

# General Knowledge

# **tutorialspoint**

SIMPLY EASY LEARNING

[www.tutorialspoint.com](http://www.tutorialspoint.com)



<https://www.facebook.com/tutorialspointindia>



<https://twitter.com/tutorialspoint>

## About the Tutorial

---

General Knowledge is a discipline that includes the facts of almost all the subjects such as Geography, Indian Polity, History, Science, Sports, and many other miscellaneous topics. Likewise, General Knowledge is one of the essential disciplines that makes us understand the overall basic information of all the subjects.

This tutorial is divided into different parts and chapters to describes the factual information of different subjects.

## Audience

---

This tutorial is designed exclusively for the students preparing for the different competitive exams including **civil services, banking, railway, eligibility test**, and all other competitive exams of such kind.

Furthermore, the school students can also take advantage of this tutorial to enhance their general knowledge. It will also help them (school students) to compete different competitions held on school level.

## Prerequisites

---

This tutorial is entirely based on **General facts and information** collected from different sources and then filtered to make it easy and simple. Although, there is as such no prerequisites; however, having basic understanding (i.e. general information) of India and the world will be an added advantage.

## Disclaimer & Copyright

---

© Copyright 2016 by Tutorials Point (I) Pvt. Ltd.

All the content and graphics published in this e-book are the property of Tutorials Point (I) Pvt. Ltd. The user of this e-book is prohibited to reuse, retain, copy, distribute, or republish any contents or a part of contents of this e-book in any manner without written consent of the publisher. We strive to update the contents of our website and tutorials as timely and as precisely as possible, however, the contents may contain inaccuracies or errors. Tutorials Point (I) Pvt. Ltd. provides no guarantee regarding the accuracy, timeliness, or completeness of our website or its contents including this tutorial. If you discover any errors on our website or in this tutorial, please notify us at [contact@tutorialspoint.com](mailto:contact@tutorialspoint.com)

# Table of Contents

---

About the Tutorial .....	1
Audience .....	1
Prerequisites .....	1
Disclaimer & Copyright .....	1
Table of Contents .....	2
<b>PART I: HISTORY .....</b>	<b>9</b>
1.    World History Timeline .....	10
2.    List of Wars (Worldwide).....	23
3.    Important Revolutions .....	28
4.    Countries and its Independence Date.....	29
5.    Indian History Time Line.....	36
6.    Indian Battles .....	44
7.    Governors of Presidency .....	48
8.    Governor-General of India .....	51
9.    Viceroy of India.....	53
10.    Classical Writers of India .....	58
11.    Mughal Literature .....	63
12.    Historical Monuments of India .....	64
13.    Socio-Religious Movements .....	67
14.    Lower Caste Movements.....	69
15.    Indian Revolutionary Organizations .....	70
<b>PART II: INDIAN POLITY .....</b>	<b>71</b>
16.    Parts of Indian Constitution .....	72
17.    Schedules of Indian Constitution .....	74
18.    Presidents of India .....	75
19.    Prime Ministers of India .....	78
<b>PART III: GEOGRAPHY.....</b>	<b>81</b>

<b>20. The Universe .....</b>	<b>82</b>
<b>21. Solar System .....</b>	<b>85</b>
Mercury .....	85
Venus .....	86
Earth .....	86
Mars.....	87
Jupiter .....	88
Saturn .....	88
Uranus .....	88
Neptune.....	88
Asteroids.....	89
Meteors .....	89
Comets.....	90
<b>22. Basics of Planet Earth.....</b>	<b>92</b>
Structure of Earth .....	93
<b>23. Geological Time Scale.....</b>	<b>95</b>
<b>24. Facts of Earth's Movement.....</b>	<b>97</b>
<b>25. Atmosphere .....</b>	<b>100</b>
<b>26. Structure of Atmosphere.....</b>	<b>102</b>
Troposphere .....	102
Stratosphere .....	103
Mesosphere .....	103
Thermosphere .....	103
Exosphere .....	103
<b>27. Wind System .....</b>	<b>105</b>
Types of Winds .....	106
<b>28. Other Winds.....</b>	<b>110</b>
Jet Streams .....	110
El Niño.....	110
Cyclone .....	111
Anticyclone .....	112
<b>29. Facts of Continent .....</b>	<b>114</b>
<b>30. Rocks.....</b>	<b>116</b>
Igneous Rock.....	116
Sedimentary Rock.....	117
Metamorphic Rock .....	117
<b>31. Mountains.....</b>	<b>119</b>
Types of Mountains .....	119
<b>32. Facts of Hydrosphere .....</b>	<b>120</b>
Oceans .....	120

33. Major Seas .....	122
34. Major Lakes.....	123
35. Major Straits .....	124
36. Major Rivers.....	126
37. Waterfalls .....	127
38. Time Line.....	128
39. International Boundaries .....	129
40. Landlocked States of India .....	130
41. Landlocked Countries of World .....	132
42. Countries with Capitals .....	134
43. Top Ten Countries by Area .....	146
44. Top Ten Smallest Countries .....	147
45. Top Ten Countries by Population .....	148
46. Hot Deserts .....	149
47. Cold Deserts .....	150
48. Petroleum Producing Countries.....	151
49. Countries by Oil Consumption.....	152
50. Countries by Petroleum Reserve .....	153
51. Countries by Oil Export .....	154
52. Countries by Oil Import .....	155
53. Countries by Coal Production .....	156
54. Countries by Coal Reserves .....	157
55. Countries by Coal Consumption .....	158
56. Countries by Coal Imports .....	159
57. Countries by Coal Exports.....	160
58. Countries by Aluminum Production .....	161
59. Countries by Bauxite Production .....	162

60. Countries by Copper Production .....	163
61. Countries by Gold Production .....	164
62. Countries by Gold Export .....	165
63. Countries by Diamond Export.....	166
64. Countries by Diamond Production .....	167
65. Countries by Iron-ore Production.....	168
66. Countries by Iron-ore Export .....	169
67. Countries by Uranium Reserve.....	170
68. Countries by Silver Production .....	171
69. Countries by Manganese Production.....	172
70. Countries by Rice Production .....	173
71. Countries by Wheat Production .....	174
72. Countries by Maize Production .....	175
73. Countries by Cotton Production .....	176
74. Countries by Jute Production .....	177
75. Countries by Sugarcane Production.....	178
76. Countries by Tobacco Production.....	179
77. Countries by Tea Production .....	180
78. Countries by Coffee (Green) Production.....	181
79. Countries by Rubber Production .....	182
80. Countries by Orange Production .....	183
81. Countries by Grape Production .....	184
82. Countries by Banana Production .....	185
83. Countries by Apple Production.....	186
84. Countries by Mangoes Production .....	187
85. Top Ranking Countries .....	188
86. Mineral Resources in India .....	190
List of States by Coal Reserves.....	190

List of States by Coal Production .....	190
<b>87. Iron Ore Reserves.....</b>	<b>192</b>
List of States by Iron Production.....	193
<b>88. Petroleum in India.....</b>	<b>194</b>
<b>89. Rice in India.....</b>	<b>195</b>
<b>90. Wheat in India.....</b>	<b>197</b>
<b>91. Sugarcane in India .....</b>	<b>199</b>
<b>92. Coffee in India .....</b>	<b>201</b>
<b>93. Tea in India .....</b>	<b>202</b>
<b>94. Cotton in India .....</b>	<b>203</b>
<b>95. Milk in India .....</b>	<b>205</b>
<b>96. Nuclear Power Plants in India .....</b>	<b>206</b>
<b>97. Thermal Power Plants in India.....</b>	<b>208</b>
<b>98. Hydro Power Plants in India .....</b>	<b>210</b>
<b>99. Wind Power Plants in India .....</b>	<b>212</b>
<b>100. Geothermal Power Plants in India.....</b>	<b>213</b>
<b>101. Other Energy Sources in India .....</b>	<b>215</b>
Solar Energy .....	215
Tidal Energy .....	215
<b>102. National Parks of India .....</b>	<b>216</b>
<b>103. Indian Tribes .....</b>	<b>222</b>
<b>104. World Tribes .....</b>	<b>228</b>
<b>PART IV: INDIAN ECONOMY.....</b>	<b>230</b>
<b>105. Indian Economy Fact Sheet .....</b>	<b>231</b>
<b>PART V: SCIENCE .....</b>	<b>233</b>
<b>106. Branches of Science.....</b>	<b>234</b>
<b>107. Scientific Instruments.....</b>	<b>250</b>
<b>108. Measurements .....</b>	<b>252</b>

Units of Length .....	253
Units of Area .....	253
Units of Liquid Volume .....	253
Units of Volume .....	254
Units of Mass .....	254
Units of Length (Area).....	254
International System of Units .....	255
Conversion of Units .....	256
<b>109. Scientific Abbreviations.....</b>	<b>257</b>
Computer Science Abbreviation .....	258
<b>110. Scientific Laws .....</b>	<b>261</b>
<b>111. Scientific Fields.....</b>	<b>265</b>
<b>112. Chemicals.....</b>	<b>269</b>
<b>113. Diseases .....</b>	<b>272</b>
Vitamin Deficiency Diseases .....	272
Diseases Caused by Bacteria.....	273
Diseases Caused by Virus.....	274
Diseases Caused by Fungus .....	275
<b>114. Blood Group.....</b>	<b>277</b>
<b>PART VI: SCIENCE &amp; TECHNOLOGY.....</b>	<b>278</b>
<b>115. Indian Space.....</b>	<b>279</b>
<b>PART VII: SPORTS .....</b>	<b>282</b>
<b>116. Nation's Sport .....</b>	<b>283</b>
<b>117. Sports' Playground .....</b>	<b>286</b>
<b>118. Number of Players .....</b>	<b>288</b>
<b>119. Stadiums .....</b>	<b>289</b>
Stadiums of World .....	289
List of Stadiums (India) .....	289
<b>120. Sportpersons.....</b>	<b>291</b>
Sportpersons of World .....	291
Greatest Sportsmen (India) .....	294
Greatest Sportswomen (India) .....	297
<b>PART VIII: MISCELLANEOUS.....</b>	<b>299</b>
<b>121. First in Independent India .....</b>	<b>300</b>
First (Male) in Independent India .....	300

First (Female) in Independent India .....	305
First in India Before Independence.....	309
<b>122. First in World .....</b>	<b>311</b>
First (Male) in World.....	311
First (Woman) in World .....	313
<b>123. Largest, Longest, Tallest .....</b>	<b>315</b>
Largest in India.....	315
Largest in World.....	320
<b>124. Discovery &amp; Invention .....</b>	<b>325</b>
<b>125. Color Revolutions in India .....</b>	<b>334</b>
<b>126. Seven Wonders .....</b>	<b>335</b>
Seven Wonders of India.....	335
Seven Wonders of Industrial World.....	336
Seven Wonders of Underwater World .....	337
New Seven Wonders of Nature .....	338
New Seven Wonders of World .....	339
Seven Wonders of Ancient World .....	341
<b>127. Important Dates.....</b>	<b>343</b>
<b>128. Old and New Name .....</b>	<b>345</b>
Changed Name (in India) .....	345
Old Name & New Name .....	349
Changed Name (World) .....	350
<b>129. Sobriquet .....</b>	<b>356</b>
Sobriquet of Indian Cities .....	356
Sobriquet (in the World).....	364
<b>130. Popular Cities of India .....</b>	<b>373</b>
<b>131. Cities and Founders.....</b>	<b>377</b>
<b>132. Indian Dances.....</b>	<b>378</b>
<b>133. International Organizations .....</b>	<b>383</b>
<b>134. Books &amp; Authors .....</b>	<b>386</b>

# PART I: HISTORY

# 1. WORLD HISTORY TIMELINE

The following table illustrates the major events along with respective timeline:

Time	Events
10000 BCE	Middle East people domesticated goats and dogs
9500 BCE	Settled farming began
6000 BCE	Copper was discovered
5000 BCE	Sumerian civilization evolved between the rivers Euphrates and Tigris. Later it became popular as Mesopotamia (present day Iraq).
5000 BCE	First calendar of 365 days, 12 months, and 30 days invented.
3500 BCE	Bronze was discovered in Egypt
3100 BCE	First dynasty of Egypt
3000 BCE	Early writing
2600 BCE	Indus Valley civilization
2560 BCE	Great Pyramid of Giza
2000 – 1200 BCE	Iron Age
1800 BCE	Alphabetic writing appeared
1700 BCE	End of Indus Valley Civilization
1400 BCE	Water clock is invented in Egypt
1027 BCE	In China, Chou dynasty began
850 BCE	Homer had written the epic "Iliad and Odyssey"
776 BCE	Olympic Games first recorded
753 BCE	City of Rome was established by Romulus
653 BCE	Rise of Persian Empire
600 BCE	Sixteen <i>Maha Janapadas</i> emerged in India
586 BCE	The First Temple in Jerusalem (Solomon's Temple) was destroyed by the Babylonians

550 BCE	Pythagoras (Greek scholar) studied the movements of celestial bodies and mathematics
509 BCE	Founding of Roman Republic after exclusion of the last Roman King
508 BCE	Democracy introduced at Athens
500 BCE	Panini standardized the Sanskrit grammar and its morphology in the text <i>Ashtadhyayi</i>
500 BCE	Pingala learned the uses of zero and binary numeral system
499 BCE	Greco-Persian Wars
490 BCE	Battle of Marathon
338 BCE	In the Battle of Chaeronea, the king Philip II, defeated the combined forces of the Greek city-states Athens and Thebes
337 BCE	Philip II had created a strong and unified nation in Macedonia. He hired Aristotle (the Philosopher) to tutor his son, Alexander.
336 BCE	Philip II was assassinated and Alexander became king.
331 BCE	In the Battle of Gaugamela, Alexander the Great defeated Darius III of Persia
326 BCE	In the Battle of the Hydaspes River, Alexander the Great defeated Indian king Porus
323 BCE	Death of Alexander at Babylon
300 BCE	The Great Pyramid of Cholula constructed
221 BCE	Qin Shi Huang unified China and the beginning of Imperial rule (in China)
221 BCE	The Qin Dynasty began the construction of the Great Wall of China
206 BCE	After the death of Qin Shi Huang, Han Dynasty established in China
200 BCE	Paper is invented in China
124 BCE	China's Imperial University was established
111 BCE	First Chinese domination of Việtnam as the <i>Nanyue</i> Kingdom

4 BCE	Birth of Jesus Christ (Widely accepted date)
<b>Common Era (CE)</b>	
29 CE	Jesus Christ crucified
70 CE	The armies of Titus destructed Jerusalem
78 CE	Origin of Saka Era in India
79 CE	Mount Vesuvius erupted and destructed Pompeii and other towns (in Italy)
220 CE	After the fall of Han Dynasty, three Kingdoms period begins in China
378 CE	The Germanic tribes defeated Roman army in the battle of Adrianople
570 CE	Prophet Mohammed (the founder of Muslim religion) born
581 CE	Sui Dynasty came in China
613 CE	Muhammad had commenced preaching publicly in his hometown, Mecca
622 CE	Muhammad Migrated from Mecca to Medina
623 CE	Muhammad abandoned Saturday as the Sabbath and made Friday as special day of the week
632 CE	Muhammad died
660 CE	The Quran, the holy book, was published for the first time
793 CE	Scandinavians approached the island of Lindisfarne, Scotland by boat and they attacked monks and robbed their monastery. It is the first recorded raid by the Vikings
800 CE	Gunpowder was invented
1050 CE	An ancient tool of navigation namely The astrolabe" was first used in Europe
1077 CE	Construction of the London Tower began
1117 CE	The University of Oxford is established
1150 CE	The University of Paris is established
1199 CE	Europeans first used compasses
1209 CE	The University of Cambridge is established
1215 CE	John of England sealed the " <i>Magna Carta</i> "

1298 CE	Marco Polo published his itinerary of China, along with Rustichello da Pisa.
1299 CE	Osman I established the Ottoman Empire
1347 CE	The Black Death withered Europe for the first (of many times). In the first year, an estimated 20 to 40% of the population was thought to have perished.
1389 CE	Battle of Kosovo (in Serbia)
1397 CE	The Medici bank was established in Florence
1461 CE	King Louis XI of France started postal service
1492 CE	Christopher Columbus discovered a route going to the New World (i.e. Caribbean Islands and America)
1498 CE	Vasco da Gama arrived India
1503 CE	Leonardo da Vinci started making the painting of Mona Lisa; however, completed after three years
1506 CE	Christopher Columbus died in Valladolid, Spain
1632 CE	The city of Boston is founded
1636 CE	Harvard University is established in Cambridge, Massachusetts, USA
1652 CE	Dutch East India Company founded the city Cape Town in South Africa
1666 CE	The Great Fire of London
1683 CE	China conquered the Kingdom of <i>Tungning</i> and annexes Taiwan
1687 CE	Isaac Newton published " <i>Philosophiae Naturalis Principia Mathematica</i> "
1694 CE	The Bank of England is established
1697 CE	The earliest known first-class cricket match had taken place in Sussex
1710 CE	The world's first copyright legislation, Britain's Statute of Anne (also known as Copyright Act 1709), took effect
1724 CE	Japan began successful forest management reform and subsequently timber cutting was reduced
1765 CE	In France, a twenty-eight volume of encyclopedia was completed

1776 CE	In USA, second Continental Congress meeting and declaration of independence (July 4)
1781 CE	The Spanish settlers founded the city of Los Angeles
1783 CE	In USA, King George declared the thirteen colonies as "free and independent"
1783 CE	In USA, based on the state's 1780 constitution, the Supreme Judicial Court of Massachusetts ruled slavery illegal
1785 CE	Napoleon Bonaparte became a lieutenant in the French artillery
1787 CE	The United States Constitution is written in Philadelphia and submitted to the states for ratification
1787 CE	The slaves freed from London established Freetown (West Africa) i.e. present-day Sierra Leone
1795 CE	The first graphite pencils were used
1789–1799 CE	French Revolution
1797 CE	Napoleon's invasion and partition of the Republic of Venice ended over 1,000 years of independence of the Serene Republic
1801 CE	Napoleon (of France) defeated Austria
1804 CE	Haiti attained its independence from France and became the first black republic
1805 CE	In Milan (Italy), Napoleon was crowned as the King of Italy
1805 CE	In the Battle of Austerlitz, Napoleon decisively defeated an Austrian-Russian army
1814 CE	Napoleon abdicated and was exiled to Elba.
1815 CE	Napoleon escaped; however, he was finally defeated at the Battle of Waterloo (in June) and exiled to Saint Helena Island
1820 CE	Discovery of Antarctica
1821 CE	Napoleon Bonaparte died (at Saint Helena Island, where he was exiled)
1823 CE	Monroe Doctrine was declared by US President James Monroe

1825 CE	The two railway station at Stockton and Darlington (the first public railway in the world) was opened
1833 CE	Slavery Abolition Act banned slavery throughout the British Empire
1835 CE	Vaccination became mandatory in Britain
1838 CE	Charles Darwin developed the theory of evolutionary selection and specialization
1840 CE	New Zealand is established, as the Treaty of Waitangi is signed between the Māori and British
1841 CE	Richard Owen, first time, used the word "dinosaur"
1842 CE	First time <i>Anaesthesia</i> was used
1845-49 CE	The Irish Potato Famine that lead to the Irish diaspora
1848-58 CE	California Gold Rush
1848 CE	Karl Marx wrote Communist Manifesto
1849 CE	Roman Republic's constitutional law became the first to abolish capital punishment
1854 CE	Crimean War (fought between Russia and Turkey)
1856 CE	World's first oil refinery founded in Romania
1859-69 CE	Suez Canal constructed
1859 CE	The first successful oil well was drilled in northern Pennsylvania (USA)
1859 CE	John Tyndall, the British scientist, described the concept that the carbon dioxide (CO <sub>2</sub> ) and water vapor trapping heat in the atmosphere. Further, he suggested that the changing in the concentration of gases could bring climate change
1861 CE	Russia abolished serfdom
1861-65 CE	American Civil War, took place between the Union and seceding Confederacy
1862 CE	The first paper money was issued in the United States
1865 CE	President of the United States, Abraham Lincoln was assassinated
1868 CE	Michael Barrett was the last person to be publicly hanged in England

1869 CE	Dmitri Mendeleev created Periodic table
1869 CE	The Suez Canal route opened that linking the Mediterranean Sea to the Red Sea
1871 CE	Royal Albert Hall opened in London
1872 CE	The first National Park i.e. Yellowstone National Park, is established
1886 CE	Burma was presented to Queen Victoria as a birthday gift
1886 CE	Karl Benz sold the first commercial automobile
1887 CE	Sir Arthur Conan Doyle published his first Sherlock Holmes story, 'A Study in Scarlet'
1889 CE	Eiffel Tower is inaugurated in Paris
1891 CE	The German government initiated the first public old-age pension scheme
1892 CE	For the first time, Fingerprinting was officially adopted
1893 CE	New Zealand became the first country to enact women's suffrage
1894 CE	First commercial film was released by Jean Aimé Le Roy
1896 CE	Olympic Games revived in Athens, Greece
1898 CE	Britain obtained a 99-year lease of Hong Kong from China
1900 CE	Hawaii became an official USA territory
1901 CE	In Stockholm (Sweden), the first Nobel Prize ceremony was held
1901 CE	Theodore Roosevelt became the youngest President of the United States
1904 CE	Russian Japanese War
1905 CE	Albert Einstein's formulation of relativity
1908 CE	First commercial radio transmissions
1911 CE	<i>Xinhai</i> Revolution in China overthrows the Qing Dynasty
1912 CE	End of the Chinese Empire and Republic of China established
1912 CE	First Balkan War began
1912 CE	Woodrow Wilson elected as the 28th President of the United States

