

Assertion Reason Worksheet

1. Assertion (A): Alluvial soils are highly fertile and intensively cultivated in the Great Plains of India.

Reason (R): Alluvial soils contain adequate proportions of potash, phosphoric acid, and lime, and they are classified as Bangar and Khadar based on age.

2. Assertion (A): The availability of resources is a sole and sufficient condition for the economic development of any region.

Reason (R): Human-made technology and institutional changes are completely irrelevant if natural resource endowments are high.

3. Assertion (A): Black soil is ideal for growing cotton and is also known as 'Regur' soil.

Reason (R): Black soils are rich in soil nutrients like calcium carbonate, magnesium, potash, and lime, but are generally poor in phosphoric contents.

4. Assertion (A): The Club of Rome advocated resource conservation for the first time in a systematic way in 1968.

Reason (R): Indiscriminate exploitation of resources had led to global ecological crises such as global warming, ozone layer depletion, and environmental pollution.

5. Assertion (A): Continuous use of land over a long period without taking appropriate measures to conserve and manage it has resulted in land reclamation.

Reason (R): Land degradation has severe repercussions on society, contributing to declining agricultural productivity and ecological imbalances.

6. Assertion (A): The 'Buxa Tiger Reserve' in West Bengal is seriously threatened by the ongoing mining operations in the region.

Reason (R): The dolomite mining in the area has completely eradicated the threat of habitat fragmentation for the Indian elephant.

7. Assertion (A): Joint Forest Management (JFM) is a successful model for the restoration of degraded forests in India.

Reason (R): The JFM program involves local communities in the management and restoration of degraded forests, granting them intermediary benefits like non-timber forest products.

8. Assertion (A): Human beings have transformed nature into a resource, but in doing so, they have caused a massive depletion of flora and fauna.

Reason (R): Colonial forest policies were highly egalitarian and aimed at preserving local community rights over forest ecosystems.

9. Assertion (A): Large-scale development projects like river valley schemes have had no impact on the loss of forest cover since independence.

Reason (R): Clearing forests for projects like the Narmada Sagar Project submerges thousands of hectares of rich forest land and displaces biodiversity.

10. Assertion (A): The conservation of biodiversity is essential for our survival and the preservation of ecological diversity.

Reason (R): Biodiversity preserves the ecological life-support systems — air we breathe, water we drink, and soil that produces our food.

11. Assertion (A): Laterite soil develops in areas with high temperature and heavy rainfall.

Reason (R): Humus content in laterite soil is low because most of the microorganisms, particularly decomposers like bacteria, get destroyed due to high temperature.

12. Assertion (A): Arid soils range from red to brown in colour and are generally sandy in texture and saline in nature.

Reason (R): The lower horizons of arid soils are occupied by Kankar because of the increasing presence of nitrogen and organic matter downwards.

13. Assertion (A): Placer deposits are minerals that occur as alluvial deposits in sands of valley floors and the base of hills.

Reason (R): These minerals are generally not corroded by water and include valuable elements like gold, silver, tin, and platinum.

14. Assertion (A): Contour ploughing and terrace cultivation are highly effective measures against soil erosion in hilly terrains.

Reason (R): These practices decelerate the flow of water down the slopes, preventing the formation of deep gullies and sheet wash.

15. Assertion (A): The net sown area as a percentage of total reporting area is uniform across all states of India, hovering around 80%.

Reason (R): The pattern of net sown area varies greatly from state to state due to differences in topography, climate, and socio-economic factors.

16. Assertion (A): The Indian Wildlife (Protection) Act was implemented in 1972 with various provisions for protecting habitats.

Reason (R): The main thrust of the 1972 Act was to completely ban the concept of National Parks and Wildlife Sanctuaries to give people absolute forest access.

17. Assertion (A): Forests are classified into Reserved, Protected, and Unclassed forests to balance ecological preservation and community usage.

Reason (R): Reserved and protected forests are regarded as permanent forest estates maintained for the purpose of producing timber and other forest produce, and for protective reasons.

18. Assertion (A): The destruction of forests and wildlife is not just a biological issue but is strongly correlated with cultural loss.

Reason (R): Forest degradation has equally impacted all genders and social classes, without causing any specific marginalization of women within indigenous communities.

