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

## **Answers with Explanation**

- 1. (c) Banabhatta was a Sanskrit scholar and poet of India. He was the Asthana Kavi in the court of King Harshavardhana, who reigned in the years 606-647CE in north India. Bana's principal works include a biography of Harsha, the Harshacharita and one of the world's earliest novels, Kadambari. The other works tributed to him is the Parvatiparinaya.
- (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. গ্যাচিভার্ম
- 3. (a) Nalanda was an ancient center of higher learning in Bihar, India. It was a Buddhist center of learning from the fifth or sixth century CE to 1197 CE. Nalanda flourished between the reign of the Sakraditya (whose identity is uncertain and who might have been either Kumara Gupta-I or Kumara Gupta-II) and 1197 CE, supported by patronage from the Hindu Gupta rulers as well as Buddhist emperors like Harsha and later emperors from the Pala Empire.
- 4. (a) The Indus Valley Civilization, marked by its remarkable level of urbanization despite being a Bronze Age culture, is noted for its cities built of brick, road side drainage system, and multistoried houses. Houses were one or two stories high, made of baked brick, with flat roofs, and were just about identical. Each was built around a courtyard, with windows overlooking the courtyard. The outside walls

- had no windows. Each home had its own private drinking well and its own private bathroom.
- 5. (c) In view of the large number of figurines found in the Indus valley, some scholars believe that the Harappan people worshipped a Mother goddess symbolizing fertility, a common practice among rural Hindus even today.
- 6. (b) The Indo-Greek kings were the first to issue gold coins in India and their coins were special in the sense that each king had his own distinctive coins by which he could be definitely identified. The names of at least thirty Bactrian kings are known with the help of numerous coins, and they help in the reconstruction the history of the kings. The coins carry legends in Greek and also in Kharosthi and Brahmi.
- 7. (d) Pulakesin-II was the most famous ruler of the Chalukya dynasty. In his reign the Chalukyas of Badami saw their kingdom extend over most of the Deccan. Pulikeshi-II routed the Pallava king Mahendravarman-I in the battle of Pullalur. In a decisive battle fought on the banks of the river Narmada, Pulakesin defeated Harshavardhana.
- Mauryan emperor Ashoka. Dhamek Stupa in Sarnath is thought to be the oldest Stupa in existence. The stupa of Bharhut is between Allahabad and Jabalpur situated in the erstwhile Nagod state of Madhya Pradesh.
- 9. (b) Gandhara art was a style of Buddhist visual art that developed from a merger of Greek, Syrian, Persian, and Indian artistic influences during the first few centuries of Christian era. The foreign influence is evident from the sculptures of Buddha in which they bear resemblance to the Greek sculptures. Both Shakas and Kushanas were patrons of Gandhara School.
- 10. (d) Gandhara art is the style of Buddhist visual art that developed in what is now northwestern Pakistan and eastern Afghanistan between the 1st century B.C and the 7th century A.D. The style, of Greco Roman origin, seems to have flourished largely during the Kushan dynasty



- and was contemporaneous with an important but dissimilar school of Kushan art at Mathura.
- 11. (c) Nalanda was an ancient centre of higher learning in Bihar, which was a Buddhist centre of learning from the fifth or sixth century A.D. to 1197 CE. Nalanda flourished between the reign of the Sakraditya (whose identity is uncertain and who might have been either Kumara Gupta I or Kumara Gupta II) and 1197 supported by patronage from the Hindu Gupta A.D, HISTORY well as Buddhist emperors like Harsha and later emperors from the Pala Empire.
- 12. (d) The Brihadeshwar Temple at Thanjavur (Tanjore) in the Indian state of Tamil Nadu, is a Hindu temple dedicated to Shiva and a brilliant example of the major heights achieved by Cholas in Tamil architecture It is a tribute and a reflection of the power of its patron Raja Raja Chola I. It remains India's largest temple and is one of the greatest glories of Indian architecture. The temple is part of the UNESCO World Heritage Site "Great Living Chola Temp.
- 13. (b) Shilppadikaram is one of the five Great Epic cording to later Tamil literary tradition, the others being Manimegalai, Civaka Cintamani, Valayapathi and Kundalakesi. The poet prince Ilango Adigal is credited with this work. He is reputed to be the brother of Senguttuvan from Chera dynasty. Ilango Adigal was a Buddhist monk and Silappadhikaram and Manimekalai are Buddhist epics. Manimekalai, a purely Buddhist work of the 3rd Sangam period in Tamil literature is the most supreme and famous among the Buddhistork done in Tamil. It is a work expounding the doctrines and propagating the values of Buddhism. It also talks about the Tamil Buddhists in the island.
- 14. (c) Some coins of the Gupta dynasty throw significant light on the personal events of certain rulers like Samudra Gupta. Some coins depict him playing veena which bears out his love for music.
- on statecraft, economic policy and military strategy, written by Kautilya. It is essentially a book of state and administrative system and deals with the art of government and politics. It is a comprehensive manual on how a state ought to be ruled and administered by a king and his administration.

