AS' SAARTHI IAS

CHAPTER 5

Infrastructure Development

1. What is the installed power generation capacity in Rajasthan as of March 2024?

A. 22,352.40 MW
B. 24,783.64 MW
C. 23,508.96 MW
D. 25,000.00 MW

Answer: B

2. Which thermal power project in Rajasthan is NOT listed as a source of energy generation in the state?

A. Kota Thermal Project
B. Suratgarh Thermal Project
C. Dholpur Gas Thermal Project
D. Mahi Hydel Project

Answer: D

3. What is the total installed capacity of thermal power generation in Rajasthan for state-owned projects as of 2023-24?

A. 7,830.00 MW
B. 8,130.79 MW
C. 9,447.79 MW
D. 7,170.00 MW

Answer: A

4. How much capacity was installed under wind energy projects in Rajasthan as of March 2024?

A. 4,500 MW
B. 3,730.35 MW
C. 4,359.63 MW
D. 4,010.50 MW

Answer: C

5. What is the total length of Rajasthan's transmission network as of March 2024?

A. 43,759.217 Ckt. km
B. 42,000 Ckt. km
C. 44,232.906 Ckt. km
D. 41,965.504 Ckt. km

Answer: C

6. How many Extra High Voltage (EHV) Sub-stations were there in Rajasthan as of 2023-24?

A. 600
B. 642
C. 623
D. 658

Answer: B

7. What was the total energy availability in Rajasthan as of March 2024?

A. 9,080.92 crore units
B. 10,944.30 crore units
C. 11,204 crore units
D. 12,000 crore units

Answer: C

8. Under the PM-KUSUM Scheme, what was the aggregate capacity for which the Power Purchase Agreement (PPA) had been signed by March 2024?

A. 145 MW
B. 200 MW
C. 600 MW
D. 585 MW

Answer: C

9. What is the target solar power plant capacity under Component-C of PM-KUSUM Scheme?

A. 10,000 MW
B. 12,000 MW

C. 17,000 MW
D. 15,000 MW

Answer: C

10. How many agriculture consumers were targeted for solarization under Component-C of the PM-KUSUM Scheme?

A. 12.00 lakh
B. 14.20 lakh
C. 10.00 lakh
D. 8.50 lakh

Answer: B

11. What was the total number of consumers in Rajasthan's electricity distribution network as of March 2024?

A. 18,278,981
B. 19,061,213
C. 19,500,000
D. 20,500,000

Answer: B

12. How many households were electrified under the rural electrification program by March 2024?

A. 105.64 lakh
B. 120.50 lakh
C. 100.00 lakh
D. 110.75 lakh

Answer: A

13. What is the total number of road kilometers maintained by the Public Works Department (PWD) in Rajasthan as of March 2023?

A. 179,250.43 km
B. 185,000 km
C. 190,500 km
D. 170,000 km

Answer: A

14. How many villages in Rajasthan were connected by roads as of March 2024?

A. 38,819
B. 40,000
C. 43,000
D. 35,000

Answer: A

15. Under the PMGSY-III, how many kilometers of rural roads have been selected for upgradation and strengthening in Rajasthan?

A. 7,300.45 km
B. 8,662.50 km
C. 6,800.00 km
D. 7,500.00 km

Answer: B

16. What was the total road length constructed under NABARD and Rural Roads in Tribal and Desert areas in 2023-24?

A. 1,360 km
B. 1,500 km
C. 1,200 km
D. 1,450 km

Answer: A

17. How many works related to State Highways and Major District Roads were sanctioned under the Central Road Infrastructure Fund in 2023-24?

A. 62 works
B. 74 works
C. 84 works
D. 50 works

Answer: B

18. How many vehicles were registered in Rajasthan during the financial year 2023-24?

A. 1,500,000
B. 1,574,956
C. 1,200,000
D. 1,400,000

Answer: B

19. How many kilometers of road were developed under the PMGSY-III program in Rajasthan by March 2024?

A. 6,800 km
B. 7,303.45 km
C. 7,000 km
D. 7,662.50 km

Answer: B

20. What is the total energy potential from solar power generation in Rajasthan as per the MNRE?

A. 100 gigawatt
B. 120 gigawatt
C. 142 gigawatt
D. 150 gigawatt

Answer: C

21. What was the total installed capacity of hydroelectric power generation in Rajasthan as of 2023-24?

A. 415.85 MW
B. 325.90 MW
C. 300.50 MW
D. 350.75 MW

Answer: A

22. How many substations of 33/11 kV capacity were operational in Rajasthan by March 2024?

A. 12,000
B. 13,582
C. 14,000
D. 11,950

Answer: B

23. How much power was generated from biomass energy in Rajasthan as of March 2024?

A. 200 MW
B. 297.78 MW
C. 150 MW
D. 350 MW

Answer: B

24. Under the Green Energy Corridor, how many circuit kilometers of transmission lines were planned for the development of solar and wind energy in Rajasthan?

A. 3,500 Ckt. km
B. 2,500 Ckt. km
C. 4,000 Ckt. km
D. 5,000 Ckt. km

Answer: A

25. What is the total solar power capacity installed under the Solar Park Scheme in Rajasthan as of March 2024?

A. 1,000 MW
B. 2,200 MW
C. 3,000 MW
D. 1,800 MW

Answer: B

26. How many kilometers of new rural roads were constructed in Rajasthan under the Pradhan Mantri Gram Sadak Yojana (PMGSY) by 2023-24?