1913 CE	Second Balkan War and Treaty of Bucharest too place
1914 CE	Gavrilo Princip assassinated Archduke Franz Ferdinand of Austria in Sarajevo that triggered the World War I
1914 CE	Panama Canal opened
1915 CE	First use of poison gas at the Battle of Neuve Chapelle and Second Battle of Ypres
1916 CE	The implementation of daylight saving time system
1917 CE	Russian Revolution ended the Russian Empire
1917 CE	The United States joined the Allies (countries) for the last 17 months of World War I
1918 CE	End of World War I
1918 CE	Poland, Ukraine, and Belarus declared their independence from Russia
1919 CE	Treaty of Versailles redrew European borders
1919 CE	League of Nations founded in Paris
1920 CE	Greece restores its monarchy after a referendum
1920 CE	International Court of Justice founded at Hague in the Netherlands
1921 CE	Adolf Hitler became Führer (guide, leader) of the Nazi Party
1922 CE	The Turkish Grand National Assembly abolished Ottoman Sultanate
1923 CE	Time Magazine was published first time
1923 CE	Turkish War of Independence ended and Kemal Atatürk became the first President of the newly established Republic of Turkey. Capital was moved from Istanbul to Ankara
1924 CE	Death of Vladimir Lenin (of Russia); rise of Stalin
1924 CE	The Caliphate was abolished by Kemal Atatürk
1924 CE	The US Federal Bureau of Investigation established under J Edgar Hoover
1925 CE	Benito Mussolini gains dictatorial powers in Italy and adopted the title of ' <b>Duce</b> '

1925 CE	<i>Mein Kampf</i> (an autobiography of the National Socialist leader Adolf Hitler) was published
1927 CE	Joseph Stalin became leader of the Soviet Union
1927 CE	The United Kingdom of Great Britain and Ireland officially became the United Kingdom of Great Britain and Northern Ireland
1927 CE	The BBC was granted a Royal Charter in the United Kingdom
1928 CE	Mickey Mouse was created at the Walt Disney Studio
1929 CE	Wall Street crash of 1929 and the beginning of the Great Depression
1929 CE	Vatican City has given the status of a sovereign State
1929 CE	Saint Valentine's Day Massacre
1930 CE	First FIFA World Cup hosted
1931 CE	Construction of the Empire State Building
1931 CE	Statute of Westminster created the British Commonwealth of Nations
1931 CE	Japan invaded Manchuria (China) and occupied it until the end of World War II
1932 CE	Franklin D Roosevelt is elected President of the United States
1932 CE	The Nazi party became the largest single party in the German parliament
1933 CE	Adolf Hitler became the Chancellor of Germany
1935 CE	Persia became Iran
1937 CE	Japanese invaded China
1937 CE	The Irish Republican Army attempted to assassinate King George VI of the UK
1938 CE	Munich agreement that handed over Czechoslovakia to Nazi Germany
1939 CE	Nazi invasion of Poland that triggered the beginning of World War II
1940 CE	Nazis invaded France, the Netherlands, Denmark and Norway

1940 CE	Soviet Union annexes the Baltic states
1940 CE	Winston Churchill became the Prime Minister of the United Kingdom
1941 CE	Attack on Pearl Harbor that forced the USA to join World War II
1941 CE	Hitler invaded the Soviet Union
1943 CE	Battle of Stalingrad ended with over two million casualties and the retreat of the German Army
1943 CE	Tehran Conference participated by Franklin Roosevelt, Winston Churchill, and Joseph Stalin; all agreed to launch Operation Overlord
1943 CE	Green Revolution began
1944 CE	Chechen insurgency ended with deportation of the entire Chechen population
1944 CE	First operational electronic computer, <b>Colossus</b> , introduced
1944 CE	D Day (Military terms associated with Invasion of Normandy)
1945 CE	Battle of Berlin
1945 CE	Yalta Conference
1945 CE	Atomic bombing on Hiroshima and Nagasaki (Japan)
1945 CE	End of World War II in Europe. The Holocaust ends after (about) 12 million deaths
1945 CE	Death of Franklin Delano Roosevelt, Adolf Hitler, and Benito Mussolini
1945 CE	Potsdam Conference (World War II) divided Europe into Western and Soviet blocs
1945 CE	United Nations founded
1946 CE	First images had been taken of the Earth from space
1948 CE	Beginning of apartheid in South Africa
1948 CE	Division of North and South Korea
1949 CE	Creation of NATO (North Atlantic Treaty Organization)

1949 CE	Germany partitioned as the Soviet socialist German Democratic Republic and the NATO-backed Federal Republic of Germany
1949 CE	Establishment of the People's Republic of China under the leadership of Mao Zedong
1951 CE	Treaty of San Francisco terminated the Occupation of Japan and formally concluded hostilities between Japan and the US
1952 CE	Egyptian Revolution under Gamal Abdel Nasser overthrew King Farouk and terminated British occupation
1953 CE	Stalin died
1954 CE	First time, the Soviet Union generated the electricity by nuclear power
1955 CE	Warsaw Pact signed
1957 CE	Beginning of the Space Age with the launch of Sputnik I
1958 CE	NASA, the US Federal Aviation Authority and Campaign for Nuclear Disarmament (CND) established
1959 CE	Cuban Revolution
1962 CE	Cuban missile crisis
1962 CE	Sino-Indian War
1963 CE	Assassination of John F Kennedy
1965 CE	Deaths of Winston Churchill
1968 CE	Martin Luther King, Jr. and Robert F. Kennedy assassinated while the Poor People's Campaign
1969 CE	Muammar Gaddafi overthrew King Idris of Libya in a <i>Coup d'état</i> and established the Libyan Arab Republic
1973 CE	First space station, <i>Skylab</i> , was launched
1975 CE	First Cricket World Cup hosted
1976 CE	First outbreak of the Ebola virus
1978 CE	Birth of the first test-tube baby
1979 CE	Margaret Thatcher became the Prime Minister of the UK
1985 CE	Mikhail Gorbachev became Premier of the Soviet Union
1985 CE	First use of DNA fingerprinting

1986 CE	Chernobyl disasters
1989 CE	Fall of the Berlin Wall
1990 CE	Sir Tim Berners-Lee invented the World Wide Web (WWW)
1990 CE	Gulf War began
1990 CE	After 27 years of imprisonment, Nelson Mandela released
1991 CE	Gulf War ended after US withdrawal and failed uprising
1991 CE	Dissolution of the Soviet Union and subsequent independence of 15 former Soviet republics
1991 CE	Boris Yeltsin became the first President of the Russian Federation
1991 CE	The first Website has been put online and made available to the public
1992 CE	Maastricht Treaty created the European Union
1993 CE	Velvet divorce between Czech Republic and Slovakia
1994 CE	End of apartheid in South Africa and subsequent election of Nelson Mandela the great leader
1994 CE	Opening of the Channel Tunnel
1995 CE	Establishment of the World Trade Organization
1997 CE	Transfer of sovereignty of Hong Kong from UK to China
1997 CE	Diana, Princess of Wales, was killed in a car accident in Paris, France
1998 CE	Google is founded by Larry Page and Sergey Brin
1999 CE	Euro is introduced
2001 CE	Terrorists destroyed the World Trade Center in New York City and damaged the Pentagon in Washington, DC
2001 CE	Wikipedia founded
2003 CE	Iraq War began that triggered worldwide protests
2003 CE	The space shuttle, Columbia, collapsed (while landing) nearby Texas (USA); all the seven astronauts (including Indian astronaut Kalpana Chawla) died in the accident.
2005 CE	Angela Merkel became Germany's first woman Chancellor

2006 CE	Ellen Johnson Sirleaf became the President of Liberia. She was the first elected female head of state in Africa.
2006 CE	Execution of Saddam Hussein
2008 CE	Stock markets plunge across the world
2008 CE	Monarchy system terminated in Nepal
2009 CE	The world's tallest skyscraper, Burj Khalifa (in Dubai), has been built
2010	The largest oil spill in US history occurred in the Gulf of Mexico
2011 CE	Osama bin Laden, Muammar Gaddafi, and Kim Jong-Il were killed
2011 CE	Iraq War ended
2013 CE	Deaths of Hugo Chávez, Nelson Mandela, and Margaret Thatcher
2015 CE	United States and Cuba resumed diplomatic relations

## 2. LIST OF WARS (WORLDWIDE)

The following table describes major wars of the world:

Date	War	Fought between
1600 BCE	Battle of Mingtiao	Tang of Shang defeated Jie of Xia. Shang dynasty began in China
1500 BCE	Battle of the Ten Kings	King Sudas defeated the Ten Kings in the Punjab region (India)
1184 BCE	Battle of Troy	Troy descended after the ten-year Trojan War
1046 BCE	Battle of Muye	Zhou Dynasty defeated the Shang Dynasty
925 BCE	Battle of Bitter Lakes	Shoshenq I of Egypt defeated a Bedouin incursion
707 BCE	Battle of Ruge	The Zheng general Zhu Dan defeated the king Huan of Zhou (China)
693 BCE	Battle of Diyala River	The king Sennacherib of Assyria defeated the Elamites of Southern Iran
616 BCE	Battle of Arrapha	The king Nabopolassar (of Babylonians) defeated the Assyrians
546 BCE	Battle of Thymbra	Cyrus the Great of Persia defeated Croesus of Lydia
545 BCE	Battle of The 300 Champions	The Spartans defeated the Argives
539-38 BCE	Battle of Opis	Cyrus the Great defeated Nabonidus
490 BCE	Battle of Marathon	Miltiades (of Athens) defeated Darius I of Persia and Artaphernes
432 BCE	Battle of Potidaea	Athens defeated Sparta
429 BCE	Battle of Spartolos	Chalcidians (with their allies) defeated Athens
411 BCE	Battle of Eretria	Spartans defeated the Athenian fleet
334 BCE	Battle of the Granicus	Alexander the Great defeated the Persian army

331 BCE	Battle of Gaugamela	Alexander the Great defeated Darius III in Mesopotamia and conquered Persia
326 BCE	Battle of the Hydaspes	Alexander the Great defeated the Indian King Porus
281 BCE	Battle of Corupedium	Seleucus defeated and killed Lysimachus
101 BCE	Battle of Vercellae	Marius (the Roman) defeated the Cimbri
67 BCE	Battle of Jushi	Han troops defeated the Xiongnu
66 BCE	Battle of the Lycus	Pompey the Great defeated Mithridates VI
58 BCE	Battle of the Arar	Caesar defeated the migrating Helvetii
47 BCE	Battle of the Nile	Caesar defeated Ptolemy XIII (the Egyptian king)
36 BCE	Battle of Zhizhi	Han forces defeated Xiongnu
<b>Common Era (CE)</b>		
84 CE	Battle of Mons Graupius	Agricola (the Roman) defeated the Caledonians
208 CE	Battle of Red Cliffs	War of Three Kingdoms (of China)
312 CE	Battle of Milvian Bridge	Constantine defeated Maxentius and took control of Italy
547 CE	Battle of Marta	Tripolitanian Moors defeated John Troglita
630 CE	Conquest of Mecca	Muhammad conquered Mecca without any bloodshed
838 CE	Battle of Anzen	Abbasids (modern Turkey) defeated Theophilus
972 CE	Battle of Cedynia	Mieszko I (of Poland) defeated Hodon (of Germany)
1054 CE	Battle of Dunsinane	Malcolm defeated MacBeth
1057 CE	Battle of Lumphanan	Malcolm defeated MacBeth. In this battle MacBeth was killed
1179 CE	Battle of Jacob's Ford	Saladin defeats the Kingdom of Jerusalem

1215 CE	Battle of Zhongdu	Genghis Khan in cooperation with the Mongols defeated the Jin dynasty and seized Zhongdu (present day Beijing)
1361 CE	Battle of Wisby	Denmark defeated Sweden
1362-63 CE	Battle of Blue Waters	Pagan Lithuanians defeated the Islamic Tatar Forces
1370 CE	Battle of Pontvallain	France defeated England
1402 CE	Battle of Angora / Battle of Ankara	Timur defeated Ottoman sultan Bayezid I in Anatolia (Turkey)
1448 CE	Battle of Kosovo	Turkish and Orthodox forces defeated Roman Catholic
1533 CE	Battle of Cuzco	Spanish defeated the Inca Empire
1597 CE	Battle of Chilchonryang	Japanese Navy defeated Korean Navy
1597 CE	Battle of Myeongnyang	Korean Navy defeated Japanese Navy
1607 CE	Battle of Gibraltar	Dutch defeated Spanish (fleet)
1656 CE	First Battle of Warsaw	Poland seized its capital from Sweden
1656 CE	Second Battle of Warsaw	Sweden defeated Poland
1676 CE	Battle of Lund	Sweden defeated Denmark
1694 CE	Battle of Torroella	The French Navy defeated Spain
1710 CE	Battle of Prut	Ottoman Turks defeated Russia
1729 CE	Battle of Damghan	Nader Shah defeated the Afghans
1779 CE	Battle of Baton Rouge	Spanish captured the city Baton Rouge
1796 CE	Battle of Lodi	General Napoleon Bonaparte (French Army) defeated Austria
1797 CE	Battle of Rivoli	Napoleon Bonaparte defeated Austria
1798 CE	Battle of the Pyramids	Napoleon defeated Mameluks (in Egypt)
1798 CE	Battle of Ballinamuck	British forces defeated Ireland and France
1799	Battle of Abukir	Napoleon and Joachim Murat defeated Turks

1805 CE	Battle of Austerlitz	Napoléon Bonaparte defeated Russian
1813 CE	Battle of Leipzig	The coalition armies of Russia, Prussia, Austria, and Sweden defeated by Napoleon I (the Emperor of the French)
1815 CE	Battle of Waterloo	Wellington, Prussians, Dutch, and German (collectively) forces defeated Napoleon
1904 CE	Battle of Yalu River	Japan defeated Russia
1914 to 1918 CE	World War I	<b>Allied Powers</b> (France, UK, Russia, Serbia, Belgium, Italy, Japan, USA, etc.) defeated <b>Central Powers</b> (Germany, Austria-Hungary, Ottoman Empire, Bulgaria, etc.)
1917 CE	Battle of Jerusalem	British forces defeated Ottoman Empire and seized Jerusalem
1939 to 1945 CE	World War II	<b>Allies Powers</b> (France, UK, Russia, China, Poland, Canada, Australia, USA, etc.) defeated <b>Axix Powers</b> (Germany, Italy, Japan, Hungary, Romania, Bulgaria, etc.)
1947 CE	Indo-Pakistani War	The war ended with division of territory (Jammu & Kashmir)
1965 CE	Second Indo-Pakistan War	The war resulted in a stalemate
1990 CE	Gulf War	US and allied forces defeated Iraq
1995 CE	First battle of Grozny	Russian Army captured Grozny
1999 CE	Kargil War	Pakistani infiltrators returned to <i>status quo ante bellum</i>
2001 CE	Battle of Kabul	US forces attacked Kabul and seized it from the Taliban
2001 CE	Battle of Kandahar	US and allied forces seized the last remaining city from the Taliban
2001 CE	Battle of Tora Bora	US and allied forces besieged Al-Qaida, but Osama bin Laden was escaped

2003 CE	Battle of Baghdad (Gulf War II)	US forces captured the Iraqi capital from Saddam Hussein's forces
Jan 2011 CE	First Battle of Benghazi	Libyan rebel forces freed the city from Colonel Gaddafi's rule
March 2011 CE	Battle of Bin Jawad	Gaddafi forces recaptured the city
August 2011 CE	Battle of Tripoli	Tripoli is seized by rebel forces and Gaddafi government collapsed

### 3. IMPORTANT REVOLUTIONS

The following table describes major revolutions of the world:

Name	Explanation
The Glorious Revolution or Revolution of 1688	This revolution ended the reign of James II in England and established the reign of William III and Mary II. It also ensured the Parliamentary supremacy over the (British) monarchy.
The American Revolution (1765 to 1783)	It was American Independence War against the British Rule.
The French Revolution (1790s)	It was the modern revolution in France that had taken place (roughly) between 1789 and 1799.
The Haitian Revolution (1791 to 1804)	The revolution was an anti-slavery and anti-colonial insurgency that took place at Saint Domingue (the former French colony).
The Russian Revolution (1917) (Also known as the Great October Socialist Revolution)	It was revolution that dismantled the Tsarist autocracy and founded the Soviet Union (in 1917).
The Cuban Revolution (1953-59)	It was an armed revolt under the leadership of Fidel Castro against the Cuban President Fulgencio Batista (basically, the US backed authoritarian government).
The Hungarian Revolution (of 1956)	It was basically Hungarian Uprising (nationwide) against the government of the Hungarian People's Republic and the Soviet-imposed policies.
Iranian Revolution of 1978-79, (also known as Islamic Revolution)	The revolution removed the monarchy system and founded the Islamic republic.
China's Cultural Revolution (1966)	The revolution enforced the communism in the country by removing the capitalist, traditional, and cultural elements.

## 4. COUNTRIES AND ITS INDEPENDENCE DATE

The following table illustrates name of the country and its independence date:

Country	Date
Hungary	August 20, 1000
Switzerland	August 1, 1291
Sweden	June 6, 1523
Portugal	December 1, 1640
United States	July 4, 1776
Haiti	January 1, 1804
Serbia	February 15, 1804
Ecuador	August 10, 1809
Chile	February 12, 1810
Colombia	July 20, 1810
Mexico	September 16, 1810
Paraguay	May 15, 1811
Venezuela	July 5, 1811
Norway	May, 1814
Argentina	July 9, 1816
Costa Rica	September 15, 1821
Greece	March 25, 1821
Peru	July 28, 1821
Nicaragua	September 15, 1821
Honduras	September 15, 1821
Guatemala	September 15, 1821
El Salvador	September 15, 1821
Dominican Republic	December 1, 1821
Ecuador	May 24, 1822

Brazil	September 7, 1822
Bolivia	August 6, 1825
Uruguay	August 25, 1825
Belgium	July 21, 1831
Liberia	July 26, 1847
Canada	July, 1867
Romania	May 10, 1877
Philippines	June 12, 1898
Cuba	May 20, 1902
Panama	November 3, 1903
Bulgaria	September 22, 1908
Mongolia	December 29, 1911
Albania	November 28, 1912
Ireland	April 24, 1916
Finland	December 6, 1917
Lithuania	February 16, 1918
Estonia	February 24, 1918
Georgia	May 26, 1918
Armenia	May 28, 1918
Azerbaijan	May 28, 1918
Czech Republic	October 28, 1918
Poland	November 11, 1918
Latvia	November 18, 1918
Ukraine	January 22, 1919
Afghanistan	August 19, 1919
Turkey	October 29, 1923
South Africa	December 11, 1931
Iraq	October 3, 1932
Lebanon	November 22, 1943

Iceland	June 3, 1944
Belarus	July 3, 1944
South Korea	August 15, 1945
North Korea	August 15, 1945
Vietnam	September 2, 1945
Jordan	May 25, 1946
Syria	April 17, 1946
Pakistan	August 14, 1947
India	August 15, 1947
Myanmar	January 4, 1948
Israel	Between April 15 & May 15, 1948 (depending on Hebrew Calendar)
Sri Lanka	February 4, 1948
Libya	December 24, 1951
Cambodia	November 9, 1953
Laos	October 22, 1953
Austria	October 26, 1955
Morocco	November 18, 1955
Sudan	January 1, 1956
Tunisia	March 20, 1956
Ghana	March 6, 1957
Malaysia	August 31, 1957
Guinea	October 2, 1958
Cameroon	January 1, 1960
Senegal	April 4, 1960
Togo	April 27, 1960
Madagascar	June 26, 1960
Democratic Republic of the Congo	June 30, 1960
Somalia	July 1, 1960
Benin	August 1, 1960

Burkina Faso	August 5, 1960
Niger	August 3, 1960
Ivory Coast	August 7, 1960
Republic of the Congo	August 15, 1960
Gabon	August 17, 1960
Mali	September 22, 1960
Nigeria	October 1, 1960
Cyprus	October 1, 1960
Mauritania	November 28, 1960
Kuwait	February 25, 1961
Sierra Leone	April 27, 1961
Tanzania	December 9, 1961
Samoa	June 1, 1962
Burundi	July 1, 1962
Rwanda	July 1, 1962
Algeria	July 5, 1962
Jamaica	August 6, 1962
Trinidad & Tobago	August 31, 1962
Uganda	October 9, 1962
Malaysia	September 16, 1963
Kenya	December 12, 1963
Malawi	July 6, 1964
Malta	September 21, 1964
Zambia	October 24, 1964
The Gambia	February 18, 1965
Maldives	July 26, 1965
Singapore	August 9, 1965
Zimbabwe	November 11, 1965
Guyana	May 26, 1966