- 16. (b) Kaivalya is the Jain concept of salvation. According to Jainism, all things in existence are divided in two parts Jiva (i.e. living beings having a soul) and Ajiva (nonliving things having no soul). The entanglement of living beings (Jiva) with things not having souls (Ajiva) is a source of all misery. Kaivalya result of a living beings becoming free of this entanglement.
- 17. (d) Harappa is an archaeological site in Punjab, Pakistan. The site takes its name from a modern village located near the former course of the Ravi River. Harappa contains the ruins of a Bronze Age fortified city, which was part of the Cemetery H culture and the Indus Valley Civilization, centered in Sindh and the Punjab.
- 18. (b) The concept of zero as a number and not merely a symbol for separation is attributed to India, where, by the 9th century AD, practical calculations were carried out using zero, which was treated like any other number, even in case of division. The credit for inventing 'zero (O)' goes to Indian mathematicians and the number zero first appears in a book about 'arithmetic written by an Indian mathematician Braha-Dasgupta'. Zero signifies 'nothing and the current definition call it an 'additive identity'. The Indian math and Bhaskara, Mahavira and Brahamagupta worked on this new number and they tried to explain its properties. It wasn't that somebody suddenly came up with the idea of the zero and the mathematicians throughout the world accepted it. Around 500 AD Aryabhatta, an Indian mathematician devised a number system and the symbol he used for the number zero was also the number used to represent an unknown element (x).
- 19. (d) The Khajuraho Group of Monuments are located in Khajuraho, a town in the Indian state of Madhya Pradesh, located in Chhatarpur District. Khajuraho has the largest group of medieval Hindu and Jain temples, famous for their erotic sculptures. The city was the cultural capital of Chandela Rajputs, a Hindu dynasty that ruled this part of India from the 10-12th centuries. The political capital of the Chandelas was Kalinjar. The Khajuraho temples were built over a span of 200 years, from 950 to 1150. The Chandela capital was moved to Mahoba after this time, but Khajuraho continued to flourish for some time. Khajuraho has no forts

- because the Chandel Kings never lived in their cultural capital.
- 20. (d) The state of Assam derived its name from the word som' which means unequal or unrivalled. True to the meaning of its name, the state is unrivalled in terms of its natural beauty and the simplicity of the people. In the Mahabharata and the Puranas, Assam has been referred to as 'Kamarupa'. The inhabitants of the state are a mixture of the Mongol-Aryan culture. The Ahoms ventured into Assam somewhere around 1228 A.D. The present name Assam derives from the name of a Sino-Tibetan tribe, the Ahoms who came to Assam from China and Thailand, began their rule from 1228 AD and remained a force to reck on within the political arena till 1828 AD. **গ্যাচিন্**ম
- 21. (a) Khalsa is the collective body of Singhs and Kaurs represented by the five beloved-ones and is the final temporal Guru/leader of the Sikhs. The Khalsa was inaugurated on March 30, 1699, by Guru Gobind Singh, the tenth Sikh Guru. The leadership was passed on by Guru Gobind Singh to the Khalsa and bestowed the title "Guru Panth" or Guru". The Khalsa is also the nation of the Sikhs. The Khalsa is responsible for all executive, military and civil authority. The meaning of Khalsa translates to "Sovereign/ Free". Another interpretation is that of being 'Pure Guru Gobind Singh has declared the Khalsa as his true Guru and therefore as following described in the Sarbloh Granth the attributes of the Khals. গ্যাচিন্স
- 22. (c) Mia Tansen (born as Ramtanu Pandey) was a prominent Hindustani classical music composer and musician. He was an extraordinarily gifted vocalist, known for a large number of compositions, and also an instrumentalist who popularized and improved the plucked rabab (of Central Asian origin). He was among the Navaratnas (nine jewels) at the court of the Mughal Emperor Akbar. Akbar gave him the title Miyarn an honorific, meaning learned man).
- 23. (c) Probably, the best definition of Muhammed bin Tughlaq was "a mixture of opposites". While he was a very learned man, he was not much of statesmen nor was he in complete touch with reality. A number of his economic and administrative reforms, which though beneficial was perhaps too drastic and too far

