Understood. The responses will be provided without any clickable links. Here are answers and explanations for Questions 21–30, formatted for easy pasting into a DOCX file, with no links.

1. Which methods are the most effective for reducing the urban "heat island" effect in India?  
   (i) Increasing green cover and tree plantations in urban areas  
   (ii) Use of high albedo (reflective) materials in construction  
   (iii) Expansion of asphalt-covered open spaces  
   (iv) Rooftop gardens and vertical greening  
   Select the correct answer using the codes given below:  
   (A) (i), (ii) and (iv) only  
   (B) (i) and (iii) only  
   (C) (ii) and (iv) only  
   (D) All are correct

Answer 21. (A) (i), (ii) and (iv) only

Explanation:

* Increasing green cover and urban trees reduces ambient temperatures through shade and evapotranspiration, directly countering heat island effects in dense Indian cities.
* High albedo roofing and pavements reflect more solar radiation, lowering surface and air temperatures and reducing cooling loads in buildings.
* Rooftop gardens and vertical greening act as thermal buffers and promote evaporative cooling, delivering measurable reductions in roof and indoor temperatures.
* Expanding asphalted open areas intensifies heat absorption and re-radiation, worsening heat islands rather than mitigating them.

1. Bhabananda Deka, Bhabendra Nath Saikia, and Birendra Kumar Bhattacharya share common literary contributions:  
   (i) Representation of Assamese society through realistic novels.  
   (ii) Sahitya Akademi recognition.  
   (iii) Promotion of Assamese in professional education, especially economics and sciences.  
   (iv) Exclusive focus on tea plantation history.  
   (A) (i) and (ii) only  
   (B) (i), (ii) and (iii) only  
   (C) (iv) only  
   (D) All of these

Answer 22. (B) (i), (ii) and (iii) only

Explanation:

* Their works collectively reflect Assamese social life and contemporary realities, with Saikia and Bhattacharya known for realistic fiction and Deka contributing social-economic writing.
* Saikia and Bhattacharya received Sahitya Akademi recognition, and Deka’s scholarship advanced Assamese literature and academic discourse.
* Bhabananda Deka pioneered Assamese-language textbooks in professional fields such as economics, strengthening the role of Assamese in higher education.
* None of them had an exclusive focus on tea plantation history; their contributions span broader literary and scholarly domains.

1. The proliferation of slums in Indian cities is associated with  
   (i) lack of affordable housing and high land prices  
   (ii) large-scale seasonal rural-to-urban migration  
   (iii) expansion of public sector housing schemes  
   (iv) urban poverty and informal sector dominance  
   Select the correct answer using the codes given below.  
   (A) (i), (ii) and (iv) only  
   (B) (ii), (iii) and (iv) only  
   (C) (i) and (iii) only  
   (D) All are correct

Answer 23. (A) (i), (ii) and (iv) only

Explanation:

* High land costs and inadequate affordable housing push low-income groups toward informal settlements, a key structural driver of slum growth.
* Seasonal and permanent rural-to-urban migration often outpaces formal housing supply, contributing to informal habitation.
* Urban poverty and the dominance of informal employment constrain access to formal rentals and finance, reinforcing slum proliferation.
* Expansion of public sector housing aims to reduce slum pressure, not increase it, so it is not associated with slum proliferation.

1. Sarthebari village cluster of Barpeta and Nalapara village of Kamrup became well-known because  
   (i) Sarthebari gained fame for traditional bell-metal crafts and Xorai making.  
   (ii) Nalapara became the first Assamese village with all census households electrified.  
   (iii) Sarthebari villages were severely affected by annual Barnadi river breaches.  
   (A) Only (i) correct  
   (B) (i) and (ii) correct  
   (C) Only (iii) correct  
   (D) All are correct

Answer 24. (A) Only (i) correct

Explanation:

* Sarthebari is renowned for bell-metal craftsmanship, notably Xorai and related ceremonial objects that are emblematic of Assamese culture.
* There is no widely accepted official record attributing Nalapara as the first fully electrified village by census households in Assam in the manner stated.
* Regular severe annual breaches by the Barnadi specifically impacting Sarthebari villages are not established as a defining characteristic in authoritative references.
* Hence only the statement on Sarthebari’s bell-metal and Xorai fame can be affirmed.

1. Consider the following statements about natural gas in Assam:  
   (i) Natural gas is produced along with crude oil from fields like Moran and Lakwa.  
   (ii) The Assam Gas Company Limited (AGCL) manages distribution of natural gas in Upper Assam.  
   (iii) Assam produces over 90% of India’s total natural gas output.  
   (iv) Brahmaputra Cracker and Polymer Limited (BCPL) at Lepetkata uses natural gas as feedstock.  
   (A) (i), (ii), and (iv) only  
   (B) Only (iii) is correct  
   (C) (ii) and (iv) only  
   (D) All are correct

Answer 25. (A) (i), (ii), and (iv) only

Explanation:

* Legacy Upper Assam oilfields like Moran and Lakwa produce associated natural gas alongside crude oil, validating co-production.
* AGCL operates key transmission and distribution networks for piped natural gas to domestic, commercial, and industrial consumers across Upper Assam.
* Assam is a significant onshore producer but does not contribute over 90% of national gas output; offshore basins and other states account for substantial shares.
* BCPL’s petrochemical complex uses natural gas as feedstock for its cracking and downstream polymer operations.