Botswana	September 30, 1966
Lesotho	October 4, 1966
Barbados	November 30, 1966
Anguilla	May 30, 1967
Yemen	November 30, 1967
Nauru	January 31, 1968
Mauritius	March 12, 1968
Swaziland	September 6, 1968
Equatorial Guinea	October 12, 1968
Tonga	June 4, 1970
Fiji	October 10, 1970
Bangladesh	March 26, 1971
United Arab Emirates	December 2, 1971
Bahrain	December 16, 1971
Qatar	December 18, 1971
Bahamas	July 10, 1973
Guinea Bissau	September 24, 1973
Grenada	February 7, 1974
Mozambique	June 25, 1975
Cape Verde	July 5, 1975
Comoros	July 6, 1975
São Tomé and Príncipe	July 12, 1975
Papua New Guinea	September 16, 1975
Angola	November 11, 1975
Suriname	November 25, 1975
Western Sahara	February 27, 1976
Seychelles	June 29, 1976
Djibouti	June 27, 1977
Solomon Islands	July 7, 1978

Tuvalu	October 1, 1978
Dominica	November 3, 1978
Saint Lucia	February 22, 1979
Kiribati	July 12, 1979
Saint Vincent & the Grenadines	October 27, 1979
Belize	September 21, 1981
Antigua & Barbuda	November 1, 1981
Northern Cyprus	September 2, 1983
Saint Kitts and Nevis	September 19, 1983
Brunei	January 1, 1984
Latvia	May 4, 1990
Lithuania	March 11, 1990
Namibia	March 21, 1990
Slovenia	December 26 & June 25, 1990
Georgia	April 9, 1991
Estonia	August 20, 1991
Ukraine	August 24, 1991
Moldova	August 27, 1991
Kyrgyzstan	August 31, 1991
Uzbekistan	September 1, 1991
Macedonia	September 8, 1991
Tajikistan	September 9, 1991
Armenia	September 21, 1991
Croatia	October 8, 1991
Azerbaijan	October 18, 1991
Turkmenistan	October 27, 1991
Kazakhstan	December 16, 1991
Bosnia and Herzegovina	March 1, 1992
Slovakia	July 17, 1992

Czech Republic	January 1, 1993
Eritrea	May 24, 1993
East Timor	May 20, 2002
Montenegro	May 21, 2006
Kosovo	February 17, 2008
South Sudan	July 9, 2011

## 5. INDIAN HISTORY TIME LINE

The following table illustrates the major events and respective timelines of India:

Time	Events
9000 BCE	Period of early Neolithic culture
9000 BCE	Bhimbetka rock shelters (found in Madhya Pradesh region); also evidenced some of the Stone Age rock paintings
7000 to 2500 BCE	Mehergarh Culture (Neolithic Age)
3300 to 1700 BCE	Phase of Indus Valley Civilization
1800 BCE	Indo-Aryan migration
1500 to 1000 BCE	Early Vedic Period
1300 BCE	End of Cemetery H culture
1200 BCE	Rigveda Period
1000 to 500 BCE	Late Vedic period
1000 BCE	Iron Age of India
877 BCE	Birth of Parsvanatha (23rd Jain Tirthankara)
700 BCE	Age of Upanishads
600 BCE	Period of Sixteen Maha Janapadas
599 BCE	Birth of Mahavira (24th Tirthankar of Jainism)
563 BCE	Birth of Siddhārtha Gautama (Buddha)
558–491 BCE	Bimbisara (also known as Srenika) founded <i>Haryanka</i> dynasty
527 BCE	<i>Nirvana</i> of Mahavira
492–460 BCE	Period of Ajatshatru (son of Bimbisara)
483 BCE	<i>Mahaparinirvana</i> of Gautama Buddha
350 BCE	Panini (a resident of Gandhara) had written <i>Ashtadhyayi</i> (Sanskrit Grammar book)

326 BCE	Battle of the Hydaspes River between Porus and Alexander
321 BCE	Chandragupta Maurya established Mauryan Empire in Magadha
305 BCE	Chandragupta Maurya defeated Seleucus Nicator
300 BCE	Chola dynasty (in south India)
297–273 BCE	Period of Bindusara (son of Chandragupta Maurya)
268–232 BCE	Period of the Great Ashoka (son of Bindusara)
265 BCE	Kalinga War (between Ashoka and the kingdom of Kalinga)
260 BCE	Ashoka inscribed the Edicts of Ashoka (written in Brahmi script)
251 BCE	Mahinda (son of Ashoka) introduced Buddhism to Ceylon (Sri Lanka)
250 BCE	The followers of Buddhists carved the first cave temples (namely Lomas Rishi)
232 BCE	Ashoka died (Kunala, his son, succeeded)
184 BCE	After the assassination of Brihadrata (by his general Pushyamitra shunga), Mauryan empire collapsed
184 BCE	Establishement of the Shunga dynasty by Pushyamitra Shunga
78 BCE	Beginning of Saka era
57 BCE	Beginning of Vikram Era
<b>Common Era (CE)</b>	
10 CE	The Indo-Parthian kingdom established
240 CE	Sri-Gupta established the Gupta Empire in Magadha (and its capital was in Pataliputra)
275 CE	Pallava dynasty established
320 CE	Chandragupta I became the king of Gupta empire
335 CE	Samudragupta became the king of Gupta empire
380 CE	Chandragupta II (son of Samudragupta) became the Gupta Emperor
405 CE	Fahien, the Chinese traveler came India
450 CE	Huna invasions

554 CE	After the death of skandagupta, Gupta empire collapsed
606 CE	Harshavardhana became the kind
629 CE	Chinese monk Huang Tsang (Xuanzang) came to India
753 CE	After defeating Chalukyas of Badami, Danti Durga established Rashtrakuta Kingdom
788 CE	Birth of Adi Shankaracharya
1001 CE	Invasion of Mahmud Ghazni
1025 CE	Last invasion of Mahmud Ghazni that lead to destruction of temple of Somnath
1030 CE	Death of Mahmud of Ghazni
1030 CE	Alberuni came India
1191 CE	First battle of Tarain between Mohammed Ghori and Prithviraj III (Ghauri was defeated)
1192 CE	Second battle of Tarain between Mohammed Ghori and Prithviraj III (Prithviraj was defeated)
1154 CE	Battle of Chandawar fought between Ghauri and Jaichand of Kannauj (Ghauri defeated Jayachandra and killed)
1192 CE	Qutb al-Din Aybak constructed the Qutub Minar in Delhi
1206 CE	Qutb-ud-din Aibak established 'Slave Dynasty' (which later came to known as Delhi Sultanate)
1210 CE	While playing polo, Qutb-ud-din Aibak died
1221 CE	Invasion of Changez Khan (Mongol invasion)
1240 CE	Razia Sultan was killed by Turkish nobles
1336 CE	Harihara I and his brother Bukka Raya I founded the Vijayanagara Empire
1398 CE	Timur's invasion
1483 CE	Babur born
1498 CE	The first voyage of Vasco de Gama from Europe to India
1526 CE	The first Battle of Panipat in which Mughal ruler Babur defeated Ibrahim Lodi
1530 CE	Babur died and his son Humayun became the emperor
1539 CE	Battle of Chausa fought between Mughal emperor Humayun and Sher Shah Suri (Humayun defeated)

1540 CE	Battle of Kannauj fought between Humayun and Sher Shah Suri and Humayun. Humayun lost the Mughal empire and hence escaped from India
1545 CE	Sher Shah Suri died and his son Islam Shah Suri succeeded
1554 CE	Islam Shah Suri died
1555 CE	Humayun recuperated the throne of Delhi
1556 CE	Humayun died and Akbar (his 12-year-old son) succeeded
1556 CE	Second Battle of Panipat fought between Hemu and Akbar's forces (Hemu was defeated and killed)
1576 CE	Battle of Haldighati fought between Rana Pratap and Akbar (Akbar defeated Rana Pratap)
1600 CE	East India company is formed (in England) resultantly received exclusive trading rights with India
1605 CE	Akbar died and his son Jahangir succeeded
1628 CE	Jahangir died and his son Shah Jahan succeeded
1627 CE	Birth of Chatrapati Shivaji
1658 CE	Aurangzeb became the Mughal emperor
1666 CE	Shah Jahan died
1674 CE	Shivaji defeated Mughal emperor's troops and established Maratha empire
1680 CE	Death of Shivaji
1707 CE	Death of Aurangzeb
1739 CE	Invasion of Nadir Shah
1756 CE	Black Hole of Calcutta incident
1760 CE	Battle at Wandewash (British troops defeated French)
1761 CE	Third Battle of Panipat fought between Maratha and Afghans (led by Ahmad Shah); Marathas were defeated
1767 CE	First Anglo-Mysore War (Haidar Ali of Mysore defeated the combined armies of the East India Company)
1772 CE	Birth of Ram Mohan Roy
1773 CE	Warren Hastings appointed as first Governor-General of India
1799 CE	Fourth Anglo-Mysore War (Tipu Sultan died in the war)

1806 CE	Vellore Mutiny
1814	Raja Ram Mohan Roy established "Atmiya Sabha"
1820 CE	Birth of Ishwar Chandra Vidyasagar
1824 CE	Birth of Dayananda Saraswati
1836 CE	Birth of Sri Ramakrishna Paramhansa
1853 CE	Started Postal Service in India
1853 CE	First Rail run between Bombay and Thane
1855 CE	Santhal rebellion
1856 CE	Hindu Widows' Remarriage Act
1856 CE	Birth of Bal Gangadhar Tilak
1857 CE	Sepoy Mutiny
1861 CE	Birth of Rabindranath Tagore
1863 CE	Birth of Swami Vivekanand
1865 CE	Birth of Lala Lajpat Rai
1869 CE	Birth of Mahatma Gandhi
1873 CE	Satyashodhak Samaj was established by Jyotirao Phule
1875 CE	Arya Samaj was established
1877 CE	First time Delhi Durbar organized
1885 CE	Indian National Congress was founded
1899 CE	V.D.Savarkar organized 'Mithra Mela'
1902 CE	Anushilan Samiti was organized
1905 CE	Partition of Bengal
1906 CE	Muslim League formed in Dacca
1907 CE	Congress Session at Surat (Congress divided as Moderate and Extremists)
1908 CE	Alipore bomb case
1909 CE	Morley-Minto Reforms
1911 CE	Cancellation of Partition of Bengal
1911 CE	British government moved capital city from Calcutta to Delhi
1912 CE	Delhi conspiracy case

1913 CE	Formation of Gadar Party
1914 CE	Hindu-German Conspiracy
1916 CE	Lucknow Pact
1917 CE	Champaran and Kheda Satyagraha
1919 CE	Jallianwala Bagh massacre
1919 CE	Montagu-Chelmsford Reforms
1919 CE	Rowlatt Act
1920 CE	Non-cooperation movement (Khilafat Movement)
1922 CE	Chauri Chaura incident
1924 CE	Formation of Hindustan Socialist Republican Association
1925 CE	Kakori conspiracy
1927 CE	Simon Commission
1928 CE	Bardoli Satyagraha
1929 CE	Bhagat Singh and Batukeshwar Dutt bombed on Central Assembly
1929 CE	Resolution of Purna Swaraj
1930 CE	Salt Satyagraha (Dandi March)
1930 CE	First Round Table Conferences
1931 CE	Gandhi-Irwin Pact
1931 CE	Bhagat Singh, Rajguru, and Sukhdev martyred
1931 CE	Second Round Table Conferences
1932 CE	Poona Pact
1932 CE	Communal Award
1932 CE	Third Round Table Conferences
1935 CE	Government of India Act 1935
1937 CE	Indian provincial elections
1939 CE	Subhas Chandra Bose established 'All India Forward Bloc'
1940 CE	Lahore Resolution
1940 CE	August offer (1940)
1942 CE	Cripps' Mission

1942 CE	Quit India Movement
1942 CE	Subhas Chandra Bose established Indian National Army
1944 CE	Subhas Chandra Bose named Mahatma Gandhi as the 'Father of the Nation'
1945 CE	Wavell Plan (Simla Conference)
1946 CE	Royal Indian Navy Mutiny
1946 CE	Cabinet Mission
1946 CE	Great Calcutta Killings
1947 CE	Indian Independence Act 1947
1947 CE	Partition of India and Pakistan (both became independent nations)
1948 CE	Mahatma Gandhi assassinated by Nathuram Godse
1948 CE	India-Pakistan war
1950 CE	India became Republic (of India)
1951 CE	Congress Party won first general election
1962 CE	India won Diu, Daman, and Goa from Portuguese
1964 CE	Death of Prime Minister Jawaharlal Nehru
1965 CE	Second Pakistan-India war
1966 CE	Indira Gandhi (daughter of Jawaharlal Nehru) becomes prime minister
1971 CE	Third Pakistan-India war
1974 CE	India exploded first nuclear device (in underground test)
1975 CE	Indira Gandhi declared state of emergency
1975 CE	Birth control introduced
1977 CE	Janata Party came into power (Congress party lost the election)
1979 CE	Janta Party split
1980 CE	Congress again came into power
1984 CE	Operation Blue Star (Anti-Sikh Riots 1984)
1984 CE	Indira Gandhi was assassinated

1988 CE	SEBI (Security and Exchange Board of India) was established by The Government of India
1991 CE	Rajiv Gandhi assassinated
1991 CE	Economic reform program (liberalization)
1992 CE	Babri Mosque in Ayodhya is demolished
1992 CE	1992 Odisha liquor deaths incident
1996 CE	Amarnath Yatra tragedy
1998 CE	BJP forms coalition government under Prime Minister Atal Bihari Vajpayee
2000 CE	US President Bill Clinton's India visit
2001 CE	Massive earthquakes in Gujarat
2001 CE	Suicide squad attacked parliament in New Delhi
2002 CE	Godhra (Gujarat) incident
2003 CE	Bomb blasts in Mumbai
2004 CE	Tsunami incident
2005 CE	Earthquake in Kashmir
2007 CE	India's first commercial space rocket is launched (carried Italian satellite)
2008 CE	Series of bomb explosions in Ahmedabad (Gujarat)
2008 CE	Attack on two hotels namely the Taj Mahal Palace & Tower and the Oberoi Trident (Mumbai)
2009 CE	India and Russia signed Uranium deal worth of \$700 million
2012 CE	Ajmal Kasab the sole surviving gunman of 2008 Mumbai attacks was hanged
2013 CE	Mars Orbiter Mission, is successfully launched into the Orbit of Mars by ISRO (the Indian Space Research Organization)
2014 CE	Congress was routed in the general elections and Narendra Modi (BJP) elected as the Prime Minister
2016 CE	Terror Attacks on Pathankot Air Base
2016 CE	India becomes member of Missile Technology Control Regime

## 6. INDIAN BATTLES

The following table explains the major wars fought on Indian territory:

War	Fought between	Time
Battle of the Ten Kings	King Sudas of Trustu-Bharata Trib defeated Ten Kings	14 BCE
Battle of the Hydaspes	Between King Porus and Alexander	326 BCE
Conquest of the Nanda Empire	Between Chandragupta Maurya and Dhana Nanda	321-320 BCE
Seleucid-Mauryan war	Between Chandragupta Maurya and Seleucus	303 BCE
Kalinga War	Between Ashoka and Rani Padmavati	262 BCE
<b>Common Era (CE)</b>		
Huna Invasion	Between Huna and Gupta empire	458 CE
Battle of Pullalur	Between the Chalukya king Pulakesin II and the Pallava king Mahendravarman I	618–619 CE
Battle of Vatapi	Between the Pallavas and Chalukyas	642 CE
Battle of Rajasthan	A series of battles fought between the Umayyad and later the Abbasid caliphates, and kings to the east of the Indus river	712-740 CE
Battle of Peshawar	Mahmud of Ghazni defeated Jayapala	1000 CE
First Battle of Tarain	Prithvi Raj Chauhan defeated Muhammad Ghori	1191 CE
Second Battle of Tarain	Muhammad Ghori defeated Prithvi Raj Chauhan	1192 CE
Battle of Chandawar	Muhammad Ghori defeated Jaichandra	1194 CE
First Battle of Panipat	Babur defeated Ibrahim Lodhi	1526 CE

Battle of Khanwa	Mughal Emperor Babur defeated Rana Sanga of Mewar	1527 CE
Battle of Chanderi	Babur defeated Medini Rai of Chanderi	1528 CE
Battle of Ghagra or Gogara	Babur defeated Afghans	1529 CE
Battle of Chausa	Shershah Suri defeated Mughal Emperor Humayun	1539 CE
Battle of Kanauj or Billgram	Shershah Suri defeated Mughal Emperor Humayun	1540 CE
Second Battle of Panipat	Akbar defeated Hemu	1556 CE
Battle of Bannihatti or Tallikota	Deccan sultanates defeated the Vijayanagara Empire	1565 CE
Battle of Haldighati	Mughal Emperor's forces led by Man Singh I defeated Maharana Pratap	1576 CE
Battle of Kartarpur	Between Mughal Emperor Shah Jahan and Sikh led by Guru Hargobind Singh	1635 CE
Battle of Samugarh	Between Dara Shikoh (the eldest son of Shah Jahan) and his two younger brothers Aurangzeb and Murad Baksh (third and fourth sons of the Mughal Emperor Shah Jahan)	1658 CE
Battle of Kolhapur	Shivaji defeated Adilshahi forces	1659 CE
Battle of Purandar	Mughal forces defeated Shivaji	1665 CE
Battle of Sinhagad	Between Mughal Empire and Maratha Empire	1670 CE
Battle of Bhupalgarh	Mughal forces defeated Shivaji	1679 CE
Battle of Palkhed	The Marathas defeated the Nizam	1728 CE
Battle of Mandsaur	Malharrao Holkar (Maratha leader) defeated Jai Singh (Rajput ruler)	1733 CE
First Battle of Delhi	Maratha defeated the Mughals	1737 CE

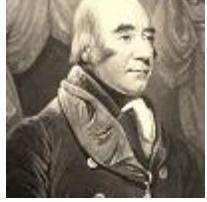
Battle of Vasai	Maratha defeated Portuguese	1939 CE
First Battle of Katwa	Between Nawab of Bengal and Maratha	1742 CE
Second Battle of Katwa	Between Nawab of Bengal and Maratha	1745 CE
First Carnatic War	Between British and French forces	1746-1748 CE
Second Carnatic War	British forces defeated French forces	1749-1754 CE
Battle of Plassey	British forces defeated Nawab Siraj ud-Daulah of Bengal	1757 CE
Battle of Wandiwash	Between British and French forces	1760 CE
Third Battle of Panipat	The King of Afghanistan, Ahmad Shah Abdali defeated the Maratha Empire	1761 CE
Battle of Buxar	Between the British East India Company led by Hector Munro and the combined army of Mir Qasim, the Nawab of Bengal; the Nawab of Awadh; and the Mughal King Shah Alam II	1764 CE
First Anglo-Mysore War	Between the Sultanate of Mysore and the East India Company	1767-1769 CE
First Rohilla War	Between Shuja-ud-Daula, Nawab of Awadh and the Rohillas	1773-1774 CE
First Anglo-Maratha War	Between the British East India Company and Maratha Empire	1775-1782 CE
Second Anglo-Mysore War	Between the Kingdom of Mysore and the British East India Company	1780-1784 CE
Third Anglo-Mysore War	Between the Kingdom of Mysore and the East India Company	1790-1792 CE
Fourth Anglo-Mysore War	Between the Kingdom of Mysore and the British East India Company	1798-1799 CE

Second Anglo-Maratha War	Between the British East India Company and the Maratha Empire	1803-1805 CE
Third Anglo-Maratha War	Between the British East India Company and the Maratha Empire	1817-1818 CE
First Anglo-Sikh War	Between the Sikh Empire and the East India Company	1845-1846 CE
Second Anglo-Sikh War	Between the Sikh Empire and the British East India Company	1848-1849 CE
Bhutan War	Between Bhutan and British East India Company	1865 CE
Third Anglo-Afghan War	Between British India and Afghan	1919 CE
Battle of Imphal	Between British India (Allied forces) and Japan Emperor	1944 CE

## 7. GOVERNORS OF PRESIDENCY

The following table illustrates the Governors of the Presidency along with their ruling period:

Name	Period	Picture
Warren Hastings	1773 to 1785	
Sir John Macpherson	1785 to 1786	
Earl Cornwallis	1786 to 1793	
Sir John Shore	1793 to 1798	
Sir Alured Clarke	March 1798 to May 1798	

Marquess Wellesley	1798 to 1805	
Marquess Cornwallis	July 1805 to Oct 1805	
Sir George Barlow	1805 to 1807	
Lord Minto	1807 to 1813	
Marquess of Hastings	1813 to 1823	
John Adam	Jan 1823 to Aug 1823	
Lord Amherst	1823 to 1828	

William Butterworth Bayley	March 1828 to July 1828	
Lord William Bentinck	1828 to 1833	

## 8. GOVERNOR-GENERAL OF INDIA

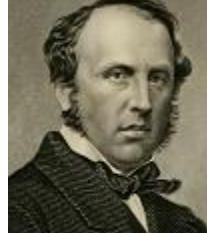
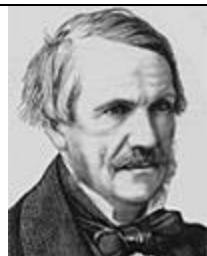
The following table illustrates the Governors-General of India along with their ruling period:

