial institutions, particularly the Grameen Bank, were started in Bangladesh to provide financial services to the rural poor.

 Quick Tip

Bangladesh's microfinance institutions have helped millions of low-income families access credit.

69. Which sector has the least contribution to Gross Domestic Product (GDP)?

- (A) Primary sector
- (B) Secondary sector
- (C) Tertiary sector
- (D) None of these

Correct Answer: (A) Primary sector

Solution: The primary sector has the least contribution to India's GDP as the country has shifted towards industrialization and services.

 Quick Tip

The primary sector includes activities like agriculture, mining, and fishing, which have a smaller share in GDP in many developed countries.

70. Which of the following is a part of economic infrastructure?

- (A) Education
- (B) Health
- (C) Civil Services
- (D) Transportation

Correct Answer: (D) Transportation

Solution: Transportation is a key part of economic infrastructure, as it facilitates the movement of goods and people, contributing to economic development.

 Quick Tip

Economic infrastructure includes essential systems like transportation, communication, and energy supply.

71. Where is the headquarters of World Trade Organization situated?

- (A) New York
- (B) Geneva
- (C) Hanoi
- (D) Paris

Correct Answer: (B) Geneva

Solution: The headquarters of the World Trade Organization (WTO) is located in Geneva, Switzerland. It is responsible for regulating international trade.

 Quick Tip

The WTO's headquarters in Geneva plays a key role in global economic governance and trade dispute resolution.

72. The meaning of National income is:

- (A) Family income
- (B) Income of Public enterprises
- (C) Government income
- (D) Monetary value of all final goods and services of an economy

Correct Answer: (D) Monetary value of all final goods and services of an economy

Solution: National income refers to the monetary value of all the final goods and services produced within an economy during a specific period. It is a measure of a country's economic performance.

 Quick Tip

National income is a key indicator used to gauge the economic health of a country and to compare different economies.

73. Who was the political guru of Gandhi ji?

- (A) Gopal Krishna Gokhale
- (B) Rabindranath Tagore
- (C) Vipin Chandra Pal
- (D) Vyomkesh Banerjee

Correct Answer: (A) Gopal Krishna Gokhale

Solution: Gopal Krishna Gokhale was the political guru of Mahatma Gandhi. He had a profound influence on Gandhi's ideas on social reform and politics.

 Quick Tip

Gokhale emphasized the need for social reform, better education, and peaceful political methods, which influenced Gandhi greatly.

74. Which of the following was not a part of the allied powers?

- (A) Britain
- (B) Germany
- (C) France
- (D) Russia

Correct Answer: (B) Germany

Solution: Germany was part of the Central Powers, not the Allied Powers, during World War I. The Allied Powers included Britain, France, and Russia.

 Quick Tip

The Allied Powers opposed the Central Powers, which included Germany, Austria-Hungary, and the Ottoman Empire during World War I.

75. In which language was 'Samvad Kaumudi' published?

- (A) Bangla
- (B) Hindi
- (C) Marathi
- (D) English

Correct Answer: (A) Bangla

Solution: 'Samvad Kaumudi' was a prominent newspaper published in Bangla by Raja Ram Mohan Roy. It played a significant role in promoting social reforms.

 Quick Tip

Raja Ram Mohan Roy was an influential reformer who used 'Samvad Kaumudi' to advocate for social and educational reforms.

76. Who is famous as the liberator of Indian newspapers?

- (A) Warren Hastings
- (B) Charles Metcalfe
- (C) Lord Lytton
- (D) Lord Ripon

Correct Answer: (B) Charles Metcalfe

Solution: Charles Metcalfe is known as the liberator of Indian newspapers due to his role in repealing the press regulations, which allowed greater freedom for the press.

 Quick Tip

Charles Metcalfe, known for his liberal policies, made significant contributions to the growth of press freedom in colonial India.

77. With whom is the policy of 'Blood and Iron' related?

- (A) Lenin
- (B) Stalin
- (C) Bismarck
- (D) Garibaldi

Correct Answer: (C) Bismarck

Solution: The policy of 'Blood and Iron' is associated with Otto von Bismarck, the Prussian Prime Minister, who used war and militarization to unite Germany.