A. 7,300 km
B. 5,000 km
C. 6,000 km
D. 8,000 km

Answer: A

27. What was the total number of grid substations with 400 kV capacity in Rajasthan by March 2024?

A. 12
B. 14
C. 16
D. 10

Answer: B

28. How many solar-powered agriculture pumps were installed under the PM-KUSUM Scheme by March 2024?

A. 10,000
B. 15,000
C. 18,000
D. 20,000

Answer: C

29. What was the total energy consumption for agriculture in Rajasthan as of March 2024?

A. 4,558 crore units
B. 5,000 crore units
C. 4,200 crore units
D. 5,300 crore units

Answer: A

30. How many urban households were provided electricity connections under various electrification schemes by March 2024?

A. 15.5 lakh
B. 12.3 lakh
C. 17.2 lakh
D. 13.0 lakh

Answer: C

31. What was the renewable energy generation capacity under various schemes in Rajasthan by March 2024?

A. 10,450 MW
B. 9,870 MW
C. 12,020 MW
D. 11,523 MW

Answer: D

32. How many kilometers of State Highways were maintained by the Public Works Department (PWD) in Rajasthan by March 2024?

A. 15,490 km
B. 17,235 km
C. 18,320 km
D. 20,000 km

Answer: B

33. How much funding was allocated for road development under the Central Road Infrastructure Fund (CRIF) in Rajasthan for 2023-24?

A. ₹600 crore
B. ₹750 crore
C. ₹850 crore
D. ₹900 crore

Answer: C

34. How many national highways pass through Rajasthan as of 2023-24?

A. 22
B. 35
C. 25
D. 30

Answer: B

35. What is the installed capacity of gas-based power plants in Rajasthan as of March 2024?

A. 1,130.60 MW
B. 1,800 MW
C. 1,600 MW
D. 1,450 MW

Answer: A

36. How many solar energy projects were completed under the Solar Energy Policy of Rajasthan by March 2024?

A. 200 projects
B. 250 projects

C. 300 projects
D. 350 projects

Answer: C

37. What is the total length of National Highways (NH) in Rajasthan as of March 2024?

A. 10,345 km
B. 12,322 km
C. 11,500 km
D. 13,000 km

Answer: B

38. How many solar power plants were installed in Rajasthan under the PM-KUSUM Scheme Component A by March 2024?

A. 150 plants
B. 200 plants
C. 250 plants
D. 300 plants

Answer: D

39. How many biogas plants were installed in Rajasthan as of March 2024?

A. 12,000
B. 15,000
C. 18,500
D. 20,000

Answer: B

40. What is the total length of roads constructed under PMGSY in Rajasthan by March 2024?

A. 55,800 km
B. 60,000 km
C. 65,000 km
D. 70,000 km

Answer: A

41. How might the increased focus on solar energy in Rajasthan impact the state's overall energy mix in the future?

A. It will reduce dependency on coal and fossil fuels
B. It will lead to a more sustainable and cleaner energy mix
C. It may create challenges in grid management due to the intermittent nature of solar power
D. All of the above

Answer: D

Explanation: Expanding solar energy will reduce reliance on fossil fuels, promote sustainability, but may also create challenges in managing the grid due to the intermittent nature of solar energy.

42. What could be the long-term benefits of electrification under the PM-KUSUM Scheme for agriculture in Rajasthan?

A. Reduced dependence on diesel pumps for irrigation
B. Increased productivity due to the reliability of energy for irrigation
C. Lower energy costs for farmers, improving their profitability
D. All of the above

Answer: D

Explanation: Electrification under the PM-KUSUM scheme would provide farmers with reliable, cheaper energy for irrigation, increasing productivity and profitability while reducing dependence on fossil fuels.

43. What might be a key challenge in expanding wind energy capacity in Rajasthan?

A. Land acquisition for wind farms in suitable locations
B. Variability of wind speeds affecting consistent energy generation
C. High capital costs for developing new wind energy projects
D. All of the above

Answer: D

Explanation: Challenges in expanding wind energy include acquiring suitable land, wind speed variability affecting output, and the high capital costs required for setting up wind farms.

44. How might Rajasthan's focus on rural electrification contribute to broader socio-economic development in the state?

A. By providing reliable power for rural industries, boosting local economies
B. By improving access to education and healthcare facilities in rural areas
C. By reducing rural-urban migration as rural living conditions improve
D. All of the above

Answer: D

Explanation: Rural electrification boosts local economies, improves access to essential services like education and healthcare, and helps reduce rural-urban migration by enhancing living conditions.

45. What could be a long-term impact of the focus on solar-powered agriculture pumps under the PM-KUSUM scheme in Rajasthan?

A. Reduced carbon emissions from agricultural practices
B. Increased water efficiency due to better control over irrigation systems
C. Improved resilience to power outages affecting agricultural productivity
D. All of the above

Answer: D

Explanation: Solar-powered pumps reduce emissions, improve water use efficiency, and offer more reliable power for irrigation, making agriculture more sustainable and resilient in the long term.

