

## WBCS (Mains) Exam. Paper-III – Practice Set

### Answers with Explanation

1. (a) The archaeological record of the Indus civilization provides practically no evidence of armies, kings, slaves, social conflict, prisons, and other oft-negative traits that we traditionally associated with early civilizations. If there were neither slaves nor kings, a more egalitarian system of governance may have been practiced. Besides, compared to other ancient civilizations the houses were of nearly equal size indicating a more egalitarian social structure i.e. The Social System of the Harappans was fairly egalitarian. শ্রেণীভিত্তিক
2. (c) The most interesting term in Indian drama with Greek connotation is yavanika, which means a stage curtain. For the first time in Panini's grammar, there is a reference to Yavana and Yavanani writing. However, the theory is not only erroneous but ridiculous because there is no curtain in the Greek drama and also there is no word "yavanika" in Sanskrit language. There is Yavani meaning Greek woman. শ্রেণীভিত্তিক
3. (a) The Buddhas of Bamiyan were two 6th century monumental statues of standing buddha carved into the side of a cliff in the Bamiyan valley in the Hazarajat region of central Afghanistan. They were dynamited and destroyed in March 2001 by the Taliban, on orders from leader Mullah Mohammed Omar, after the Taliban government declared that they were idols. On 8 September 2008 archeologists searching for a legendary 300-metre statue at the site of the already dynamited Buddhas announced the discovery of an unknown 19-metre (62-foot) reclining Buddha, a pose representing Buddha's passage into nirvana.
4. (a) The Junagadh rock inscription, found in Junagadh, was carved under the orders of King Rudradaman, who had obtained the title of Mahakshatrapa. He was the grandson of the famous Mahakshatrapa Chastana and was a Saka ruler from the Western Kshatrapa dynasty. The inscription is a chronicle about the rebuilding of a dam named Urjayat around the lake Sudarshana. The dam lay in the region of Saurashtra and the closest town appears to have been a place called Girinagar. It was fed by the rivers Suvarnasikata and Palasini, along with other smaller streams. The dam was originally built by Vaishya Pushyagupta who was the governor of the region under Chandragupta Maurya. Conduits from the dam were later built under orders of his grandson; Emperor Asoka. শ্রেণীভিত্তিক
5. (c) Roman trade with India started around the beginning of the Common Era following the reign of Augustus and his conquest of Egypt. Following the Roman-Persian Wars Khosrow I of the Persian Sassanian Dynasty captured the areas under the Roman Byzantine Empire. The Arabs, led by 'Amr ibn al-'As, crossed into Egypt in late 639 or early 640 C.E. That advance marked the beginning of the Islamic conquest of Egypt and the fall of ports such as Alexandria, used to secure trade with India by the Greco Roman world since the Ptolemaic dynasty. The decline in trade saw Southern India turn to Southeast Asia for international trade, where it influenced the native culture to a greater degree than the impressions made on Rome. The Hunas invaded the Roman Empire under Attila the Hun in 454 C.E.
6. (c) Banabhatta was a Sanskrit prose writer and poet of India. He was the Asthana Kavi in the court of King Harshavardhana, who reigned in the years century. 606–647 CE in north India. শ্রেণীভিত্তিক
7. (b) The famous Chola temple built at Tanjavur (Tanjore) is known as the Brihadeshvara temple. It is also called the Rajarajeshwara temple after the name of king Rajaraja who built it in honour of Lord Shiva in about 1009 A.D. It is a tribute and a reflection of the power of its patron Raja Raja Chola I. It remains India's largest temple.
8. (b) The Vedic economy revolved around cow and dairy products which is clear from the references found in the Rig Veda. The economy was primarily pastoral. The staple diet of the people was milk, ghee (clarified butter), vegetables, fruit and barley. On special occasions like a religious feast or the arrival of a guest, a more elaborate meal was organized. শ্রেণীভিত্তিক