- ahead of the time to ever hope to succeed. During his time, while there was territorial expansion, the Sultanate was badly damaged.
- 24. (c) One of the earliest examples of guerrilla warfare is Shivaji, the Maratha king. He fought several battles in which he used guerrilla tactics to overcome superi or forces. He innovated rules of military engagement pioneering the "Shiva sutra" or ganimi kava (guerrilla tactics), which leveraged strategic factors like geography, speed, surprise and focused pinpoint attacks to defeat his larger and more powerful enemies.
- 25. (c) In 1236 Iltutmish, on his death-bed, nominated his daughter Raziya as his heiress. But the nobles of the court were too proud to bow their heads before a woman, and disregarding the deceased Sultan's wishes, raised to the throne his eldest surviving son, Ruknuddin Firuz.
- 26. (b) The Delhi Sultanate is a term used to cover five short-lived dynasties; Delhi based kingdoms or sultanates, mostly of Turkic and Pashtun (Afghan) origin in medieval India. The sultanates ruled from Delhi between 1206 and 1526, when the last was replaced the Mughal dynasty. The five dynasties were the Mamluk dynasty (1206-90); the Khilji dynasty (1290-1320): the Tughlaq dynasty (1320-1414); the Sayyid dynasty (1414-51); and the Afghan Lodi dynasty (1451-1526).
- 27. (b) There is no evidence of any ruler of Indian history issuing leather token currency. Mohammad bin Tughlaq of the Delhi Sultanate introduced token coins of brass and copper which had the same value as silver coins during 1329-1330. This experiment turned out to be a major failure as the token coins began to be forged, leading to irreparable loss to the exchequer.
- 28. (d) Sher Shah Suri is mainly remembered for his administrative reforms which was modified and expanded by later rulers. He established a sound and strong administrative system by dividing his empire into 42 Sarkars each of which was subdivided into Parganas Besides he introduced proper land revenue system and carried out currency reforms. His was an enlightened despotism.
- 29. (d) Visakhadatta is the author of the play (drama) Mudra Rakshasa that narrates the ascent of the king Chandragupta Maurya to power in



- Northern India. Mudrarakshasa is dated variously from the late 4th century to the 8th century.
- 30. (c) The Battle of Haldighati was fought between the Mughal Empire and the forces of Mewar on June 21, 1576 at Haldighati. Remembered as the most important event in Rajput history, the battle of Haldighati was an "Indecisive Battle". It was fought between Akbar (Ruler of Mughals) and Maharana Pratap.
- dynasty that ruled large parts of southern and central India between the 6th and the 12th centuries. During this period, they ruled as three related yet individual dynasties: "Badami Chalukyas", ruled from Vatapi (modern Badami) from the middle of the 6th century; Eastern Chalukyas, who ruled from Vengi until about the 11th century; and the Western Chalukyas who ruled from Kalyani until the end of the 12th century.
- 32. (c) Vishishtadvaita is a sub-school of the Vedanta (literally, end or the goal of Knowledge, Sanskrit) school of Hindu philosophy, the other major sub-school of Vedanta being Advaita, Dvaita, and Achintya Bheda Abheda. Vishisht-Advaita (literally Advaita with uniqueness/qualifications") is a non-dualistic school of Vedanta philosophy. Ramanuja, the main proponent of Visishtadvaita philosophy contends that the Prasthana Traya (The three courses") i.e. Upanishads, Bhagavad Gita, and Brahma Sutras are to be interpreted in way that shows this unity in diversity, for any other way would violate their consistency.
- 33. (b) Farid-ud'din Mas'ud (1175-1265 AD). better known as Sheikh Farid, or Baba Farid, is one of the most revered and distinguished of medieval Sufi Mystic He found music as a way of reaching God. Baba Farid's mystic songs were intended to break the strain of his emotions, to quicken his emotional response, and to attune his heart to the infinite and the eternal. Sometimes he would himself recite couplets and supply fuel to his burning emotions.
- 34. (d) Maharaja Ranjit Singh was the founder of the Sikh Empire, which came to power in the Indian subcontinent in the early half of the 19th century. The empire, based in the Punjab region, existed from 1799 to 1849. It was forged, on the foundations of the Khalsa, under