46. How might expanding renewable energy in Rajasthan help reduce the state's environmental footprint?

A. By decreasing reliance on coal-fired power plants
B. By reducing greenhouse gas emissions from energy production
C. By conserving water resources, which are heavily used in thermal power generation
D. All of the above

Answer: D

Explanation: Expanding renewable energy reduces reliance on coal, cuts emissions, and conserves water, leading to a smaller environmental footprint for the state's energy production.

47. What could be a strategic benefit of Rajasthan's emphasis on developing its transmission infrastructure alongside renewable energy projects?

A. It will improve the integration of renewable energy into the national grid
B. It will enable Rajasthan to export excess energy to other states
C. It will reduce transmission losses and improve overall efficiency
D. All of the above

Answer: D

Explanation: Developing transmission infrastructure helps integrate renewable energy into the grid, enables energy export, and reduces losses, improving the efficiency and reliability of the energy supply.

48. What might be a significant challenge in maintaining the balance between power generation from renewable energy and traditional energy sources in Rajasthan?

A. The intermittent nature of solar and wind energy requires backup from traditional sources
B. High costs of storage technology for renewable energy
C. Difficulty in managing grid stability with fluctuating renewable energy inputs
D. All of the above

Answer: D

Explanation: Balancing renewable and traditional energy requires addressing the intermittency of renewables, the cost of storage, and managing grid stability to ensure reliable power supply.

49. How could the expansion of rural roads under PMGSY improve the agricultural supply chain in Rajasthan?

A. By providing better connectivity for transporting agricultural produce to markets
B. By reducing transportation costs for farmers, increasing their profitability
C. By improving access to modern farming equipment and inputs
D. All of the above

Answer: D

Explanation: Rural road expansion improves connectivity to markets, lowers transportation costs, and enhances access to farming inputs, strengthening the agricultural supply chain in Rajasthan.

50. What could be the long-term economic benefits of expanding Rajasthan's solar parks under the Solar Energy Policy?

A. Attracting more investment in the renewable energy sector
B. Creating jobs in the construction, operation, and maintenance of solar plants
C. Generating revenue by exporting surplus energy to neighboring states
D. All of the above

Answer: D

Explanation: Expanding solar parks attracts investments, creates jobs, and allows Rajasthan to generate revenue by exporting excess energy, providing significant long-term economic benefits.

51. What might be a key risk of focusing heavily on solar energy as a primary source of power in Rajasthan?

A. High dependence on weather conditions, affecting energy reliability
B. Large land area requirements for solar farms, leading to potential land-use conflicts
C. Limited energy generation during non-sunlight hours without adequate storage solutions
D. All of the above

Answer: D

Explanation: Solar energy is weather-dependent, requires large land areas, and faces energy generation challenges at night without efficient storage, making reliance on it a potential risk without addressing these issues.

52. What could be a strategic advantage of integrating biomass energy into Rajasthan's energy mix?

A. It provides a reliable source of energy by utilizing agricultural and forestry waste
B. It reduces the environmental impact of burning agricultural residues in fields
C. It can provide continuous power generation, complementing intermittent renewable sources
D. All of the above

Answer: D

Explanation: Biomass energy utilizes waste, reduces environmental impact, and provides continuous power generation, complementing solar and wind energy in Rajasthan's energy mix.

53. How might the development of national highways in Rajasthan contribute to the state's industrial growth?

A. By improving connectivity between industrial hubs and major markets
B. By reducing transportation costs and time for raw materials and finished goods
C. By attracting more investments in logistics

and warehousing industries
D. All of the above

Answer: D

Explanation: National highway development enhances connectivity, reduces costs, and attracts investment in logistics, fueling industrial growth in Rajasthan.

54. What could be a potential environmental challenge of expanding thermal power plants in Rajasthan alongside renewable energy projects?

A. Increased air pollution due to coal-based power generation
B. Greater water consumption in power plants, straining local water resources
C. Conflicting priorities between sustainable energy goals and traditional power generation
D. All of the above

Answer: D

Explanation: Expanding thermal power plants can lead to air pollution, water resource strain, and conflicts with sustainable energy goals, presenting environmental challenges.

55. How could Rajasthan's renewable energy sector be impacted by changes in government policies and incentives?

A. Reducing subsidies for renewable projects could slow down the expansion of solar and wind energy
B. New policies encouraging investment could attract more private sector participation
C. Changes in regulatory frameworks could create uncertainty, affecting long-term project planning
D. All of the above

Answer: D

Explanation: Changes in policies, subsidies, and regulatory frameworks can either accelerate or hinder renewable energy development, depending on the direction of government support and incentives.

56. How might the PM-KUSUM Scheme's solarization of agriculture pumps help reduce Rajasthan's agricultural carbon footprint?

A. By replacing diesel-powered pumps with solar-powered alternatives
B. By reducing emissions from conventional energy sources used in agriculture
C. By promoting sustainable farming practices through clean energy adoption
D. All of the above

Answer: D

Explanation: Solarization of pumps reduces reliance on diesel, cuts emissions, and encourages sustainable farming, helping to lower the agricultural sector's carbon footprint.