9. (a) Ibn Batuta was a Berber Muslim Moroccan explorer, known for his extensive travels, accounts of which were published in the Rihla (“Journey”). Over a period of thirty years, he visited most of the known Islamic world as well as many non-Muslim lands; his journeys including trips to North Africa, the Horn of Africa, West Africa, Southern Europe and Eastern Europe in the West, and to the Middle East, South Asia, Central Asia, Southeast Asia and China in the East, a distance surpassing threefold his near-contemporary Marco Polo. Ibn Batuta is considered one of the greatest travellers of all time. ঐতিহাস
10. (c) The Grand Trunk Road is one of South Asia’s oldest and longest major roads. For several centuries, it has linked the eastern and western regions of the Indian subcontinent, running from Chittagong, Bangladesh through to Howrah, West Bengal in India, across north India into Peshawar (in present day Pakistan), up to Kabul, Afghanistan. The modern road was built by Sher Shah Suri, who renovated and extended the ancient route in the 16th century
11. (c) Tavernier gives a detailed and vivid description of the “Peacock Throne” in his book *Le Six Voyages de J. B. Tavernier- The Six Voyages of J. B. Tavernier*. It was during Tavernier’s sixth voyage to India, which he undertook between 1663 and 1668, he had the privilege of visiting the court of the great Mughal Emperor Aurangzeb, at Jahanabad, at the invitation of the Emperor himself. The main purpose of Tavernier’s invitation to the Emperor’s court, was for the Emperor to inspect whatever jewels Tavernier had brought from the west, with a view of purchasing them. The description of the throne appears in Chapter VIII of Volume II of his book, which concerns about preparations for the Emperor’s annual birthday festival, during which he is solemnly weighed every year, and also about the splendor of his thrones and the magnificence of his court. Tavernier’s account of the Peacock Throne is the most comprehensive account of the throne available to modern historians. ঐতিহাস
12. (b) Tughlakabad Fort is a ruined fort in Delhi, built by Ghiyas-ud-din Tughlaq, the founder of Tughlaq dynasty, of the Delhi Sultanate of India in 1321. The Red Fort is a 17th century fort complex constructed by the Mughal emperor, Shah Jahan. The fort was the palace for Mughal Emperor Shah Jahan’s new capital, Shahjahanabad, the seventh city in the Delhi site. Hauz Khas is named after an ancient water reservoir by the same name. The large water tank or reservoir was first built by Alauddin Khilji (1296–1316) to supply water to the inhabitants of Siri Fort. Siri Fort, in the city of New Delhi, was built during the rule of Ala-ud-Din Khilji of the Delhi Sultanate to defend the city from the onslaught of the Mongols. It was the second of the seven cities of medieval Delhi built around 1303.
13. (b) Mullah Abd-ul-Qadir Badauni was an Indo-Persian historian and translator living during the Mughal period in India. Jalaluddin Muhammad Akbar appointed him to the religious office in the royal courts in 1574 where he spent much of his career. He translated the Hindu works, the Ramayana and the Mahabharata. The most notable work of Bada’uni is *Muntakhab-ut-Tawarikh* (Selection of Chronicles) or *Tarikh-i-Bada’uni* (Bada’uni’s History) which is a general History of the Muslims of India. ঐতিহাস
14. (c) The French East India Company was a commercial enterprise, founded in 1664 to compete with the British and Dutch East India companies in the East Indies. Planned by Jean-Baptiste Colbert, it was chartered by King Louis XIV for the purpose of trading in the Eastern Hemisphere. ঐতিহাস
15. (a) An inam is a gift of land or land revenue. It was given to scholars and religious persons as recognition of their invaluable contributions to the state and society. The title of inamdar was bestowed upon to the person who received in grant or as gift (Inam) the lands for the extraordinary service rendered to the ruler or the country or the kingdom.
16. (c) Baji Rao-I was a noted general who served as Peshwa (Prime Minister) to the fourth Maratha Chhatrapati (Emperor) Shahu from 1720 until Baji Rao’s death. Acknowledged as the most influential of the nine Peshwas, the later Kingdoms of Scindias of Gwalior, Holkars of Indore, Gaekwads of Baroda, and Pawars of Dhar were created by Baji Rao as part of a Maratha Empire, as he wreaked havoc on the

- disintegrating Mughal Empire and set up his jagirdars (fiefdoms). He fought over 41 major battles and many others, is reputed never to have never lost one battle. শ্রীচিওর্স
17. (d) The language of the Mughals was Chagatai and later Farsi. The language of the court was Persian which is known as Farsi. The language advanced into the language Urdu. It is characteristic of the Mughals that, next to Persian, the language which received the greatest patronage at court was Hindi. The practice started in Akbar's days.
18. (c) Guru Gobind Singh was the Tenth Sikh Gurus. He contributed much to Sikhism; notable was his contribution to the continual formalisation of the faith. Guru Gobind Singh, the last of the living Sikh Gurus, initiated the Sikh Khalsa in 1699, passing the Guruship of the Sikhs to the Eleventh and Eternal Guru of the Sikhs, the Guru Granth Sahib. শ্রীচিওর্স
19. (c) Bairam Khan was an important military commander, general of the Mughal army, a powerful statesman and regent at the court of the Mughal emperors Humayun and Akbar. As Akbar's regent, he consolidated Mughal authority in northern India and most notably led Mughal forces at the Second Battle of Panipat, which was fought between Akbar and the Hindu king Hemu in 1556.
20. (c) The Akaal Takht is the highest seat of temporal authority of the Khalsa and an important symbol of Sikhism. The Akal Takht is located in the Harmandir Sahib complex in Amritsar, Punjab. It was built by the Guru Hargobind Sahib.
21. (b) Prithviraj Chauhan was defeated by Muhammad Ghori in the second battle of Tarain (1192). This battle is regarded as one of the turning points of Indian history as it led to the Muslim occupation in India. শ্রীচিওর্স
22. (c) The Tomb of Jahangir is located in Shahadra Bagh in Lahore, Pakistan. The tomb, along with the adjacent Akbari Sarai and the tomb of Asif Khan, is on the tentative list as a UNESCO World Heritage Site.
23. (b) Purana Qila is one the oldest forts in Delhi. Its current form was built by the Afghan king Sher Shah Suri, on a site which was perhaps that of Indraprastha, the legendary capital of the Pandavas. Though Sher Shah began its construction, the monument was completed by his son Islam Shah.
24. (d) Gol Gumbaz is the mausoleum of Mohammed Adil Shah, Sultan of Bijapur. The tomb, located in Bijapur, Karnataka in India, was completed in 1656 by the architect Yaqut of Dabul. It is constructed as per the Deccan architecture.
25. (a) Razia Sultan, daughter of Iltutmish, was the first woman ruler of India. She was the Sultan of Delhi in India from 1236 to May 1240. She was the only woman ruler of both - the Delhi Sultanate and the Mughal period, although other women ruled from behind the scenes.
26. (a) Santhals rose in revolt in Jharkhand in 1855 and the Warli Revolt in Maharashtra in 1940.
27. (c) The British wanted tribal groups to settle down and become peasant cultivators. Settled peasants were easier to control and administer than people who were always on the move. They also wanted a regular revenue source for the state. শ্রীচিওর্স
28. (d) Sepoys mutinied in several places beginning from Meerut. On 29 March 1857, a young soldier, Mangal Pandey, was hanged to death for attacking his officers in Barrackpore. Most Smaller rulers and chieftains controlled different territories on behalf of the Mughal ruler. Threatened by the expansion of British rule, many of them felt that if the Mughal emperor could rule again, they too would be able to rule their own territories once more, under Mughal authority. Sepoys of the regiment at Meerut refused to do the army drill using the new cartridges which were suspected of being coated with the fat of cows and pigs. শ্রীচিওর্স
29. (c) Secretary of State for India and made responsible for all matters related to the governance of India. He was member of British cabinet. He was given a council to advise him, called the India Council. The Governor-General of India was given the title of Viceroy, that is, a personal representative of the Crown. The local ruling chief were allowed to pass on their kingdoms to their heirs, including adopted sons. However, they were made to acknowledge the British Queen as their Sovereign Paramount. Thus the Indian rulers were to hold their kingdoms as subordinates of the British Crown. শ্রীচিওর্স
30. (d) The Indian sepoys in the employ of the Company also had reasons for discontent. They were unhappy about their pay,