- the leadership of Maharaja Ranjit Singh from a collection of autonomous Sikh Misls.
- 35. (d) Shah Shuja (1616-1661) and Murad Baksh (1624-1661) were the second and sixth sons respectively of Mughal Emperor Shah Jahan and his Empress consort Mumtaz Mahal. Aurangzeb (1618-1707), the third son, was elder to Murad Baksh, but younger to Shah Shuja. Dara Shikoh (1615-1659) was the eldest among the six sons of Shahjahan.
- 36. (b) In 1330 A.D, Delhi Sultan Muhammad bin Tughluq issued token currency; that is coins of brass and copper were minted whose value was equal to that of gold and silver coins. However, these coins totally lacked the artistic design and perfection in finishing and even the administrators of the king took no mea sure to keep the design secured and protected. This resulted in mass forging of the coins, leading to the failure of the scheme.
- 37. (d) The Congress session of 1892 was not held in Bombay. Womesh Chunder Bonnerjee or Umesh Chandra Banerjee was the president of the Indian National Congress again in the 1892 session in Allahabad where he denounced the position that India had to prove her worthiness for political freedom.
- 38. (a) Arya Samaj is related to Bombay. Arya Mahila Samaj belongs to Pune. Mohammadan Literary society related to Calcutta and Ved Samaj belongs to Madras.
- 39. (b) Dev Samaj was founded by Pandit Shiv Narayan Agnihotri at Lahore in 1887. It was atheistic in belief and served the people by establishing schools and colleges. Swami Dayanand Saraswati was the founder of the Hindu reform organisation Arya Samaj, which he established on April 7th 1875 in Bombay, India.
- 40. (b) S.N. Banerjee authored the book 'A Nation in Making'. D.B. Naoroji authored the book 'Poverty and Un-British Rule in India'. Bal Gangadhar Tilak authored the book 'Gita Rahasya'. Bankimchandra had written the book 'Anand Math'.
- 41. (a) Partition of Bengal announced in 1905. Foundation of Muslim League took place in 1906. The Surat split came into effect in 1907.
- 42. (c) 'Devi Chaudhurani' was written by Bankimchandra Chatterjee. 'Nil Darpan' was authored by Dinabandhu Mitra. 'Shatranj Ke Khiladi' was written by Premchand.

Achievers

43. (b) Elections to councils in India started from the Act of 1892. Indian Councils Act 1892 was the beginning of the parliamentary System in India. Before this act was passed, the Indian National Congress had adopted some resolutions in its sessions in 1885 and 1889 and put its demand.

- 44. (c) James Outrum resisted the revolt in Lucknow. John Nicholson resisted in Delhi. Collin Campbell resisted in Jhansi and Heurose resisted the revolt in Kanpur.
- 45. (a) Baba Ram Chandra was associated with Awadh, Swami Sahajanand was associated with Bihar, Sardar Vallabh Bhai Patel was associated with Gujarat and N.C. Ranga was associated with Andhra Pradesh.
- 46. (a) Hunter Committee was appointed in October 1, 1919 for Jalianwala Bagh massacre and gave its report in March 1920. Home Rule Movement was started in Poona on 23rd April 1916 by Bal Gangadhar Tilak. Jalianwala Bagh Massacre happened on 13 April 1919 and Rowlatt Act was passed in March 1919. It was anarchical and revolutionary crimes Act.
- 47. (a) The correct chronological order of the events is:

