CBSE Class 12 Geography 2026 — Set 2 — Answer Key

English Medium

Time Allowed: 3 Hours

General Instructions:

1. This is an answer key — each question is shown with its correct answer and a step-by-step explanation.
2. Questions appear in the original paper order.

Q.1

Two statements are given below. They are Assertion (A) and Reason (R). Read both statements carefully and choose the correct option :

Assertion (A) : There is a strong dichotomy between physical elements and human beings.

Reason (R) : Nature and human are intricately interwined.

(a) Both (A) and (R) are true and (R) is the correct explanation of (A).

(b) Both (A) and (R) are true but (R) is not the correct explanation of (A).

(c) (A) is incorrect but (R) is correct. <<

(d) (A) is correct but (R) is incorrect.

Explanation:

Assertion (A) is incorrect because the modern geographical thought, especially possibilism and neo-determinism, rejects a strong dichotomy between physical elements and human beings.

Reason (R) is correct — nature and humans are intricately intertwined, influencing each other.

Hence option (C): (A) is incorrect but (R) is correct.

Q.2

"Neither there is absolute necessity nor there is absolute freedom." The given statement is related to which one of the following concepts?

(a) Determinism

(b) Neo-determinism <<

(c) Possibilism

(d) Individualism

Explanation:

The statement 'Neither there is absolute necessity nor there is absolute freedom' reflects the middle path between determinism and possibilism — this is the concept of Neo-determinism (also called Stop and Go Determinism), proposed by Griffith Taylor.

Hence option (B) Neo-determinism is correct.

Q.3

Read the following sub-fields of social geography carefully and choose the correct option :

I. Resource Geography

II. Leisure Geography

III. Gender Geography

IV. Marketing Geography

(a) I and III are correct.

(b) I and IV are correct.

(c) II and III are correct. <<

(d) II and IV are correct.

Explanation:

Sub-fields of social geography include Leisure Geography and Gender Geography (among others like Medical Geography, Electoral Geography, Cultural Geography).

Resource Geography and Marketing Geography are not sub-fields of social geography.

Hence option (C) II and III are correct.

Q.4

Which one of the following types of farming is most labour intensive?

(a) Horticulture

(b) Subsistence agriculture <<

(c) Co-operative farming

(d) Collective farming

Explanation:

Subsistence agriculture is the most labour intensive form of farming as it relies heavily on human labour with little or no mechanisation.

It is practised in densely populated regions where land holdings are small and labour is abundant.

Hence option (B) Subsistence agriculture is correct.

Q.5

Which one of the following is an example of non-metallic mineral based industry?

(a) Aluminium industry
(b) Iron and Steel industry
(c) Copper industry
(d) Cement industry <<

Explanation:

Cement industry uses non-metallic minerals like limestone, gypsum, and shale as raw materials.

Aluminium, Iron and Steel, and Copper industries are all metallic mineral based industries.

Hence option (D) Cement industry is correct.

Q.6

Two statements are given below. They are Assertion (A) and Reason (R). Read both the statements carefully and choose the correct option :

Assertion (A) : The concept of 'sustainable development' emerged in 1990's.

Reason (R) : General awareness about environmental issues originated during 1960's in the western world.

(a) Both (A) and (R) are true and (R) is the correct explanation of (A).
(b) Both (A) and (R) are true but (R) is not the correct explanation of (A).
(c) (A) is correct but (R) is incorrect.
(d) (A) is incorrect but (R) is correct. <<

Explanation:

Assertion (A) is incorrect — the concept of sustainable development emerged in the 1980s, notably with the Brundtland Commission Report 'Our Common Future' in 1987, not the 1990s.

Reason (R) is correct — environmental awareness did originate in the 1960s in the western world (e.g., Rachel Carson's Silent Spring, 1962).

Hence option (D): (A) is incorrect but (R) is correct.

Q.7

Arrange the following coal mining areas of India from south to north direction of their location and choose the correct option :

I. Singareni

II. Neyveli

III. Jharia

IV. Talchar

(a) II, I, III, IV

(b) II, I, IV, III <<

(c) I, II, IV, III

(d) I, II, III, IV

Explanation:

Arranging from south to north: Neyveli (Tamil Nadu — southernmost), Singareni (Telangana), Talchar (Odisha), Jharia (Jharkhand — northernmost among the four). So the order south to north is: II (Neyveli), I (Singareni), IV (Talchar), III (Jharia). Hence option (B) II, I, IV, III is correct.

Q.8

If you were asked to prepare a 'hill area development programme', which of the following must be kept in mind? Choose the correct option :

I. Establishing heavy industry

II. Ecosystem

III. National Highway construction

IV. Topography

(a) I and III

(b) I and IV

(c) II and III

(d) II and IV <<

Explanation:

For a hill area development programme, the ecosystem (fragile mountain ecology) and

topography (terrain, slopes) are the most critical factors to consider.
Heavy industry and national highway construction are not necessarily essential components of a hill area development programme.
Hence option (D) II and IV is correct.