- allowances and conditions of service. Some of the new rules, moreover, violated their religious sensibilities and beliefs. শ্রীচিওর্ষ
31. (b) The tanti weavers of Bengal, the julahas or momin weavers of north India, sale and kaikollar and devangs of south India are some of the communities famous for weaving.
32. (a) William Carey was a Scottish missionary who helped establish the Serampore Mission. William Jones discovered that his interests were shared by many British officials living in Calcutta at the time. Englishmen like Henry Thomas Colebrooke and Nathaniel Halhed were also busy discovering the ancient Indian heritage, mastering Indian languages and translating Sanskrit and Persian works into English. Together with them, Jones set up the Asiatic Society of Bengal, and started a journal called Asiatic Researches. James Mill was one of those who attacked the Orientalists. The British effort, he declared, should not be to teach what the natives wanted, or what they respected, in order to please them and “win a place in their heart”. The aim of education ought to be to teach what was useful and practical. James mill was not an orientalist.
33. (d) Raja Rammohan Roy is known as father of Indian Renaissance. He was supporter of western education. Raja Rammohan Roy (1772-1833). He founded a reform association known as the Brahma Sabha (later known as the Brahma Samaj) in Calcuttain 1828. Rammohun Roy was keen to spread the knowledge of Western education in the country and bring about greater freedom and equality for women. He wrote about the way women were forced to bear the burden of domestic work, confined to the home and the kitchen, and not allowed to move out and become educated. শ্রীচিওর্ষ
34. (c) In Bombay, the Paramhans Mandali was founded in 1840 to work for the abolition of caste. Many of these reformers and members of reform associations were people of upper castes. Often, in secret meetings, these reformers would violate caste taboos on food and touch, in an effort to get rid of the hold of caste prejudice in their lives. Periyar founded the Self Respect Movement. He argued that untouchables were the true upholders of an original Tamil and Dravidian culture which had been subjugated by Brahmins. Orthodox Hindu society also reacted by founding Sanatan Dharma Sabhas and the Bharat Dharma Mahamandal in the north, and associations like the Brahman Sabha in Bengal. The object of these associations was to uphold caste distinctions as a cornerstone of Hinduism, and show how this was sanctified by scriptures. The Prarthana Samaj was established in 1867 at Bombay, the Prarthana Samaj sought to remove caste restrictions, abolish child marriage, encourage the education of women, and end the ban on widow remarriage. Its religious meetings drew upon Hindu, Buddhist and Christian texts.
35. (a) Statement 1 is correct. A group of Muslim landlords and nawabs formed the All India Muslim League at Dacca in 1906. The League supported the partition of Bengal. And they were against the Congress. শ্রীচিওর্ষ
36. (c) The two groups of Congress reunited in December 1915. Next year (1916) the Congress and the Muslim League signed the historic Lucknow Pact and decided to work together for representative government in the country. In Ahmedabad Mahatma Gandhi led a successful millworkers’ strike in 1918.
37. (a) The Jallianwala Bagh atrocities, inflicted by General Dyer in Amritsar on Baisakhi Day (13 April), were a part of this repression. On learning about the massacre, Rabindranath Tagore expressed the pain and anger of the country by renouncing his knighthood. Knighthood is an honour granted by the British Crown for exceptional personal achievement or public service. শ্রীচিওর্ষ
38. (d) In 1916 he travelled to Champaran in Bihar to inspire the peasants to struggle against the oppressive plantation system. Then in 1917, he organised a satyagraha to support the peasants of the Kheda district of Gujarat. Affected by crop failure and a plague epidemic, the peasants of Kheda could not pay the revenue, and were demanding that revenue collection be relaxed. In 1918, Mahatma Gandhi went to Ahmedabad to organise a satyagraha movement amongst cotton mill workers. শ্রীচিওর্ষ
39. (a) Mahatma Gandhi found in salt a powerful symbol that could unite the nation. On 31 January 1930, he sent a letter to Viceroy



Lord Irwin stating eleven demands. Some of these were of general interest; others were specific demands of different classes, from industrialists to peasants.