Resignation of Congress 29 Oct 1939
Ministries
Muslim Deliverance Day 22 Dec 1939
Individual Satyagraha 17 Oct 1940
Direct Action Day 16 Aug 1946

- 48. (d) Subhashchandra Bose had not participated in the Quit India Movement. He appeared in I.C.S. examination in 1920 and stood 4th in order of Merit. He was president of Indian National Congress in 1938 and 1939.
- 49. (a) The correct chronological order of the establishment of revolutionary institution is:
   Ghadar Party 1913
   Communist Party of India 1925
   Hindustan Socialist Republican
   Association 1928
   Congress Socialist Party 1934
- 50. (c) The correct chronological orders of the events is:

Champaran Movement — 1917 Amritsar Incident — 1919 Moplah Revolt — 1921 Chauri Chaura Incident — 1922

51. (c) The Silicon Valley of India is a nickname of Bengaluru. The name signifies Bangalore's

- status as a hub for information technology (IT) companies in India and is a comparative reference to the original Silicon Valley, based around Santa Clara Valley, California, USA.
- 52. (a) The Forest Research Institute (FRI) is located at Dehradun in Uttarakhand. Founded as the Imperial Forest Research Institute in 1906, it is one of the oldest institutions of its kind. It is an institute of the Indian Council of Forestry Research and Education and is a premier institution in the field of forestry research in India.
- 53. (b) The total area under irrigated rice is about 22.00 million hectares, which accounts about 49.5 per cent of the total area under rice crop in the country. Rice is grown under irrigated conditions in the states of Punjab, Haryana, Uttar Pradesh, Jammu & Kashmir, Andhra Pradesh, Tamil Nadu, Sikkim, Karnataka, Himachal Pradesh and Gujarat. In these states, rice is grown under irrigated conditions more than 5090%.
- 54. (d) The Sardar Sarovar Dam is a gravity dam on the Narmada River near Navagam, Gujarat, India. It is the largest dam and part of the Narmada Valley Project, a large hydraulic engineering project involving the construction of a series of large irrigation and hydro-electric multi-purpose dams on the Narmada River. The project took form in 1979 as part of a development scheme to increase irrigation and produce hydroelectricity. It is the 30th largest dams planned on river Narmada. Sardar Sarovar Dam (SSD) is the largest structure to be built
- 55. (b) Hirakud Dam is built across the Mahanadi River, about 15 km from Sambalpur in the state of Orissa in India. Built in 1957, the dam is one of the world's longest earthen dam.
- 56. (d) Nasik, also known as the Wine Capital of India, or as India's Napa Valley, is located in Maharashtra in the Western Ghats, on the western edge of the Deccan peninsula on the banks of the Godavari.
- 57. (c) The Trans-Himalayan Rivers originate beyond the Great Himalayas. These are the Indus. the Sutlej and the Brahmaputra rivers. The Trans Himalayan Indus River rises near the Mansarovar Lake on the Tibetan plateau. It enters the Himalayas in southeastern Ladakh near its confluence with the River Gurtang at an elevation of 4,200 m.



- 58. (d) Nepal Himalayas has the maximum stretch from east to west. Along the north of Nepal runs the Great Himalayan Range, the highest mountain range in the Himalayan system. This range has an average altitude of about 4,570 m (about 15,000 ft) and remains perpetually snow-covered. On this range rise some of the loftiest mountain peaks in the world— Mount Everest, Kanchenjunga, Lhotse, Makalu, Cho Oyu, Dhaulagiri, Manaslu, and Annapurna.
- 59. (c) Zero (0) degree Longitude is the mean longitude and the time adjusted according to this longitudinal time. The earth rotates from West to East. So every 15° we go easy wards, local time is advanced by 1 hour. If we go west wards, local time is retarded by 1 hour.
- 60. (a) The Niyamgiri is a hill range situated in the districts of Kalahandi and Rayagada in Odisha. These hills are home to Dongria Kondh indigenous people. In recent times these hills are in media discussions due to the conflict of inhabitant tribals and Bauxite Mining Project by Vedanta Aluminium Company.
- 61. (c) The Vindhya Range is considered as the traditional boundary between North India and South India. It is a complex, discontinuous chain of mountain ridges, hill ranges, and plateau escarpments in west-central India. It runs north of and roughly parallel to the Narmada River in Madhya Pradesh and extends up to Gujarat in the west, and Uttar Pradesh and Bihar in the east.
- 62. (d) The Rock Garden of Chandigarh is a sculpture garden that was created by Nek Chand, a government official who started it secretly in his spare time in 1957. It is also known as Nek Chard's Rock Garden. Today it is spread over an area of 40 acres. It is completely built of industrial and home waste items.
- 63. (c) The demographic transition model is a chart showing the different stages of a country's population's birth rate and death rate. There are 5 stages, with each progressively going further into the future. India is in stage 2 of the demographic transition model right now with a high birth rate of 23 per 1000, and a decreasing death rate of 7 per 1000.
- Rajasthan, since this district receives the lowest annual rainfall in India, considering the past weather records.