 Quick Tip

Bismarck's policy of 'Blood and Iron' emphasized the use of military power to achieve national unity in Germany.

78. Bohemia was under which of the following countries?

- (A) Austria

- (B) Greece
- (C) Turkey
- (D) Poland

Correct Answer: (A) Austria

Solution: Bohemia, historically a part of the Austro-Hungarian Empire, is now part of the Czech Republic.

 Quick Tip

Bohemia was an important kingdom within Austria before the formation of Czechoslovakia.

79. Between which countries was the treaty of Brest-Litovsk signed?

- (A) Russia and Italy
- (B) Russia and France
- (C) Russia and England
- (D) Russia and Germany

Correct Answer: (D) Russia and Germany

Solution: The Treaty of Brest-Litovsk was signed in 1918 between Soviet Russia and Germany, marking Russia's exit from World War I.

 Quick Tip

This treaty was a major diplomatic move during World War I, ending hostilities between Germany and Soviet Russia.

80. Where did William I become the emperor in 1871?

- (A) Italy
- (B) England
- (C) Germany
- (D) Poland

Correct Answer: (C) Germany

Solution: William I became the Emperor of Germany in 1871 after the unification of German states into the German Empire.

 Quick Tip

The unification of Germany was a key moment in European history, leading to the establishment of the German Empire under Kaiser William I.

SECTION–B
(Short Answer Type Questions)

Question Nos. 1 to 6 are Short Answer Type. Answer any 3 questions. Each question carries 2 marks.

1. Write in brief about Cold War.

Solution:

The Cold War was a period of political tension and military rivalry between the United States and the Soviet Union, lasting from the end of World War II in 1945 until the collapse of the Soviet Union in 1991. It was marked by the absence of direct military conflict but involved proxy wars, nuclear arms race, and ideological differences between the capitalist and communist blocs.

 Quick Tip

The Cold War involved the U.S. and the USSR, divided into two ideologically opposed blocs.

2. What were the causes of the French Revolution of 1848?

Solution:

The French Revolution of 1848 was caused by social, economic, and political factors. The poor economic conditions, heavy taxation on the lower classes, and political disenfranchisement led to widespread dissatisfaction. Moreover, the influence of revolutionary ideas and the failure of the monarchy to address these issues catalyzed the revolution.

 Quick Tip

The French Revolution was driven by inequality, poor governance, and economic hardship.

3. Why was the All India Trade Union Congress established?

Solution:

The All India Trade Union Congress (AITUC) was established in 1920 to unite workers across

India and address issues like poor working conditions, unfair wages, and lack of labor rights. It aimed to create a platform for the working class to fight for their economic and social rights.

 Quick Tip

AITUC played a key role in India's labor movement, advocating for workers' rights and industrial reforms.

4. How did industrialization affect the livelihood of the laborers?

Solution:

Industrialization led to both positive and negative changes for laborers. On one hand, it created job opportunities and increased wages. On the other hand, it often resulted in poor working conditions, long working hours, and exploitation, particularly in unregulated industries.

 Quick Tip

Industrialization provided job opportunities but also posed challenges in terms of worker rights and welfare.

5. What is Communism?

Solution:

Communism is a political and economic ideology that advocates for a classless society where the means of production are collectively owned and controlled. It seeks to eliminate private property and income inequality in order to create an egalitarian society.

 Quick Tip

Communism focuses on eliminating class distinctions and ensuring equality in wealth and opportunities.

6. What was the purpose of the Hoa Hao movement?

Solution:

The Hoa Hao movement was a religious and political movement in Vietnam that began in the 1930s. It aimed to promote social reform, fight against corruption, and improve the welfare of the rural poor. It also advocated for independence from French colonial rule.

 Quick Tip

The Hoa Hao movement was pivotal in challenging colonial authority and promoting social change in Vietnam.

(Long Answer Type Questions)

Question Nos. 7 and 8 are Long Answer Type. Answer any one of them. Each question carries 4 marks.