40. (c) After World War I India witnessed a growth in Industrialisation as war led to shortage of essential items. To tackle this issue new industries were established in India. From the 1900s India's nationalist leaders began opposing the system of indentured labour migration as abusive and cruel. It was abolished in 1921.
41. (c) Clothes made in Manchester were cheap in price compared to Indian made cloth. The label was also to be a mark of quality. When buyers saw 'MADE IN MANCHESTER' written in bold on the label, they were expected to feel confident about buying the cloth. **Clothes made in Manchester were machine made that's why they were low in price.**
42. (c) From 1780, James Augustus Hickey began to edit the Bengal Gazette, a weekly magazine that described itself as 'a commercial paper open to all, but influenced by none'. So it was private English enterprise, proud of its independence from colonial influence that began English printing in India.
43. (b) From 1780, James Augustus Hickey began to edit the Bengal Gazette, a weekly magazine that described itself as 'a commercial paper open to all, but influenced by none'. So it was private English enterprise, proud of its independence from colonial influence, that began English printing in India. Refer spectrum for more information.
44. (b) The Battle of Haldighati was fought between the Mughal Empire and the forces of Mewar on June 21, 1576 at Haldighati in Rajasthan, India. It was a decisive victory for the Mughal Emperor Jalal ud-Din Muhammad Akbar's general Raja Man Singh against the Maharana Pratap Singh of Mewar. Akbar was 14 years old when he was crowned at Kalanaur in 1556.
45. (c) In the Karachi Session 1931 of India National Congress, Mahatma Gandhi had said "Gandhi may die but Gandhism will remain forever."
46. (c) "Moderates" who preferred a more gradual and persuasive approach. Among these Moderates was Gandhiji's acknowledged political mentor, Gopal Krishna Gokhale, as well as Mohammad Ali Jinnah, who, like

- Gandhiji, was a lawyer of Gujarati extraction trained in London. On Gokhale's advice, Gandhiji spent a year travelling around British India, getting to know the land and its peoples.
47. (b) The Irwin Declaration of October 1929 committed Britain to eventual Dominion Status for India. Despite such a policy having been implicit for a decade, the Declaration was denounced by many on the Tory Right New Delhi Conference of December 1929 between Irwin and the Indian leaders failed to reach agreement. Gandhi now began a campaign of civil disobedience with a view to achieving complete independence.
48. (b) The Rowlatt committee was a Sedition Committee appointed in 1918 by the British Indian Government with Mr Justice Rowlatt, an English judge, as its president. The purpose of the committee was to evaluate political terrorism in India, especially Bengal and Punjab, its impact, and the links with the German government and the Bolsheviks in Russia. Rowlatt Act was a legislative act passed by the Imperial Legislative Council in Delhi on March 18, 1919 on the recommendations of the Sedition Committee. Hence, statement 1 is correct. In organizing Rowlatt Satyagraha, Gandhiji tried to utilize three types of political networks- the Home Rule League, certain Pan-Islamist groups, and a Satyagraha Sabha which he himself started at Bombay. Hence, statement 2 is also correct. The Simon Commission arrived in India in 1928 to inquire into the causes of the rise of revolutionary activities in 1920s, widespread distress caused by falling agricultural prices, the general dissatisfaction of the people of India with the Govt. ds of India Act 1919. It was greeted with the slogan 'Simon Go Back. Demonstrations against the Commission were held all over India supported by all parties including the Congress and the Muslim League. These demonstrations did not coincide with Rowlatt Satyagraha. Hence, statement 3 is not correct.
49. (c) In January 1915, Mohandas Karamchand Gandhi returned to his homeland after two decades of residence abroad. These years had been spent for the most part in South Africa, where he went as a lawyer, and in time became a leader of the Indian community in that

territory. As the historian Chandran Devanesan has remarked, South Africa was “the making of the Mahatma”. It was in South Africa that Mahatma Gandhi first forged the distinctive techniques of non-violent protest known as satyagraha, first promoted harmony between religions, and first alerted upper-caste Indians to their discriminatory treatment of low castes and women.

শ্রীচিড়ম্ব

50. (c) Viceroy, Lord Wavell, brought the Congress and the League together for a series of talks. Early in 1946 fresh elections were held to the provincial legislatures. The Congress swept the “General” category, but in the seats specifically reserved for Muslims the League won an overwhelming majority. The political polarisation was complete. A Cabinet Mission sent in the summer of 1946 failed to get the Congress and the League to agree on a federal system that would keep India together while allowing the provinces a degree of autonomy. However in February 1947, Wavell was replaced as Viceroy by Lord Mountbatten.
51. (d) Pluto was discovered by Clyde Tombaugh in 1930. According to International Astronomical Union (IAU) on August 24, 2006 Pluto is considered as dwarf planet. According to the definition, there are currently eight planets and five dwarf planets known in the solar system. The five dwarf planets are Pluto, Ceres, Eris, Makemake and Haumea. Pluto has been given number 134340.
52. (b) The umbra (Latin for “shadow”) is the innermost and darkest part of a shadow, where the light source is completely blocked by the occluding body. An observer in the umbra experiences a total eclipse.
53. (a) The Grand Canyon is a steep-sided canyon carved by the Colorado River in the United States in the state of Arizona. It is contained within and managed by Grand Canyon National Park, the Hualapai Tribal Nation, and the Havasupai Tribe. President Theodore Roosevelt was a major proponent of preservation of the Grand Canyon area. A number of processes combined to create the views that we see in today’s Grand Canyon. The most powerful force to have an impact on the Grand Canyon is erosion, primarily by water (and ice) and second by wind. Other forces that contributed to the Canyon’s formation are the course of

the Colorado River itself, volcanism, continental drift and slight variations in the earth’s orbit which in turn causes variations in seasons and climate.