- 65. (c) The Botanical Survey of India (BSI) is an institution set up by the Government of India in 1887 to survey the plant resources of the Indian empire. The Botanical Survey was formally instituted on 13 February. 1890 under the direction of Sir George King, who had been superintendent of Royal Botanic Garden, Calcutta since 1871. After India's independence, survey was drawn for the much-needed inventorisation of the country's rich floral resources, and Dr. E.K. Janaki Ammal was appointed Officer on Special Duty on 14 October, 1952. The reorganisation plan was finally approved by the Government of India on 29 March, 1954 with Calcutta as the headquarters of Botanical Survey of India.
- 66. (d) Jim Corbett National Park is the oldest national park in India. The park—named for the hunter and conservationist Jim Corbett who played a key role in its establishment—was established in 1936 as Halley National Park. Situated in Nainital district of Uttarakhand the park acts as a protected area for the endangered Bengal tiger of India, the secure survival of which is the main objective of Project Tiger, an Indian wildlife protection initiative.
- 67. (d) The Coromandal Coast of Tamil Nadu receives heavy rainfall from the retreating monsoon winds as the retreating winds are moisture laden. It falls in the rain shadow of the Western Ghats, and receives a good deal less rainfall during the summer southwest monsoon, which contributes heavily to rainfall in the rest of India. The region averages 800 mm/year, most of which falls between October and December.
- 68. (d) The predominant wild animal species that inhabits the Park is the deer, of which the most easily sighted are the graceful little chinkara or Indian gazelle, and the chital. Other species that have their habitat in the park are nilgai, sambar, chausingha or four-horned antelope, blackbuck, sloth bear, leopard and the common langur.
- 69. (d) Van Mahotsav is an annual tree-planting festival in India, celebrated in the first week of July. This movement was initiated in the year 1950 by India's then Union Minister for Agriculture, Kulapati Dr. K M Munshi.
- 70. (a) The Indian Census is the most credible source of information on Demography (Population characteristics), Economic Activity, Literacy

- and Education, Housing & Household Amenities, Urbanisation, Fertility and Mortality, Scheduled Castes and Scheduled Tribes, Language, Religion, Migration, Disability and many other socio-cultural and demographic data since 1872.. The census is a decadal compilation of data about India's demography and related features.
- 71. (a) Like the 1991 Census, the highest sex ratio (1058) had been reported in Kerala. Haryana reported the lowest sex ratio of 861 among the major states. According to 2011 census, Highest sex ratio-Kerala (1084) Lowest sex-ratio-Haryana (879).
- 72. (b) The Alaknanda rises at the confluence and feet of the Satopanth and Bhagirath Kharak glaciers in Uttarakhand near the border with Tibet. The headwaters of the Bhagirathi are formed at Gaumukh, at the foot of the Gangotri glacier and Khatling glaciers in the Garhwal Himalaya. These two sacred rivers join to form the Ganges (Ganga) in Devprayag.
- 73. (a) The Luni is a river of western Rajasthan state. India. It originates in the Pushkar valley of the Aravalli Range, near Ajmer and ends in the marshy lands of Rann of Kutch in Gujarat, after travelling a distance of 530 km. It is first known as Sagarmati, then after passing Govindgarh, it meets its tributary Sarsuti, which originates from Pushkar Lake, and from then on it gets its name Lunt.
- 74. (a) Jute is one of the most important natural fibers after cotton in terms of cultivation and usage. Cultivation is dependent on the climate, season, and soil. Almost 85% of the world's jute cultivation is concentrated in the Ganges delta. This fertile geographic region is shared by both Bangladesh and India (West Bengal). West Bengal occupies foremost place both in respect of area (73.5%) and production (82.26%) of jute in the country. Here the crop is grown through-out the state except the hilly region of the north and the plateau area of the west.
- 75. (c) Panna is famous for its diamond mines. A large group of diamond deposits extends North-East on a branch of the Vindhya Range for 240 km or so, and is known as the Panna group. Diamond mines in Panna are managed under the Diamond Mining Project of National Mineral Development Corporation (NMDC Ltd) of Government of India.