7. How did print revolution assist the growth of Nationalism in India?

Solution:

The print revolution in India, which began in the 19th century, played a pivotal role in the growth of nationalism. The establishment of printing presses and the rise of vernacular newspapers allowed the spread of ideas on a much larger scale, making it possible to reach a broad audience. Newspapers like 'The Hindoo Patriot', 'The Amrita Bazar Patrika', and 'The Indian Mirror' began to publish articles that questioned British colonial policies, and in doing so, helped stir national consciousness. These publications not only focused on political issues but also spread messages about social reforms, unity, and self-rule.

The print media provided an outlet for leaders such as Raja Ram Mohan Roy, Bal Gangadhar Tilak, and Lala Lajpat Rai to spread their ideas about the Indian independence movement, social reforms, and national identity. It also helped in the consolidation of national sentiments by breaking regional barriers, allowing people from different parts of India to connect over shared issues and aspirations. Moreover, the accessibility of printed material contributed to the awareness of Indian history, culture, and the injustices of British rule. As a result, the print revolution was crucial in unifying diverse groups within India, galvanizing them into action for the struggle for independence.

 Quick Tip

The print revolution helped spread nationalist ideas, promoting a sense of shared identity among the people of India. It played a crucial role in mobilizing people for the freedom struggle.

8. How did the series of inventions of machines pave the way for industrial revolution?

Solution:

The series of machine inventions during the late 18th and early 19th centuries marked a critical turning point in history, driving the Industrial Revolution, particularly in Britain. Before these inventions, industries were labor-intensive, with products being made by hand or in small workshops. The invention of the spinning jenny by James Hargreaves in 1764 revolutionized

the textile industry by allowing a single worker to spin multiple threads simultaneously. This increased production efficiency significantly. Similarly, Richard Arkwright's water frame (1771) and Samuel Crompton's spinning mule (1779) further enhanced textile production.

One of the most significant inventions was James Watt's steam engine (1765), which played a key role in transforming industries and transportation. It replaced manual labor and water mills, providing power to factories and mines, and it led to the development of steam-powered locomotives and ships, revolutionizing transportation. The steam engine not only boosted productivity but also played a role in urbanization, as factories could now be built away from water sources. These technological advancements created a demand for raw materials like coal and iron, leading to the establishment of iron industries and coal mining. The mechanization of industries led to mass production, lower costs, and greater availability of goods, which fueled economic growth.

Overall, the series of machine inventions laid the foundation for the rise of industrial capitalism, radically transforming the global economy.

Quick Tip

The industrial revolution brought technological advancements that transformed industries, leading to mass production and urbanization, which were key to economic growth during the 19th century.

POLITICAL SCIENCE

(Short Answer Type Questions)

Question Nos. 9 to 12 are Short Answer Type. Answer any 2 questions.
Each question carries 2 marks.

9. How is right to information the savior of democracy?

Solution:

Right to Information (RTI) is a crucial tool in strengthening democracy as it ensures transparency in government operations. It allows citizens to access information about governmental decisions, policies, and functioning, thereby promoting accountability. By empowering people to question the government, RTI ensures that officials are held responsible for their actions. Furthermore, it helps in curbing corruption and fostering trust between the government and the public, making it an essential component of a vibrant democratic system.

Quick Tip

RTI enhances transparency and accountability, ensuring that citizens actively participate in the democratic process.

10. Mention any four features of Indian Federal System.

Solution:

The Indian Federal System has the following key features: 1. **Division of Powers:** Powers are divided between the central government and state governments as outlined in the Constitution. 2. **Supremacy of the Constitution:** The Constitution of India is the supreme law of the land, and both the Union and States must function within its framework. 3. **Independent Judiciary:** An independent judiciary ensures that the federal balance is maintained by resolving disputes between the Union and States. 4. **Dual Government:** The system operates with a dual government—central and state governments, each with specific responsibilities.

💡 Quick Tip

India follows a quasi-federal system with features of both federal and unitary systems.

11. Why has India adopted a multi-party system?

Solution:

India has adopted a multi-party system because of its diverse society, which includes various linguistic, cultural, and regional groups. A multi-party system allows different groups to express their views and aspirations, ensuring representation for all sections of society. This system provides a platform for regional parties to play a vital role in the political landscape, ensuring that no single party dominates the political discourse. It also fosters competition and a broader range of ideas, leading to a more inclusive and dynamic democracy.