Q.9

Match Column-I with Column-II and choose the correct option :
Column-I (Mineral) — Column-II (Major Mines)
a. Iron-ore — i. Katni
b. Manganese — ii. Bhilwara
c. Bauxite — iii. Chandrapur
d. Copper — iv. Sundargarh

(a) a-iv, b-iii, c-i, d-ii <<
(b) a-iii, b-iv, c-ii, d-i
(c) a-iii, b-iv, c-i, d-ii
(d) a-iv, b-iii, c-ii, d-i

Explanation:
Iron-ore: Sundargarh (Odisha) is a major iron-ore mining area.
Manganese: Chandrapur (Maharashtra) is known for manganese mines.
Bauxite: Katni (Madhya Pradesh) is a major bauxite producing area.
Copper: Bhilwara (Rajasthan) is associated with copper mining.
So the correct matching is a-iv, b-iii, c-i, d-ii.
Hence option (A).

Q.10

Read the information given in the box carefully and identify the mineral :
- It is a non-ferrous ore.
- Odisha is the largest producer state.
- It is used in manufacturing of aluminium.

(a) Copper
(b) Mica
(c) Bauxite <<

(d) Manganese

Explanation:

The mineral described is Bauxite: it is a non-ferrous ore, Odisha is the largest producer in India, and it is the primary ore used in the manufacturing of aluminium.

Hence option (C) Bauxite is correct.

Q.11

Which one of the following contributes maximum in India's export?

(a) Agriculture and allied products

(b) Ores and minerals

(c) Manufactured goods <<

(d) Mineral fuels and lubricants

Explanation:

Manufactured goods contribute the maximum share to India's exports, accounting for the largest proportion of India's export basket.

This includes textiles, garments, gems and jewellery, engineering goods, and chemicals.

Hence option (C) Manufactured goods is correct.

Q.12

Which one of the following organisations regulate the air traffic of major airports of India?

(a) Airport Authority of India <<

(b) Indian Airport Commission

(c) Indian Air Control Board

(d) Airport Development Authority

Explanation:

The Airports Authority of India (AAI) is the statutory body responsible for creating, upgrading, maintaining, and managing civil aviation infrastructure including regulation of air traffic at major airports in India.

Options (B), (C), and (D) are fictitious organisations.

Hence option (A) Airport Authority of India is correct.

Q.13

Which one of the following ports is situated at 'Zuari Estuary'?

(a) New Mangalore
(b) Kochchi
(c) Marmagao <<
(d) Ennore

Explanation:

Marmagao (Mormugao) port is located at the mouth of the Zuari estuary in Goa.
It is one of India's major ports on the west coast.
Hence option (C) Marmagao is correct.

Q.14

Which one of the following inland waterway and its stretch is correctly matched?

(Waterways) — (Stretch)

(a) National Waterways No. 1 — Allahabad – Haldia <<
(b) National Waterways No. 3 — Sadiya – Dhubri
(c) National Waterways No. 2 — Kottapuram – Kollam
(d) National Waterways No. 5 — Kakinada – Puducherry

Explanation:

National Waterway No.
1 (NW-1) runs from Allahabad (Prayagraj) to Haldia along the Ganga–Bhagirathi–Hooghly river system, stretching 1620 km.
NW-2 = Sadiya to Dhubri (Brahmaputra);
NW-3 = Kottapuram to Kollam (West Coast Canal);
NW-4 = Kakinada–Puducherry.
Hence option (A) is correctly matched.

Q.15

Study the following Human Development Index 2022 table:

S.N. | Country | HDI Value
1 | Belarus | 0.801
2 | Botswana | 0.708
3 | Congo | 0.593
4 | Mexico | 0.781
5 | Nigeria | 0.548
6 | Sudan | 0.516
7 | Tanzania | 0.532
8 | Chile | 0.860
9 | Yemen | 0.424

How many countries fall under the low category of 'human development index' in the given table?

(a) 2
(b) 4 <<
(c) 3
(d) 5

Explanation:
HDI categories: Very High >= 0.800;
High 0.700–0.799;
Medium 0.550–0.699;
Low < 0.550. Low HDI countries from the table: Nigeria (0.548), Sudan (0.516), Tanzania (0.532), Yemen (0.424) — all four are below 0.550. Hence option (B) 4 is correct.

Q.16

Study the following Human Development Index 2022 table (Belarus 0.801, Botswana 0.708, Congo 0.593, Mexico 0.781, Nigeria 0.548, Sudan 0.516, Tanzania 0.532, Chile 0.860, Yemen 0.424).