- 76. (a) Telangana plateau is a plateau in western Andhra Pradesh, comprising the northeastern part of the Deccan plateau. The Aravali Range literally meaning 'line of peaks', is a range of mountains in western India and eastern Pakistan running approximately 800 km from northwest to southwest across Indian states of Rajasthan, Haryana and Gujarat and Pakistani provinces of Punjab and Sindh. The Aravali Range is the eroded stub of a range of ancient folded mountains. The range rose in a Precambrian event called the Aravali-Delhi orogen. The range joins two of the ancient segments that make up the Indian craton, the Marwar segment to the northwest of the range, and the Bundelkh and segment to the southeast. र्थाणिक अधिक
- 77. (c) The Thar Desert also known as the Great Indian Desert is a large, arid region in the northwestern part of the Indian subcontinent and forms a natural boundary running along the border between India and Pakistan. It is the world's 18th largest subtropical desert.
- 78. (c) Gujarat is the leading state in ship breaking industry because of its long coastline and a well developed infrastructure for the industry-specific works. Alang in Gujarat, considered to be the world's largest, is a famous ship breaking centre.
- 79. (d) The Samjhauta Express is a twice-weekly train
  -Tuesdays and Fridays that runs between
  Delhi and Attari in India and Lahore in Pakistan.
- 80. (b) The Santhal is tribe the largest tribal community in India, who live mainly in the states of Jharkhand, West Bengal, Bihar, Orissa, and Assam. There is also a significant Santhal minority in neighboring Bangladesh, and a small population in Nepal.
- 81. (d) Allahabad in Uttar Pradesh, is more an historical, religious and educational centre, than being an industrial city. The city's original name Prayag—comes from its position at the sacred union of the rivers Ganges, Yamuna and Saraswati. It is the second-oldest city in India. Kanpur (famous for leather industry; known as Manchester of the East), Mumbai (diverse industries) and Jamshedpur (steel) come under the list of India's notable cities in terms of industrial output and employment generation.
- 82. (d) Smallest planet of the solar system is Pluto while the largest is Jupiter. Planet second from the Sun in the solar system is Venus; planet nearest to the Sun is Mercury.



- 83. (c) Diamond Ring is a phenomenon observed only along the peripheral regions of the totality trail. When the shrinking visible part of the photosphere becomes very small, Baily's beads will occur. These are caused by the sunlight still being able to reach Earth through lunar valleys. Totality then begins with the diamond ring effect, the last bright flash of sunlight.
- 84. (d) The term SYZYGY is referred to when the moon, sun and earth lie along a straight line. As seen from the Earth, a solar eclipse is a type of eclipse that occurs when the Moon passes between the Sun and Earth, and the Moon fully or partially blocks ("occults") the Sun. This can happen only at new moon, when the Sun and the Moon are in conjunction as seen from Earth in an alignment referred to as SYZYGY. In a total eclipse, the disk of the Sun is fully obscured by the Moon. In partial and annular eclipses only part of the Sun is obscured.
- 85. (b) The inexhaustible source of energy of the stars is due to conversion of Hydrogen to Helium. In the interior of a star, the particles move rapidly in every direction because of the high temperatures present. Every so often a proton moves close enough to a nucleus to be captured, and a nuclear reaction takes place. Only protons of extremely high energy (many times the average energy in a star such as the Sun) are capable of producing nuclear events of this kind. A minimum temperature required for fusion is roughly 10 million K. Since the energies of protons are proportional to temperature, the rate of energy production rises steeply as temperature increases.