💡 Quick Tip

India's multi-party system ensures broad-based political representation and accommodates the country's diversity.

12. What were the main demands of the Indian Farmer's Union?

Solution:

The Indian Farmer's Union, which has historically advocated for the rights of farmers, has made several demands over the years, including:

1. **Fair Prices:** Ensuring that farmers receive a fair price for their produce, protecting them from market exploitation.
2. **Loan Waivers:** Demanding relief from heavy debts by seeking government loan waivers for distressed farmers.
3. **Better Irrigation:** Increased investment in irrigation infrastructure to help farmers deal with water scarcity and ensure year-round farming.
4. **Land Reforms:** Advocating for land reforms to ensure land ownership for the landless and

secure tenancy rights for farmers.

 Quick Tip

The Farmer's Union demands better support for agriculture, focusing on fair prices, debt relief, and land rights.

(Long Answer Type Questions)

Question Nos. 13 and 14 are Long Answer Type. Answer any one of them. Each question carries 4 marks.

13. Discuss the role of judiciary in the federal system.

Solution:

In a federal system, the judiciary plays an essential role in maintaining the balance between the central and state governments. The judiciary ensures that the powers allocated to both levels of government are exercised within the framework of the Constitution. This is especially important in countries like India, where there is a clear division of powers between the Union (central government) and the States.

One of the key roles of the judiciary is to resolve disputes that arise between the central government and the state governments. These disputes can relate to the interpretation of the Constitution, as well as to issues concerning the scope of powers granted to each level of government. The judiciary, through its rulings, ensures that neither the Union nor the States exceed their constitutional boundaries, thus maintaining the integrity of the federal structure.

The judiciary also safeguards the fundamental rights of citizens. When a conflict arises between the state and individual rights, the judiciary steps in to protect those rights, even if it means challenging the authority of the government. This check on power ensures that the government does not abuse its authority, which is critical in a democracy.

In countries like India, the judiciary's role as the ultimate interpreter of the Constitution makes it a crucial institution for maintaining the rule of law and ensuring the smooth functioning of the federal system. Without an independent judiciary, the balance between the Union and States could be jeopardized, leading to conflicts and instability.

 Quick Tip

The judiciary's responsibility in federal systems is to resolve disputes, interpret the Constitution, and ensure that both central and state governments function within their constitutional limits.

14. What factors are responsible for the success of democracy?

Solution:

The success of democracy depends on several interconnected factors that ensure its proper functioning. One of the most fundamental factors is **political participation**, where citizens actively engage in the democratic process, particularly by voting. Active participation ensures that the government is accountable to the people, and it fosters a sense of ownership and responsibility among the citizens.

A **free and independent press** is another critical factor for democracy's success. A vibrant media allows for the free flow of information, which helps in educating citizens, holding the government accountable, and exposing corruption or mismanagement. The press also serves as a platform for debate and the exchange of ideas, which is essential for a healthy democratic system.

Furthermore, the **protection of individual rights** is indispensable. Democracy thrives when citizens' fundamental rights, such as the right to free speech, assembly, and religion, are protected. When individuals are free to express their views, engage in peaceful protests, and practice their beliefs, it ensures that democracy is inclusive and open to all sections of society.

Additionally, **strong democratic institutions** are crucial for maintaining the integrity of the democratic process. This includes having an independent judiciary, fair electoral systems, and checks and balances between the executive, legislature, and judiciary. When these institutions function properly, they prevent the concentration of power and safeguard the rights of citizens.

Another important factor is **citizen education and awareness**. A well-educated and informed citizenry is better equipped to make informed decisions during elections and to participate meaningfully in political processes. When citizens understand the importance of democracy and their role in it, they are more likely to contribute to its success.

In conclusion, the success of democracy is ensured by active citizen participation, the protection of rights, the independence of key institutions, and an informed public. These factors work together to create a dynamic, accountable, and functioning democratic system.

Quick Tip

For democracy to thrive, it requires active participation, strong institutions, protection of rights, and an informed citizenry.