19. Assertion (A): Species whose population has declined to levels from where it is likely to move into the endangered category in the near future are classified as Endemic species.

Reason (R): Such species are called Vulnerable species because negative factors continue to operate, causing their population to dwindle.

20. Assertion (A): Shifting cultivation (Jhumming) has contributed significantly to deforestation and land degradation in the tribal belts of North-Eastern and Central India.

Reason (R): It involves clearing forest patches by cutting and burning vegetation, which strips the soil of its nutrients over successive cycles if not given adequate fallow time.

21. Assertion (A): Sustainable development emphasizes meeting the needs of the present generation without compromising the ability of future generations to meet theirs.

Reason (R): Agenda 21 was signed at the United Nations Conference on Environment and Development (UNCED) in 1992 to achieve global sustainable development.

22. Assertion (A): Renewable resources like solar energy, wind energy, and forests can never face scarcity or degradation regardless of human exploitation patterns.

Reason (R): Non-renewable resources occur over a very long geological time scale and take millions of years in their formation.

23. Assertion (A): Gully erosion is highly prevalent in the Chambal basin, creating land forms locally known as ravines.

Reason (R): Running water cuts through the clayey soils and deepens channels, rendering the land unfit for cultivation.

24. Assertion (A): Mining sites in states like Jharkhand, Chhattisgarh, and Odisha are left abandoned after excavation work is complete, causing severe land degradation.

Reason (R): Overburdening and deep scars left by mining operations remove the topsoil cover and expose the lower strata to rapid weathering and erosion.

25. Assertion (A): Red soil develops a reddish color due to a high accumulation of organic humus and waterlogging conditions.

Reason (R): It looks yellow when it occurs in a hydrated form and turns reddish due to a wide diffusion of iron in crystalline and metamorphic rocks.

26. Assertion (A): The Asian Cheetah was declared extinct in India as early as 1952.

Reason (R): The extinction of the Asian Cheetah was entirely driven by natural climatic shifts and had nothing to do with industrialization or shrinking forest habitats.

27. Assertion (A): The 'Chipko Movement' in the Himalayas successfully resisted deforestation in several areas.

Reason (R): It proved that community-led, traditional afforestation attempts using indigenous species can be highly effective without heavy institutional technology.

28. Assertion (A): Sacred groves are forms of nature worship practiced by tribal societies that have helped preserve pristine forest patches.

Reason (R): Modern state-led commercial forestry completely adopts the concepts of sacred groves to maximize short-term timber revenues.

29. Assertion (A): The Nicobar pigeon, Andaman wild pig, and Mithun are classic examples of Vulnerable species found in isolated island ecosystems.

Reason (R): These are classified as Endemic species because they are only found in specific geographic areas usually isolated by natural barriers.

30. Assertion (A): Clearing of forests for agricultural expansion was one of the major causes of depletion of forest resources between 1951 and 1980.

Reason (R): According to the Forest Survey of India, over 26,200 sq. km. of forest area was converted into agricultural land during this timeframe to meet the demands of a growing population.

31. Assertion (A): Resource planning is a complex process that involves identification and inventory of resources across the regions of the country.

Reason (R): Some regions in India are rich in certain resources but deficient in some other crucial resources, making balanced regional development necessary.

32. Assertion (A): Sheet erosion occurs when the topsoil over a large area is washed away by running water moving as a sheet down a slope.

Reason (R): Sheet erosion only occurs in highly arid, desert landscapes where water action is completely negligible compared to wind action.

33. Assertion (A): Over-irrigation in states like Punjab, Haryana, and Western Uttar Pradesh is responsible for land degradation.

Reason (R): Waterlogging caused by excessive irrigation leads to an increase in salinity and alkalinity in the soil, affecting its texture.

34. Assertion (A): Shelterbelts of plants and stabilization of sand dunes through growing thorny bushes have significantly contributed to conserving land in western India.

Reason (R): Rows of such plants break the force of the wind, preventing the shifting of sand and stabilizing the desert ecosystem.

35. Assertion (A): International resources, such as oceanic waters beyond 200 nautical miles of the Exclusive Economic Zone, can be utilized by any country at their own discretion without any prior agreements.