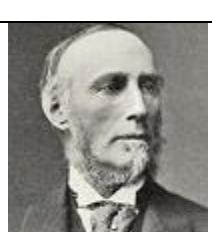
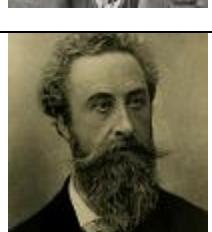
Name	Period	Picture
Lord William Bentinck	1833 to 1835	
Sir Charles Metcalfe	1835 to 1836	
Lord Auckland	1836 to 1842	
Lord Ellenborough	1842 to 1844	
William Wilberforce Bird	June 1844 to July 1844	N/A
Sir Henry Hardinge	1844 to 1848	

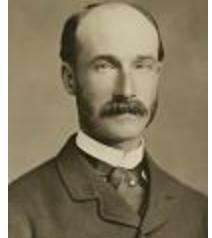
Marquess of Dalhousie	1848 to 1856	
Viscount Canning	1856 to 1858	

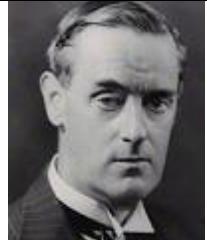
## 9. VICEROYS OF INDIA

The following table illustrates the Viceroys of India along with their ruling period:

Name	Period	Picture
Viscount Canning	1858 to 1862	
Earl of Elgin	1862 to 1863	
Sir Robert Napier	Nov 1863 to Dec 1863	
Sir William Denison	1863 to 1864	
Sir John Lawrence	1864 to 1869	

Earl of Mayo	1869 to 1872	
Sir John Strachey	Feb 9, 1872 to Feb 23, 1872	
Lord Napier	Feb 1872 to May 1872	
Lord Northbrook	1872 to 1876	
Lord Lytton	1876 to 1880	
Marquess of Ripon	1880 to 1884	

Earl of Dufferin	1884 to 1888	
Marquess of Lansdowne	1888 to 1894	
Earl of Elgin	1894 to 1899	
Lord Curzon	1899 to 1905	
Earl of Minto	1905 to 1910	
Lord Hardinge	1910 to 1916	

Lord Chelmsford	1916 to 1921	
Earl of Reading	1921 to 1926	
Lord Irwin	1926 to 1931	
Earl of Willingdon	1931 to 1936	
Marquess of Linlithgow	1936 to 1943	
Viscount Wavell	1943 to 1947	

Lord Mountbatten	Feb 1947 to Aug 1947	
<b>Governors-General of Independent India</b>		
Lord Mountbatten	1947 to 1948	
C. Rajagopalachari	1948 to 1950	

# 10. CLASSICAL WRITERS OF INDIA

The following table enlists authors and their works:

Author	Works
Abhinavagupta	Abhinavabharati
	Tantraloka
Adi Shankara	Vivekachudamani
	Aparoksanubhuti
	Atma Shatakam
	Manisha Panchakam
Al-beruni	Kitab-i-Rahla
Ali Muhammad Khan	Mirat-i-Muluk
Amara Simha	Amarakosha
Apastamba	Dharmasutra
Aryabhata	Āryabhaṭīya
	Arya-siddhanta
Ashtavakra	Ashtavakra Gita
Aśvaghoṣa	Buddhacarita
Badarayana	Brahma Sutras
Bāṇabhaṭṭa	Harshacharita
	Kadambari
Bharata Muni	Natya Shastra
Bharavi	Kirātārjunīya
Bhāskara I	Āryabhaṭīyabhāṣya
	Mahābhāskarīya
	Laghubhāskarīya
Bhāskara II	Siddhānta Shiromani
Bhavabhuti	Mahaviracharita

	Malatimadhava
	Uttararamacharita
Bhāsa	Svapnavasavadatta
	Urubhanga
	Madhyamavyayoga
Bilhana	Vikramankadevacharita
	Caurapāñcāśikā
Brahmagupta	Brāhmaśphuṭasiddhānta
Chanakya	Arthashastra
	Neetishastra
Chand Bardoi	Prithvaraj Raso
Charaka	Charaka Samhita
Daṇḍin	Daśakumāracarita
	Kavyadarsha
Hāla	Gaha Sattasai
Harsha Vardhana	Ratnavali
	Nagananda
	Priyadarsika
Ibn Batuta	Tughlaqnama
	Safarnama
Jaimini	Purva Mimamsa Sutras
	Jaimini Bharata
	Jaimini Sutras
Jayadeva	Gita Govinda
Jayasi	Padmavat
Kalhana	Rajatarangini
Kālidāsa	Abhijñānaśākuntalam
	Meghadūta
	Raghuvamṣa

	Kumārasambhava Vikramōrvaśīyam Mālavikāgnimitram Rtusamhāra
Kashyap	Kashyap Samhita
Krishnadeva Raya	Madalasa Charitra Amuktamalyada
Kshemendra	Ramayana-manjari
Kundakunda	Samayasāra Niyamasara Pancastikayasara
Magha	Shishupala Vadha
Mahendravarman I	Mattavilasa Prahasana Bhagavadajjuka
Mahidasa Aitareya	Aitareya Brahmana
Mahāvīra	Ganit Saar Sangraha
Matanga Muni	Brihaddeshi
Miraza Muhammad Kasim	Alamgir-nama
Nagarjuna	Mūlamadhyamakakārikā Śūnyatāsaptati Vigrahavyāvartanī
Pāṇnini	Ashtadhyayi
Patañjali	Mahabhasya Yoga Sūtras
Parashara Muni	Bṛhat Parāśara Horāśāstra
Parameshvara	Bhatadipika Karmadipika Paramesvari Sidhantadipika

Rajasekhara	Balabharata
	Karpuramañjari
	Bālarāmāyaṇa
	Kāvyamīmāṃsā
Somadeva	Kathasaritsagara
Shaunaka	Ŗgveda-Prātiśākhya
	Bṛhaddevatā
Sriharsha	Naishadhīya-charitam
Śūdraka	Mricchakatika
Surdas	Sur Sagar
	Sur Sarawali
	Sahitya Ratna
Sushruta	Sushruta Samhita
Tenali Rama Krishna	Panduranga Mahatyam
Tulsidas	Ramcharitmanas
Valmiki	Ramayana
	Yoga Vasistha
Varāhamihira	Pancha-Siddhantika
	Brihat-Samhita
	Brihat Jataka
Vātsyāyana	Nyāya Sutra Bhāshya
	Kama Sutra
Vijñāneśvara	Mitākṣarā
Virasena	Dhavala
Vishakhadatta	Mudrarakshasa
	Devichandraguptam
Vishnu Sharma	Panchatantra
Vyasa	Mahabharata
Yajnavalkya	Shatapatha Brahmana

	<b>Yoga Yajnavalkya</b>
	<b>Yājñavalkya Smṛti</b>

# 11. MUGHAL LITERATURE

The following table enlists the Mughal period authors and their works:

<b>Author</b>	<b>Works</b>
Gulbadan Begam	Humayun Nama
Abul Fazl	Ain-i-Akbari
	Akbar Nama
Mulla Daud	Tawarikh-i-Alfi
Jahangir	Tuzuk-i-Jahangiri
Abdul Hamid Lahori	Padshah Namah
Inayat Khan	Shah Jahan Namah
Dara Shikoh	Safinat-ul Auliya
	Sakinat-ul Auliya
	Majma-ul-Bahrain
Aurangzeb	Raqqat-e-Alamgiri
Bhimsen	Nuskha-i-Dilkusha
Iswar Das	Futuhat-i-Alamgiri
Babur	Tuzuk-i-Baburi
Amir Khusrau	Tarikh-i-Alai

# 12. HISTORICAL MONUMENTS OF INDIA

The following table enlists the major monuments of India:

Monuments	Constructed by	Location
Nalanda University	Gupta Dynasty	Rajgir, Nalanda (Bihar)
The seven Pagodas of Mahabalipuram	Narasimhavarman II	Mahabalipuram (Tamil Nadu)
Jagannatha Temple	King Anantavarman Chodaganga Deva (Eastern Ganga Dynasty)	Puri, Odisha
Lingaraj Temple	Somavamsi Dynasty	Bhubaneswar, Odisha
Khajuraho Group of Monuments	Chandela Dynasty	Chhatarpur, Madhya Pradesh
Brihadeeswara Temple (also known as RajaRajeswara Temple)	Raja Raja Chola I	Thanjavur, Tamil Nadu
Ajanta Caves	Satavahana Dynasty later Mauryan Dynasty	Aurangabad, Maharashtra
Ellora Caves	Kalachuri, Chalukya, and Rashtrakuta Dynasties	Aurangabad, Maharashtra
Agra Fort	Mughal Emperor Akbar	Agra, Uttar Pradesh
Thousand Pillars Temple (also known as Rudreshwara Swamy Temple)	Kakatiya Dynasty	Hanamakonda, Telangana
Red Fort	Mughal Emperor Shah Jahan	Delhi
Taj Mahal	Mughal Emperor Shah Jahan	Agra, Uttar Pradesh
Konark Sun Temple	Narasimhadeva I (Eastern Ganga Dynasty)	Konark, Odisha
Fatehpur Sikri	Mughal Emperor Akbar	Agra, UP
Bibi Ka Maqbara	Mughal Emperor Aurangzeb	Aurangabad, Maharashtra

Jama Masjid	Mughal Emperor Shah Jahan	Delhi
Mehrangarh Fort	Rao Jodha	Jodhpur, Rajasthan
Tajmahal	Mughal Emperor Shah Jahan	Agra, Uttar Pradesh
Qutub Minar	Qutubuddin Aibak	Delhi
Makkah Masjid	Muhammad Quli Qutb Shah	Hyderabad, Telangana
Hawa Mahal	Maharaja Sawai Pratap Singh	Jaipur, Rajasthan
Moti Masjid	Mughal Emperor Shah Jahan	Agra, Uttar Pradesh
Humayun's Tomb	Akbar and Humayun's wife Empress Bega Begum	Delhi
Charminar	Quli Qutub Shah	Hyderabad, Telangana
Elephanta Caves	Not exactly known	Mumbai (Harbour), Maharashtra
Bara Imambara	Asaf-ud-Daula (Nawab of Awadh)	Lucknow, Uttar Pradesh
Dilwara Temples	Vastupal-Tejpal	Mount Abu, Rajasthan
Gateway of India	British Government (Designed by George Wittet)	Mumbai City, Maharashtra
India Gate	Designed by Edwin Lutyens	Delhi
Jantar Mantar	Maharaja Jai Singh	Delhi
Parana Qila (Old Fort)	Shershah Suri	Delhi
Golden Temple	Fourth Sikh guru, Guru Ram Das	Amritsar, Punjab
Victoria Memorial	British Government	Kolkata, West Bengal
Thillai Natarajah Temple	Made collectively by Pallava, Chola, Pandya, etc.	Chidambaram, Tamil Nadu

Group of Hampi Monuments	Vijayanagara Empire	Hampi, Karnataka
Lotus Temple	Architect - Fariborz Sahba	Delhi

# 13. SOCIO-RELIGIOUS MOVEMENTS

The following table describes the major Socio-Religious Movements of Modern India:

Name	Founder	Place	Year
Atmiya Sabha	Rammohan Roy	Calcutta	1815
Brahmo Samaj	Rammohan Roy	Calcutta	1828
Dharma Sabha	Radhakant Dev	Calcutta	1829
Tattvabodhini Sabha	Debendranath Tagore	Calcutta	1839
Manav Dharma Sabha	Mehtaji Durgaram Manchharam	Surat	1844
Paramhansa Mandli	Dadoba Pandurang	Bombay	1849
Radha Swami Satsang	Tulsi Ram	Agra	1861
Brahmo Samaj of India	Keshub Chunder Sen	Calcutta	1866
Dar-ul-Ulum	Muhammad Qasim Nanotvi, Rasheed Ahmed Gangohi and 'Abid Husain	Deoband (a town in Saharanpur, UP)	1866
Prarthna Samaj	Dr. Atmaram Pandurang	Bombay	1867
Arya Samaj	Swami Dayananda	Bombay	1875
Theosophical Society	Helena Petrovna Blavatsky, Colonel Henry Steel Olcott, William Quan Judge	New York City, United States	1875
Sadharan Brahmo Samaj	Ananda Mohan Bose, Sib Chandra Deb and Umesh Chandra Dutta	Calcutta	1878
Deccan Education Society	Vishnushastri Chiplunkar, Bal Gangadhar Tilak, Gopal Ganesh Agarkar	Pune	1884
Muhammadan Educational Conference	Sir Syed Ahmad Khan	Aligarh	1886

Deva Samaj	Shiv Narayan Agnihotri	Lahore	1887
Ramakrishna Mission	Swami Vivekanand	Belur	1897
Servants of India	Gopal Krishna Gokhale	Pune	1905
Seva Sadan Society	Ramabai Ranade	Pune	1909
Social Service League	Narayan Malhar Joshi	Bombay	1911

# 14. LOWER CASTE MOVEMENTS

The following table describes the major Lower Caste Movements of Modern India:

Name	Founder	Place	Year
Satyashodhak Samaj	Jyotirao Phule	Maharashtra	1873
Aruvippuram Movement	Sri Narayana Guru	Aruvippuram, Kerala	1888
The Depressed Class Mission Society	Mahrshi Vitthal Ramji Shinde	Bombay	1906
Justice Party (officially the South Indian Liberal Federation)	T. M. Nair and P. Theagaraya Chetty	Madras, Tamil Nadu	1916
Bahishkrit Hitakarini Sabha	B. R. Ambedkar	Bombay	1924
Self-Respect Movement	E. V. Ramasamy (also called as Periyar by his devoted followers)	Madras, Tamil Nadu	1925
Harijan Sevak Sangh	Mahatma Gandhi	Pune	1932

# 15. INDIAN REVOLUTIONARY ORGANIZATIONS

The following table describes the major Revolutionary Organizations of Modern India:

Name	Founder	Place	Year
Vyayam Mandala	Chapekar Brothers	Poona	1896-97
Mitra Mela (from 1903, it is transformed as Abhinav Bharat Society/Young India Society)	Savarkar Brothers	Nasik	1901
Anushilan Samiti	Satish Chandra Basu * Pramathanath Mitra	Calcutta	1902
Swadesh Bandhab Samiti	Ashwini Kumar Dutta	N/A	1905
Hindustan Republican Association (HRA)	Sachindra Nath Sanyal, Narendra Mohan Sen, Pratul Ganguly	Kanpur	1924
Bharat Naujawan Sabha	Bhagat Singh	Lahore	1926
Hindustan Socialist Republican Association Army (HSRA)	Chandrasekhar Azad, Bhagat Singh, Sukhdev Thapar	New Delhi	1928
Indian Home Rule Society	Shyamji Krishna Varma	London	1905
Indian Independence League	Tarakanath Das	California (USA)	1907
Gadar Party	Lala Hardayal	USA & Canada	1913

## **PART II: INDIAN POLITY**

# 16. PARTS OF INDIAN CONSTITUTION

The following table enlists the Parts and Articles of the Indian Constitution:

<b>Part</b>	<b>Contains</b>	<b>Articles</b>
Part I	Union and its Territory	1 to 4
Part II	Citizenship	5 to 11
Part III	Fundamental Rights	12 to 35
Part IV	Directive Principles of State Policy	36 to 51
Part IVA	Fundamental Duties	51A
Part V	The Union	52 to 151
Part VI	The States	152 to 237
Part VII	States in the B part of the First Schedule (repealed by 7 <sup>th</sup> Amendment)	
Part VIII	The Union Territories	239 to 242
Part IX	The Panchayats	243 to 243O
Part IXA	The Municipalities	243P to 243ZG
Part IXB	The Co-operative Societies	243ZH to 243ZT
Part X	The scheduled and Tribal Areas	244 to 244A
Part XI	Relations between the Union and the States	245 to 263
Part XII	Finance, Property, Contracts and Suits	264 to 300A
Part XIII	Trade and Commerce within the territory of India	301 to 307
Part XIV	Services Under the Union, the States	308 to 323
Part XIVA	Tribunals	323A to 323B
Part XV	Elections	324 to 329A
Part XVI	Special Provisions Relating to certain Classes	330 to 342
Part XVII	Languages	343 to 351

Part XVIII	Emergency Provisions	352 to 360
Part XIX	Miscellaneous	361 to 367
Part XX	Amendment of the Constitution	368
Part XXI	Temporary, Transitional and Special Provisions	369 to 392
Part XXII	Short title, date of commencement, etc.	393 to 395

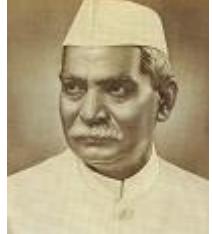
# 17. SCHEDULES OF INDIAN CONSTITUTION

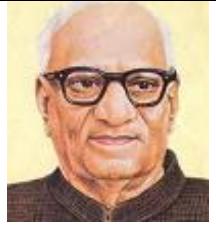
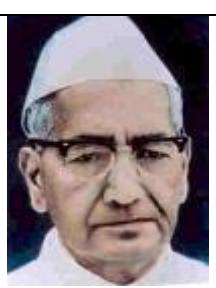
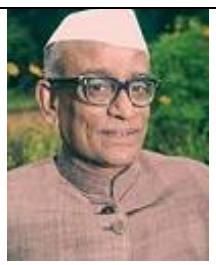
The following table describes the Schedule of the Indian Constitution:

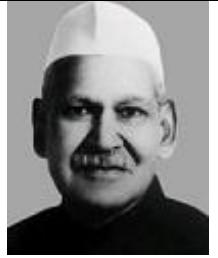
<b>Schedule</b>	<b>Contains</b>
First Schedule	Lists the states and territories of India (also about their changes)
Second Schedule	Lists the salaries of officials holding public office, Presidents, judges, and Comptroller and Auditor General of India
Third Schedule	Forms of oaths and Affirmations of offices for elected officials including judges
Fourth Schedule	Allocation of seats in the Rajya Sabha (the Upper House of Parliament) per State or Union Territory
Fifth Schedule	Provisions as to the Administration and Control of Scheduled Areas and Scheduled Tribes
Sixth Schedule	Provisions as to the Administration of Tribal Areas in the States of Assam, Meghalaya, Tripura, and Mizoram
Seventh Schedule	The Union (central government), state, and concurrent lists of responsibilities
Eight Schedule	The Languages
Ninth Schedule	Validation of certain Acts and Regulations
Tenth Schedule	"Anti-defection" provisions for the Members of Parliament and the Members of the State Legislatures
Eleventh Schedule	Panchayat Raj (rural local government)
Twelfth Schedule	Municipalities (urban local government)

# 18. PRESIDENTS OF INDIA

The following table enlists all the Presidents of India:

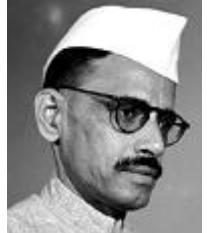
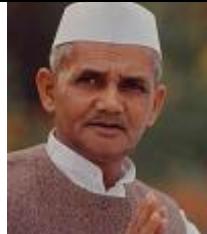
Name	Tenure		Picture
	From	To	
Rajendra Prasad	Jan., 1950	May, 1962	
Sarvepalli Radhakrishnan	May, 1962	May, 1967	
Zakir Husain (died in Office)	May 1967	May 1969	
Varahagiri Venkata Giri (He was an <b>acting</b> President)	May 1969	July 1969	
Mohammad Hidayatullah (He was an <b>acting</b> President)	July 1969	August 1969	

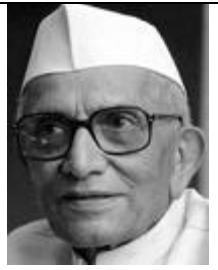
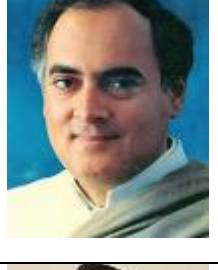
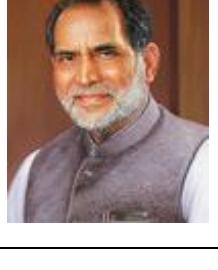
Varahagiri Venkata Giri	August 1969	August 1974	
Fakhruddin Ali Ahmed	August 1974	February 1977	
Basappa Danappa Jatti (He was an <b>acting</b> President)	February 1977	July 1977	
Neelam Sanjiva Reddy	July 1977	July 1982	
Giani Zail Singh	July 1982	July 1987	
Ramaswamy Venkataraman	July 1987	July 1992	

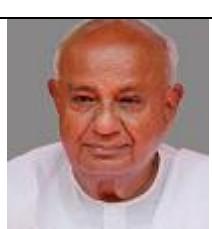
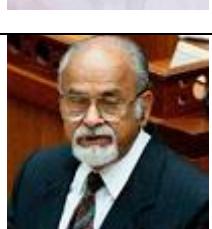
Shankar Dayal Sharma	July 1992	July 1997	
Kocheril Raman Narayanan	July 1997	July 2002	
A. P. J. Abdul Kalam	July 2002	July 2007	
Pratibha Patil	July 2007	July 2012	
Pranab Mukherjee	July 2012	Till date	

# 19. PRIME MINISTERS OF INDIA

The following table enlists name of all the Prime Ministers of India:

Name	Tenure		Picture
	From	To	
Jawaharlal Nehru	August 1947	May 1964	
Gulzarilal Nanda (He was an <b>Acting</b> Prime Minister)	May 1964	June 1964	
Lal Bahadur Shastri	June 1964	January 1966	
Gulzarilal Nanda (He was second time an <b>Acting</b> Prime Minister)	January 11, 1966	January 24, 1966	
Indira Gandhi	January 1966	March 1977	