ECONOMICS (Short Answer Type Questions)

Question Nos. 15 to 18 are Short Answer Type. Answer any 2 questions.
Each question carries 2 marks.

15. What is mixed economy?

Solution:

A mixed economy is an economic system that combines elements of both capitalism and socialism. In this system, both the private sector and the government play significant roles in the economy. The private sector is responsible for producing goods and services, while the government regulates and provides certain essential services that are not efficiently provided by private businesses. A mixed economy allows for private ownership and entrepreneurship, but also emphasizes social welfare, public goods, and the reduction of inequalities.

 Quick Tip

A mixed economy balances the benefits of free-market capitalism with the social benefits of government intervention.

16. Mention four positive effects of globalization.

Solution:

Globalization has brought several positive changes to the global economy:

1. **Economic Growth:** Globalization has facilitated the exchange of goods, services, and investments, leading to economic growth, particularly in developing countries.
2. **Access to Technology:** It has allowed countries to access advanced technologies, which can improve productivity and innovation.
3. **Job Creation:** Globalization has created job opportunities, especially in emerging economies, by attracting foreign direct investment.
4. **Cultural Exchange:** It has promoted cultural exchange and a greater understanding between different nations, enhancing global cooperation.

 Quick Tip

Globalization leads to economic integration, which promotes growth, technological exchange, and improved living standards.

17. What is the function of financial institutions?

Solution:

Financial institutions play a vital role in an economy by facilitating the flow of money and resources. Their main functions include:

1. **Mobilizing Savings:** Financial institutions accept savings from individuals and organiza-

tions and channel them into productive investments.

2. **Providing Loans and Credit:** They offer loans to businesses and individuals, which are used for expansion, development, and consumption.

3. **Facilitating Payments:** Financial institutions help in the transfer of funds through various mechanisms, such as electronic transfers and checks.

4. **Risk Management:** They offer insurance and other products that help manage financial risks.

Quick Tip

Financial institutions are essential for the functioning of the economy as they connect savers and borrowers, promote investment, and ensure liquidity.

18. What is the role of self-help group in women empowerment?

Solution:

Self-help groups (SHGs) play an important role in empowering women, particularly in rural areas. These groups are small, informal associations of women who come together to save money, support each other, and provide access to financial resources. By participating in SHGs, women are able to gain financial independence, improve their livelihoods, and increase their social standing within the community. Moreover, SHGs encourage leadership, decision-making, and confidence among women, leading to greater participation in local governance and economic activities. SHGs also create a platform for women to voice their concerns and advocate for their rights.

Quick Tip

SHGs empower women by promoting self-reliance, enhancing access to resources, and fostering leadership skills.

(Long Answer Type Questions)

Question Nos. 19 and 20 are Long Answer Type. Answer any one of them. Each question carries 4 marks.

19. Discuss the rights given to the consumers under the Consumer Protection Act.

Solution:

The Consumer Protection Act, 1986, was enacted to protect the rights of consumers in India. It provides for the establishment of consumer forums and councils at the district, state, and national levels to resolve consumer disputes. The Act ensures that consumers have the right to

seek redress against unfair trade practices, defective goods, and services, and fraudulent advertisements. There are six primary rights given to consumers under the Consumer Protection Act:

1. **Right to Safety:** Consumers have the right to be protected against goods and services that are hazardous to health and life.
2. **Right to be Informed:** Consumers have the right to be informed about the quality, quantity, potency, purity, and standard of goods and services.
3. **Right to Choose:** Consumers have the right to select from a variety of goods and services at competitive prices.
4. **Right to be Heard:** Consumers have the right to express their grievances and have their complaints heard and addressed.
5. **Right to Seek Redressal:** Consumers have the right to seek compensation for damages caused by defective goods or services.
6. **Right to Consumer Education:** Consumers have the right to acquire knowledge and skills to make informed choices in the marketplace.

The Consumer Protection Act provides a framework for consumers to ensure they are treated fairly, and it empowers them with legal recourse in case of disputes.

Quick Tip

The Consumer Protection Act ensures the rights of consumers are protected by allowing them to seek redress for grievances.

