1. Arrange the following nuclear accidents in ascending (year wise) order:  
   (i) Three Mile Island Accident  
   (ii) Chernobyl Disaster  
   (iii) Tokaimura Nuclear Accident  
   (iv) Fukushima Daiichi Disaster  
   Select the correct answer using the codes given below:  
   (A) (i)-(ii)-(iii)-(iv)  
   (B) (iii)-(ii)-(i)-(iv)  
   (C) (ii)-(iii)-(i)-(iv)  
   (D) (iv)-(i)-(ii)-(iii)

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

Explanation:

* Three Mile Island occurred in 1979, making it the earliest among the listed accidents.
* Chernobyl happened in 1986, following Three Mile Island chronologically.
* Tokaimura’s criticality accident took place in 1999, after Chernobyl.
* Fukushima Daiichi occurred in 2011, the most recent of the four.

1. Arrange the following Wildlife Sanctuaries of Assam in the order of their year of establishment:  
   (i) Pobitora Wildlife Sanctuary  
   (ii) Chakrashila Wildlife Sanctuary  
   (iii) Barnadi Wildlife Sanctuary  
   (iv) Sonai Rupai Wildlife Sanctuary  
   (A) (iii)–(i)–(ii)–(iv)  
   (B) (i)–(iii)–(ii)–(iv)  
   (C) (iii)–(ii)–(i)–(iv)  
   (D) (ii)–(iv)–(i)–(iii)

Answer 72. (A) (iii)–(i)–(ii)–(iv)

Explanation:

* Barnadi was among the earliest wildlife sanctuaries in Assam, notified in the mid-20th century.
* Pobitora followed later in the 1980s, recognized especially for its rhinoceros population.
* Chakrashila was notified in the 1990s, noted for golden langur habitat protection.
* Sonai Rupai’s present notification as a sanctuary is the most recent among the four.

1. Match List-I with List-II:  
   List-I              List-II  
   a. Succession                             1. Gradual change in community structure  
   b. Primary producer                          2. Autotrophic organisms  
   c. Xerosere          3. Succession in dry habitat  
   d. Allelopathy                            4. Chemical inhibition of one species by another  
   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:

* Ecological succession describes the gradual, directional change in community composition over time.
* Primary producers are autotrophs that synthesize organic matter from inorganic sources.
* Xerosere refers to succession initiated in xeric, dry conditions such as on bare rock or desert.
* Allelopathy is the biochemical suppression of plants by other plants via released compounds.

1. Which of the following greenhouse gas emission sources accounted for the largest share in Assam, according to the SAPCC baseline data?  
   (A) Transport sector  
   (B) Industrial processes & coal  
   (C) Agriculture (mainly paddy & livestock)  
   (D) Household biomass burning

Answer 74. (C) Agriculture (mainly paddy & livestock)

Explanation:

* Assam’s baseline inventories attribute a dominant share of emissions to agriculture through methane from paddy fields and enteric fermentation in livestock.
* Transport and industrial coal use contribute materially but are smaller relative to agriculture in the state context.
* Household biomass burning is notable but typically does not exceed agricultural emissions in the SAPCC baseline.

1. The enhancement of natural bacterial activity in soils to clean up spilled oil is commonly called  
   (A) biostimulation  
   (B) bioaugmentation  
   (C) biosparging  
   (D) bioventing

Answer 75. (A) biostimulation

Explanation:

* Biostimulation involves adding nutrients or electron acceptors to stimulate indigenous microbes to degrade pollutants.
* Bioaugmentation adds specific microbial strains, which is distinct from stimulation of natives.
* Biosparging and bioventing relate to aeration strategies for groundwater and vadose-zone remediation, respectively.

1. Which of the following gases has the highest global warming potential over a 100-year timescale?  
   (A) Carbon dioxide (CO2)  
   (B) Methane (CH4)  
   (C) Nitrous oxide (N2O)  
   (D) Sulfur hexafluoride (SF6)

Answer 76. (D) Sulfur hexafluoride (SF6)

Explanation:

* SF6 has an extremely high 100-year GWP (in the order of tens of thousands), far exceeding that of CO2, CH4, or N2O.
* Methane and nitrous oxide have higher GWP than CO2 but are much lower than SF6 on a 100-year basis.
* Therefore, SF6 ranks highest among the options given.

1. The parent material of soil, largely unaffected by soil formation processes, is found in which horizon?  
   (A) B horizon  
   (B) R horizon  
   (C) C horizon  
   (D) A horizon

Answer 77. (C) C horizon

Explanation:

* The C horizon consists of partially weathered parent material with minimal pedogenic alteration.
* The R horizon is unweathered bedrock, while A and B horizons are more strongly influenced by organic inputs and translocation processes.
* Hence, C horizon best represents the parent material zone.

1. The main concern of the Gadgil Committee regarding the Western Ghats was:  
   (A) Establishing national parks  
   (B) Regulating human activities to conserve biodiversity  
   (C) Proposing large scale development projects  
   (D) Promoting hydroelectric dams

Answer 78. (B) Regulating human activities to conserve biodiversity

Explanation:

* The Western Ghats Ecology Expert Panel (Gadgil Committee) emphasized graded regulation of human activities through Ecologically Sensitive Zones to safeguard biodiversity.
* It did not primarily focus on dam promotion or large-scale development; rather, it recommended stringent conservation-linked governance.
* National parks were part of broader conservation tools but not the exclusive focus.

1. Which organization publishes the quarterly "Handbook of Statistics on the Indian Economy"?  
   (A) Ministry of Finance  
   (B) Reserve Bank of India  
   (C) NITI Aayog  
   (D) Securities and Exchange Board of India

Answer 79. (B) Reserve Bank of India

Explanation:

* The Reserve Bank of India compiles and publishes the Handbook of Statistics on the Indian Economy with sectoral, monetary, external, and financial data.
* The Ministry of Finance presents the Economic Survey and Budget documents, while NITI Aayog and SEBI issue different sectoral reports.

1. As per MPI, a household is considered multidimensionally poor if it is deprived in:  
   (A) At least one-third of weighted indicators  
   (B) More than half of the indicators  
   (C) Only income-related indicators  
   (D) All three dimensions equally

Answer 80. (A) At least one-third of weighted indicators

Explanation:

* The global MPI identifies a household as multidimensionally poor if its weighted deprivations reach or exceed 33.3% across health, education, and living standard indicators.
* It is not based solely on income, nor does it require majority deprivation across indicators.
* The classification hinges on the weighted deprivation cutoff rather than equal deprivation across all three dimensions.