Morarji Desai	March 1977	July 1979	
Charan Singh	July 1979	January 1980	
Indira Gandhi	January 1980	October 1984	
Rajiv Gandhi	October 1984	December 1989	
V. P. Singh	December 1989	November 1990	
Chandra Shekhar	November 1990	June 1991	

P. V. Narasimha Rao	June 1991	May 1996	
Atal Bihari Vajpayee	May 16, 1996	June 1, 1996	
H. D. Deve Gowda	June 1996	April 1997	
I. K. Gujral	April 1997	March 1998	
Atal Bihari Vajpayee	March 1998	May 2004	
Manmohan Singh	May 2004	May 2014	
Narendra Modi	May 2014	Till date	

## PART III: GEOGRAPHY

# 20. THE UNIVERSE

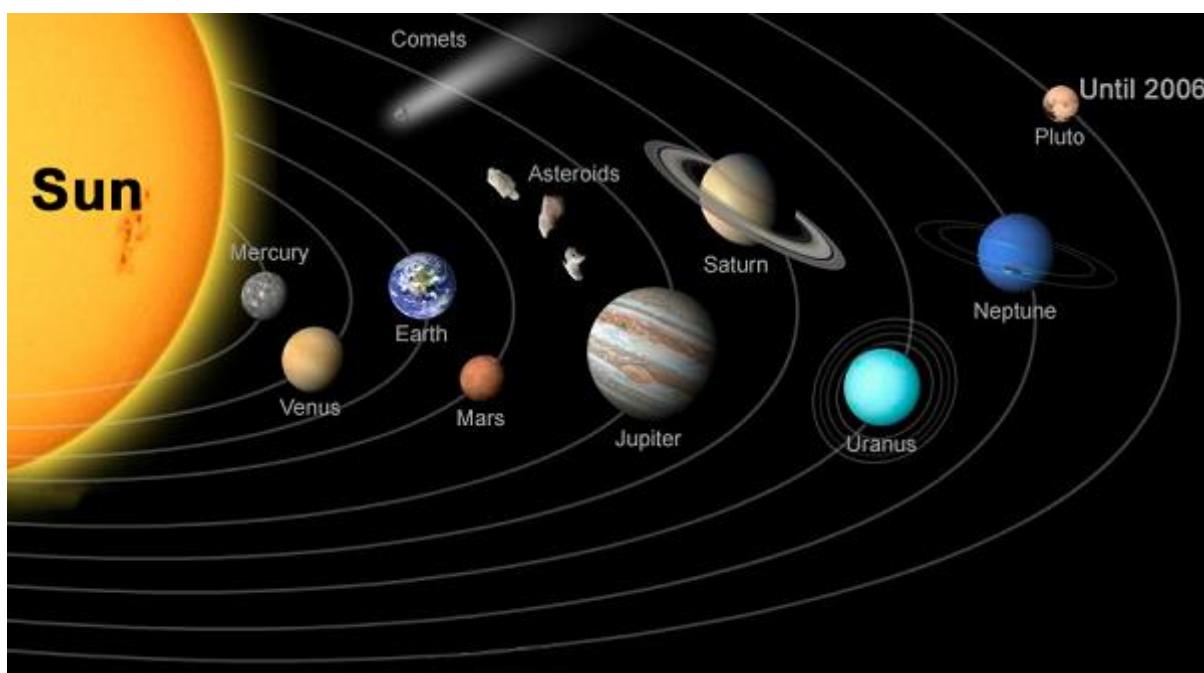
- Pythagoras, who was an Ionian Greek philosopher and mathematician, first used the term "**COSMOS**" for the order of the Universe.
- **Cosmology** is the discipline that describes the large scale properties of the universe as a whole.
- The distance covered by light in one year is known as "**Light Year.**" The Velocity of light is 300,000 km/s.
- The distance between the Sun and the Earth is known as "**Astronomical Unit.**" One astronomical unit is (roughly) equal to 149.6 million kilometers.
- **Wilkinson Microwave Anisotropy Probe (WMAP)** is an Explorer Mission of National Aeronautics and Space Administration (NASA). It is launched for the study and measurement of cosmology.
- Professor Sir Fred Hoyle, who was an English astronomer, coined the term "**Big Bang**" to explain a scientific theory on the creation of cosmos.
- **Galaxy** is a huge collection of stellar and interstellar matter, which are bound together by its own gravity in the Space. There are several galaxies in the universe, for example, Milky Way.
- The name galaxy where we live is '**Milky Way.**'
- The largest galaxy is '**Andromeda Galaxy.**' It is also the closest to Milky Way. Milky Way is the second largest galaxy.
- The radius of Milky Way is about 50,000 light years.
- The **Solar System** is a part of Milky Way.
- The Sun takes 225 million light years to complete one circuit.
- The collapsed stars, which are immeasurably dense and having huge gravitational force (even light cannot escape rather get absorbed) are known as "**Black Holes.**"
- **Quasar** is a massive and extremely remote celestial object that keeps emitting remarkably large amounts of energy. Typically, it has a star like image, which can be seen through the telescope.

- **Constellation** is a group of stars being arranged in a pictorial configuration. It was basically observed by the ancient astronomers. For example, Sirius (Canis Major), Canopus (Carina), Turus (Bootes), etc.
- Atacama Large Millimeter Array (**ALMA**) is the British Astronomy center, located at Chajnantor (at an altitude of about 5,000 meters), in the Atacama Desert of northern Chile.
- **Edwin Hubble**, who was an American astronomer, first studied galaxies in detail. Based on **Shape**, Edwin classified galaxies as Elliptical, Spiral, and Barred Spiral.
- At the end of life-cycle, when a star loses its light and the density increases (very high), by this time, it is largely composed of neutrons and hence known as '**Neutron Star**'.
- Most likely, the rotating neutron star emits intermittent radio signals, is known as '**Pulsar**'.
- A star with low temperature and small mass (glowing feebly) is known as '**Red Dwarf**'.
- A star that suddenly increases its brightness (greatly) because of a catastrophic explosion and ejects most of its mass is known as '**Supernova**'.
- **Satellites** (or **Moons**) are the bodies that keep revolving around their respective planets. For example, Moon revolves around the Earth, etc.
- The Sun is the closest star to the Earth (at the distance of about 149,600,000 km).
- Located at the distance of about 4.24 light-years, **Proxima Centauri** is the second closest star to the Earth.
- The Sun is made up of extremely hot gasses and its glowing surface is known as the '**Photosphere**'. The layer immediately above the photosphere is known as '**Chromosphere**' (sphere of color).
- The Chromosphere is 10,000 km thick transparent shell of plasma.
- The Outermost layer of the Sun is known as the '**Corona**'.
- Temperature of the outer surface is  $6,000^0$  C and interior temperature is  $15,000,000^0$  C.
- The rotation period of the Sun is 25 days, 9 hours, and 7 minutes.

- The traveling speed of the Sun's Rays is 30,000 m/s.
- The time taken by Sun's Rays to reach the Earth is 8 minutes and 16.6 seconds.
- The Sun is largely composed (chemically) of Hydrogen (71%), Helium (26.5%), and some other elements (2.5%).
- Sometimes, in the photosphere, some patches of gas, which is cooler than its surrounding (gas) are known as the '**Sunspots**'.
- The **Planets** are the celestial bodies that revolve around the Sun as well as (at the same time) rotate on their imaginary axis.

# 21. SOLAR SYSTEM

- There are eight planets namely (arranged in the order of increasing distance from the Sun):
  - Mercury
  - Venus
  - Earth
  - Mars
  - Jupiter
  - Saturn
  - Uranus
  - Neptune
- The largest planet is **Jupiter** and **Mercury** is the smallest planet of the system.



## Mercury

- **Mercury** is the nearest to the Sun.

- Mercury takes 58.65 Earth days to complete its rotation (on its axis) and takes 88 days to complete its one revolution (i.e. in its orbit around the Sun).
- Mercury is the fastest planet and it has no moon (satellite).

## Venus

---

- **Venus**, which is also popular as an evening star and morning star, is the brightest celestial body in the universe after Sun and Moon.
- Venus is the Hottest Planet of the solar system. It is closest to the Earth.
- Venus takes 243 Earth days to complete its rotation (on its axis) and takes 224.7 days to complete its one revolution (i.e. in its orbit around the Sun).
- Venus has no satellite and it spins in the opposite direction of the Earth's spin.
- Venus is named after the Roman goddess of Beauty.

## Earth

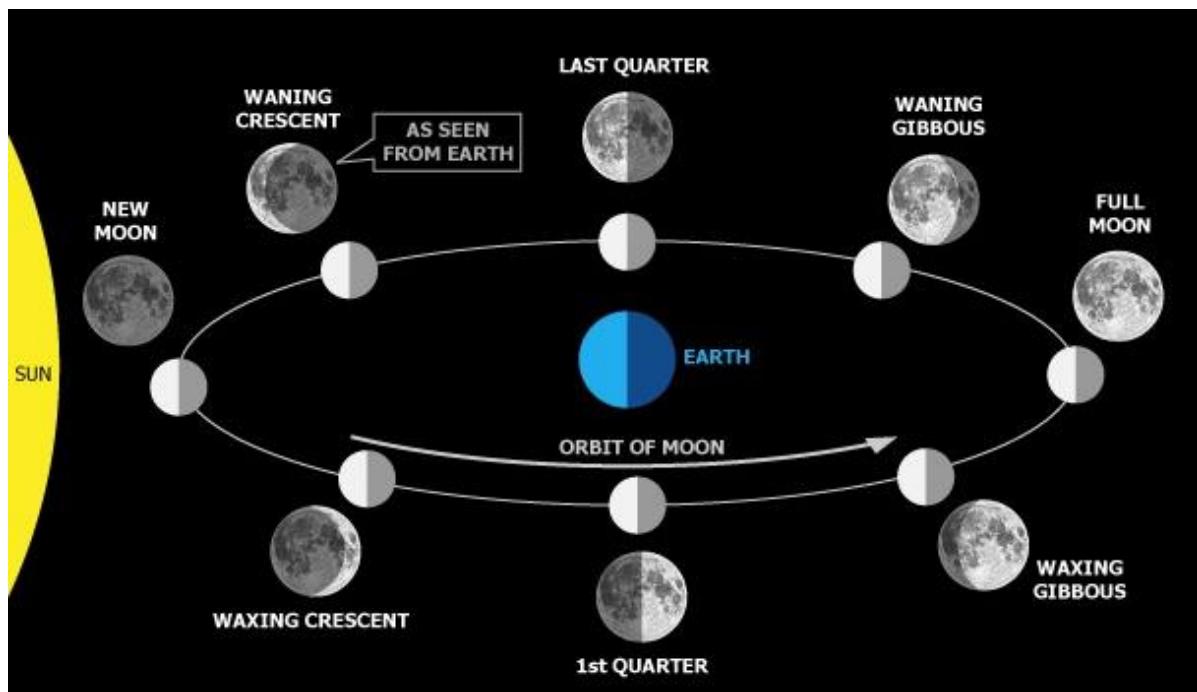
---

- **Earth** is the third planet from the Sun.
- By the time, Earth is the only planet where life exists.
- Earth takes 23 hours, 56 minutes, and 40 seconds to complete its rotation (on its axis) and takes 365.26 days to complete its one revolution (i.e. in its orbit around the Sun).
- Mass of the Earth is  $5.98 \times 10^{24}$  kg and its diameter is 12,756 km.
- Escape Velocity of the Earth is 11,200 m/s.
- Obliquity (i.e. tilt of axis degrees) of the Earth is  $23.4^{\circ}$ .
- Mean density of the Earth is 5.514 g/cm<sup>3</sup> and the surface is 510,072,000 km<sup>2</sup>.
- Mean surface temperature of the Earth is 281 K; the mean maximum surface temperature is 310 K and the mean minimum surface temperature is 260 K.
- The major atmospheric components of the Earth are Nitrogen (78%), Oxygen (20.95%), Argon (0.930%), and Carbon Dioxide (0.039%).

## Moon

- **Moon** is the only known satellite of the Earth.

- Moons rotation time (on its axis) and revolution time (around the Earth) is same (i.e. 27 days, 7 hours, 43 minutes, and 11.47 seconds. This is the reason that we always see only one side of the Moon.
- Moon revolves around the Earth once in every 27.3 days, which is known as '**Sidereal Month**;' however, it takes 29.5 days to return to the same point on the celestial sphere in reference to the Sun (due to revolution motion of the Earth around the Sun) and it is known as '**Synodic Month**.'
- When two full Moons occur in the same month, it is known as '**Blue Moon**'.
- A **Full Moon** is basically the lunar phase that occurs when the Moon is completely illuminated as seen from the Earth.
- As shown in the following image, the **Lunar Phase** or phase of the moon, is the shape of the illuminated portion of the Moon that is visible from the Earth. As Moon revolves, the lunar phases change cyclically and we can see from the full moon (full visible) to the new moon (not at all visible).



## Mars

- **Mars** is known as the '**Red Planet**' of the solar system.
- Mars takes 24 hours, 37 minutes, and 30 seconds to complete its rotation (on its axis) and takes 687 days to complete its one revolution (i.e. in its orbit around the Sun).

- Mars has two satellites namely *Phobos* (means fear) and *Deimos* (means terror).

## **Jupiter**

---

- **Jupiter** takes 9 hours, 50 minutes, and 30 seconds to complete its rotation (on its axis) and takes 12 earth years to complete its one revolution (i.e. in its orbit around the Sun).
- Jupiter has 63 natural satellites/moon, significant of them are *Europa*, *Ganymede*, *Callisto*, etc. Among all, *Ganymede* is the largest satellite in the whole solar system.

## **Saturn**

---

- **Saturn** is the largest planet after Jupiter in the solar system.
- Saturn is popular for its spectacular rings system.
- The rings system of Saturn is made up of a variety of separate particles that rotate in circular orbits independently.
- Saturn takes 10 hours and 14 minutes to complete its rotation (on its axis) and takes 30 years to complete its one revolution (i.e. in its orbit around the Sun).
- Saturn has total 47 satellites/moons; among them, Titan is the biggest satellite.

## **Uranus**

---

- **Uranus** is first identified as planet by William Herschel in 1781.
- Like Saturn, Uranus also has a system of five faint rings.
- Uranus takes 16 hours to complete its rotation (on its axis) and takes 84 years to complete its one revolution (i.e. in its orbit around the Sun).
- Uranus has 27 satellites; significant of them are *Miranda*, *Ariel*, *Umbriel*, *Titania*, etc.

## **Neptune**

---

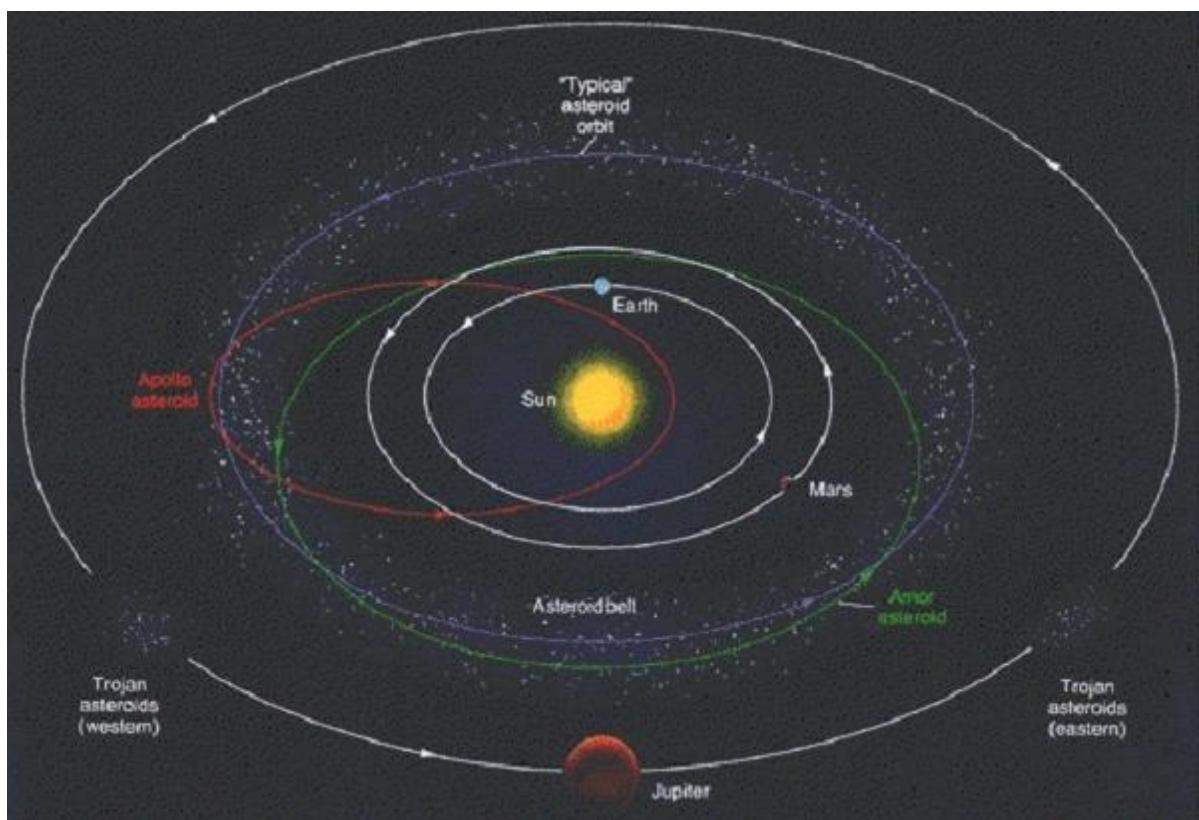
- **Neptune** is the farthest planet which appears greenish through a telescope.
- Neptune is discovered by Berlin scientist J. G. Galle in 1846.

- Neptune takes 18 hours to complete its rotation (on its axis) and takes 165 years to complete its one revolution (i.e. in its orbit around the Sun).
- Neptune has 13 satellites/moons; significant of them are '*Triton*' and '*Nereid*.'
- Until 2006, there were nine planets (including Pluto), but in 2006, the ninth planet Pluto is categorized as the dwarf planet by **International Astronomical Union** (IAU).

## Asteroids

---

- **Asteroids**, also known as small planets or planetoids, are the rocky debris largely found between the planets Mars and Jupiter. These are too small to have their own atmosphere (as shown in the following image).



- The Asteroids revolve around the Sun, which varies from 3 to 10 years.
- By the time, more than 450,000 Asteroids are discovered; the largest Asteroid is Ceres, which diameter is about 1,025 km.

## Meteors

---

- **Meteors**, also popular as 'Shooting Star' or 'Falling Star,' is the passage of a comet, asteroid, or meteoroid into the Earth's atmosphere. It is heated

(because of the collisions with air particles) and normally seen in the upper atmosphere (as shown in the following image).



- **Meteoroids** are the small rocky or metallic bodies that normally travel through outer space. Meteoroids are expressively smaller than asteroids, and its size ranges from small grains to 1-meter-wide objects.

## Comets

---

- **Comets** are the icy small Solar System body; normally while passing close to the Sun, heats up and starts to outgas, displaying a visible atmosphere (i.e. basically **coma**) along with a **tail** (as shown in the following image – in the insat view).



## 22. BASICS OF PLANET EARTH

- Total surface area of the Earth is 510,100,500 sq. km, out of which:
  - The total land area is 148,950,800 sq. km (29.08% of total area) and
  - The total water area is 361,149,700 sq. km (70.92%).
- Diameter of the Earth at Equator is 12,755 km, at the poles 12,712 km, and mean diameter is 12,734 km.



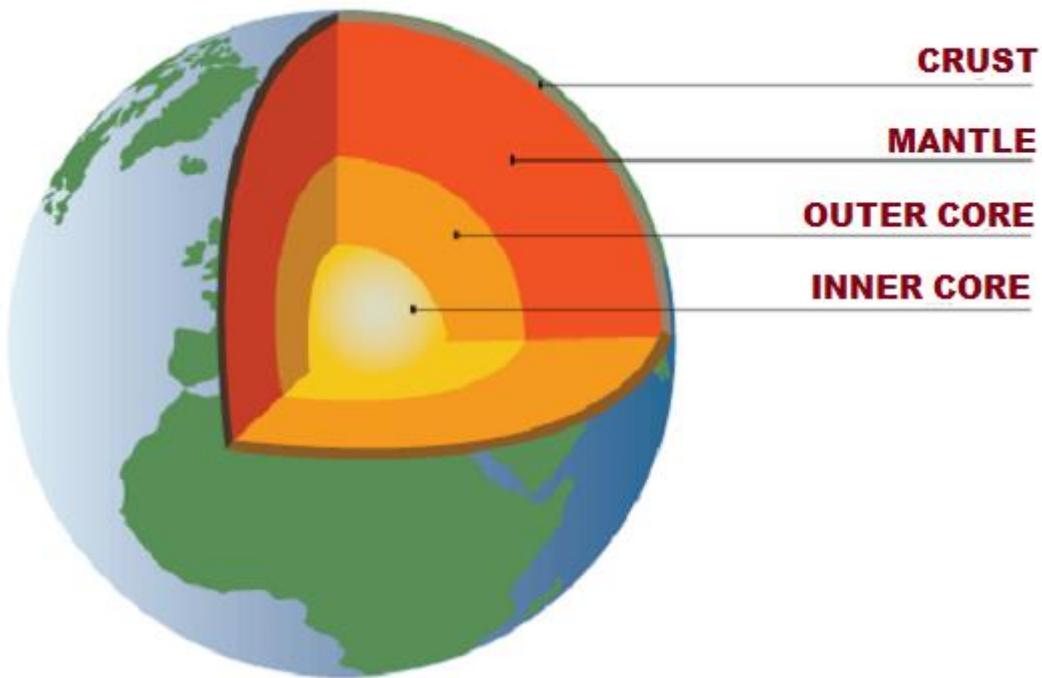
- Circumference of the Earth at Equator is 40,075 km and at the poles 40,024 km.
- Equatorial radius of the Earth is 6,377 km.
- The total mass of the Earth is  $5.98 \times 10^{24}$  kg.
- Approximate age of the Earth is 4,500 million years.
- The mean velocity of the Earth in its orbit (around the Sun) is 107,218 km/h.
- The most abundant **elements** of the Earth are

- Iron (about 32.5%),
- Oxygen (29.8%),
- Silicon (15.6%), and
- Magnesium (13.9%).