57. What could be a long-term challenge of relying on wind energy for Rajasthan's power generation?

A. The unpredictable nature of wind speeds affecting consistent energy output
B. Limited availability of suitable locations for wind farm expansion
C. High maintenance costs for wind turbines in remote locations
D. All of the above

Answer: D

Explanation: Wind energy faces challenges such as variable wind speeds, limited suitable locations, and high maintenance costs, which could affect its long-term reliability and scalability.

58. How could the development of solar parks in Rajasthan contribute to the state's goal of becoming a renewable energy hub in India?

A. By generating a large share of India's solar power capacity
B. By positioning Rajasthan as a leader in clean energy production and export
C. By attracting global investments in renewable

energy infrastructure
D. All of the above

Answer: D

Explanation: Solar park development positions Rajasthan as a major renewable energy producer, attracting investment and helping the state lead in clean energy initiatives.

59. What could be the economic impact of connecting more rural areas with roads under PMGSY in Rajasthan?

A. Improved market access for agricultural and rural products
B. Increased employment opportunities through infrastructure development
C. Enhanced mobility, leading to growth in rural industries and services
D. All of the above

Answer: D

Explanation: Road connectivity boosts rural economic activity, improves market access, creates jobs, and supports the growth of industries and services in rural Rajasthan.

60. How might Rajasthan's focus on green energy development contribute to national energy security?

A. By reducing India's dependence on imported fossil fuels
B. By providing a reliable, renewable energy supply to meet growing demand
C. By enhancing the country's energy mix with a higher proportion of clean energy
D. All of the above

Answer: D

Explanation: Green energy development in Rajasthan strengthens national energy security by reducing fossil fuel dependence, increasing supply reliability, and enhancing the clean energy proportion in India's energy mix.

61. What could be a potential challenge in ensuring the widespread adoption of solar energy for household consumption in Rajasthan?

A. High initial investment costs for solar installations
B. Lack of awareness and technical knowledge among rural consumers
C. Insufficient infrastructure to store and distribute solar power
D. All of the above

Answer: D

Explanation: Adopting solar energy faces challenges like high initial costs, limited consumer awareness, and insufficient infrastructure for storage and distribution, especially in rural areas.

62. How could the development of rural roads under PMGSY contribute to poverty reduction in Rajasthan?

A. By improving access to markets and reducing the cost of transporting goods
B. By enabling rural populations to access better healthcare and education services
C. By fostering local economic activities, increasing income opportunities
D. All of the above

Answer: D

Explanation: Rural road development improves market access, reduces transport costs, facilitates access to healthcare and education, and fosters local economic activities, contributing to poverty reduction.

63. What could be the long-term environmental impact of Rajasthan's thermal power plants if renewable energy is not scaled up quickly enough?

A. Continued reliance on coal leading to higher greenhouse gas emissions
B. Increased strain on local water resources for cooling processes
C. Degradation of air quality, impacting public health
D. All of the above

Answer: D

Explanation: Without a rapid transition to renewable energy, reliance on coal will continue, leading to increased emissions, water use, and air pollution, all of which have significant environmental and public health impacts.

64. How might solar energy expansion under Rajasthan's Solar Energy Policy create new opportunities in the manufacturing sector?

A. By promoting the manufacturing of solar panels and components locally
B. By attracting foreign investment into solar equipment production
C. By creating a skilled workforce for assembling and maintaining solar technologies
D. All of the above

Answer: D

Explanation: Solar energy expansion creates opportunities in manufacturing by promoting local production of solar panels, attracting investments, and developing a skilled workforce for the solar industry.

65. How might the solarization of agriculture pumps impact the water management practices of farmers in Rajasthan?

A. By encouraging the use of energy-efficient irrigation systems
B. By reducing the over-extraction of groundwater through controlled solar pump usage
C. By improving the sustainability of water resources in arid and semi-arid regions
D. All of the above

Answer: D

Explanation: Solar-powered pumps promote energy efficiency, reduce over-extraction of groundwater, and contribute to sustainable water management, especially in Rajasthan's arid regions.

66. What could be a significant advantage of integrating biomass energy into Rajasthan's renewable energy portfolio?

A. Biomass provides a consistent source of energy, complementing intermittent solar and wind energy
B. It reduces agricultural waste and improves waste management practices
C. It helps rural areas become more energy-independent through local biomass resources
D. All of the above

Answer: D

Explanation: Biomass energy complements other renewables by providing consistent energy, reducing waste, and promoting energy independence in rural areas, enhancing Rajasthan's energy security.

67. What might be a potential barrier to the expansion of Rajasthan's wind energy projects?

A. Lack of available land for wind farm development
B. High initial capital investment for setting up wind turbines
C. Fluctuations in wind patterns affecting power generation consistency
D. All of the above

Answer: D

Explanation: Wind energy expansion faces challenges such as limited land, high initial investment, and inconsistent wind patterns, all of which can affect the viability of wind energy projects.

68. How could the Green Energy Corridor in Rajasthan support the growth of renewable energy in the state?

A. By providing a dedicated transmission network for renewable energy sources
B. By reducing transmission losses and ensuring efficient energy distribution
C. By facilitating the integration of solar and

wind energy into the national grid
D. All of the above

Answer: D

Explanation: The Green Energy Corridor supports renewable energy growth by providing a dedicated transmission network, reducing losses, and integrating renewables into the national grid efficiently.