Reason (R): These resources belong to open ocean zones and are regulated by international institutions; no individual country can utilize them without consensus.

36. Assertion (A): Project Tiger, launched in 1973, was aimed not only at saving an endangered species but also at preserving equal-sized biotypes.

Reason (R): The project failed immediately within its first year, and tiger populations in India dropped to zero by the late 1980s.

37. Assertion (A): The environmental destruction caused by industrialization has disproportionately heightened the domestic burdens of rural women.

Reason (R): As fuel, fodder, and water resources deplete, women have to walk longer distances (sometimes more than 10 km) to collect these basic necessities, severely affecting their health.

38. Assertion (A): The Mundas and Santhals of the Chota Nagpur region worship Mahua and Kadamba trees during their festivals.

Reason (R): Religious tree-worship practices are entirely banned under the Indian Wildlife (Protection) Act to prevent superstition.

39. Assertion (A): Communities in Alwar district of Rajasthan have turned away from traditional water harvesting and left their forests unmanaged to favor rapid industrial urbanization.

Reason (R): Inhabitants of five villages in the Alwar district have declared 1,200 hectares of forest as the Bhairodev Dakav 'Sonchuri', enacting their own rules to protect wildlife against outside hunting.

40. Assertion (A): Multi-species plantations (monoculture of commercial species) favored during the colonial era structurally weakened India's native biodiversity.

Reason (R): The promotion of single valuable commercial species, like Teak in South India or Chir Pine in the Himalayas, led to the systematic elimination of other diverse, indigenous plant species.

41. Assertion (A): In the snow-covered regions of the Himalayas, forest soils experience denudation and are acidic with low humus content.

Reason (R): Forest soils are generally loamy and silty in valley sides and coarse-grained in the upper slopes due to mountain topography.

42. Assertion (A): Land is a natural resource of utmost importance because it supports natural vegetation, wildlife, human life, and economic activities.

Reason (R): Land is an infinite resource, meaning human populations can expand and construct infrastructure indefinitely without any spatial constraints.

43. Assertion (A): Human activities like deforestation, overgrazing, construction, and mining have broken the balance between soil formation and soil erosion.

Reason (R): Nature and human-induced factors work simultaneously, causing the top layer of soil to be removed faster than it can naturally replenish under altered conditions.

44. Assertion (A): Strips of grass left to grow between crops (strip cropping) is an effective tool to counter wind erosion in agricultural fields.

Reason (R): These strips break the momentum and force of the wind, thereby reducing its capacity to lift and transport topsoil away.

45. Assertion (A): Structural reserves and stock are categories of resources that can be fully put into use instantly using current basic, everyday household tools.

Reason (R): 'Stock' includes materials in the environment which have the potential to satisfy human needs but humans do not have the appropriate technology to access them.

46. Assertion (A): Taxol, a chemical compound extracted from the Himalayan Yew (*Taxus wallachiana*), is a highly effective anti-cancer drug.

Reason (R): Because of its synthetic, laboratory-made nature, production of Taxol has had zero impact on the physical population of the Himalayan Yew trees in Himachal Pradesh.

47. Assertion (A): The degradation of biodiversity directly correlates with an increase in poverty among resource-dependent indigenous communities.

Reason (R): Indigenous people depend directly on the forest ecosystem for food, medicine, fuel, and fodder; hence, environmental destruction strips away their primary livelihood options.

48. Assertion (A): Wildlife sanctuaries and National Parks completely forbid all entry of government officials to ensure absolute isolation for wildlife.

Reason (R): Management of protected areas is governed by state forest departments under specific legislative frameworks like the Wildlife Protection Act.

49. Assertion (A): Extinct species are those whose populations are highly localized and can still be easily sighted in any neighborhood park with minimal effort.

Reason (R): Extinct species are those which are not found after repeated searches of known or likely areas where they may occur.

50. Assertion (A): The 'Beej Bachao Andolan' in Tehri and Navdanya have shown that adequate levels of diversified crop production are possible without the use of synthetic chemicals.

Reason (R): These movements revived traditional, chemically pesticide-free seed conservation and organic farming methods, proving them to be both economically viable and ecologically sound