## Structure of Earth

---

- The Earth is structured in **three layers** namely:
  - Crust,
  - Mantle, and
  - Core – Further classified as outer core (fluid layer) and inner core (solid layer).



- The Crust is the uppermost layer of the Earth, largely composed of rocks. Its thickness ranges from 5 km to 60 km and density ranges from 2.7 to 3.
- The Crust shares about 1 percent of Earth's volume.
- The Crust is categorized as '**Continental Crust**' and '**Oceanic Crust**'.
- The thickness of Continental Crust ranges from 30 km to 50 km. It is largely composed by granites, which density (i.e. 2.7) is lesser than the Oceanic Crust.

- The thickness of Oceanic Crust ranges from 5 km to 10 km and it is composed primarily of basalt, diabase, and gabbro.
- The density of Oceanic Crust is 3.0.
- The most abundant element of Crust is Oxygen (46.6%) followed by Silicon (27.7%) and Aluminum (8.1%).
- The Crust is also known as '**Sial**' (i.e. Silicon and Aluminum)
- The boundary between the Crust and the Mantle is known as the "**Mohorovičić Discontinuity**."
- The Mantle is located between the Crust and the (Outer) Core, which thickness is about 2885 km.
- The Mantle shares about 83% of the Earth's volume and about 65% of the mass.
- The density of Mantle is about 3.4 g/cm<sup>3</sup>.
- The upper layer of Mantle is known as '**Asthenosphere**'.
- The Crust and the upper part of Mantle collectively known as '**Lithosphere**'.
- The Core is mostly composed of iron and nickel; therefore, it is also known as '**Nife**' (i.e. Nickel and Ferrous).
- The Core shares about 16% of Earth's total volume and 30% of the mass.
- The thickness of the Core is about 3,400 km from the Mantle (likewise, the total depth from the Surface of the Earth is 6,300 km).
- Core is categorized as outer core (which is in molten state) and inner core (which is in solid state).
- Density of the inner core is about 13 g/cm<sup>3</sup>.

# 23. GEOLOGICAL TIME SCALE

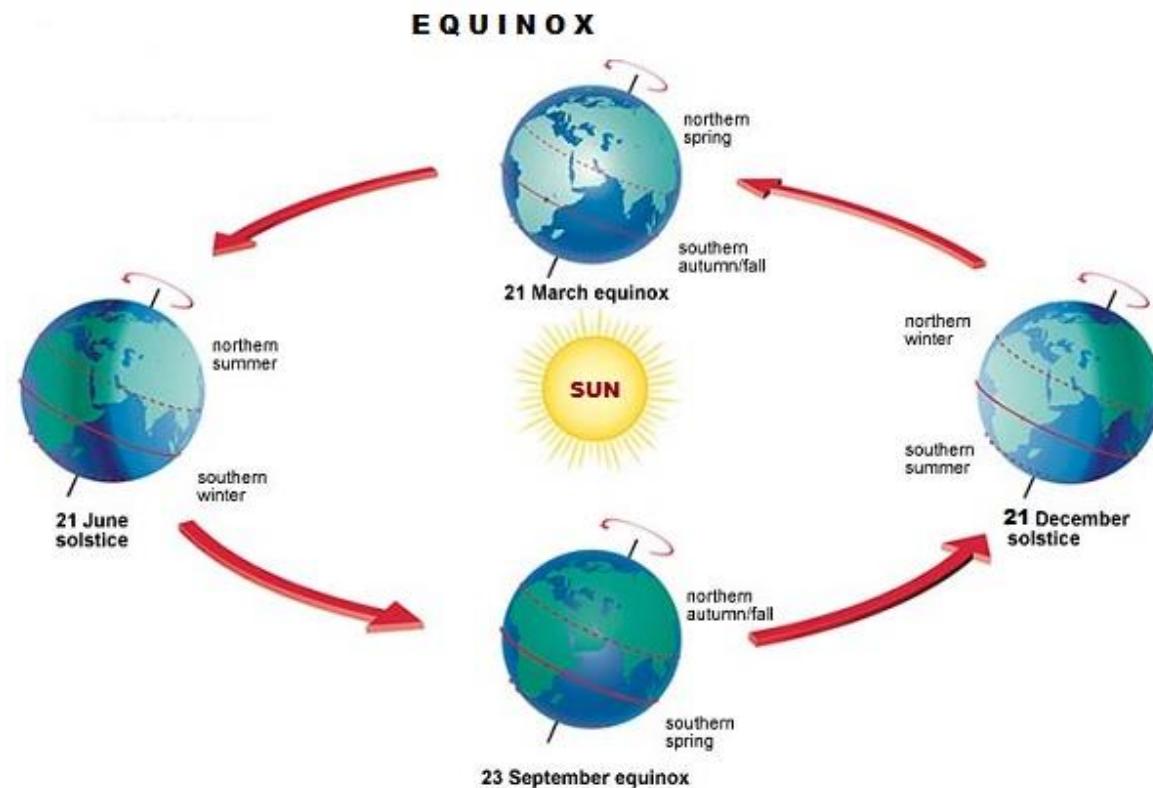
The following table describes Geological Time Scale in brief:

Era	Period	Epoch	Age (as Million Years Ago – MYA)	Major Events
<b>Cenozoic</b>  It is the Age of Mammals. (about 65.5 MYA to Present Day)	Quaternary	Holocene	0.01 MYA to present	End of the Ice Age and dominance of human beings.
		Pleistocene	1.6 MYA	Ice Age began and the earliest human appeared.
	Tertiary	Pliocene	5.3 MYA	Trace of human ancestors.
		Miocene	23.7 MYA	Abundance of grass.
		Oligocene	36.6 MYA	Dominance of mammals.
		Eocene	57.8 MYA	Extinction incident.
		Paleocene	65.5 MYA	First large mammals evidenced.
<b>Mesozoic</b>  Age of Reptiles. (about 245 MYA to 65.5 MYA)	Cretaceous	Extinction of Dinosaurs	144 MYA	Flowering plants appeared.
	Jurassic		208 MYA	First birds appeared.
	Triassic	First Dinosaurs	245 MYA	Reptiles were dominant and evidence of

				first mammals.
<b>Paleozoic</b> (about 570 MYA to 245 MYA)	Permian	Age of Amphibians	286 MYA	
	Carboniferous		360 MYA	First Reptile and large fish appeared.
	Devonian	Age of Fishes	408 MYA	First land animal appeared.
	Silurian		438 MYA	First insects, land plants, & jawed fish appeared.
	Ordovician		505 MYA	Extinction incident evidenced.
	Cambrian		570 MYA	First fungi evidenced.
<b>Precambrian</b> (about 4600 MYA to 570 MYA)	Proterozoic		2500 MYA	First multicellular life appeared.
	Achean		3800 MYA	First unicellular life appeared.
	Hadean	Priscoan	4600 MYA	Earth cooled and atmosphere and Ocean formed.

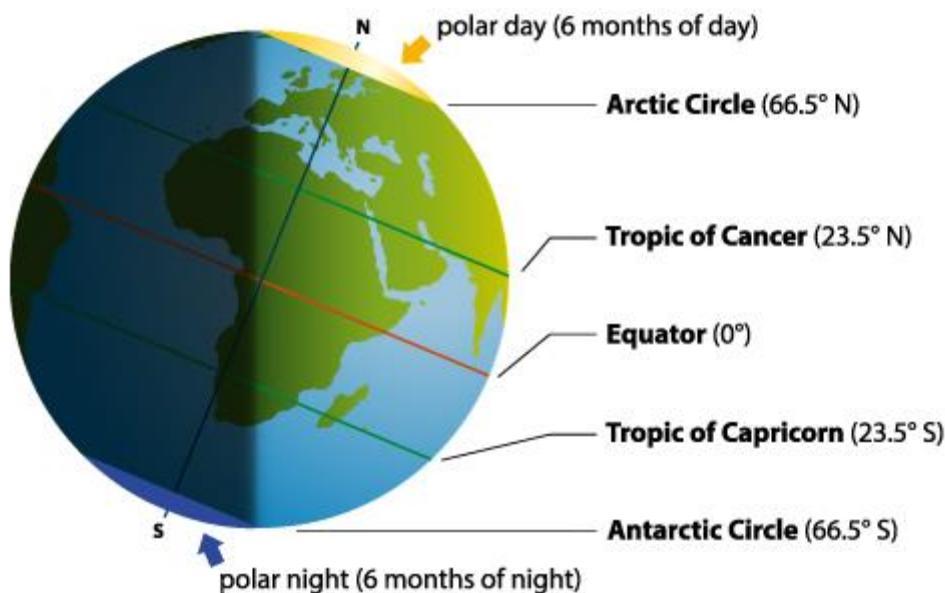
# 24. FACTS OF EARTH'S MOVEMENT

- The Earth's rotation on its axis causes day and night.
- The Earth's revolution (in its orbit around the Sun) causes change in seasons.
- When nights and days are equal is known as '**Equinoxes**.' During the equinox's time, the Sun shines exactly over the equator.
- March 21 (of every year) is known as the **vernal (spring) equinox** and September 23 (of every year) is known as the **autumnal equinox**.



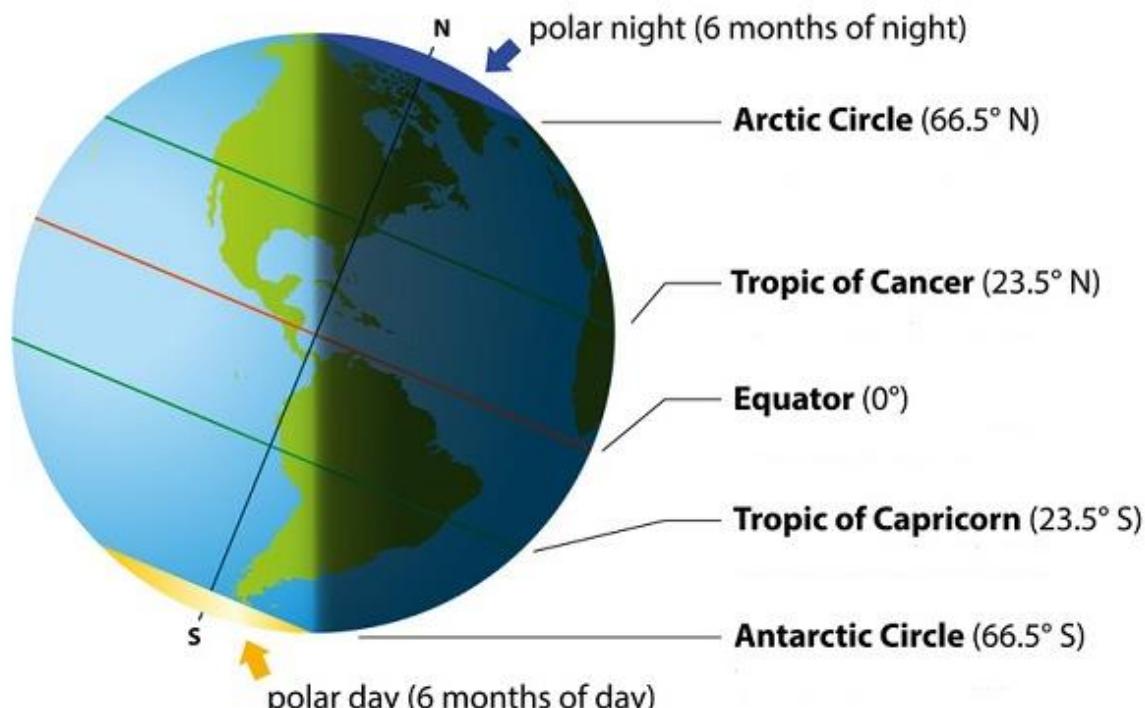
- When the difference between the length of day and night is maximum is known as '**Solstice**'.
- During the solstice time, the Sun shines over the tropics (either on Tropic of Cancer or Tropic Capricorn).
- $23.5^{\circ}$  North represents '**Tropic of Cancer**.' On **June 21**, the Sun shines over the Tropic of Cancer and it is known as the **longest day** of the year.
- June 21 is known as the **Summer Solstice**.

## SUMMER SOLSTICE - JUNE 21

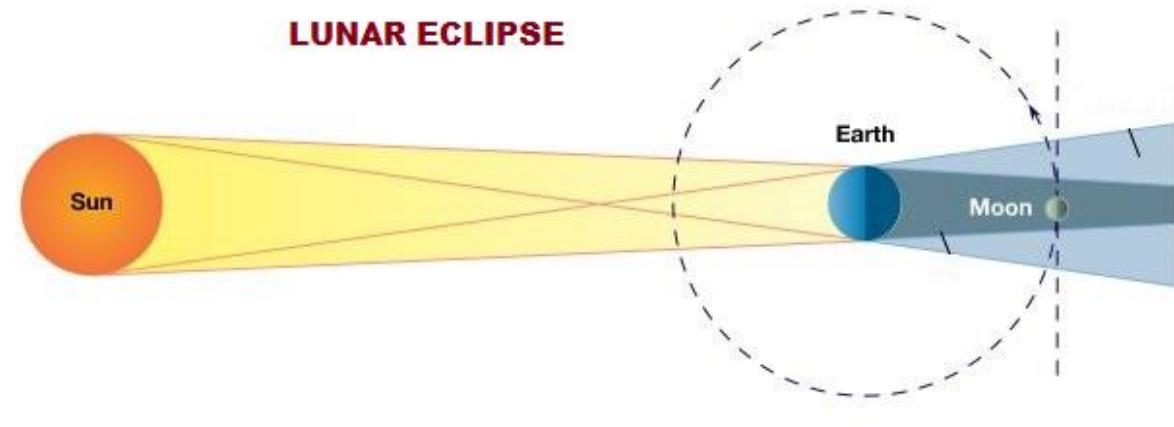


- $23.5^{\circ}$  South represents 'Tropic of Capricorn.' On **December 21**, the Sun shines over the Tropic of Capricorn and it is known as the **longest night** of the year.
- December 21 is known as **Winter Solstice**.

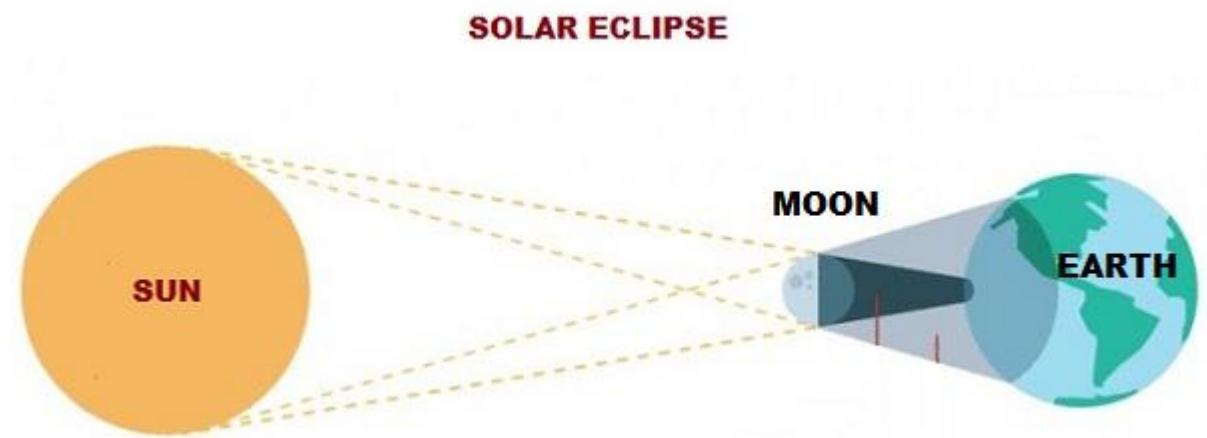
## WINTER SOLSTICE - DECEMBER 21



- When light of a celestial body is obscured by another celestial body, the situation is known as '**Eclipse**.'
- When the Earth comes between the Sun and the Moon, it is known as "**Lunar Eclipse**."

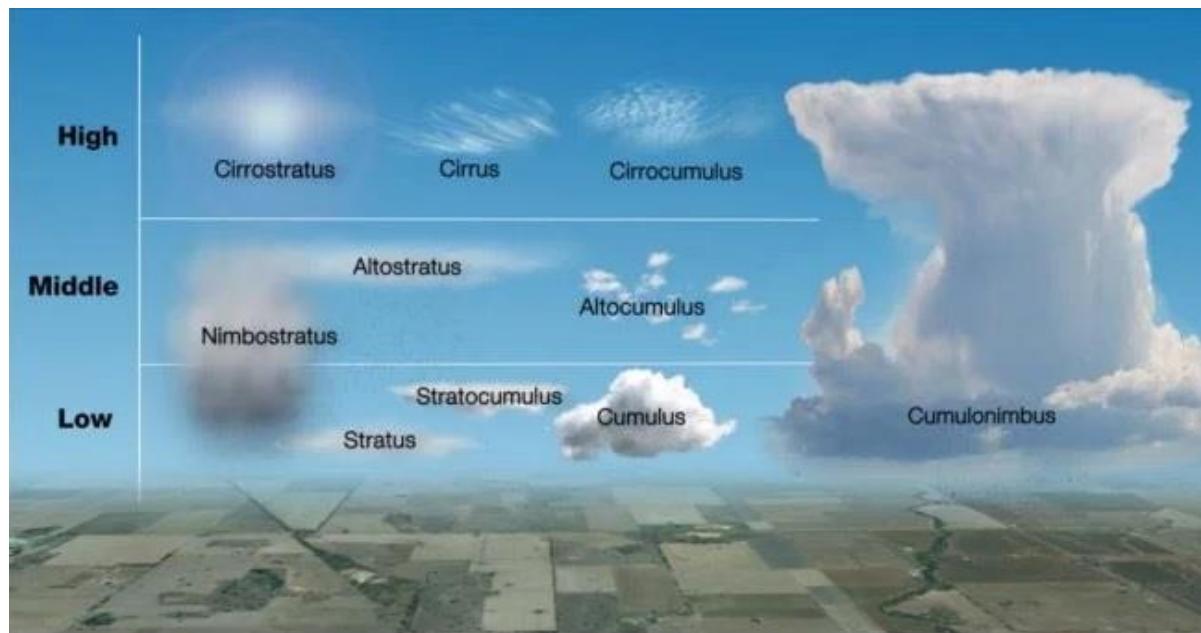


- When the Moon come between the Sun and the Earth, it is known as "**Solar Eclipse**."



# 25. ATMOSPHERE

- The composition of the Earth's atmosphere changes with the altitude.
- The major constituents of the Earth's atmosphere are:
  - Nitrogen – 78.09%
  - Oxygen – 20.95%
  - Argon – 0.93%
  - Carbon Dioxide – 0.039% (remaining other gasses)
- The pressure exerted by the weight of air at a given point is known as "**Atmospheric Pressure**" or "**Barometric Pressure**."
- With increasing altitude, the atmospheric pressure decreases.
- On an average, a column of air (which is normally one square centimeter in cross-section), measured at the sea level, has the weight of about 1.03 kg (about 10.1 N).
- The Average Air Pressure is about 14.70 pounds per square inch, (equivalent to  $1,013.25 \times 10^3$  dynes per square centimeter or 1,013.25 millibars) at the sea level.
- A visible mass of condensed vapor floating above the general level of the ground is known as **Cloud**.
- Based on the altitude, cloud is classified as:
  - High Altitude Cloud: For example, Cirrus, Cirrocumulus, & Cirrostratus.
  - Middle Altitude Cloud: For example, Altostratus and Altocumulus.
  - Low Altitude Cloud: Stratus, Stratocumulus, Cumulus, and Nimbostratus (it can be also seen in the middle altitude).
  - Vertical: Cumulonimbus



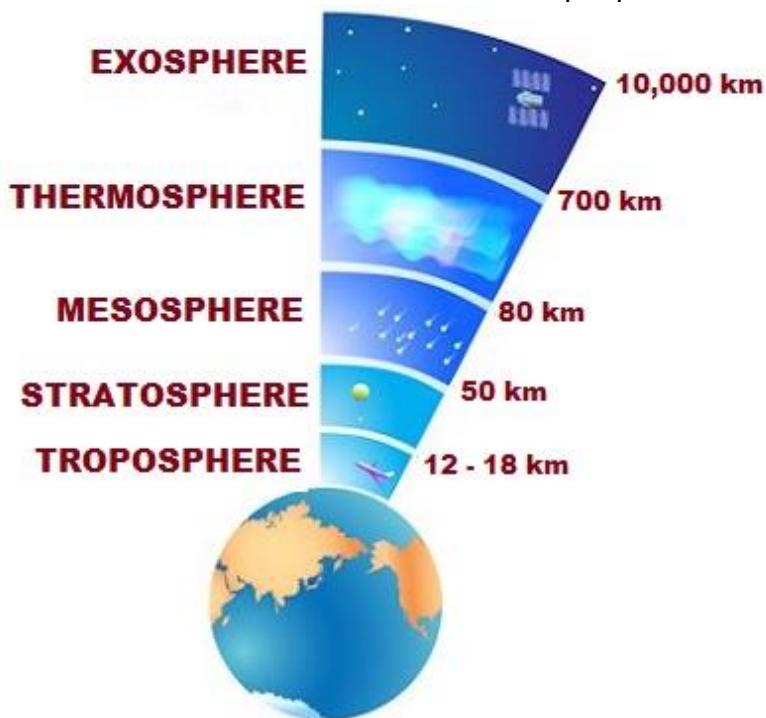
# 26. STRUCTURE OF ATMOSPHERE

- The structure of the atmosphere is classified into the following layers:
  - Troposphere: 0 to 12 km
  - Stratosphere: 12 to 50 km
  - Mesosphere: 50 to 80 km
  - Thermosphere: 80 to 700 km
  - Exosphere: 700 to 10,000 km

## **Troposphere**

---

- Troposphere is the closest to the Earth's surface and contains water vapor (clouds), moisture, dust, etc.
- Most of the weather phenomena take place in Troposphere.
- Temperature decreases with altitude in the Troposphere.