20. Discuss the economic importance of money.

Solution:

Money is a fundamental component of modern economies and plays a vital role in the functioning of the economic system. Its economic importance can be highlighted through the following key functions:

1. **Medium of Exchange:** Money serves as a universally accepted medium of exchange, allowing goods and services to be traded efficiently. This eliminates the need for barter, making trade more convenient.
2. **Unit of Account:** Money provides a common measure for valuing goods and services, making it easier to compare prices and assess value. This helps in pricing products and services effectively.

3. **Store of Value:** Money enables individuals and businesses to store wealth for future use. It maintains its value over time, unlike perishable goods or services, making it possible to save and accumulate wealth.

4. **Standard of Deferred Payments:** Money facilitates credit transactions by allowing future payments to be made in money, thus helping in the smooth functioning of the credit system.

5. **Facilitating Investment and Economic Growth:** Money enables individuals and businesses to invest in productive activities. The availability of capital leads to investment in infrastructure, industries, and services, fostering economic growth.

6. **Influencing Monetary Policy:** Central banks control the money supply to influence inflation, interest rates, and overall economic stability. Money plays a key role in monetary policy and the management of economic cycles.

Thus, money is crucial in the functioning of modern economies, promoting trade, investment, and growth, and helping stabilize the economy.

 Quick Tip

Money is essential for trade, investment, and economic growth, providing stability and facilitating transactions in modern economies.

GEOGRAPHY

(Short Answer Type Questions)

Question Nos. 21 to 26 are Short Answer Type. Answer any 3 questions.
Each question carries 2 marks.

21. Nuclear power is obtained from which minerals?

Solution:

Nuclear power is primarily obtained from minerals such as uranium and thorium. Uranium is the most widely used fuel for nuclear reactors. It undergoes a process called nuclear fission, where its atoms are split to release a large amount of energy. Thorium is another mineral that is being researched as a potential alternative to uranium, as it can produce nuclear energy with fewer radioactive byproducts. These minerals are found in various parts of the world and are mined to supply the nuclear power industry.

 Quick Tip

Uranium and thorium are key minerals used for generating nuclear energy through the process of fission.

22. What is the utility of manganese?

Solution:

Manganese is an essential mineral that plays a vital role in various industries. Its primary utility is in the production of steel, where it is used as an alloying element to enhance the strength, hardness, and toughness of steel. Manganese is also used in the production of batteries, particularly dry-cell batteries, and as a component in other chemical processes. Additionally, it plays an important role in the human body, where it is involved in the formation of connective tissue, bones, and blood clotting. The global demand for manganese is largely driven by the steel industry.

💡 Quick Tip

Manganese is crucial in steel production, battery manufacturing, and human health as a trace element.

23. Define thermal pollution.

Solution:

Thermal pollution refers to the increase in the temperature of natural water bodies due to human activity, particularly industrial processes. It is most commonly caused by the discharge of heated water from power plants, factories, or other industrial facilities into nearby rivers, lakes, or oceans. The increase in water temperature can harm aquatic life by reducing the oxygen levels, disrupting ecosystems, and altering the growth and reproduction of organisms. It can also affect water quality and lead to the growth of harmful algal blooms. Thermal pollution is considered a major environmental concern and requires effective measures to mitigate its impact.

💡 Quick Tip

Thermal pollution is caused by the release of heated water into natural water bodies, harming aquatic ecosystems.

24. Mention the problems related to the development of canals in Bihar.

Solution:

The development of canals in Bihar faces several challenges. These include:

1. **Waterlogging:** Improper management of canal irrigation systems can lead to waterlogging, which affects the soil's fertility and productivity.
2. **Sedimentation:** Canals often get blocked by sediment deposits, which reduce the flow of water and make irrigation less effective.

3. **Maintenance Issues:** The lack of regular maintenance and repairs can result in canal breaches, causing water loss and further damage to agriculture.
4. **Lack of Infrastructure:** Insufficient infrastructure for proper distribution of water through canals can lead to uneven irrigation, affecting crop yields.

Addressing these issues requires improvements in canal management, regular monitoring, and investment in infrastructure to ensure the effective use of water resources for agriculture.