শ্রীচিড়ম্ব

54. (d) A mushroom rock, also called rock pedestal or a pedestal rock, is a naturally occurring rock whose shape, as its name implies, strikingly resembles a mushroom. Usually found in desert areas, these rocks are formed over thousands of years when wind erosion of an isolated rocky outcrop progresses at a different rate at its bottom to that at its top.
55. (a) The gravity of Earth, denoted 'g', refers to the acceleration that the Earth imparts to objects on or near its surface. At latitudes nearer the Equator, the inertia produced by Earth’s rotation is stronger than at polar latitudes. This counteracts the Earth’s gravity to a small degree – up to a maximum of 0.3% at the Equator – reducing the downward acceleration of falling objects. The second major reason for the difference in gravity at different latitudes is that the Earth’s equatorial bulge (itself also caused by inertia) causes objects at the Equator to be farther from the planet’s centre than objects at the poles. Because the force due to gravitational attraction between two bodies (the Earth and the object being weighed) varies inversely with the square of the distance between them, an object at the Equator experiences a weaker gravitational pull than an object at the poles.
56. (b) Overgrazing is the major cause of desertification worldwide. Plants of semi-arid areas are adapted to being eaten by sparsely scattered, large, grazing mammals which move in response to the patchy rainfall common to these regions. Early human pastoralists living in semi-arid areas copied this natural system. They moved their small groups of domestic animals in response to food and water availability. Such regular stock movement prevented overgrazing of the fragile plant cover.
57. (d) The epicenter is the point on the Earth’s surface that is directly above the hypocenter or focus, the point where an earthquake or underground explosion originates. In the case of earthquakes, the epicenter is directly above the point where the fault begins to rupture, and in most cases, it is the area of greatest damage.

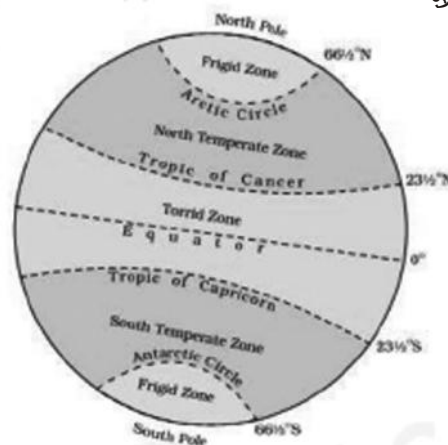
শ্রীচিড়ম্ব

58. (a) Caldera refers to a large basin-shaped Crater that is bound by steep cliffs. The Caldera best known in North America is Crater Lake.
59. (c) Sandstone can be turned into a metamorphic rock by being either heated up to a point where it undergoes a significant change or subjected to high pressures, or subjected to chemically active fluids, or some combination thereof. A common result of the metamorphosis of sandstone is the creation of quartzite.
60. (c) The Roaring Forties is the name given to strong westerly winds found in the Southern Hemisphere, generally between the latitudes of 40 and 50 degrees. The Westerlies play an important role in carrying the warm, equatorial waters and winds to the western coasts of continents, especially in the southern hemisphere because of its vast oceanic expanse. শ্রেণীভিত্তিক
61. (a) Willy-willy is a name used by Australians to refer to a dust devil. In the past, it had been used to refer to tropical cyclones. A hurricane is a type of tropical cyclone or severe tropical storm that forms in the southern Atlantic Ocean, Caribbean Sea, Gulf of Mexico, and in the eastern Pacific Ocean. A typical cyclone is accompanied by thunderstorms, and in the Northern Hemisphere, a counterclockwise circulation of winds near the earth's surface. All Atlantic and Gulf of Mexico coastal areas are subject to hurricanes. Parts of the Southwest United States and the Pacific Coast also experience heavy rains and floods each year from hurricanes spawned off Mexico. A typhoon is a mature tropical cyclone that develops in the northwestern part of the Pacific Ocean between 180° and 100°E. This region is referred to as the northwest Pacific basin. The United States and its adjacent territories such as the West Indies are threatened by typhoons each year. The mistral is a strong, cold and usually dry regional wind in France, coming from the north or northwest, which accelerates when it passes through the valleys of the Rhone and the Durance Rivers to the coast of the Mediterranean around the Camargue region. শ্রেণীভিত্তিক
62. (a) Over 99% of the mass of the earth's atmosphere is contained in two layers: the troposphere and the stratosphere. Most of the earth's atmosphere (80 to 90%) is found in the troposphere, the atmospheric layer where we live. This layer, where the earth's weather occurs, is within about 12 km of the earth's surface. শ্রেণীভিত্তিক
63. (b) An updraught or downdraught is the vertical movement of air as a weather related phenomenon. Better known as air current, they can be caused by differences in temperature, pressure, or impurity concentration. Temperature differences can cause air currents because warmer air is less dense than cooler air, causing the warmer air to appear "lighter." Rising air is associated with turbulence as it creates a low pressure on the surface.
64. (b) A cloudburst is sudden copious rainfall. It is a sudden aggressive rainstorm falling for a short period of time limited to a small geographical area. Generally cloudbursts are associated with thunderstorms. শ্রেণীভিত্তিক
65. (c) **Chinook:** a warm, westerly wind of Canada and USA; **Foehn:** a warm, dry, gusty wind of the Alps; **Sirocco:** blows by the local name of Khamsin in Egypt; **Loo:** hot and dry summer afternoon wind that blows in Indo-Gangetic Plain region of North India during May-June.
66. (a) El Nino (Spanish name for the male child), initially referred to a weak, warm current appearing annually around Christmas time along the coast of Ecuador and Peru and lasting only a few weeks to a month or more. Every three to seven years, an El Niño event may last for many months, having significant economic and atmospheric consequences worldwide.
67. (b) In sea, vegetations are found upto the depth of 200 m. শ্রেণীভিত্তিক
68. (d) A tide is the periodic rising and falling of Earth's ocean surface caused mainly by the gravitational pull of the Moon acting on the oceans. The height of tides varies somewhat with the phases of the Moon. At New Moon and Full Moon, tides are higher because the Sun's tidal force adds to the Moon's. This is called "spring tide".
69. (c) Coffee grows between the Tropics of Cancer and Capricorn. When grown in the tropics, coffee is a vigorous bush or small tree that usually grows to a height of 3–3.5 m (10–12 feet).