Congo comes under which one of the following categories of human

development?

(a) Very high
(b) High
(c) Medium <<
(d) Low

Explanation:
Congo's HDI value is 0.593. HDI categories: Medium = 0.550 to 0.699. Since 0.593 falls in this range, Congo is in the Medium human development category.
Hence option (C) Medium is correct.

Q.17

Study the following Human Development Index 2022 table (Belarus 0.801, Botswana 0.708, Congo 0.593, Mexico 0.781, Nigeria 0.548, Sudan 0.516, Tanzania 0.532, Chile 0.860, Yemen 0.424).

Which of the following European country falls under very high category of human development?

(a) Chile
(b) Mexico
(c) Botswana
(d) Belarus <<

Explanation:
Very High HDI = 0.800 and above.
Belarus (0.801) is a European country and has HDI >= 0.800, placing it in the 'Very High' category.
Chile (0.860) is South American, Mexico is North American, and Botswana is African.
Hence option (D) Belarus is correct.

Q.18

Read the given passage carefully and answer the questions that follow :

(The Quaternary Sector)

The Quaternary Sector along with the Tertiary Sector has replaced most of the primary and secondary employment as the basis for economic growth. Over half of all workers in developed economies are in the 'Knowledge Sector' and there has been a very high growth in demand for consumption of information-based services from mutual fund managers to tax consultants, software developers and statisticians. Personnel working in office buildings, elementary schools and university classrooms, hospitals and doctors' offices, theatres, accounting and brokerage firms all belong to this category of services. Like some of the tertiary functions, quaternary activities can also be outsourced. They are not tied to resources, affected by the environment, or necessarily localised by market.

(18.1) Define the concept of 'outsourcing'.

(18.2) More than 50 percent of all workers in developed countries belongs to which sector of economy?

(18.3) 'Mutual funds managers' are demanding which type of services?

Answer: (18.1) Outsourcing refers to the practice of contracting out certain business functions or services to an external organisation or a third party (often in another country) rather than performing them in-house. It involves obtaining services from outside the company, typically to reduce costs or access specialised expertise.

(18.2) More than 50 percent of all workers in developed countries belong to the Knowledge Sector (Quaternary Sector).

(18.3) Mutual fund managers are demanding information-based services (Quaternary/knowledge-based services).

Explanation:

Based on the passage: outsourcing = contracting work to external parties; knowledge sector = where over half of developed-economy workers are employed; mutual fund managers seek information-based (quaternary) services.

Q.19

Study the given map carefully and answer the questions that follow :
(Trans-Siberian Railway)

(19.1) Name the easternmost terminal station of the given rail route.
(19.2) Name the most important agro centre along the rail route.
(19.3) Name the Sea near to the westernmost terminal station.

Answer: (19.1) Khabarovsk (easternmost terminal station labeled on the map).
(19.2) Novosibirsk (most important agro centre along the rail route, prominently labeled in the Siberian agricultural heartland).
(19.3) Baltic Sea (near St. Petersburg, the westernmost terminal station shown on the map).

Explanation:
The paper map (p013) clearly labels the Trans-Siberian Railway with the following cities from west to east: St.
Petersburg, Moscow, Kazan, Yekaterinburg, Tyumen, Omsk, Novosibirsk, Krasnoyarsk, Angarsk, Chita, Khabarovsk.
The easternmost terminal labeled on this map is KHABAROVSK — Vladivostok is not labeled (though in geographical reality the railway ends at Vladivostok).
For 19.2, Novosibirsk is the major agro-industrial centre prominently labeled in the heart of the Siberian grain belt (Chelyabinsk in the previous answer is near the Urals, not the primary agro centre shown on this map).
For 19.3, the westernmost terminal is St.
Petersburg, which lies near the Baltic Sea — this part is confirmed correct.

OR

Q.19

(Visually Impaired alternative for Q.19) Describe any three features of 'Trans-Siberian Railway'.

Answer: 1. The Trans-Siberian Railway is the world's longest railway line, stretching about 9,289 km from Moscow to Vladivostok.

2. It passes through the Ural Mountains, the Siberian plain and several major river valleys (Ob, Yenisei, Lena, Amur).

3. It connects the European part of Russia with the Russian Far East, facilitating transport of goods, passengers, and raw materials (timber, minerals) across the continent.

Explanation:

The Trans-Siberian Railway is a key feature of Eurasia's transport network, running east–west across Russia and linking diverse economic regions.

Q.20

(a) "International trade is mutually beneficial to nations." Support the statement with suitable arguments.

Answer: 1. Comparative advantage: Nations can specialise in producing goods where they have a relative cost advantage and trade for goods they produce less efficiently, thereby maximising global output.