69. What could be a long-term economic impact of expanding Rajasthan's highway network under the Central Road Infrastructure Fund (CRIF)?

A. Increased connectivity leading to greater economic integration between regions
B. Enhanced trade and commerce by reducing transportation costs
C. Boost in tourism and service industries due to improved road access
D. All of the above

Answer: D

Explanation: Expanding the highway network improves regional connectivity, boosts trade, reduces costs, and enhances tourism, leading to long-term economic benefits for Rajasthan.

70. How could Rajasthan's investment in renewable energy enhance the state's role in India's clean energy transition?

A. By contributing to India's national renewable energy targets
B. By positioning Rajasthan as a leader in clean energy exports to other states
C. By attracting global investments in the clean energy sector
D. All of the above

Answer: D

Explanation: Rajasthan's renewable energy investments help meet national clean energy targets, position the state as a leader in clean energy exports, and attract global investments, enhancing its role in India's energy transition.

71. What might be a key challenge in scaling up solar power generation in Rajasthan under the Solar Energy Policy?

A. Limited availability of land for large-scale solar farms
B. High upfront costs for solar infrastructure development
C. Technical challenges related to integrating solar energy into the grid
D. All of the above

Answer: D

Explanation: Scaling up solar power faces challenges such as land availability, high initial costs, and technical issues related to grid integration, which need to be addressed for further expansion.

72. What could be a long-term consequence if Rajasthan does not focus on modernizing its energy transmission infrastructure alongside renewable energy growth?

A. Increased transmission losses, reducing the efficiency of energy distribution
B. Inability to manage the growing share of intermittent renewable energy sources
C. Delays in connecting new renewable energy projects to the national grid
D. All of the above

Answer: D

Explanation: Without modernized transmission infrastructure, Rajasthan risks increased losses, difficulty integrating renewables, and delays in connecting new projects, hindering the efficiency of its energy network.

73. How could the electrification of rural households under various schemes improve quality of life in Rajasthan's rural areas?

A. By enabling access to modern amenities like refrigeration and lighting
B. By improving education outcomes through

better access to electronic resources
C. By promoting entrepreneurship and local economic activities through reliable power
D. All of the above

Answer: D

Explanation: Rural electrification improves access to modern amenities, enhances education, and fosters local economic activities, significantly improving the quality of life in rural areas.

74. How might the expansion of transmission lines under the Green Energy Corridor support renewable energy integration in Rajasthan?

A. By enabling large-scale renewable energy projects to connect to the grid
B. By reducing bottlenecks in energy transmission from remote renewable sites
C. By facilitating energy export to other states through improved transmission capacity
D. All of the above

Answer: D

Explanation: Expanding transmission lines allows large renewable projects to connect to the grid, reduces transmission bottlenecks, and facilitates energy export, supporting renewable energy integration in Rajasthan.

75. What could be the strategic benefit of Rajasthan's focus on renewable energy development for its agricultural sector?

A. Reduced energy costs for farmers using solar-powered irrigation pumps
B. Increased energy security for rural areas reliant on agriculture
C. Opportunities for farmers to sell excess solar energy generated on their land
D. All of the above

Answer: D

Explanation: Renewable energy development reduces costs, increases energy security, and provides opportunities for farmers to sell surplus energy, benefiting the agricultural sector in Rajasthan.

76. What might be a key challenge in ensuring sustainable development in Rajasthan's energy sector?

A. Balancing rapid industrial growth with environmental conservation
B. Ensuring energy infrastructure keeps pace with growing demand
C. Addressing the social impacts of large-scale energy projects, such as land acquisition
D. All of the above

Answer: D

Explanation: Sustainable development in Rajasthan's energy sector requires balancing growth with environmental protection, ensuring adequate infrastructure, and addressing the social impacts of energy projects.

77. What could be a key economic benefit of promoting renewable energy-based microgrids in Rajasthan's remote areas?

A. Improved energy access for off-grid rural communities
B. Enhanced local economic development through reliable power for small industries
C. Reduced dependency on fossil fuels and traditional energy sources
D. All of the above

Answer: D

Explanation: Renewable energy-based microgrids improve access to power, foster local economic growth, and reduce fossil fuel dependency, especially in remote rural communities.

78. How could the focus on infrastructure development under the PMGSY program impact agricultural productivity in Rajasthan?

A. By improving access to markets, reducing transportation time for perishable goods
B. By enabling farmers to access modern

farming equipment and technology
C. By reducing input costs through improved connectivity to suppliers and distributors
D. All of the above

Answer: D

Explanation: Infrastructure development enhances agricultural productivity by improving market access, reducing transport times, enabling access to modern equipment, and lowering input costs.

79. What could be a long-term consequence if Rajasthan does not adequately invest in energy storage solutions for its renewable energy projects?

A. Energy wastage due to the inability to store excess generation
B. Inconsistent power supply during non-sunlight and non-wind periods
C. Increased reliance on traditional power sources to balance the grid
D. All of the above

Answer: D

Explanation: Without proper energy storage, excess renewable energy could be wasted, leading to inconsistent power supply and increased reliance on traditional sources to maintain grid stability.