70. (b) Laterisation is a form of chemical weathering that involves oxidation, carbonation and leaching. This natural process results in the formation of Laterite soils. ଓଡ଼ିଆ ଶିକ୍ଷା
71. (c) Lorenz Hiltner is recognized as the first scientist to coin the term “rhizosphere” in 1904. The word is derived from the Greek word ‘rhiza’, meaning root, and ‘sphere’, meaning field of influence. Hiltner defined the rhizosphere as the zone of soil immediately adjacent to legume roots that supports high levels of bacterial activity.
72. (b) Cutting of trees (deforestation) and grazing of animals are some of the major contributors of soil erosion. Contour bunding is a traditional low-cost method of soil conservation suitable for sloping land; it promotes water retention and helps prevent erosion. Similarly, regulation of land use has a major impact on natural resources including water, soil, nutrients, plants and animals. ଓଡ଼ିଆ ଶିକ୍ଷା
73. (a) During summer, the Bay of Bengal is subject to intense heating, giving rise to humid and unstable air masses that produce cyclones. Widespread death and property destruction are reported every year in exposed coastal states such as Andhra Pradesh and Odisha. Although cyclones affect the entire coast of India, the East Coast is more prone compared to the West Coast. Out of the cyclones that develop in the Bay of Bengal, over 58 percent approach and cross the east coast in October and November. Only 25 percent of the cyclones that develop over the Arabian Sea approach the west coast. In the pre-monsoon season, corresponding figures are 25 percent over the Arabian Sea and 30 percent over the Bay of Bengal.
74. (c) An ecosystem consists of communities of many different species living together, and all the physical aspects of the particular habitat, such as soil, water, and weather.
75. (c) Tropical rainforests exhibit high levels of biodiversity. Around 40% to 75% of all biotic species are indigenous to the rainforests. [6] Rainforests are home to half of all the living animal and plant species on the planet. Two-thirds of all flowering plants can be found in rainforests. ଓଡ଼ିଆ ଶିକ୍ଷା
76. (d) Jupiter, Saturn and Uranus have rings around them. These are belts of small debris. These

rings may be seen from the earth with the help of powerful telescopes.

77. (c)



ଓଡ଼ିଆ ଶିକ୍ଷା

Besides the equator (0°), the North Pole (90°N) and the South Pole (90° S), there are four important parallels of latitudes–

- (i) **Tropic of Cancer** (23½° N) in the Northern Hemisphere.
- (ii) **Tropic of Capricorn** (23½° S) in the Southern Hemisphere.
- (iii) **Arctic Circle** at 66½° north of the equator.
- (iv) **Antarctic Circle** at 66½° south of the equator. ଓଡ଼ିଆ ଶିକ୍ଷା

### HEAT ZONES OF THE EARTH

The mid-day sun is exactly overhead at least once a year on all latitudes in between the Tropic of Cancer and the Tropic of Capricorn. This area, therefore, receives the maximum heat and is called the **Torrid Zone**.

The mid-day sun never shines overhead on any latitude beyond the Tropic of Cancer and the Tropic of Capricorn. The angle of the sun’s rays goes on decreasing towards the poles. As such, the areas bounded by the Tropic of Cancer and the Arctic Circle in the Northern Hemisphere, and the Tropic of Capricorn and the Antarctic Circle in the Southern Hemisphere, have moderate temperatures. These are, therefore, called **Temperate Zones**. ଓଡ଼ିଆ ଶିକ୍ଷା

Areas lying between the Arctic Circle and the North Pole in the Northern Hemisphere and the Antarctic Circle and the South Pole in the Southern Hemisphere, are very cold. It is



because here the sun does not rise much above the horizon. Therefore, its rays are always slanting and provide less heat. These are, therefore, called **Frigid Zones** (very cold).

78. (d)



Rotation is the movement of the earth on its axis. The movement of the earth around the sun in a fixed path or orbit is called **Revolution**. The axis of the earth which is an imaginary line, makes an angle of  $66\frac{1}{2}^\circ$  with its **orbital plane**. The plane formed by the orbit is known as the orbital plane. The earth receives light from the sun. Due to the spherical shape of the earth, only half of it gets light from the sun at a time. The portion facing the sun experiences day while the other half away from the sun experiences night. The circle that divides the day from night on the globe is called the circle of illumination. This circle does not coincide with the axis. The earth takes about 24 hours to complete one rotation around its axis. The period of rotation is known as the earthday. This is the daily motion of the earth.

অ্যাসিউর্স

*What would happen if the earth did not rotate?*  
The portion of the earth facing the sun would always experience day, thus bringing continuous warmth to region. The other half would remain in darkness and be freezing cold all the time. Life would not have been possible in such extreme conditions. The second motion of the earth around the sun in its orbit is called **revolution**. It takes  $365\frac{1}{4}$  days (one year) to revolve around the sun. We consider a year as consisting of 365 days only and ignore six hours for the sake of convenience. A year is usually divided into summer, winter, spring and autumn seasons. Seasons change due to the change in the position of the earth around the sun.

অ্যাসিউর্স

79. (d)

80. (c) Grasslands in different areas take different names:

Pampas : Argentina

অ্যাসিউর্স

Prairies : North America

Downs : Australia

Steppes : Asia

Veld : Africa

81. (b) Tropical deciduous forests are called monsoon forests because they shed their leaves during the dry season and bear leaves at the start of the rainy season or monsoon season.