- Height of the Troposphere varies i.e. at the equator, it is measured about 18 km and at the poles, it is 12 km.

- **Tropopause** is the transitional zone that separates Troposphere and Stratosphere.

## Stratosphere

---

- Stratosphere is the second-lowest layer of the Earth's Atmosphere that goes up to 50 km.
- Stratosphere contains **Ozone** ( $O_3$ ) Layer that absorbs the ultraviolet rays (coming through the Sun rays) and protects life on the Earth.
- As the ultraviolet radiation absorbs in Stratosphere, therefore the temperature rises with increasing altitude.
- The **Stratopause** is the transitional zone that separates Stratosphere and Mesosphere.

## Mesosphere

---

- Mesosphere, present above the Stratosphere, extends up to (from 50 km to) 80 km.
- Temperature in the Mesosphere decreases with increasing altitude.
- Mesopause is the transitional zone that separates Mesosphere and Thermosphere.

## Thermosphere

---

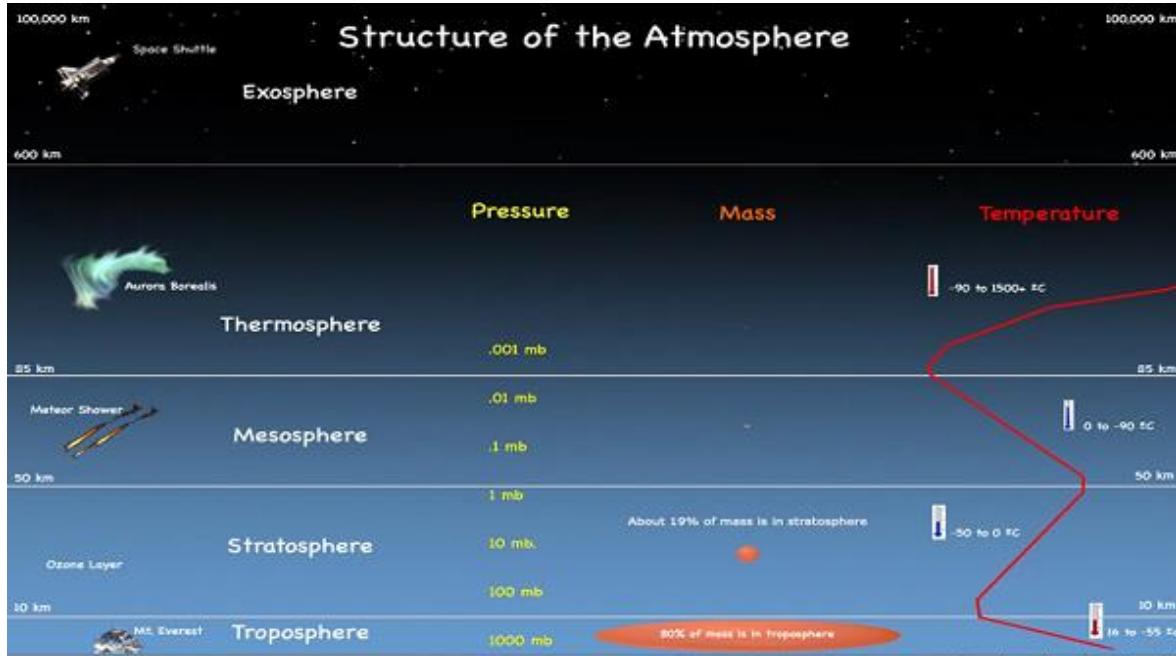
- Above the Mesosphere, Thermosphere is the second-highest layer that starts at the altitude of 80 km and extends up to (roughly) 700 km (however, it varies between 500 and 1000 km).
- The lower part of the Thermosphere (roughly between 80 km and 550 km) contains ions and known as **Ionosphere**.
- The temperature of the Thermosphere rises with increasing altitude.
- Thermopause is the transitional zone that separates Thermosphere and Exosphere.

## Exosphere

---

- Exosphere is the highest or outermost layer of the Earth's atmosphere that extends (starting from 700 km altitude) up to 10,000 km where it ultimately merges into the solar wind.

- Major constituents of the Exosphere are helium, hydrogen, nitrogen, oxygen, and carbon dioxide.
- The phenomena of Aurora Borealis and Aurora Australis can be seen in the lower part of the Exosphere (merged with upper part of the Thermosphere).



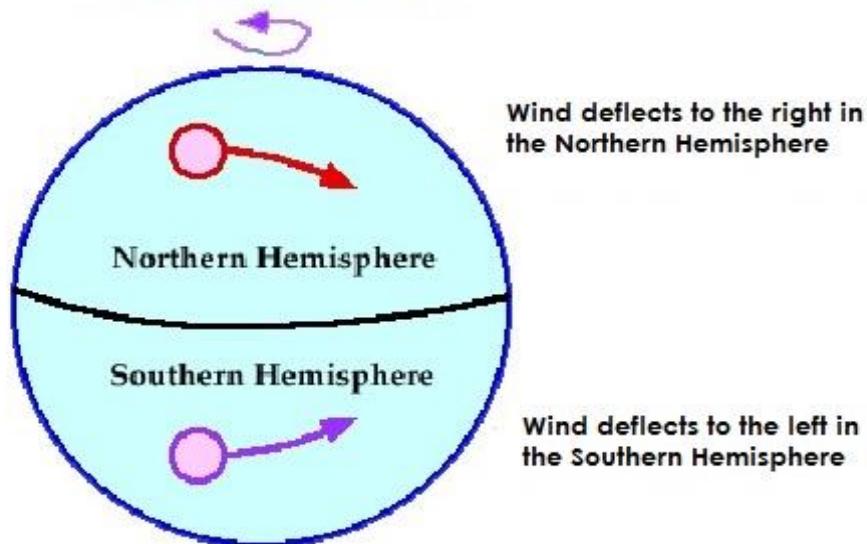
- The Satellite (orbiting the Earth) is normally placed in the Exosphere (as shown in the image given above).

# 27. WIND SYSTEM

- Air in motion is known as wind. Wind plays a significant role in determining the weather system of a given region.
- Because of the rotation of the Earth, wind deflects to the right in the Northern Hemisphere and left in the Southern Hemisphere. The phenomena first reported by Coriolis and hence it is known as **Coriolis Force**.

## CORIOLIS FORCE

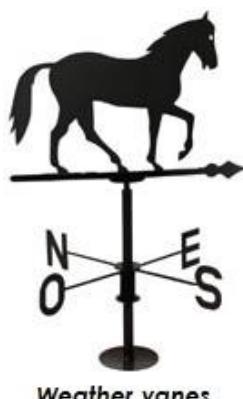
Due to the Earth's Rotation



- To read the wind direction, **weather vanes** are used; however, at the airport, **windsocks** are used (indicated the wind direction).

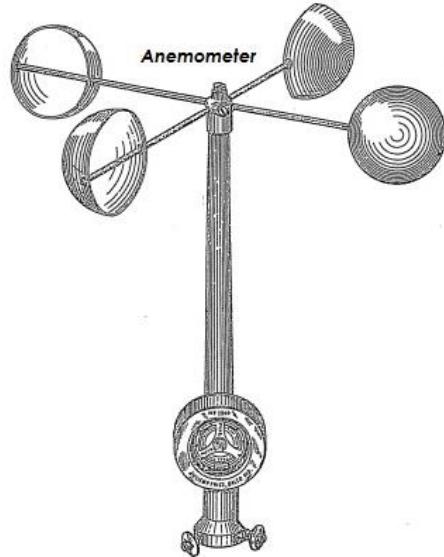


Airport windsocks



Weather vanes

- **Anemometer** is used to measure the wind speed.

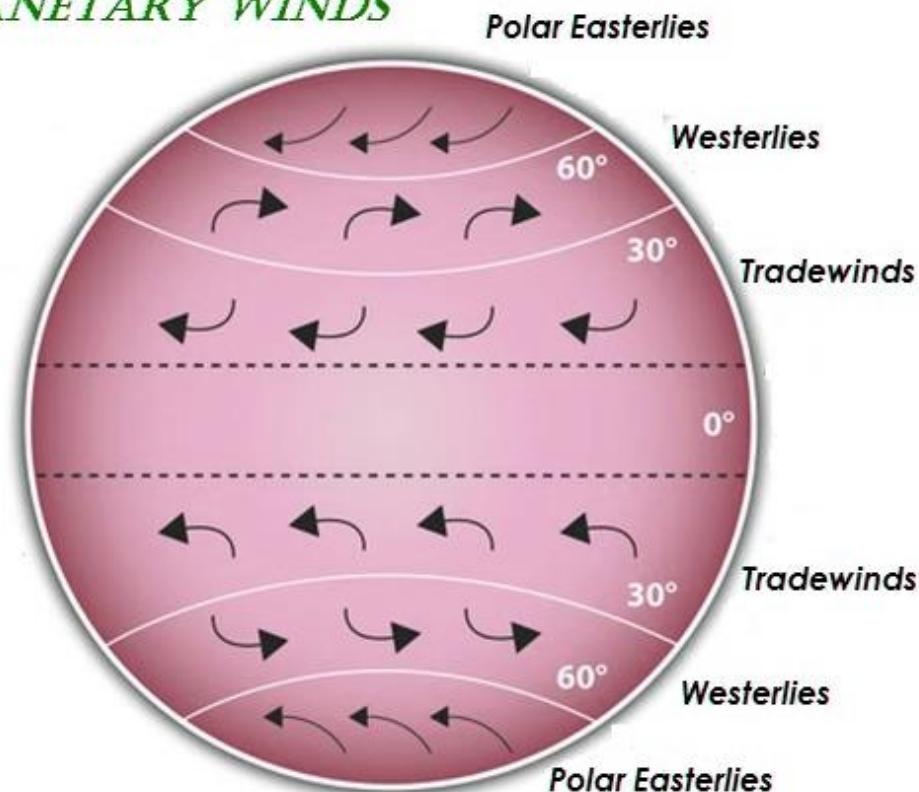


## **Types of Winds**

---

- Winds normally are categorized as:
  - Primary Winds: It is also known as **Prevailing Winds** and **Planetary Winds**.
  - Secondary winds: It is also known as **Periodic Winds** and **Seasonal Winds**.
  - Local Winds: It is originated because of the local temperature and/or pressure difference.
- Major Planetary Winds (as shown in the following image) are:
  - Polar Easterlies
  - Westerlies (Mid-latitude)
  - Trade Winds (Tropics)

## PLANETARY WINDS



- Seasonal or Periodic Winds blow periodically i.e. for a specific period. For example, Monsoons (as shown in the following image).

## Seasonal Winds



Source: [es.earthednet.org](http://es.earthednet.org)

- Local Winds, which are originated largely because of the temperature differences are a localized phenomenon. The following map shows the major local winds of the world:



Local Winds	Region/Location
Chinook	Canada & USA (Rockies Mountain Region)
Santa Anas	California (USA)
Pampero	Argentina (South America)
Zonda	Argentina (South America)
Norte	Mexico (Central America)
Papagayo	Mexico (Central America)
Foehn	Switzerland (Alps Region)
Salano	South Spain
Mistral	France
Tramontana	North Italy
Levant	South France
Helm	England
Etesian	Greece
Berg	South Africa
Sirocco	Sahara Region (North Africa)
Khamsin	Egypt
Gibli	Tunisia

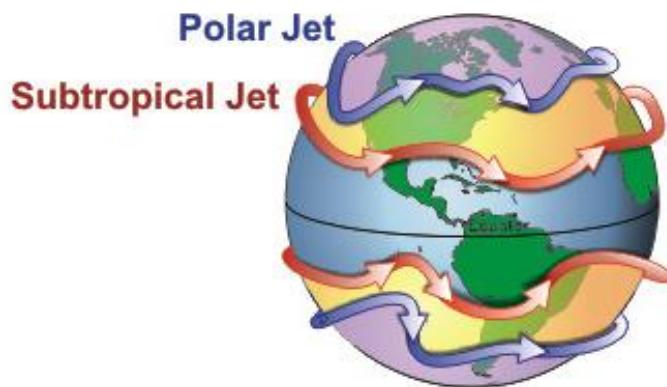
Harmattan (also known as Doctor Wind)	West Africa
Bora	South & South Eastern Europe
Loo	Northern India & Pakistan
Simoon	Arabia
Buran (also known as Purga)	East Asia
Karaburan	Central Asia
Brickfielder	Victoria (Australia)
Norwester	New Zealand

*The highlighted terms (blue in color) are shown in the map given above.*

# 28. OTHER WINDS

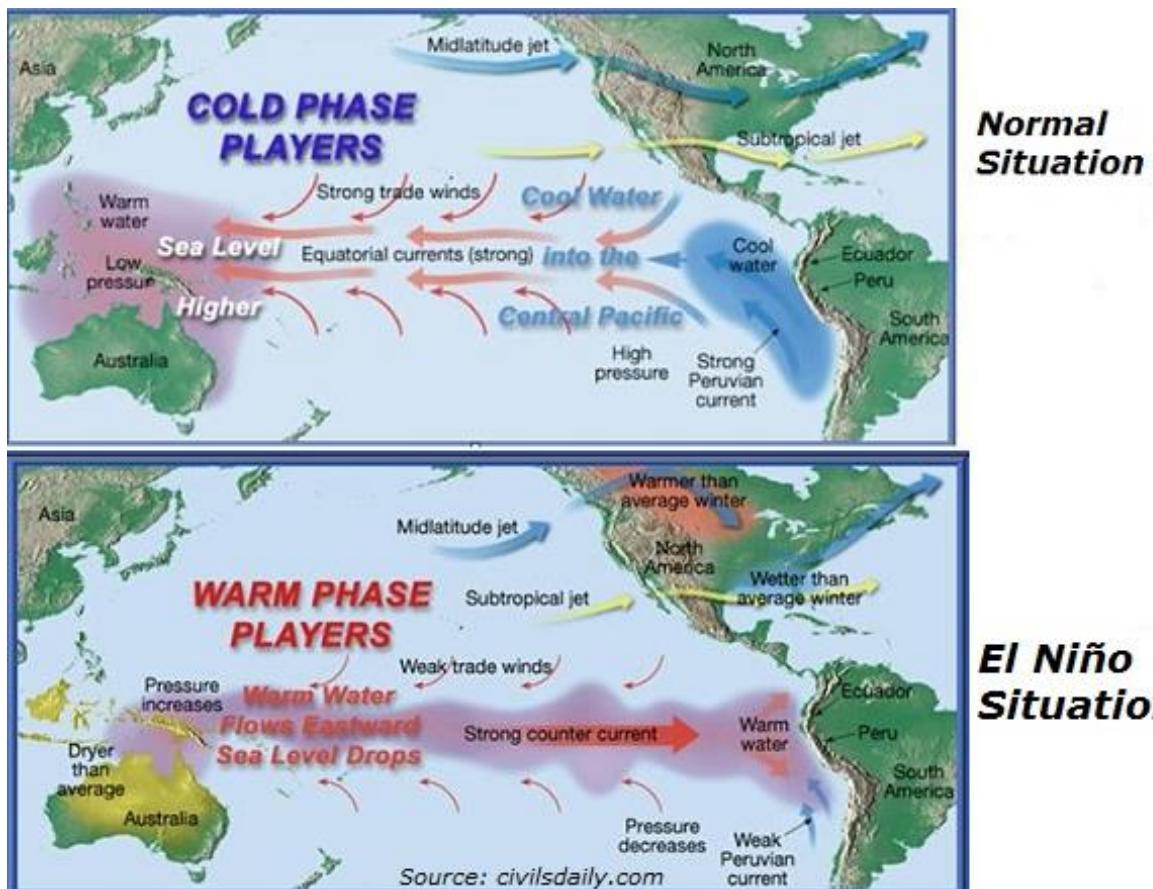
## Jet Streams

- **Jet streams** are narrow and meandered strip of fast blowing air currents found in the upper altitude (i.e. upper troposphere or lower stratosphere).



## El Niño

- **El Niño**, also known as El Niño Southern Oscillation (or **ENSO**), refers to the cycle of warm and cold temperatures, as measured by sea surface temperature, of the tropical central and eastern Pacific Ocean. However, the cool phase of ENSO is known as "**La Niña**."
- El Niño is accompanied by high air pressure in the western Pacific and low air pressure in the eastern Pacific (as shown in the following image).



## Cyclone

- **Cyclone** is a large-scale air mass that keeps rotating around a strong center of low pressure. It rotates counterclockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.
- In the northeastern Pacific oceans and the Atlantic Ocean, the tropical cyclone is known as "**Hurricane**."



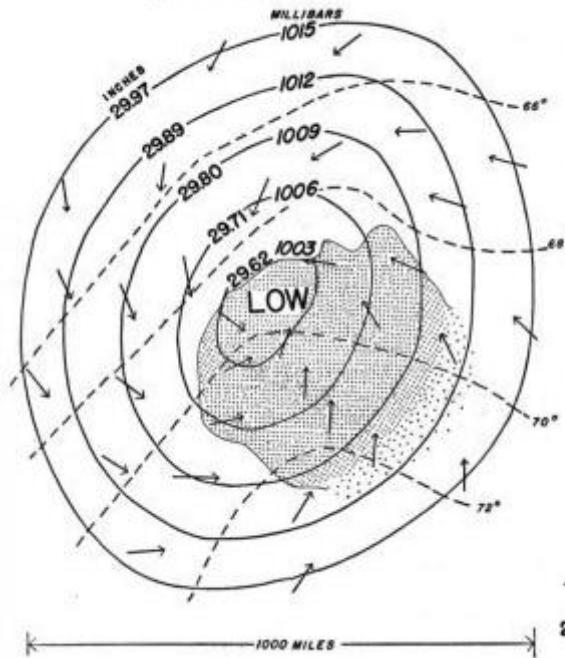
- In the Indian and south Pacific Oceans, the tropical cyclone is called as "**Cyclone**," and in the northwestern Pacific Ocean it is known as "**Typhoon**."
- In the South Indian Ocean (specifically South-west of Australia), a tropical cyclone is known as "**Willy-Willy**."

## **Anticyclone**

---

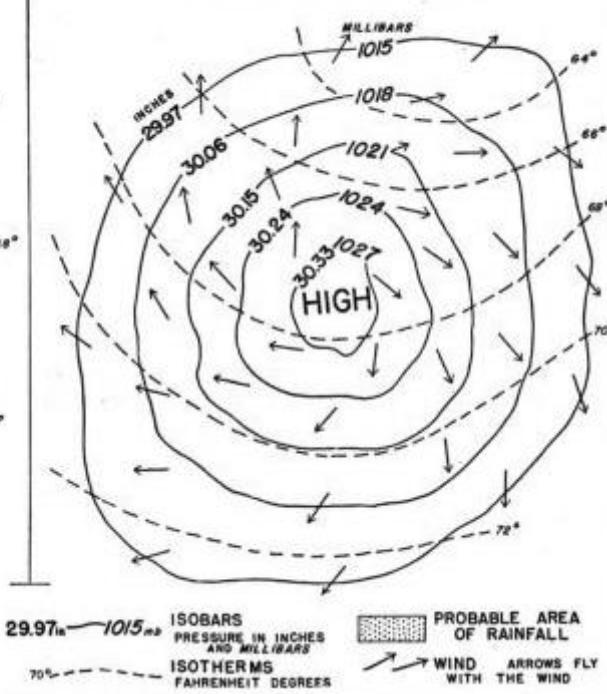
- **Anticyclone** is a large-scale wind system that circulates around a central region of high atmospheric pressure. It rotates clockwise in the Northern Hemisphere and anti-clockwise in the Southern Hemisphere (the following image illustrates the comparative structure of cyclone and anti-cyclone).