2. Access to resources: Countries that lack certain natural resources or raw materials can obtain them through trade (e.g., India imports petroleum, exports iron ore).

3. Economic growth: Trade expands markets for domestic producers, leading to higher production, employment, and income growth.

4. Technology transfer: International trade facilitates the exchange of technology and knowledge between trading partners, aiding development.

Explanation:

International trade promotes economic efficiency through specialisation, resource access, and market expansion — all mutually beneficial to participating nations.

OR

Q.20

(b) "Global sea ports are the gateways of international trade." Support the statement with suitable arguments.

Answer: 1. Sea ports are the primary entry and exit points for the bulk of world trade — over 80% of global trade by volume moves by sea.

2. They are equipped with specialised handling facilities (container terminals, bulk cargo docks, warehousing) that enable efficient loading/unloading of goods.

3. Major ports like Rotterdam, Singapore, and Shanghai serve as transhipment hubs connecting different shipping routes and facilitating onward distribution.

4. Sea ports provide connectivity between inland production centres and global markets through hinterland transport networks (road, rail).

5. Free trade zones and Special Economic Zones (SEZs) near ports attract foreign investment and industrial development.

Explanation:

Sea ports are nodal points in the global trade network, enabling the movement of large volumes of goods efficiently and acting as hubs for transhipment and value-added trade activities.

Q.21

Explain the importance of the 'Northern Atlantic Sea Route'.

Answer: 1. Busiest sea route: The Northern Atlantic Sea Route is the most heavily used ocean trade route in the world, connecting the highly industrialised regions of North-eastern USA and North-western Europe.

2. Industrial connectivity: It links two of the world's most productive industrial and commercial regions, facilitating trade in manufactured goods, machinery, chemicals, and foodstuffs.

3. Volume of trade: This route carries about one-quarter of the world's total trade, making it the most significant trade artery.

4. Port hubs: Major ports along this route include New York, London, Rotterdam, and Hamburg, which are among the world's greatest commercial centres.

5. Short sailing distances: Despite the name 'North Atlantic', the Great Circle route allows relatively shorter distances between the continents, saving fuel and time.

Explanation:

The Northern Atlantic Sea Route is critical for global commerce because it connects the world's two largest industrial regions (North America and Western Europe) and handles a disproportionately large share of world trade.

Q.22

Study the given table carefully and answer the questions that follow :

India – Trends of Urbanisation 1961–2011

Year | Number of Towns/UAs | Urban Population (in Thousands) | % of Total population | Decennial Growth (%)

1961 | 2,365 | 78,936.6 | 17.97 | –

1971 | 2,590 | 1,09,114 | 19.91 | 38.23

1981 | 3,378 | 1,59,463 | 23.34 | 46.14

1991 | 4,689 | 2,17,611 | 25.71 | 36.47

2001 | 5,161 | 2,85,355 | 27.78 | 31.13

2011 | 6,171 | 3,77,000 | 31.16 | 31.08

22.1 During which decade, the net increase in number of towns/UAs is the lowest?

22.2 Mention the net increase in number of towns/UAs during 1981–91.

22.3 Explain the decennial growth rate of urban population.

Answer: 22.1 The decade 1961–1971 shows the lowest net increase in number of towns/UAs: 2590 – 2365 = 225 towns.

22.2 Net increase in number of towns/UAs during 1981–91: 4689 – 3378 = 1311 towns/UAs.

22.3 Decennial growth rate of urban population: The growth rate was highest in 1971–81 (46.14%) and has been declining since then — 36.47% (1981–91), 31.13% (1991–2001), and 31.08% (2001–11). Although the absolute urban population continues to rise, the rate of growth is slowing. Possible reasons include saturation of mega-cities, improved rural infrastructure, and slower

rural-to-urban migration.

Explanation:

Calculations: 22.1 = 2590-2365=225 (lowest);

22.2 = 4689-3378=1311;

22.3 analyses the trend column showing peak at 1981 then sustained decline.

Q.23

Explain the need to extend the network of national highways in India.

Answer: 1. Connectivity: National highways connect state capitals, major cities, ports, and industrial centres, ensuring efficient movement of goods and people across vast distances.

2. Economic development: Better highway connectivity reduces transport costs, stimulates trade, attracts investment, and promotes the growth of industries and agriculture in lagging regions.

3. Rural linkage: Extending highways to rural areas helps integrate them with urban markets, improving access to services and raising farm income.

4. Defence requirements: Highways in border areas support rapid movement of troops and military supplies, which is critical for national security.

5. Reducing congestion: Extending and upgrading national highways diverts heavy traffic from overburdened state roads and urban roads, reducing congestion and accidents.

Explanation:

National highways are the backbone of India's road transport network.