82. (c) As the river enters the plain it twists and turns forming large bends known as meanders. Due to continuous erosion and deposition along the sides of the meander, the ends of the meander loop come closer and closer. In due course of time the meander loop cuts off from the river and forms a cut-off lake, also called an ox-bow lake. At times the river overflows its banks. This leads to the flooding of the neighbouring areas. As it floods, it deposits layers of fine soil and other material called sediments along its banks. This leads to the formation of a flat fertile floodplain. The raised banks are called levees. As the river approaches the sea, the speed of the flowing water decreases and the river begins to break up into a number of streams called distributaries. The river becomes so slow that it begins to deposit its load. Each distributary forms its own mouth. The collection of sediments from all the mouths forms a delta.

83. (d) The erosion and deposition of the sea waves gives rise to coastal landforms. Sea waves continuously strike at the rocks. Cracks develop. Over time they become larger and wider. Thus, hollow like caves are formed on the rocks. They are called sea caves. As these cavities become bigger and bigger only the roof of the caves remain, thus forming sea arches. Further, erosion breaks the roof and only walls are left. These wall like features are called stacks. The steep rocky coast rising almost vertically above sea water is called sea cliff. The sea waves deposit sediments along the shores forming beaches.

অ্যাসিউর্স

84. (d) The sun's heat causes evaporation of water into vapour. When the water vapour cools down, it condenses and forms clouds. From there it may fall on the land or sea in the form

- of rain, snow or sleet. The process by which water continually changes its form and circulates between oceans, atmosphere and land is known as the water cycle. অ্যাচিভার্স
85. (d) Tsunami is a Japanese word that means “Harbour waves” as the harbours get destroyed whenever there is tsunami.
86. (d) Tropical grasslands occur on either side of the equator and extend till the tropics. This vegetation grows in the areas of moderate to low amount of rainfall. The grass can grow very tall, about 3 to 4 metres in height. Savannah grasslands of Africa are of this type. Elephants, zebras, giraffes, deer, leopards are common in tropical grasslands.
87. (a) As it rains heavily in the rainforests, thick forests grow. The forests are in fact so thick that the dense “roof” created by leaves and branches does not allow the sunlight to reach the ground. The ground remains dark and damp. Only shade tolerant vegetation may grow here. Orchids, bromeliads grow as plant parasites. অ্যাচিভার্স
88. (d) The waterways, is an effective means of transport particularly along the rivers. Kolkata is an important port on the River Hooghly.
89. (d) Man-made resources are items or substances that have value to human lives that do not occur in the natural world. Examples of man-made resources include plastic, paper, soda, sheet metal, rubber and brass. These contrast with natural resources, such as water, crops, sunlight, crude oil, wood and gold. Some man-made resources are nearly essential to modern human life, such as medicines. Without medicines, vaccines and similar manmade chemicals, many people would become sick and die. Others are not essential, and only exist because people want them. For example, many pesticides are man-made resources, and while not essential, their use enhances the lives of many people. অ্যাচিভার্স
90. (c) Abiotic resources are resources that are nonliving Human depletion of abiotic resources, such as water, soil, and minerals is a source of concern for humans, as these resources are not easily replenished and are being used above the rate that they can be naturally replaced. অ্যাচিভার্স
91. (d) Chile and Peru are leading producers of **copper**. Brazil and Bolivia are among the world’s largest producers of **tin**. Australia is the largest producer of **bauxite** in the world. অ্যাচিভার্স
92. (c) Slash and burn farming is a form of shifting agriculture where the natural vegetation is cut down and burned as a method of clearing the land for cultivation, and then, when the plot becomes infertile, the farmer moves to a new fresh plat and does the same again. This process is repeated over and over. The soil loses its fertility because the richness of the rainforest is in the trees. As leaves fall or trees die everything is broken down by the soil’s organisms, nutrients are returned to the soil and the tree roots take them up again. Thus continuous recycling keeps everything fertile and growing. When this no longer happens in a cleared plot it soon becomes infertile. Torrential tropical rains quickly wash nutrients out of the soil when it is left bare after harvest. Not only is this devastating the worlds remaining tropical forests (keeping carbon in the trees” and “saving the rich diverse life of the rainforests”) while keeping the farmers in poverty, but it is also forcing many of them to abandon the land, and migrate to city slums in the hope of feeding their families. Life in the slums can be very hard indeed. There is not enough work available.
93. (d) Under the chairmanship of K.C. Pant, Deputy Chairman of Planning Commission, a committee was set up on strengthening the khadi and village industries sector.
94. (b) The 1991 industrial reforms exempted all industries from compulsory licensing except 18 industries. অ্যাচিভার্স
95. (d) IST stands for Indian Standard Time. Indian Standard Time is the time observed in India and Sri Lanka. It passes through Allahabad. India has a time of GMT+5:30. It’s main importance is that it helps us in scheduling partys, functions, etc. which are connected throughout the country.
96. (b) The sex ratio means the number of females per 1000 males. According to the 2011 census, India’s sex ratio is 943 females per 1,000 males. The highest sex ratio in the whole India is in Kerala. অ্যাচিভার্স
97. (c) India is a land of varied flora and fauna. It is one of the 12 mega biodiversity hotspots of the world. Two of India’s great mountain ranges, the Eastern Himalayas and the Western

Ghats, have been designated among the world's 18 biodiversity hotspots. But, in the last few decades, we have seen a steady increase in the extinction rate of flora and fauna all over the world including India. The conservation of biodiversity is of paramount importance to our survival. We have about 20 species of plants and 410 species of animals, birds and fishes on the verge of extinction. Many factors are responsible for the depletion of flora and fauna — population explosion, hunting, forest fires, expansion of agriculture, extensive use of fossil fuels, destruction of natural habitats, climatic changes, pollution, natural disasters, deforestation and many more. Among the flora Sariba, Peritha, Llex Khasiana and Malabar Mahagony and among the fauna the Asiatic Lion, Asiatic Black Bear, Bengal Tiger, Great Indian Rhinoceros, Flamingo, Lion-tailed Macaque, Asian Elephant, Ganges River Dolphins (also called 'Susu') are some of the endangered species.