80. What could be the long-term environmental impact of Rajasthan's shift toward renewable energy sources?

A. Reduced greenhouse gas emissions contributing to climate change mitigation
B. Lower air and water pollution from reduced reliance on coal-fired power plants
C. Preservation of natural resources by using clean and sustainable energy
D. All of the above

Answer: D

Explanation: A shift toward renewable energy reduces emissions, lowers pollution, and preserves natural resources, making a significant positive environmental impact.

91. How does infrastructure development directly contribute to economic growth in Rajasthan?

A. By focusing only on agriculture
B. By improving transport, communication, and power sectors, which are crucial for facilitating trade, reducing poverty, and boosting overall economic growth
C. By limiting industrial activities
D. By reducing public sector investment

Answer: B

Explanation: Infrastructure development, including transport, communication, and power, is vital for facilitating trade and commerce, improving service delivery, and promoting economic growth in Rajasthan.

92. What is the significance of the power sector in Rajasthan's economic development?

A. It limits agricultural productivity
B. It serves as the backbone of economic activities in all sectors, providing energy for agriculture, industry, and services, and improving the living standards of the population
C. It reduces industrial output
D. It focuses only on household electrification

Answer: B

Explanation: The power sector plays a central role in supporting economic activities across agriculture, industry, and services, while also improving living standards by providing electricity to households.

93. How has the installed power generation capacity in Rajasthan evolved between 2019 and 2024?

A. It decreased due to lack of investment
B. It increased from 21,175.90 MW in 2019-20 to 24,783.64 MW in 2023-24, reflecting the state's commitment to expanding power infrastructure

C. It remained constant due to limited resources
D. It only focused on renewable energy

Answer: B

Explanation: Rajasthan's installed power generation capacity grew significantly, reaching 24,783.64 MW in 2024, showcasing a diversified energy mix, including thermal, hydel, wind, and solar power projects.

94. How do renewable energy projects contribute to Rajasthan's energy security?

A. By reducing energy production from traditional sources
B. By increasing the share of clean energy through solar, wind, and biomass projects, reducing dependency on fossil fuels
C. By focusing only on hydel power
D. By limiting access to renewable energy resources

Answer: B

Explanation: Renewable energy projects, such as solar and wind power, play a key role in enhancing Rajasthan's energy security by reducing its reliance on traditional fossil fuels and promoting sustainable energy generation.

95. How does the Smart Transmission Network and Asset Management System (STNAMS) improve power grid management in Rajasthan?

A. It limits the scope of power management to urban areas
B. By providing real-time monitoring and control of the transmission grid, enabling smart grid initiatives, and improving power stability and security
C. It reduces the focus on grid modernization
D. It focuses only on rural power grids

Answer: B

Explanation: STNAMS enhances grid management by enabling real-time monitoring, reactive power management, and predictive assessments of grid stability, leading to more efficient and secure power transmission.

96. How has Rajasthan's transmission network expanded between 2017 and 2024?

A. It remained constant due to budget constraints
B. It expanded from 36,079 Ckt. km in 2017 to 44,232.906 Ckt. km in 2024, reflecting a 22.60% increase in the state's transmission infrastructure
C. It focused only on urban areas
D. It reduced transmission capacity

Answer: B

Explanation: The transmission network saw significant expansion over the years, increasing by over 22%, which underscores the state's commitment to improving power infrastructure.

97. How does the PM-KUSUM scheme support the agriculture sector in Rajasthan?

A. By limiting access to solar power for farmers
B. By promoting the installation of off-grid solar pumps and grid-connected solar power plants, reducing farmers' dependence on conventional electricity
C. By focusing only on urban solar projects
D. By reducing access to renewable energy for agriculture

Answer: B

Explanation: PM-KUSUM encourages the use of solar power in agriculture, helping farmers install solar pumps and power plants, thus reducing their reliance on conventional power sources and supporting sustainable farming practice

98. What is the significance of the Bhadla Solar Park in Rajasthan's renewable energy sector?

A. It limits solar power generation to a few regions
B. Bhadla Solar Park, with a capacity of 2,245

MW, is one of the largest solar parks in the world, contributing significantly to Rajasthan's solar energy production
C. It reduces Rajasthan's solar capacity
D. It only focuses on small-scale solar projects

Answer: B

Explanation: Bhadla Solar Park is a flagship project in Rajasthan's renewable energy sector, contributing a massive 2,245 MW of solar power and establishing the state as a leader in solar energy production.

99. How does the Rajasthan Renewable Energy Policy 2023 aim to promote sustainable energy?

A. By focusing only on traditional energy sources
B. By promoting renewable energy projects, including solar, wind, and hydrogen, and providing incentives for green energy production
C. By reducing investments in renewable energy
D. By limiting renewable energy projects to rural areas

Answer: B

Explanation: The 2023 Renewable Energy Policy promotes the development of solar, wind, and hydrogen energy, incentivizing green energy production and supporting Rajasthan's transition to a sustainable energy economy.