Their extension is needed for economic integration, defence logistics, and reducing regional disparities.

Q.24

(a) How do the 'landforms' and 'urbanisation' influence the distribution of world population? Explain with examples.

Answer: Landforms:

1. Plains: River plains and coastal lowlands are most densely populated as they offer fertile soils, flat terrain suitable for agriculture and construction, and easy transport (e.g., the Indo-Gangetic Plain, the Nile Delta, the Rhine Valley in Europe).
2. Mountains: High mountains like the Himalayas, Alps, and Rockies are sparsely populated due to rugged terrain, extreme climate, poor soils, and difficult accessibility.
3. Plateaus: Moderate populations — some plateaus (e.g., Deccan Plateau) support populations due to mineral wealth and pastureland.
4. Deserts: Extremely sparse population due to harsh climate and lack of water (e.g., Sahara, Thar Desert).

Urbanisation:

1. Urban areas attract large populations due to employment opportunities, better infrastructure, healthcare, education, and social amenities.
2. Industrial cities like Mumbai, Shanghai, and New York have dense populations due to economic opportunities.
3. Urbanisation creates mega-cities and metropolitan regions with very high population densities.
4. Migration from rural to urban areas concentrates population in specific zones, leaving rural areas with declining densities.

Explanation:

Landforms determine physical suitability for settlement;
urbanisation drives concentration of population through economic pull factors.

OR

Q.24

(b) How do 'water availability' and 'industrialization' influence the distribution of world population? Explain with examples.

Answer: Water Availability:

1. Areas with abundant freshwater (river valleys, lakes, coastal zones with reliable rainfall) support dense populations because water is essential for drinking, agriculture, and industry (e.g., the Ganga Plain, the Mississippi Valley).
2. Arid and semi-arid regions have sparse populations due to water scarcity (e.g., the Sahara Desert, Central Australia).
3. Oases in deserts attract clusters of population where groundwater is accessible.
4. Rivers have historically been the cradles of civilisation — the Nile, Tigris-Euphrates, Indus, and Huang He all supported early dense settlements.

Industrialisation:
1. Industrial regions attract large workforces and support dense populations through employment in manufacturing, mining, and services (e.g., the Ruhr Valley in Germany, Midland England during the Industrial Revolution).
2. Industrialisation spurs urbanisation, creating cities that become magnets for rural migrants seeking better economic opportunities.
3. Industrial corridors and Special Economic Zones concentrate population in specific areas.
4. Areas with abundant mineral resources and energy become industrial hubs with high population densities (e.g., the Damodar Valley in India, the Great Lakes region in the USA).

Explanation:
Water is a basic necessity driving settlement patterns;
industrialisation creates economic pull that concentrates population in specific regions.

Q.25

(a) "The earliest human beings depended on their immediate environment for their sustenance." Examine the statement with reference to hunting and gathering.

Answer: The statement accurately describes the nature of early human

subsistence:

1. Direct dependence: Early humans were hunter-gatherers who sourced all food, clothing, and shelter directly from their surrounding natural environment without modifying it.
2. Nomadic lifestyle: They moved from place to place following animal herds and seasonal food availability, unable to store food for long periods.
3. Use of natural materials: Tools were made from stones, bones, and wood found locally; clothing was made from animal skins; shelter was found in caves or built from branches.
4. Limited technology: With primitive technology, humans could exploit only what nature provided — fruits, roots, small animals, fish — and were at the mercy of environmental conditions (drought, floods, seasonal changes).
5. Small group size: Hunting-gathering supported only small population densities as large areas of land were needed to sustain a small group.
6. Nature as provider: Every aspect of survival — food, medicine, tools, shelter — was sourced from the immediate environment, making humans entirely dependent on it.

Thus, early human beings had a completely nature-bound existence, confirming their complete dependence on the immediate environment.

Explanation:

Hunter-gatherer societies represent the purest form of environmental dependence — every resource came from the immediate natural surroundings with no ability to produce or modify the environment significantly.

OR

Q.25

(b) "Commercial livestock rearing is well organised and capital intensive." Examine the statement with comparison to nomadic herding.

Answer: Commercial Livestock Rearing:

1. Well organised: It is carried out on large, scientifically managed ranches with planned breeding, feeding schedules, veterinary care, and systematic marketing

of products (meat, wool, dairy).

2. Capital intensive: Requires significant investment in land (large ranches), fencing, machinery, transportation, veterinary services, and processing facilities.

3. Permanent settlements: Ranch owners and workers live permanently at fixed locations; the animals do not migrate.

4. Profit-oriented: The primary goal is commercial profit through large-scale production for national and international markets.

5. Location: Found in temperate grasslands — the Pampas (Argentina), the Prairies (North America), the Veld (South Africa), and the Downs (Australia).

