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| Question | Consider the following statements :  Statement-I : The atmosphere is heated more by incoming solar radiation than by terrestrial radiation.  Statement-I1 : Carbon dioxide and other greenhouse gases in the atmosphere are good absorbers of long wave radiation.  Which one of the following is correct in respect of the above statements ? |
| Type | multiple-choice |
| Option | Both Statement-I and Statement-II are correct and Statement-II explains Statement-I |
| Option | Both Statement-I and Statement-II are correct, but Statement-II does not |4 explain Statement-I ) |
| Option | Statement-I is correct, but Statement-II is incorrect |
| Option | Statement-I is incorrect, but Statement-IT is correct |
| Answer | 4 |
| Solution | Atmosphere is not heated by insolation because it is short wave radiation. First it is absorbed by earth surface and converted into long wave radiation. This long wave radiation can be absorbed by green house gases available in the lower atmosphere. |
| Positive Marks | 2 |
| Negative Marks | 0.5 |

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| Question | Consider the following statements :  Statement-l : : Thickness of the troposphere at the equator is much greater as compared to poles.  Statement-II : At the equator, heat is transported to great heights by strong convectional currents.  Which one of the following is correct in respect of the above statements ? |
| Type | multiple-choice |
| Option | Both Statement-I and Statement-II are correet and Statement-II explains Statement-I |
| Option | Both Statement-I and Statement-1I are correct, hut Statement-1I does not explain Statement-I |
| Option | Statement-I is correct, but Statement-II is incorrect |
| Option | Statement-I is ince , but Statement-II is correct |
| Answer | 1 |
| Solution | At equator more energy is received hence the vertically rising convectional currents increases the height of troposphere. At poles the sinking of air reduces the height of troposphere. |
| Positive Marks | 2 |
| Negative Marks | 0.5 |

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| Question | Consider the following :  1. Pyroclastic debris  2. Ashand dust  3. Nitrogen compounds  4. Sulphur compounds  How many of the above are products of volcanic eruptions ? |
| Type | multiple-choice |
| Option | Only one |
| Option | Only two |
| Option | Only three |
| Option | All four |
| Answer | 4 |
| Solution | Through a volcanic explosion solid, liquid and gases comes out. Pyroclastic material is formed when magma is solidified in air. CO2 methane, oxides of Sulphur and nitrogen also comes out in the form of gases. |
| Positive Marks | 2 |
| Negative Marks | 0.5 |

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| Question | Which of the following is/are correct inference/inferences from isothermal maps in the month of January ?  1. The isotherms deviate to the north over the ocean and to the south over the continent.  2. The presence of cold ocean currentsy Gulf Stream and North Atlantic Drift make they North Atlantic Ocean colder and the isotherms bend towards the north.  Select thé answer using/the code given below - |
| Type | multiple-choice |
| Option | l only |
| Option | 2 only |
| Option | Both l and 2 |
| Option | Neither 1 nor 2 |
| Answer | 1 |
| Solution | * In January, the northern hemisphere experiences winter, while the southern hemisphere experiences summer. Because Westerlies can carry high temperatures into landmasses, the western margins of continents are warmer than their eastern counterparts. * The temperature gradient is close to the continents’ eastern margins. In the southern hemisphere, isotherms behave more consistently. * The isotherms deviate north over the ocean and south over the continent. This is visible in the North Atlantic Ocean. Warm ocean currents, such as the Gulf Stream and North Atlantic drift, warm the Northern Atlantic Ocean, and isotherms show a poleward shift, indicating that the oceans are warmer and capable of carrying high temperatures poleward. * An equatorward bend in the isotherms over the northern continents indicates that the landmasses have been overcooled and that polar cold winds can penetrate southwards, even into the interiors. It is especially noticeable in the Siberian plain. Northern Siberia and Greenland have the coldest temperatures. |
| Positive Marks | 2 |
| Negative Marks | 0.5 |

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| Question | Which of the following countries are well known as the two largest cocoa producers in the world ? |
| Type | multiple-choice |
| Option | Algeria and Morocco |
| Option | Botswana and Namibia |
| Option | Cote d'lvoire and Ghana |
| Option | Madagascar and Mozambique |
| Answer | 3 |
| Solution | Cote-d’Ivoire and Ghana are the major producer of cocoa in the world. |
| Positive Marks | 2 |
| Negative Marks | 0.5 |