1. Arrange the following environmental conventions in ascending order of their adoption:  
   (i) Montreal Protocol  
   (ii) Kyoto Protocol  
   (iii) Paris Agreement  
   (iv) UNFCCC  
   Select the correct answer using the codes given below:  
   (A) (i)-(iv)-(ii)-(iii)  
   (B) (iii)-(ii)-(iv)-(i)  
   (C) (ii)-(i)-(iii)-(iv)  
   (D) (iv)-(iii)-(ii)-(i)

Answer 71. (A) (i)-(iv)-(ii)-(iii)

Explanation:

* The Montreal Protocol was adopted in 1987, preceding the climate regime and setting a landmark for environmental treaties.
* The UNFCCC was adopted in 1992 at the Rio Earth Summit, creating the framework for later climate agreements.
* The Kyoto Protocol was adopted in 1997 as the first legally binding emissions treaty under the UNFCCC.
* The Paris Agreement was adopted in 2015 to strengthen global climate action after Kyoto.

1. Arrange the following protected areas in Assam according to their district location from North Bank to South Bank of Brahmaputra:  
   (i) Pobitora Wildlife Sanctuary  
   (ii) Nameri National Park  
   (iii) Gibbon Wildlife Sanctuary  
   (iv) Kaziranga National Park  
   (A) (ii)–(iv)–(i)–(iii)  
   (B) (iv)–(i)–(ii)–(iii)  
   (C) (ii)–(i)–(iv)–(iii)  
   (D) (iii)–(i)–(iv)–(ii)

Answer 72. (C) (ii)–(i)–(iv)–(iii)

Explanation:

* Nameri lies on the north bank in Sonitpur at the Himalayan foothills, placing it first when moving from north to south.
* Pobitora is on the south bank in Morigaon district near Guwahati, coming next toward the south.
* Kaziranga spans largely the south bank across Golaghat, Nagaon, and Karbi Anglong, following Pobitora in south-bank sequence.
* Gibbon Wildlife Sanctuary is in Jorhat on the south bank, further east/south, completing the north-to-south ordering.

1. Match List-I with List-II:  
   List-I List-II  
   a. Pollinator 1. Facilitates plant reproduction  
   b. Phenology 2. Study of periodic life cycle events of organisms  
   c. Greenhouse effect 3. Warming due to atmospheric gases  
   d. Endemic species 4. Native to a particular region  
   Select the correct answer using the codes given below.  
   (A) abcd 1234  
   (B) abcd 3412  
   (C) abcd 4321  
   (D) abcd 2143

Answer 73. (A) abcd 1234

Explanation:

* Pollinators enable plant reproduction by transferring pollen between flowers.
* Phenology examines recurring life-cycle timings such as flowering or migration.
* The greenhouse effect is atmospheric-gas-driven warming near the surface.
* Endemic species are native and restricted to a specific geographic region.

1. Assam’s tea industry, as per climate change vulnerability studies, faces which major risks?  
   (A) Prolonged waterlogging and soil salinity stress  
   (B) Decline in productivity due to rising minimum temperatures and erratic rainfall  
   (C) Complete shift of tea zones to Arunachal Pradesh hills  
   (D) Higher productivity due to longer growing season

Answer 74. (B) Decline in productivity due to rising minimum temperatures and erratic rainfall

Explanation:

* Observations highlight rising temperatures and irregular rainfall undermining tea bush health and yields.
* Waterlogging and salinity are not dominant statewide tea stressors compared to heat and rainfall variability.
* A complete geographical shift is not evidenced; instead, adaptation measures are pursued in-situ.

1. Removal of heavy metals using filamentous fungi is an example of  
   (A) mycoremediation  
   (B) phytoremediation  
   (C) phycoremediation  
   (D) vermiremediation

Answer 75. (A) mycoremediation

Explanation:

* Mycoremediation utilizes fungi to immobilize, absorb, or transform pollutants including heavy metals.
* Phytoremediation uses plants; phycoremediation uses algae; vermiremediation uses earthworms.

1. Which gas is excluded from GWP calculations due to its very short atmospheric lifetime despite a high infrared absorption capacity?  
   (A) Carbon dioxide (CO2)  
   (B) Water vapor  
   (C) Methane (CH4)  
   (D) Ozone (O3)

Answer 76. (B) Water vapor

Explanation:

* Water vapor has a high IR absorption but a short residence time and is treated as a feedback, so it is excluded from standard GWP metrics.
* CO2, CH4, and O3 are included with defined GWPs over selected time horizons.

1. Which soil horizon is commonly absent in desert soils due to lack of organic matter accumulation?  
   (A) O horizon  
   (B) A horizon  
   (C) B horizon  
   (D) E horizon

Answer 77. (A) O horizon

Explanation:

* Desert soils typically lack a developed organic (O) horizon because of sparse vegetation and low litter input.
* A and B horizons may be present with weak development; E horizons occur in leached profiles, not typical of arid settings.

1. The interlinking of Indian rivers project is primarily aimed at:  
   (A) Flood control and water distribution  
   (B) Enhancing biodiversity in river basins  
   (C) Increasing hydroelectric power capacity  
   (D) Conservation of wetland ecosystems

Answer 78. (A) Flood control and water distribution

Explanation:

* The NRLP aims to transfer water from surplus to deficit basins to mitigate floods and droughts and improve irrigation and supply.
* Biodiversity enhancement and wetland conservation are not the primary stated goals, though impacts are considered in appraisals.

1. The Directorate General of Foreign Trade (DGFT) functions under which Ministry?  
   (A) Ministry of Agriculture  
   (B) Ministry of Commerce and Industry  
   (C) Ministry of Finance  
   (D) Reserve Bank of India

Answer 79. (B) Ministry of Commerce and Industry

Explanation:

* DGFT administers the Foreign Trade Policy under the Department of Commerce.
* It is not housed in Agriculture, Finance, or the RBI.

1. Which dimension in the MPI includes indicators such as access to clean cooking fuel and electricity?  
   (A) Health  
   (B) Standard of Living  
   (C) Education  
   (D) Income

Answer 80. (B) Standard of Living

Explanation:

* The Multidimensional Poverty Index groups indicators like cooking fuel, electricity, housing, and assets under the Standard of Living dimension.
* Health covers nutrition and mortality; Education covers years of schooling and attendance.