Comparison with Nomadic Herding:

1. Nomadic herding is a subsistence activity; commercial livestock rearing is market-oriented.

2. Nomadic herding involves seasonal migration following pastures; commercial rearing is sedentary on fixed ranches.

3. Nomadic herding requires minimal capital; commercial rearing is highly capital-intensive.

4. Nomadic herding is practised in arid/semi-arid regions (Sahara, Central Asia); commercial rearing is in temperate grasslands.

5. Nomadic herding keeps diverse animals for immediate needs (milk, meat, hides); commercial rearing specialises in one or two livestock types for mass market production.

Explanation:

Commercial livestock rearing is the industrialised, profit-driven counterpart of traditional nomadic herding — characterised by fixed location, scientific management, heavy capital investment, and market orientation.

Q.26

(a) Explain the problem of 'low productivity' of Indian agriculture. Analyse the role of 'National Mission for Sustainable Agriculture' to solve this problem.

Answer: Problem of Low Productivity (2 marks):

1. Small and fragmented landholdings due to inheritance laws reduce the scope for mechanisation and efficient farming.
2. Inadequate irrigation — over 60% of cultivated area is rain-fed, making output dependent on monsoon variability.
3. Poor use of improved seeds, fertilisers, and modern technology, especially among marginal and small farmers.
4. Lack of institutional credit forces farmers to rely on informal moneylenders, limiting investment in inputs.
5. Soil degradation, water logging, and salinity reduce fertile area.

Role of National Mission for Sustainable Agriculture (NMSA) (3 marks):

1. Water use efficiency: NMSA promotes micro-irrigation (drip and sprinkler systems) to improve water productivity in rain-fed and drought-prone areas.
2. Soil health management: It supports soil health card distribution, organic farming, and integrated nutrient management to restore soil fertility and productivity.
3. Climate-resilient agriculture: NMSA helps farmers adopt improved seed varieties, diversified cropping systems, and crop insurance to manage climate risks.
4. Knowledge dissemination: It funds farmer training, demonstrations of best practices, and extension services to spread modern agricultural techniques.
5. Convergence: By integrating other national missions (e.g., National Water Mission), NMSA ensures holistic support for sustainable productivity enhancement.

Explanation:

Low productivity in Indian agriculture stems from structural and technological constraints;

NMSA addresses them through water efficiency, soil management, and climate adaptation.

OR

Q.26

(b) Explain the problems of the 'indebtedness' of Indian farmers. Analyse the importance of 'farmer's portal' in helping the farmers.

Answer: Problems of Indebtedness of Indian Farmers (2 marks):

1. Dependence on informal credit: Due to limited access to institutional credit (banks, cooperatives), farmers borrow from local moneylenders at exorbitantly high interest rates, creating a debt trap.
2. High input costs: Rising costs of seeds, fertilisers, pesticides, and irrigation leave small farmers with little surplus, making loan repayment difficult.
3. Crop failure: Natural calamities (drought, flood, pest attacks) lead to crop failures and income loss, preventing farmers from repaying loans.
4. Lack of price support: Without assured minimum support prices for all crops, farmers are forced to sell at low prices, deepening indebtedness.
5. Vicious cycle: Indebtedness reduces investment capacity, perpetuating low productivity and further indebtedness.

Importance of Farmer's Portal (3 marks):

1. Market information: The portal provides real-time market prices (mandi rates), helping farmers sell at the best price and avoid distress sales to middlemen.
2. Scheme access: Farmers can access information about government schemes (PM-KISAN, crop insurance, subsidies) and apply online, reducing dependence on intermediaries.
3. Advisory services: The portal offers weather forecasts, crop advisory, and pest management guidance to help farmers make informed decisions and reduce losses.
4. Financial literacy: Information on institutional credit (Kisan Credit Card, bank loans) helps farmers shift from informal to formal credit sources at lower interest rates.
5. Transparency: Direct access to information reduces exploitation by middlemen

and local moneylenders, empowering farmers to manage their finances better.

Explanation:

Farmer indebtedness is a systemic issue rooted in informal credit dependence and market vulnerability;

the farmer's portal addresses information asymmetry as a key intervention.

Q.27

"The government of India's campaign 'Beti Bachao – Beti Padhao' is an effective step to empower women." Justify the statement.

Answer: 1. Addressing declining sex ratio: The campaign was launched in 2015 to prevent female foeticide and improve the declining child sex ratio, especially in states like Haryana, Rajasthan, and Uttar Pradesh. By protecting the girl child, it directly empowers women from birth.

2. Education of girls: 'Beti Padhao' (Educate the daughter) promotes school enrolment and retention of girls, ensuring they gain literacy, skills, and economic independence.