 Quick Tip

Canal development in Bihar faces challenges like waterlogging, sedimentation, and maintenance issues, which hinder efficient irrigation.

25. Write the features of mangrove forest.

Solution:

Mangrove forests are coastal ecosystems found in tropical and subtropical regions, characterized by salt-tolerant trees and shrubs. The key features of mangrove forests include:

1. **Salt-tolerant Vegetation:** Mangrove trees are adapted to survive in saline environments and have special roots that can filter out excess salt.
2. **Biodiversity Hotspots:** These forests are rich in biodiversity, providing habitat for various species of fish, birds, and invertebrates.
3. **Protection against Erosion:** Mangroves act as natural barriers, protecting coastal areas from erosion, storm surges, and tsunamis.
4. **Breeding Grounds:** They serve as breeding and nursery grounds for many marine species, contributing to the health of marine ecosystems.

Mangrove forests are crucial for the protection of coastal areas and the preservation of marine life. They also play an essential role in carbon sequestration, helping to mitigate climate change.

 Quick Tip

Mangrove forests provide critical environmental services, including biodiversity preservation, coastal protection, and carbon sequestration.

26. Name two coal fields of Jharkhand.

Solution:

Two major coal fields in Jharkhand are:

1. **Jharia Coalfields:** Located in the Dhanbad district, Jharia is one of the largest coalfields in India, known for its high-quality coking coal.
2. **Ramgarh Coalfields:** Located in the southern part of Jharkhand, Ramgarh coalfields are

rich in non-coking coal used for thermal power generation.

These coal fields are critical for India's energy production, supplying a significant amount of coal to power plants across the country.

 Quick Tip

Jharkhand's coal fields, such as Jharia and Ramgarh, are crucial for energy generation in India.

(Long Answer Type Questions)

Question Nos. 27 and 28 are Long Answer Type. Answer any one of them.
Each question carries 4 marks.

27. Describe the methods of rainwater harvesting and recycling.

Solution:

Rainwater harvesting is the process of collecting and storing rainwater for future use. It is one of the oldest and most effective methods to conserve water. The methods of rainwater harvesting include:

- 1. Rooftop Harvesting:** This method involves collecting rainwater from the roofs of buildings, which is then channeled into storage tanks or underground reservoirs. This is one of the most common methods used in urban areas where space is limited. The water can be used for non-potable purposes like gardening, flushing, and even for drinking if properly filtered.
- 2. Surface Runoff Harvesting:** This method involves collecting rainwater from the surface of the ground, such as through ponds, lakes, or other catchment areas. The water is stored in reservoirs or lakes for agricultural or industrial use. It is widely used in rural areas for irrigation.
- 3. Recharge Pits:** Recharge pits are used to collect rainwater and direct it to underground aquifers, which increases the water table level and improves the availability of groundwater.
- 4. Water Recycling:** Water recycling involves the treatment of wastewater for reuse. This can be done using various techniques like filtration, reverse osmosis, and biological treatment. Recycled water can be used for non-drinking purposes such as irrigation, industrial use, and even for cleaning or flushing toilets. The main objective of water recycling is to reduce the demand on fresh water sources and to reduce water wastage.

Rainwater harvesting and recycling together play a crucial role in ensuring sustainable water management, reducing dependence on natural water sources, and addressing water scarcity, particularly in areas prone to droughts.

 Quick Tip

Rainwater harvesting is a simple yet effective method to conserve water, while water recycling helps in reusing water for various purposes.