100. How do biomass power projects contribute to Rajasthan's energy generation?

A. By reducing renewable energy production
B. By utilizing agricultural waste, such as mustard husk, to produce clean energy, contributing to the state's renewable energy mix
C. By focusing only on fossil fuels
D. By limiting energy production to small-scale projects

Answer: B

Explanation: Biomass power projects use agricultural by-products to generate clean energy, supporting Rajasthan's renewable energy goals while providing an alternative to traditional energy sources.

101. How does water infrastructure development impact the agricultural sector in Rajasthan?

A. It reduces access to water resources for farmers
B. By improving irrigation systems and water storage, it ensures more reliable water supply for agriculture, enhancing crop productivity in water-scarce regions
C. It focuses only on urban water supply
D. It limits the use of modern irrigation techniques

Answer: B

Explanation: Water infrastructure, including improved irrigation and storage systems, is critical for supporting agriculture in Rajasthan, particularly in areas prone to droughts and water shortages.

102. How does the Indira Gandhi Canal contribute to irrigation and agriculture in Rajasthan?

A. It focuses only on industrial water needs
B. It provides irrigation to vast areas of arid land in northwestern Rajasthan, supporting agriculture and improving livelihoods in these regions
C. It reduces the availability of water for rural areas
D. It focuses solely on urban water distribution

Answer: B

Explanation: The Indira Gandhi Canal plays a vital role in bringing water to the arid regions of northwestern Rajasthan, allowing for increased agricultural productivity and improved living conditions for farmers.

103. How does the Rajasthan Water Sector Restructuring Project contribute to water resource management in the state?

A. It limits investments in water management
B. By improving water management practices, including irrigation efficiency and watershed development, to ensure sustainable water use in agriculture
C. It focuses only on urban water supply
D. It reduces the focus on irrigation systems

Answer: B

Explanation: The Rajasthan Water Sector Restructuring Project focuses on modernizing water management practices, promoting more efficient irrigation and watershed development to improve water sustainability.

104. How does the development of rural roads under the Pradhan Mantri Gram Sadak Yojana (PMGSY) contribute to rural connectivity in Rajasthan?

A. It focuses only on urban infrastructure
B. By providing all-weather road connectivity to unconnected rural areas, improving access to markets, healthcare, and education, and boosting economic activity
C. It reduces the importance of rural road networks
D. It limits road development to specific regions

Answer: B

Explanation: PMGSY aims to provide all-weather road connectivity to rural areas, which enhances access to markets and services, thus fostering economic development and improving the quality of life in rural Rajasthan.

105. How does the Bharatmala Pariyojana impact road infrastructure in Rajasthan?

A. It limits road expansion to urban areas
B. By improving national highways and expressways across the state, facilitating faster movement of goods and services, and enhancing trade and logistics
C. It reduces road connectivity between key economic zones
D. It focuses only on rural road construction

Answer: B

Explanation: Bharatmala Pariyojana strengthens road infrastructure by expanding highways and expressways, improving connectivity and efficiency in trade and logistics across Rajasthan.

106. What role does the Jaipur Metro play in improving urban transport in Rajasthan?

A. It focuses solely on rural transport
B. By providing a modern, efficient, and environmentally friendly mass transit system in Jaipur, reducing traffic congestion and pollution in the city
C. It limits public transportation options in the city
D. It reduces the focus on expanding transport infrastructure

Answer: B

Explanation: The Jaipur Metro offers a modern solution to the city's transport challenges, reducing traffic congestion and pollution while improving connectivity for urban residents.

107. How does broadband connectivity contribute to the digital economy in rural Rajasthan?

A. It focuses only on urban areas
B. By expanding access to the internet in rural areas, promoting e-governance, digital literacy, and providing opportunities for rural businesses to connect with larger markets
C. It limits access to internet services in remote areas
D. It reduces the use of digital technology in rural regions

Answer: B

Explanation: Expanding broadband connectivity in rural Rajasthan helps bridge the digital divide, promoting economic growth through access to online markets and e-governance services.

108. How does the Dedicated Freight Corridor (DFC) contribute to industrial and trade growth in Rajasthan?

A. It focuses solely on passenger transportation
B. By improving rail connectivity for freight movement, reducing transportation costs, and increasing the efficiency of goods transportation to national and international markets
C. It limits rail infrastructure to certain regions
D. It reduces trade connectivity with other states

Answer: B

Explanation: The DFC enhances industrial growth by providing a more efficient and cost-effective rail network for freight transportation, facilitating trade and connecting Rajasthan to larger markets.

109. What is the role of Rajasthan State Gas Limited (RSGL) in promoting clean energy infrastructure?

A. It focuses solely on traditional energy sources
B. By developing gas pipelines and promoting the use of compressed natural gas (CNG) for transportation and piped natural gas (PNG) for industries and households
C. It limits investments in clean energy
D. It reduces the focus on sustainable energy solutions

Answer: B

Explanation: RSGL supports the development of clean energy infrastructure by expanding the use of CNG and PNG, which contribute to reducing carbon emissions and promoting cleaner energy sources.

110. How does the development of airports contribute to economic growth and tourism in Rajasthan?

A. It limits air connectivity to urban areas
B. By expanding air connectivity across key tourist destinations and business centers, boosting tourism, trade, and investment in the state
C. It reduces the number of international flights
D. It focuses only on domestic air travel

Answer: B

Explanation: The development of airports in Rajasthan enhances connectivity to important tourist and business destinations, driving economic growth by facilitating travel, tourism, and trade.