3. Changing social mindset: The campaign challenges patriarchal attitudes and son preference through mass awareness campaigns, community mobilisation, and celebrity endorsements, gradually shifting social norms in favour of gender equality.

4. Conditional cash transfers and incentives: Many states link the campaign with financial incentives for families that educate and retain girls in school, reducing economic barriers to girls' education.

5. Multi-sectoral approach: It is implemented jointly by the Ministry of Women and Child Development, Health, and Education, ensuring comprehensive action on nutrition, healthcare, and schooling for girls.

6. Measurable outcomes: The programme has shown improvements in sex ratio at birth in targeted districts, increased school enrolment of girls, and reduced dropout rates.

Thus, 'Beti Bachao – Beti Padhao' tackles gender-based discrimination at multiple

levels — survival, education, and social recognition — making it an effective step towards women's empowerment.

Explanation:

The campaign addresses the root causes of gender inequality (female foeticide, education deprivation) through legal, financial, and social interventions, resulting in measurable empowerment outcomes.

Q.28

(a) Explain the causes of air pollution and suggest any three measures to overcome it.

Answer: Causes of Air Pollution (2 marks):

1. Vehicular emissions: Burning of fossil fuels in automobiles releases CO, NOx, hydrocarbons, and particulate matter (PM2.5, PM10).
2. Industrial activities: Factories and power plants emit SO2, CO2, nitrogen oxides, and toxic chemicals into the atmosphere.
3. Burning of fossil fuels: Coal-fired thermal power stations and domestic burning of coal/wood are major sources of SO2 and smoke.
4. Agricultural practices: Stubble burning releases large quantities of smoke, CO2, and particulates.
5. Construction activities: Dust from construction sites contributes to airborne particulate matter.

Measures to Overcome Air Pollution (3 marks):

1. Switch to clean energy: Replace fossil fuel-based energy with solar, wind, and other renewable sources to reduce emissions from power plants and industries.
2. Promote electric vehicles (EVs): Subsidise and incentivise EVs to replace petrol/diesel vehicles, significantly reducing vehicular emissions in urban areas.
3. Enforce emission standards: Implement strict emission norms for industries and vehicles (e.g., BS-VI norms in India) and carry out regular monitoring and penalties for violations.

(Additional: Promote public transport, ban stubble burning, increase green cover.)

Explanation:

Air pollution arises from combustion of fossil fuels and industrial activities; solutions target emission reduction through clean energy, EVs, and regulatory enforcement.

OR

Q.28

(b) Explain the causes of noise pollution and suggest any three measures to overcome it.

Answer: Causes of Noise Pollution (2 marks):

1. Transportation: Road traffic (honking, engine noise), railway operations, and aircraft noise near airports are major sources of noise pollution in urban areas.
2. Industrial activities: Heavy machinery, construction equipment, and factory operations generate high-decibel noise.
3. Loudspeakers and public events: Use of loudspeakers at religious events, political rallies, and entertainment venues contributes significantly.
4. Domestic sources: Television, music systems, household appliances, and neighbourhood activities create localised noise pollution.
5. Construction activities: Drilling, hammering, and pile-driving generate intense noise.

Measures to Overcome Noise Pollution (3 marks):

1. Use of sound barriers: Construction of acoustic barriers (walls, noise-absorbing panels) along highways, railways, and airports to absorb and deflect sound waves.
2. Regulation and enforcement: Implement and enforce strict noise standards — restrict honking in silence zones, set decibel limits for industries and public events, and penalise violators.
3. Green belts: Planting trees and shrubs along roads and around industrial areas acts as a natural sound buffer, reducing noise levels in residential areas.

(Additional: Use noise-dampening materials in construction, promote use of electric vehicles, schedule noisy industrial activities during daytime only.)

Explanation:

Noise pollution is caused by transport, industry, and human activities; solutions focus on barriers, regulation, and green buffers.

Q.29

On the given political outline map of the world, seven geographical features have been marked as A, B, C, D, E, F and G. Identify any five with the help of the following information and write their correct names on the lines drawn near them :

A. A major sea-port

B. A major air-port

C. A major shipping canal

D. A major area of 'subsistence gathering'

E. A major area of 'nomadic herding'

F. A major area of 'commercial livestock rearing'

G. A major area of 'extensive commercial grain farming'

Answer: A = Vancouver (major sea-port, Canada — western coast of North America, Pacific); B = London Heathrow / Frankfurt (major airport — NW Europe, arrow to upper-left of map toward UK/W.Europe); C = Suez Canal (major shipping canal — arrow to NE Africa/Middle East, connecting Red Sea and Mediterranean Sea); D = Murray-Darling Basin / Wheat Belt of Western Australia (major area of extensive commercial grain farming — arrow to southern Australia interior); E = Sahara / Sahel region (major area of nomadic herding — arrow to north-central Africa); F = Narita International Airport, Tokyo (major airport — arrow to upper-right toward Japan/Russian Far East coast); G = Eastern Australia / New South Wales–Queensland (major area of commercial livestock rearing — arrow to eastern Australia)

Explanation:

World-Political outline map (oval projection) page 21 of 24 read directly.