98. (a) Rainwater harvesting is the storing of rainwater during the monsoon season for the purpose of using it during periods of water scarcity. Generally speaking, it is a process used for collecting and storing rainwater for human use. Rainwater harvesting is best described as the technique by which rain water is accumulated and stored with the intention of reusing it during the dry season or when there is a drought. With rapid climatic changes, increase in global temperature and population growth, there is a scarcity of potable water in many countries across the world. The gradual falling of water levels, are a cause of serious concern not only because it leads to shortage of usable water but also because in coastal areas it causes imbalance in salinity of the area.

1. Rainwater harvesting or the collection of rainwater in a proper way, can be a permanent solution to the problem of water crisis in different parts of the world. This simple method can put forward a solution which will be workable in areas where there is sufficient rain but the groundwater supply is not sufficient on the one hand and on the other surface water resource is insufficient. This is particularly applicable in hilly areas where it can be utilized for human consumption, by

animals and also for farming. In remote areas, where surface pollution is comparatively low, rainwater harvesting is ideal.

2. Although the earth is three-fourths water; very little of it is suitable for human consumption or agriculture. Rainfall is unpredictable and there is a constant shortage of water in countries which are agriculture dependent or generally drought prone.
  3. A bad monsoon means low crop yield and shortage of food. Even animals suffer from scarcity of water. Africa and the Indian subcontinent face acute water crisis during the summer months. The farmers are the most affected because they do not get sufficient water for their fields. Rainwater harvesting therefore is an ideal solution for farmers who depend on monsoon for consistent water supply.
  4. Unavailability of clean water compels the consumption of polluted water, giving rise to waterborne diseases and high rate of infant mortality. In recent studies it has been observed that in Lima (Peru) nearly 2 million people do not have access to any water supply and those who do have access get water supply which has a high possibility of being contaminated. It has been reported that the water crisis in some parts of Honduras is so severe that the municipal corporation of those areas cannot supply enough water even to those residents who have municipal water supply connection. This has been reported by Anna Kajumuto Tibajjuka, Under-secretary General, UNED UN-Habitat.
  5. If rain water, which comes for free, can be collected and stored, instead of letting it run off, it could be an alternative to back up the main water supply especially during dry spells. Its importance will not be limited to an individual family but can be used by a community as well.
99. (c) Plantation agriculture is a form of commercial farming where crops are grown for profit. Large land areas are needed for this type of agriculture. Countries that have plantation agriculture usually experience tropical climate with high annual temperatures and receive high annual rainfall. Plantation agriculture has its roots in the past. In the early 18th and 19th centuries, a number of plantations were set

up by westerners and western companies. They employed either local or foreign workers who were willing to work for a small wage. For example, the rubber plantations set up by the British in Malaysia employed many workers from India. Today, most plantations are owned by the local governments or big companies.

**PURPOSE:** Plantation agriculture is a form of commercial farming where crops are grown for sale. Some crops are sold as raw materials to manufacturing industries or partially processed and value added before selling the products to large companies for further processing.

**INPUTS:** Land: Plantations are huge and can extend from a few hectares to a few thousand hectares. For example, in Malaysia, an oil palm plantation is usually at least 40 hectares or more in size.

**Capital:** A large amount of capital is put into building roads, buying machinery and building factories to process the crops harvested from the plantations. Plantation owners also invest large amounts of their capital on fertilizers and pesticides. Fertilizers are applied to plantation crops as frequently as these crops use up nutrients from the land quickly. Since plantations usually grow one type of crop (monocropping), pest attacks can cause total destruction of the plantations. Pesticides are therefore used in huge quantities to prevent crops from being entirely destroyed by pests.

**Labour:** Due to the large size of a plantation, a lot of labor is needed to tend to the crops and work in the nearby processing factories. Most of them are permanent laborers housed near the plantations and taken care of by the plantation owner. For example in Malaysia's large rubber plantations, many workers are hired to tap latex from rubber trees, and in India for plucking tea leaves in tea plantations or coffee berries in coffee plantations

**Crops:** Tree crops: rubber, coconut, arecanut, oil palm, teak, avocado; Perennial shrubs: coffee, tea, bananas, sugar cane, cocoa, cashew nut, almond, pistachia, macadamia  
**Perennial wines:** grapes, vanilla, black pepper, betel vine, etc.

Spices: cardamom, pepper, and other spices  
Annual crops: sugar beets, cassava, sweet potato, potato, pepper, and tobacco.

**PRODUCE:** the total output of a plantation is usually high. However, as a plantation covers a wide area of land, its output per unit are usually low. Usually, only one type of crop is grown in a plantation - monocropping. Intercropping (e.g. banana or cocoa in coconut plantations) and crop rotations are practiced wherever possible to minimize pest and disease incidence.

100. (b) Sunrise industry is a colloquial term for a burgeoning sector or business in its infancy stage showing promise of a rapid boom. Sunrise industries are typically characterized by high growth rates, numerous start-ups, and an abundance of venture capital funding.

These industries generate a lot of "buzz" as investors' interest in its long-term growth prospect and public awareness increases.

**KEY TAKEAWAYS:**

- A sunrise industry is a new business or business sector showing potential for substantial and rapid growth.
- Notable characteristics of sunrise industries include high-growth rates and a lot of start-ups and venture capital funding.
- As a sunrise industry develops, it may transition to the maturity stage and then to the sunset stage.
- To remain relevant and on an upward trajectory, sunrise industries must prove their viability and sustainability.