86. (d) **WINFO** 

- 87. (b) Deimos is the satellite of Mars. Europa is the satellite of Jupiter. Tethys is the satellite of Saturn. Titan is the satellite of Uranus.
- 88. (b) A prime meridian is a meridian (a line of longitude) in a geographical coordinate system at which longitude is defined to be 0°. A prime meridian and its opposite in a 360°-system, the 180th meridian (at 180° longitude), form a great circle. This great circle divides the sphere, e.g., the Earth, into two hemispheres.

  The Tropic of Cancer, also referred to as the Northern Tropic, is the most northerly circle of latitude on the Earth at which the Sun may appear directly overhead at its culmination.

The International Date Line (IDL) is an imaginary line of longitude on the Earth's surface located at about 180 degrees east (or west) of the Greenwich Meridian.

Arctic Circle is an imaginary circle round the earth, parallel to the equator, at latitude 66° 32' N; it marks the northernmost point at which the sun appears above the level of the horizon on the winter solstice.

ROPIC OF CAPRICORN is the parallel of latitude that is approximately 231/2 degrees south of the equator and that is the southernmost latitude reached by the overhead sun.

- 89. (a) Jet stream is Rossby waves. Jet streams are fast flowing, narrow air currents found in the atmospheres of some planets, including Earth. The main jet streams are located near the tropopause, the transition between the troposphere (where temperature decreases with altitude) and the stratosphere (where temperature increases with altitude). The major jet streams on Earth are westerly winds (flowing west to east).
- 90. (a) Corals are mainly found in the tropical oceans. Corals need clean sediment free water. A coral polyp has a sack like body and an opening encircled by stinging tentacles called cnidae. The coral polyp uses calcium carbonate from seawater to build itself a hard skeleton and it is this limestone skeleton that protects the soft coral polyp.
- 91. (b) Schist is a metamorph of Basalt. Diamond is a meta-morph of coal. Marble is a metamorph of limestone. State is a metamorph of shale.
- 92. (b) Dolphin and challenger ridge are located in Atlantic ocean. The Dolphin ridge is in the North Atlantic Ocean and the Challenger ridge is in the South Atlantic Ocean. Cocos ridge is located in Pacific Ocean. To the east of longitude 150°W, the relief of the ocean floor is considerably less pronounced than it is to the west. In the eastern Pacific the Cocos Ridge extends southwestward from the Central American isthmus to the Galapagos Islands. East Indian ridge is located in Indian Ocean. The Southeast Indian Ridge (SEIR) is a divergent tectonic plate boundary located along the seafloor of the southern Indian Ocean. It separates the IndoAustralian Plate to the north from the Antarctic Plate to the south.

Lomonosov ridge is located in Arctic ocean. The Lomonosov Ridge is a 1,800 km long ridge, which divides the Arctic Ocean into two major basins: the Eurasia Basin and the Amerasia Basin. **कारुवाफि** 

93. (d) Orogen means geosyncline, Kratogen means foreland, Randkettan means marginal ranges. Leopold Kober (21 September 1883 - 6. September 1970) was an influential Austrian geologist responsible for a number of now largely discredited theories of orogeny and for coining the term kraton to describe stable continental platforms. Kober, developing geosyncline theory, posited that stable blocks known as forelands move toward each other, forcing the sediments of the intervening geosynclinal region to move over the forelands, forming marginal mountain ranges known as Randketten, while leaving an intervening median mass known as the Zwischengebirge.

94. (a)

95. (c)

97. (a)

96. (c) গ্যাচিত্র প

98. (d) Calm weather and intense rain and hail phenomena can occur when very warm and humid air is rising over a mass of a very cold

99. (b) The ozone layer is a layer in Earth's atmosphere which contains relatively high concentration of ozone. This layer absorbs 97.99% of the sun's high frequency ultraviolet light, which potentially damages the life forms on Earth. It is mainly located the lower portion of stratosphere from approximately 20 to 30 km above Earth. र्थाण्डियाएँ

100.(c) Sedimentary rocks are formed from sediments that have been pressed together. Sediments may come from plant or animal remains, from minerals that were once dissolved in water, or form large rocks that have been broken up into smaller pieces by water, wind or ice. Igneous rocks are rocks formed from molten rock material as it cools and hardens.