1. Arrange the following in order of total population (Census 2011, descending):  
   (i) Dibrugarh district  
   (ii) Sivasagar district  
   (iii) Dhubri district  
   (iv) Sonitpur district  
   (A) Dhubri, Sonitpur, Dibrugarh, Sivasagar  
   (B) Sonitpur, Dhubri, Dibrugarh, Sivasagar  
   (C) Dibrugarh, Sonitpur, Dhubri, Sivasagar  
   (D) Dhubri, Dibrugarh, Sonitpur, Sivasagar

Answer 26. (A) Dhubri, Sonitpur, Dibrugarh, Sivasagar

Explanation:

* Dhubri had the highest 2011 Census population among the four listed, placing it first.
* Sonitpur’s 2011 population exceeded that of Dibrugarh and Sivasagar, positioning it second.
* Dibrugarh ranked above Sivasagar in total population in 2011, placing it third.
* Sivasagar had the smallest population among the four, placing it fourth.

1. Match the following straits with the water bodies they connect:  
   List-I — List-II  
   a. Strait of Malacca — 1. Andaman Sea & South China Sea  
   b. Strait of Gibraltar — 2. Atlantic Ocean & Mediterranean Sea  
   c. Bab-el-Mandeb — 3. Red Sea & Gulf of Aden  
   d. Palk Strait — 4. Gulf of Mannar & Palk Bay  
   Select the correct answer using the codes given below.  
   (A) abcd → 1234  
   (B) abcd → 1243  
   (C) abcd → 1423  
   (D) abcd → 1342

Answer 27. (B) abcd → 1243

Explanation:

* The Strait of Malacca connects the Andaman Sea with the South China Sea, so a→1.
* The Strait of Gibraltar connects the Atlantic Ocean and the Mediterranean Sea, so b→2.
* Bab-el-Mandeb connects the Red Sea and the Gulf of Aden, so c→3.
* The Palk Strait connects the Gulf of Mannar and Palk Bay, so d→4.

1. Match the following islands with the seas/oceans where they are located:  
   List-I — List-II  
   a. Sumatra — 1. Indian Ocean  
   b. Madagascar — 2. Indian Ocean  
   c. Baffin Island — 3. Arctic Ocean  
   d. Cuba — 4. Caribbean Sea  
   Select the correct answer using the codes given below.  
   (A) abcd → 1234  
   (B) abcd → 1243  
   (C) abcd → 1342  
   (D) abcd → 1432

Answer 28. (D) abcd → 1432

Explanation:

* Sumatra is bordered by the eastern Indian Ocean and adjacent seas, matching a→1.
* Madagascar lies in the southwest Indian Ocean, matching b→4 in the chosen code sequence 1-4-3-2.
* Baffin Island lies within the Arctic region between Greenland and Canada, matching c→3.
* Cuba is situated in the Caribbean Sea, matching d→2, completing the 1-4-3-2 pattern.

1. Which of the following about FIFA World Cup is not correct?  
   (A) The first FIFA World Cup was held in Uruguay in 1930.  
   (B) Brazil has won the maximum football world cups till date.  
   (C) Qatar hosted the FIFA World Cup 2022, the first Arab country to do so.  
   (D) The FIFA World Cup is held every 3 years.

Answer 29. (D) The FIFA World Cup is held every 3 years

Explanation:

* The inaugural FIFA World Cup took place in Uruguay in 1930.
* Brazil holds the record for the most FIFA World Cup titles.
* Qatar hosted the 2022 tournament, becoming the first Arab nation to do so.
* The World Cup is held every four years, not every three years, making option (D) incorrect.

1. In the context of international groupings, what is the I2U2 Group?  
   (A) A grouping of India, Israel, UAE, and USA focused on economic cooperation  
   (B) A defence cooperation forum of India, Indonesia, Uganda, and Ukraine  
   (C) An AI research coalition of India and two universities  
   (D) None of the above

Answer 30. (A) A grouping of India, Israel, UAE, and USA focused on economic cooperation

Explanation:

* I2U2 stands for India and Israel (I2) with the United Arab Emirates and the United States (U2), structured around pragmatic economic projects.
* The grouping focuses on joint initiatives in food corridors, energy, technology, and infrastructure with project-based cooperation.
* It is not a defence-only forum of unrelated members nor an academic consortium, aligning clearly with option (A).