28. Give a brief account of the characteristics of alluvial soil.

Solution:

Alluvial soil is one of the most fertile and agriculturally important soils found in river basins and deltas. It is formed by the deposition of sediments carried by rivers and streams. The characteristics of alluvial soil include:

1. **Composition and Fertility:** Alluvial soil is rich in nutrients such as nitrogen, phosphorus, and potassium, making it highly fertile. It is composed of a mixture of sand, silt, and clay, which makes it ideal for growing a variety of crops, including rice, wheat, sugarcane, and cotton.
2. **Texture:** The texture of alluvial soil varies depending on the size of the particles, which range from coarse to fine. In general, it is loamy and well-draining, with good moisture retention capabilities. This helps in retaining water and nutrients, which is beneficial for crop growth.
3. **Color and Depth:** Alluvial soil is typically light brown or dark brown in color, depending on the mineral content. It is usually deep and has a fine-grained structure. The depth and quality of alluvial soil increase along riverbeds, making it suitable for cultivation.
4. **Good Drainage:** Alluvial soil has excellent drainage properties, which help in preventing waterlogging during heavy rainfall. This is crucial for healthy root development in crops.
5. **Location and Distribution:** Alluvial soil is predominantly found in river valleys, deltas, and coastal areas. Major alluvial regions in India include the Indo-Gangetic plains, the Sunderbans, and parts of the Deccan plateau. These areas are known for their high agricultural productivity.

The combination of nutrients, texture, and favorable conditions make alluvial soil highly productive and important for both crop cultivation and natural vegetation.

 Quick Tip

Alluvial soil is the most fertile soil, ideal for agriculture due to its rich mineral content and good water retention properties.

Question Nos. 29 to 32 are Short Answer Type. Answer any 2 questions.
Each question carries 2 marks.

29. What is the difference between dam and embankment?

Solution:

A **dam** is a structure built across a river or stream to store or control water flow, and is often used for purposes such as water supply, hydroelectric power generation, and flood control. Dams can create reservoirs and act as barriers to water flow. They are usually large and designed to hold large amounts of water.

An **embankment**, on the other hand, is a raised structure, typically made of earth or other materials, built along the banks of a river, lake, or sea to prevent flooding. Embankments help manage water flow and prevent erosion, but unlike dams, they do not store water. They are used primarily for flood protection in areas prone to high water levels.

 Quick Tip

A dam stores water, while an embankment prevents flooding by managing water flow along shorelines.

30. Write two measures to reduce the effects of earthquake.

Solution:

To reduce the effects of earthquakes, two important measures are:

1. **Building Earthquake-Resistant Structures:** One of the most effective measures to minimize earthquake damage is to build buildings and infrastructure that are designed to withstand seismic forces. This includes using flexible materials, reinforcing structures, and adhering to earthquake-resistant building codes.
2. **Early Warning Systems:** Implementing early warning systems can provide crucial time for people to take cover and for emergency services to respond. These systems detect the initial seismic waves of an earthquake and issue warnings seconds before the more damaging waves arrive, allowing people to evacuate or protect themselves.

 Quick Tip

Earthquake-resistant buildings and early warning systems are key measures for reducing earthquake impacts.

31. Define satellite communication.

Solution:

Satellite communication refers to the use of communication satellites in Earth's orbit to send and receive signals for the purpose of telecommunication. These satellites relay information, such as telephone calls, television broadcasts, and internet data, across vast distances. Satellite communication has become essential for global communication, especially in areas where terrestrial communication networks are not feasible. Satellites operate by receiving signals from a ground station, amplifying them, and then sending them back to Earth, where they are received by another ground station.

💡 Quick Tip

Satellite communication enables global telecommunication by relaying signals between Earth and space.

32. Why is disaster management needed?

Solution:

Disaster management is essential to mitigate the impact of natural and man-made disasters and to ensure the safety and well-being of communities. It involves the coordination of resources, strategies, and actions before, during, and after a disaster. The need for disaster management arises from the unpredictability of disasters such as earthquakes, floods, and hurricanes, which can cause significant loss of life and property. Effective disaster management includes risk reduction, preparedness, response, and recovery.

Key reasons for disaster management include:

1. **Reducing Loss of Life:** It helps in minimizing casualties through early warning systems, evacuation plans, and emergency medical services.
2. **Mitigating Economic Loss:** Proper disaster management reduces the economic burden of disasters by protecting infrastructure and restoring essential services quickly.
3. **Building Resilience:** It ensures that communities can withstand and recover from disasters, with less disruption to daily life.

Disaster management is critical for the safety, recovery, and sustainable development of affected regions.

 Quick Tip

Disaster management reduces loss of life, mitigates economic impact, and helps communities recover and build resilience.