111. How does the Jawahar Lal Nehru National Solar Mission contribute to Rajasthan's renewable energy capacity?

A. It reduces investments in solar power
B. By encouraging large-scale deployment of solar projects, with Rajasthan taking a leading role in solar energy production in India
C. It limits the development of solar energy to specific regions
D. It focuses solely on small-scale solar projects

Answer: B

Explanation: The Jawahar Lal Nehru National Solar Mission promotes the large-scale deployment of solar power projects, and Rajasthan, with its high solar potential, plays a leading role in contributing to India's renewable energy goals.

112. How does the Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) support rural electrification in Rajasthan?

A. It focuses solely on urban areas
B. By providing electricity connections to un-electrified rural areas and ensuring reliable power supply, it supports economic activities and improves living standards in rural regions
C. It limits the use of renewable energy in rural areas
D. It reduces the number of rural households connected to electricity

Answer: B

Explanation: DDUGJY focuses on providing electricity to rural areas, ensuring that rural households have access to reliable power, which boosts economic activities and improves the quality of life.

113. How do smart city projects contribute to urban infrastructure development in Rajasthan?

A. They focus only on rural areas
B. By modernizing urban infrastructure, including smart transportation, energy management, waste management, and digital services, improving the efficiency and sustainability of cities
C. They limit the use of digital technology in cities
D. They reduce the focus on urban planning and development

Answer: B

Explanation: Smart city projects enhance urban infrastructure by introducing technology-driven solutions for transportation, energy, and waste management, improving the overall efficiency and sustainability of cities.

114. How might the Rajasthan Investment Promotion Scheme (RIPS) attract infrastructure investments in the state?

A. By limiting financial incentives to foreign investors
B. By offering financial incentives such as tax exemptions, subsidies, and single-window clearances to investors in infrastructure development
C. By focusing solely on small-scale infrastructure projects
D. By reducing public-private partnerships in infrastructure

Answer: B

Explanation: RIPS offers financial incentives to attract investors in infrastructure projects, facilitating the development of key sectors such as transportation, energy, and industrial zones.

115. What role does the Sagarmala Project play in promoting port development and logistics in Rajasthan?

A. It focuses only on land-based transportation
B. By improving port connectivity and enhancing logistics infrastructure, Sagarmala helps facilitate trade and industrial growth, connecting Rajasthan to coastal and international markets
C. It limits port development to specific regions
D. It reduces the importance of logistics for the state

Answer: B

Explanation: The Sagarmala Project focuses on port development and improving logistics infrastructure, which strengthens Rajasthan's trade and industrial links with coastal regions and international markets.

116. How does the National Highway Development Project (NHDP) impact economic connectivity in Rajasthan?

A. It focuses only on rural roads
B. By expanding and upgrading national highways, the NHDP improves regional and national connectivity, supporting trade and economic activities
C. It limits highway construction to specific regions
D. It reduces investments in road infrastructure

Answer: B

Explanation: NHDP enhances national highways, boosting connectivity within Rajasthan and with neighboring states, facilitating smoother trade and transportation.

117. How does the development of industrial corridors impact infrastructure in Rajasthan?

A. It limits industrial growth to a few cities
B. By enhancing infrastructure along key industrial corridors like DMIC, which improves transportation, logistics, and trade, attracting more industries to the region
C. It reduces connectivity between industrial hubs
D. It focuses only on domestic industries

Answer: B

Explanation: Industrial corridors improve transportation and logistics infrastructure,

making it easier for industries to operate and facilitating trade, which in turn attracts more investments to the region.

118. What impact does telecom infrastructure development have on the digital economy in Rajasthan?

A. It focuses only on urban areas
B. By expanding mobile and internet connectivity, telecom infrastructure promotes digital inclusion, supports e-governance, and enhances opportunities for businesses and rural enterprises
C. It limits the use of digital technologies
D. It reduces the focus on telecom expansion in rural areas

Answer: B

Explanation: Improved telecom infrastructure enhances digital connectivity, allowing businesses and rural communities to access digital services, promoting e-governance and economic opportunities.

119. How does renewable energy infrastructure contribute to sustainable industrial growth in Rajasthan?

A. It reduces reliance on renewable energy
B. By providing industries with access to clean and reliable energy sources such as solar and wind, reducing operational costs and environmental impact
C. It focuses solely on fossil fuel energy
D. It limits energy availability for industrial purposes

Answer: B

Explanation: Renewable energy infrastructure supports sustainable industrial growth by providing clean, affordable energy, reducing the reliance on fossil fuels and lowering the environmental footprint of industries.

120. How does the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) contribute to urban infrastructure development in Rajasthan?

A. It focuses only on rural development
B. By improving urban infrastructure related to water supply, sewage, and transportation, AMRUT enhances the quality of life in cities and supports sustainable urban growth
C. It limits investments in urban infrastructure
D. It reduces access to basic services in urban areas

Answer: B

Explanation: AMRUT focuses on improving essential urban services like water supply and sewage management, contributing to better living conditions and supporting sustainable urban development in Rajasthan.