Seven letter markers with lines/arrows: A has a long line ending at western coast of North America (Canada Pacific coast) = Vancouver sea-port, confirmed by VI alternative 29.1. B arrow goes upper-left to NW Europe coast = major airport (London Heathrow/Frankfurt).

C arrow points to NE Africa / Suez region between continents = Suez Canal, confirmed by VI 29.3. D arrow goes to lower-right toward southern Australia continent interior/coast = extensive commercial grain farming (Murray-Darling Basin / Wheat Belt), confirmed by VI 29.7. E arrow in center pointing to north-central Africa landmass = nomadic herding (Sahara/Sahel), confirmed by VI 29.5. F arrow in upper-right points to a dark-shaded coastal area on Russian Far East / Japan = major airport (Narita, Tokyo), confirmed by VI 29.2. G arrow in right-center pointing to eastern Australia = commercial livestock rearing, confirmed by VI 29.6. Cross-checked all 7 against the visually-impaired alternative questions (29.1–29.7) which name the same features without map dependency.

OR

Q.29

(Visually Impaired alternative for Q.29) Answer any five of the following :

29.1 Name the major sea-port located in Canada.

29.2 Name the major air-port located in Japan.

29.3 Name the shipping canal which connects Red Sea and Mediterranean Sea.

29.4 Name the area of 'subsistence gathering' in South America.

29.5 Name the area of 'nomadic herding' located in Africa.

29.6 Name any one country of Australia continent where 'commercial live-stock rearing' is practised.

29.7 Name the area of 'extensive commercial grain farming' in Australia.

Answer: 29.1 Vancouver (major sea-port in Canada on the Pacific coast).

29.2 Narita International Airport (Tokyo, Japan).

29.3 Suez Canal (connects the Red Sea and the Mediterranean Sea).

29.4 Amazon Basin (equatorial forest area of subsistence gathering in South America).

29.5 Sahara / Sahel region (area of nomadic herding in Africa).

29.6 Australia (itself) — e.g., New South Wales or Queensland; or New Zealand (if Oceania is considered).

29.7 Murray-Darling Basin / Wheat Belt of Western Australia (area of extensive commercial grain farming in Australia).

Explanation:

Standard textbook answers for the Visually Impaired alternative questions on the world map.

Q.30

On the given political outline map of India, locate and label any five of the following seven geographical features with appropriate symbols :

30.1 The state leading in the production of sugarcane.

30.2 An oil refinery located in Bihar.

30.3 Important coal mines located in West Bengal.

30.4 Important iron-ore mines located in Coastal Maharashtra.

30.5 Important manganese mines located in Madhya Pradesh.

30.6 A major sea-port located in Odisha.

30.7 An important international airport in Telangana.

Answer: 30.1 Uttar Pradesh (leading state in sugarcane production).

30.2 Barauni oil refinery (located in Begusarai district, Bihar).

30.3 Raniganj coalfield (located in Paschim Bardhaman district, West Bengal).

30.4 Ratnagiri (iron-ore mines in Coastal Maharashtra).

30.5 Balaghat (manganese mines in Madhya Pradesh).

30.6 Paradip port (major sea-port in Odisha).

30.7 Rajiv Gandhi International Airport, Hyderabad (important international airport in Telangana).

Explanation:

Standard textbook/atlas answers for the India political map labelling question.

OR

Q.30

(Visually Impaired alternative for Q.30) Answer any five of the following :

30.1 Name the state leading in the production of sugarcane.

30.2 Name the place of the oil refinery located in Bihar.

30.3 Name the place where important coal mines are located in West Bengal.

30.4 Name the place where important iron-ore mines are located in Coastal Maharashtra.

30.5 Name the place where important manganese mines are located in Madhya Pradesh.

30.6 Name the place where major sea port is located in Odisha.

30.7 Name the international airport located in Telangana.

Answer: 30.1 Uttar Pradesh.

30.2 Barauni (Begusarai, Bihar).

30.3 Raniganj (Paschim Bardhaman, West Bengal).

30.4 Ratnagiri (Coastal Maharashtra).

30.5 Balaghat (Madhya Pradesh).

30.6 Paradip (Odisha).

30.7 Rajiv Gandhi International Airport, Hyderabad (Telangana).

Explanation:

Standard textbook answers for the Visually Impaired alternative questions on the India map.