1. Arrange the following global pandemics in ascending order (year wise):  
   (i) HIV/AIDS pandemic  
   (ii) H1N1 Influenza pandemic  
   (iii) SARS outbreak  
   (iv) COVID-19 pandemic  
   Select the correct answer using the codes given below:  
   (A) (i)-(iii)-(ii)-(iv)  
   (B) (iii)-(i)-(ii)-(iv)  
   (C) (i)-(ii)-(iii)-(iv)  
   (D) (ii)-(i)-(iii)-(iv)

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

Explanation:

* HIV/AIDS emerged as a global pandemic in the early 1980s, making it the earliest among the listed events.
* The SARS outbreak occurred in 2002–03, following HIV/AIDS in time.
* The H1N1 influenza (swine flu) pandemic took place in 2009, after SARS.
* COVID-19 began in late 2019, making it the most recent in the sequence.

1. Arrange the following Biosphere Reserves of Northeast India as per their year of recognition by UNESCO:  
   (i) Nokrek (Meghalaya)  
   (ii) Dihang-Dibang (Arunachal Pradesh)  
   (iii) Manas (Assam)  
   (iv) Dehang-Debang Valley → correction is Dihang-Dibang (ArP)  
   (A) (i)–(iii)–(ii)  
   (B) (iii)–(i)–(ii)  
   (C) (i)–(ii)–(iii)  
   (D) (ii)–(i)–(iii)

Answer 72. (B) (iii)–(i)–(ii)

Explanation:

* Manas entered UNESCO’s World Network of Biosphere Reserves in 1989, making it the earliest among the three listed.
* Nokrek was recognized in 2009 under the Man and the Biosphere Programme.
* Dihang-Dibang was recognized later, in 2018, placing it after Manas and Nokrek in sequence.

1. Match List-I with List-II:  
   List-I List-II  
   a. Bioremediation 1. Use of organisms to detoxify pollutants  
   b. Ozone depletion 2. Thinning of stratospheric ozone  
   c. Biomagnification 3. Increase in concentration of toxin up food chain  
   d. Cryosphere 4. Frozen water part of Earth  
   Select the correct answer using the codes given below.  
   (A) abcd 4321  
   (B) abcd 1324  
   (C) abcd 1234  
   (D) abcd 2143

Answer 73. (C) abcd 1234

Explanation:

* Bioremediation refers to using living organisms (microbes, plants) to degrade or detoxify pollutants.
* Ozone depletion denotes the thinning of the stratospheric ozone layer due to ozone-depleting substances.
* Biomagnification describes increasing concentrations of persistent toxins at higher trophic levels.
* The cryosphere comprises Earth’s frozen water components, including ice sheets, glaciers, sea ice, and permafrost.

1. As per climate projections for Northeast India by IPCC & NATCOM, Assam is expected to experience which of the following by the end of 21st century?  
   (A) Temperature rise of 1°C and decrease in extreme rainfall events  
   (B) Temperature rise of 2–2.5°C and increase in frequency of high-intensity rainfall events  
   (C) Temperature stabilisation but 20% decline in annual rainfall  
   (D) No significant warming due to monsoon regulation by Himalayas

Answer 74. (B) Temperature rise of 2–2.5°C and increase in frequency of high-intensity rainfall events

Explanation:

* Projections indicate overall warming across Northeast India with summer maximums and winter minimums rising by about 2°C or more in higher-emission scenarios by century’s end.
* Studies highlight more frequent heavy rainfall events and increased rainy days, even where mean rainfall trends may be mixed, implying heightened flood risks.
* Assertions of negligible warming or broad declines in extremes are inconsistent with ensemble projections for the region.

1. The application of microorganisms to degrade pesticides in contaminated agricultural fields describes  
   (A) microbial bioremediation  
   (B) mycoremediation  
   (C) phycoremediation  
   (D) phytoremediation

Answer 75. (A) microbial bioremediation

Explanation:

* Microbial bioremediation uses bacteria and other microbes to metabolize or transform pesticides into less harmful compounds.
* Mycoremediation specifically uses fungi; phycoremediation uses algae; phytoremediation employs plants for contaminant uptake or stabilization.
* The described method explicitly focuses on microorganisms in soils, hence microbial bioremediation.

1. The time period commonly used to calculate GWP by the Intergovernmental Panel on Climate Change (IPCC) is:  
   (A) 20 years  
   (B) 50 years  
   (C) 100 years  
   (D) 200 years

Answer 76. (C) 100 years

Explanation:

* The IPCC standardizes global warming potential values on a 100-year time horizon for inter-gas comparisons in inventories and policy.
* Alternate horizons like 20-year are also reported for short-lived climate pollutants but 100-year is the default reference.
* Longer horizons such as 200 years are uncommon in standard reporting.

1. In tropical laterite soils, which horizon is typically very thick and heavily leached?  
   (A) A horizon  
   (B) O horizon  
   (C) B horizon  
   (D) C horizon

Answer 77. (C) B horizon

Explanation:

* Lateritic profiles under intense leaching often exhibit a thick B horizon enriched in iron and aluminum oxides due to illuviation after eluviation from upper layers.
* The A horizon is typically depleted in bases and silica; the O horizon is organic litter and is thin or absent in many tropical settings.
* The C horizon consists of relatively unaltered parent material and is not the zone of maximum leaching products’ accumulation.

1. The Kasturirangan Committee's recommendations on Western Ghats diverged from the Gadgil Committee on:  
   (A) Scope of eco-sensitive areas  
   (B) Promotion of tourism and agriculture in core zones  
   (C) Industrial regulation and mining restrictions  
   (D) Both (A) and (B)

Answer 78. (D) Both (A) and (B)

Explanation:

* The Kasturirangan panel recommended a smaller portion of the Western Ghats (about 37%) as Ecologically Sensitive Area compared to the broader zonation in the Gadgil report, reflecting divergence in ESA scope.
* It adopted a more calibrated approach, allowing regulated activities including certain tourism and agriculture outside strict no-go zones, differing from Gadgil’s stricter prescriptions.
* Both committees sought regulation of mining and industry, but the key divergences highlighted concern ESA extent and treatment of livelihoods/tourism.

1. The International Finance Corporation (IFC), which supports private sector investments in developing countries including India, is part of:  
   (A) World Bank Group  
   (B) International Monetary Fund  
   (C) United Nations Development Programme  
   (D) Asian Development Bank

Answer 79. (A) World Bank Group

Explanation:

* IFC is the private sector arm of the World Bank Group, providing investment and advisory support to catalyze development through private enterprise.
* It is distinct from IMF’s macro-financial stabilization role and from UNDP’s grant-based development programming.
* It is not a regional development bank like ADB.

1. According to the latest NITI Aayog MPI report, which union territory/state shows an MPI poverty headcount ratio below 10%?  
   (A) Jammu & Kashmir  
   (B) Goa  
   (C) Rajasthan  
   (D) Assam

Answer 80. (B) Goa

Explanation:

* Recent National Multidimensional Poverty Index assessments show Goa with a very low headcount ratio, well below 10%.
* Jammu & Kashmir, Rajasthan, and Assam report higher MPI headcounts relative to Goa.
* Goa’s strong performance reflects gains across health, education, and standard of living indicators.