## CYCLONE LOW PRESSURE AREA



Source: [enviropedia.org.uk](http://enviropedia.org.uk)

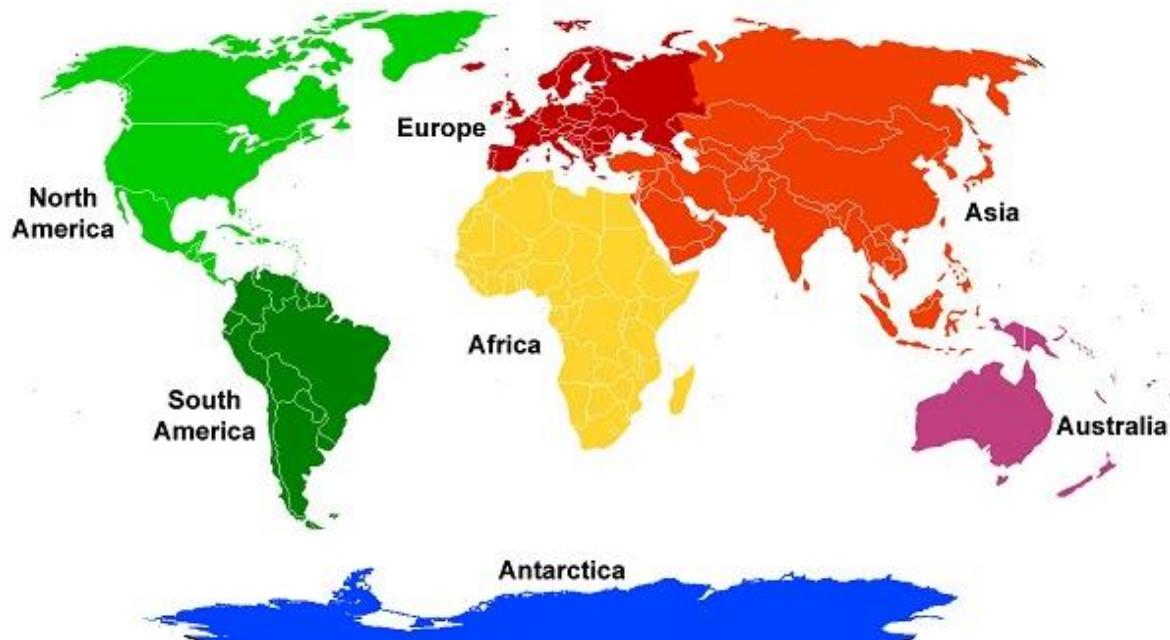
## ANTICYCLONE HIGH PRESSURE AREA



29.97 in 1015 mb  
ISOBARS  
PRESSURE IN INCHES  
AND MILLIBARS  
70° - - - - - ISOHERMS  
FAHRENHEIT DEGREES

# 29. FACTS OF CONTINENT

There are seven continents as shown in the image given below:



The following table illustrates some **basic facts** of all the continents:

Continent	Area (km <sup>2</sup> )	% of Total Land Mass	Population	% of Total Population	Density Per Sq. km
Asia	43,820,000	29.5	4,164,252,000	60	95
Africa	30,370,000	20.4	1,022,234,000	15	33.7
North America	24,490,000	16.5	542,056,000	8	22.1
South America	17,840,000	12	392,555,000	6	22
Europe	10,180,000	6.8	738,199,000	11	72.5
Australia	9,008,500	5.9	29,127,000	0.4	3.2
Antarctica	13,720,000	9.2	4,490 (not native population at all)	0	0.0003

The Following table illustrates the **Extremes** of the Continents:

Continent	Highest Point	Elevation in Meter	Location	Lowest Point	Elevation in Meter	Location
Asia	Mt. Everest	8,848	Nepal	Dead Sea	-427	Israel & Jordan
Africa	Mt Kilimanjaro	5,895	Tanzania	Lake Assal	-155	Djibouti
North America	Mt. McKinley (Denali)	6,198	Alaska (USA)	Death Valley	-86	California (USA)
South America	Aconcagua	6,960	Argentina	Laguna del Carbon	-105	Argentina
Europe	Mt. Elbrus	5,642	Russia	Caspian Sea	-28	In the Russia Part
Australia	Puncak Jaya	4,884	Indonesia	Lake Eyre	-15	Australia
Antarctica	Vinson Massif	4,892	Antarctica	Deep Lake, Vestfold Hills	-50	Antarctica

# 30. ROCKS

- Rock is the solid mineral material that forms part of the surface of the earth, exposed on the Earth's surface or underlying the soil.
- Rock is divided into following three types:
  - Igneous Rocks
  - Sedimentary Rock
  - Metamorphic Rock

## **Igneous Rock**

---

- **Igneous Rock** is normally formed by the solidification of the molten magma.
- All other types of rocks are formed by the igneous rock; therefore, igneous rock is also known as primary rock.
- About 95% of the Earth's crust is made of igneous rock.
- *Granite, Basalt, and Volcanic* rock are the major types of igneous rock.

### **IGNEOUS ROCKS**



**Basalt**



**Granite**

## Sedimentary Rock

---

- The rocks, which is formed because of the deposition of weathered remains of igneous rocks, is known as '**Sedimentary Rock.**'
- Sedimentary rocks share 5% of the Earth's surface, but cover (in terms of area) about 75% of Earth's (exposed) surface.
- Sedimentary rocks also contain organic materials (i.e. source of energy for the human beings).
- Major examples of sedimentary rocks are *Gypsum*, *Limestone*, *Chalk*, *Coal*, *Conglomerates*, *Sandstone*, *Claystone*, etc.

### SEDIMENTARY ROCKS



## Metamorphic Rock

---

- Because of the intense pressure, high fluctuating temperature, and presence and absence of moisture and chemicals, over a period of time, igneous rock or sedimentary rocks get modified (metamorphosed) and called as '**Metamorphic Rock.**'
- Major examples of metamorphic rock are *Slate*, *Gneiss*, *Marble*, *Quartzite*, etc.

## ***METAMORPHIC ROCKS***



***Slate***



***Gneiss***



***Marble***

# 31. MOUNTAINS

- Mountain is a large natural elevation of the earth's surface that rises abruptly from the surrounding area.

## Types of Mountains

---

- The following are the major types of the Mountains:
  - **Fold Mountains:** e.g. Himalayas (in Asia), Rockies (in North America), Andes (in South America), Alps (Europe), etc.
  - **Block Mountains:** e.g. Black Forest (Germany), Vosges (France), etc.
  - **Volcanic Mountains:** e.g. Mt. Vesuvius (Italy), Mt. Fujiyama (Japan), Mt. Cotopaxi & Mt. Chimborazo (South America), etc.
  - **Residual/Relict Mountains:** e.g. Aravalli, Western Ghats (India), etc.

### Types of Mountains



**Fold Mountains**



**Volcanic Mountains**



**Block Mountains**



**Relict Mountains**

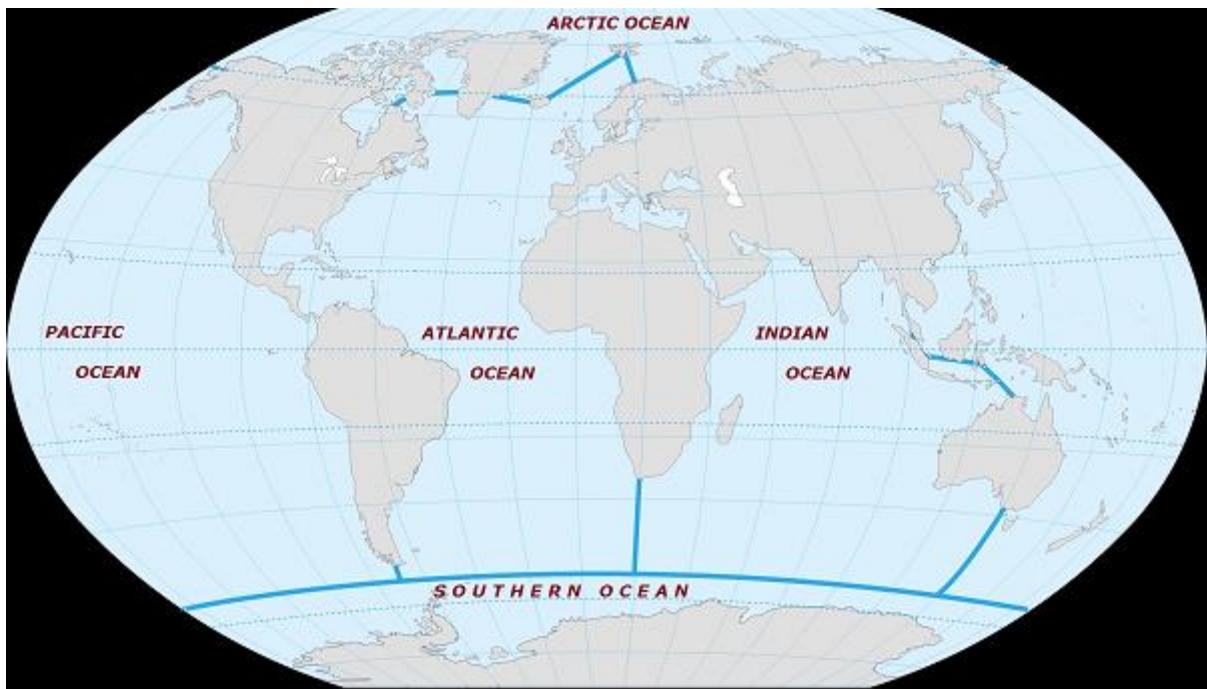
## 32. FACTS OF HYDROSPHERE

- Hydrosphere is the combined name (for the study purpose) given to all the water bodies found on the Earth's surface, for example, Oceans, Rivers, Lakes, etc.
- About 71% of the Earth's surface is covered by water and rest is covered by landmass.
- About 97.5% (of total hydrosphere) is saline water and rest 2.5% is fresh water.
- About 68.7% of the fresh water is available in the form of permanent snow found in the regions of Arctic, Antarctic, and other mountain glaciers.
- About 29.9% fresh water is available in the form of (fresh) groundwater.
- Only about 0.26% fresh water is easily accessible for the use, available in the form of rivers, lakes, reservoirs, etc.

### Oceans

---

- There are five Oceans namely;
- Pacific Ocean
- Atlantic Ocean
- Indian Ocean
- Arctic Ocean &
- Southern Ocean



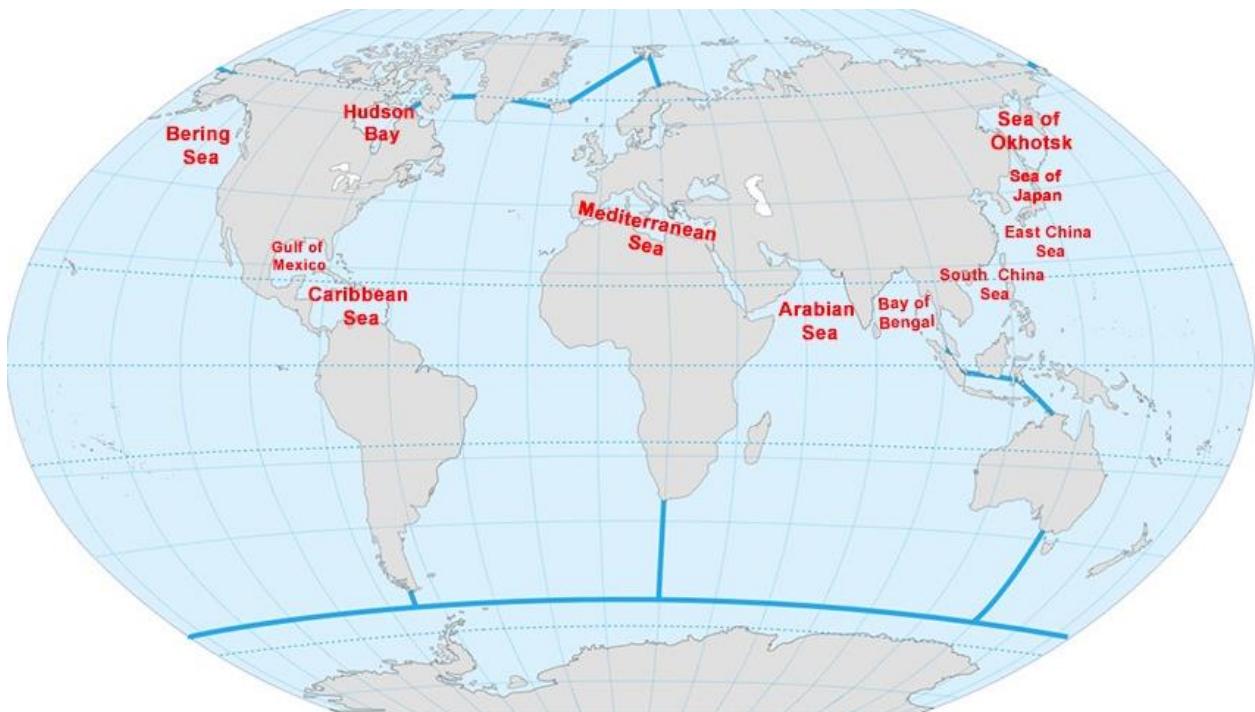
- The following table describes the major facts of all the five Oceans:

Ocean	Area (sq. km)	% of Total	Avg. Depth (in meter)	Deepest Point
<b>Pacific Ocean</b>	168,723,000	46.6	3,970	Mariana Trench (10,994 m deep)
<b>Atlantic Ocean</b>	85,133,000	23.5	3,646	Puerto Rico Trench (8,648 m)
<b>Indian Ocean</b>	70,560,000	19.5	3,741	Diamantina Trench (8,047 m) Sunda Trench (7,725 m)
<b>Arctic Ocean</b>	15,558,000	4.3	1,205	Eurasian Basin (5,450 m)
<b>Southern Ocean</b>	21,960,000	6.1	3,270	South Sandwich Trench (7,236 m)

# 33. MAJOR SEAS

The following table enlists major Seas of the world:

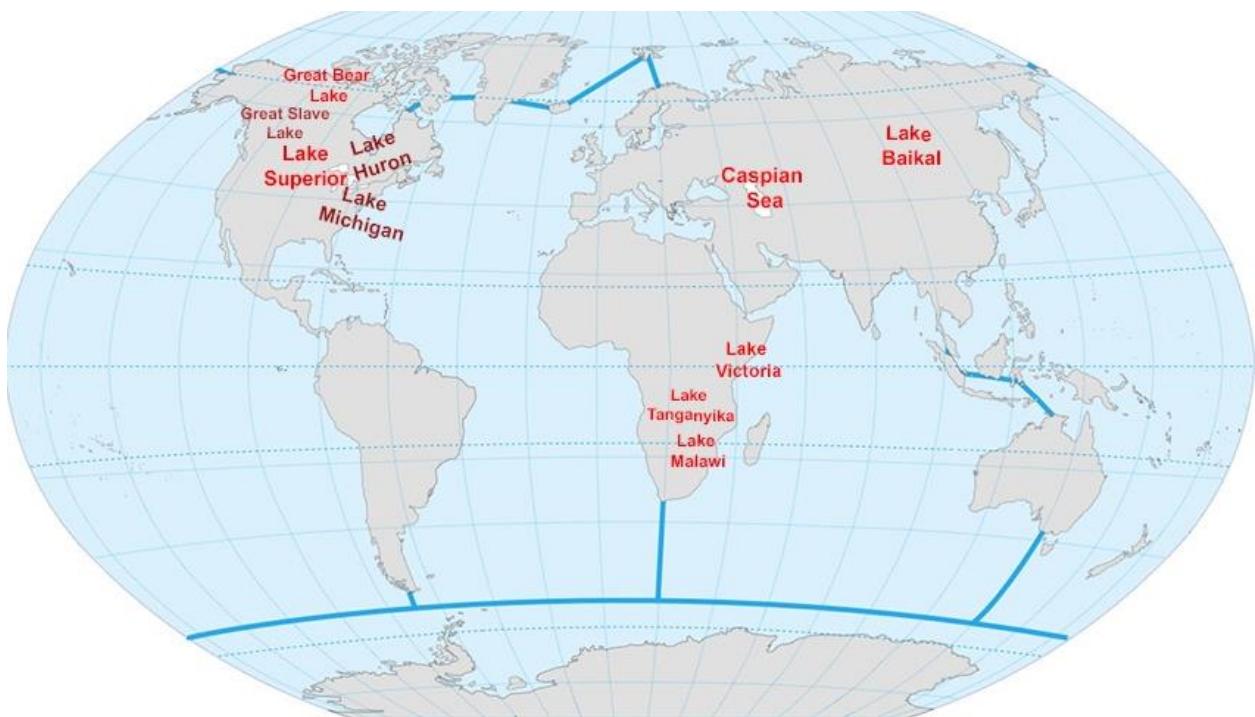
Sea	Area (sq. km)	Location (in)
Arabian Sea	3,862,000	Indian Ocean
South China Sea	3,500,000	Pacific Ocean
Caribbean Sea	2,754,000	Atlantic Ocean
Mediterranean Sea	2,500,000	Atlantic Ocean
Bay of Bengal	2,172,000	Indian Ocean
Bering Sea	2,000,000	Pacific Ocean
Sea of Okhotsk	1,583,000	Pacific Ocean
Gulf of Mexico	1,550,000	Atlantic Ocean
East China Sea	1,249,000	Pacific Ocean
Hudson Bay	1,230,000	Atlantic Ocean
Sea of Japan	977,980	Pacific Ocean



# 34. MAJOR LAKES

The following table enlists the major Lakes of the world:

Sea	Area (sq. km)	Location (in)
Caspian Sea	436,000	Asia
Lake Superior	82,100	North America
Lake Victoria	68,870	Africa
Lake Huron	59,600	North America
Lake Michigan	58,000	North America
Lake Tanganyika	32,600	Africa
Lake Baikal	31,500	Russia
Great Bear Lake	31,000	Canada
Malawi	29,500	Africa
Great Slave Lake	27,000	Canada



# 35. MAJOR STRAITS

The following table enlists the major Straits\* of the world:

Strait	Connects	Separates
Bab-el-Mandeb	Red Sea to Gulf of Aden	Yemen (Asia) from Djibouti & Eritrea (Africa)
Bass strait	Pacific Ocean (No other water body)	Tasmania from the Australian mainland
Bering Strait	Bering Sea (Pacific Ocean) to Chukchi Sea (Arctic Ocean)	Russia from Alaska (USA)
Bosphorus Strait	Black Sea to Sea of Marmara	Asian Turkey from European Turkey
Cook Strait	Pacific Ocean (No other water body)	North Island from South Islands of New Zealand
Davis strait	Baffin Bay to Atlantic Ocean	Greenland from Nunavut (Canada's Baffin Island)
Denmark strait	Atlantic Ocean (No other water body)	Iceland from Greenland
Dover strait	English Channel & North Sea	England from France
English Channel	North Sea & Atlantic Ocean	England from France
Florida Strait	Gulf of Mexico to Atlantic Ocean	Florida (USA) from Cuba
Gibraltar Strait	Atlantic Ocean to Mediterranean Sea	Spain (Europe) from Morocco (Africa)
Hormuz strait	Gulf of Oman to Persian Gulf	UAE & Oman from Iran
Hudson strait	Atlantic Ocean to Hudson Bay	Baffin Island from Quebec (in Canada)
Magellan strait	Pacific Ocean to Atlantic Ocean	Mainland South America from north and Tierra del

		Fuego to the south (South America)
Malacca Strait	South China Sea to Andaman Sea	Malay Peninsula from Indonesian island
Mozambique Strait	Indian Ocean (No other water body)	Madagascar from Mozambique
Palk Strait	Bay of Bengal to Gulf of Mannar	India from Sri Lanka
Sunda Strait	Indian Ocean to Java Sea	Islands of Java from Sumatra (Indonesia)
Torres Strait	Arafura Sea to Coral Sea (Pacific Ocean)	Australia from Papua New Guinea
Tsugaru Strait	Sea of Japan (East Sea) to Pacific Ocean	Honshu from Hokkaido (Japan)
Yucatan Strait	Gulf of Mexico to Caribbean Sea	Mexico from Cuba
10° Channel	Bay of Bengal to Andaman Sea	Island of Little Andaman from Car Nicobar Island (of India)
9° Channel	Indian Ocean (No other water body)	Laccadive Islands of Kalpeni from Suheli Par, and Maliku Atoll (of India)

**\*Strait** is a thin waterbody that connects two big water masses and separates two land masses.

# 36. MAJOR RIVERS

The following table enlists the major Rivers of the world:

River	Length (in KM)	Ending Point	Location
Nile	6,650	Mediterranean Sea	Africa
Amazon	6,400	Atlantic Ocean	South America
Yangtze	6,300	East China Sea	China (Asia)
Mississippi–Missouri	6,275	Gulf of Mexico	USA
Yenisei–Angara–Selenge	5,539	Kara Sea	Russia
Yellow River (Huang He)	5,464	Bohai Sea	China (Asia)
Ob–Irtysh	5,410	Gulf of Ob	Asia
Paraná – Río de la Plata	4,880	Atlantic Ocean	South America
Congo–Chambeshi (Zaïre)	4,700	Atlantic Ocean	Africa
Amur–Argun	4,444	Sea of Okhotsk	Asia

# 37. WATERFALLS

The following table enlists the major Waterfalls (**Based on Height**) of the world:

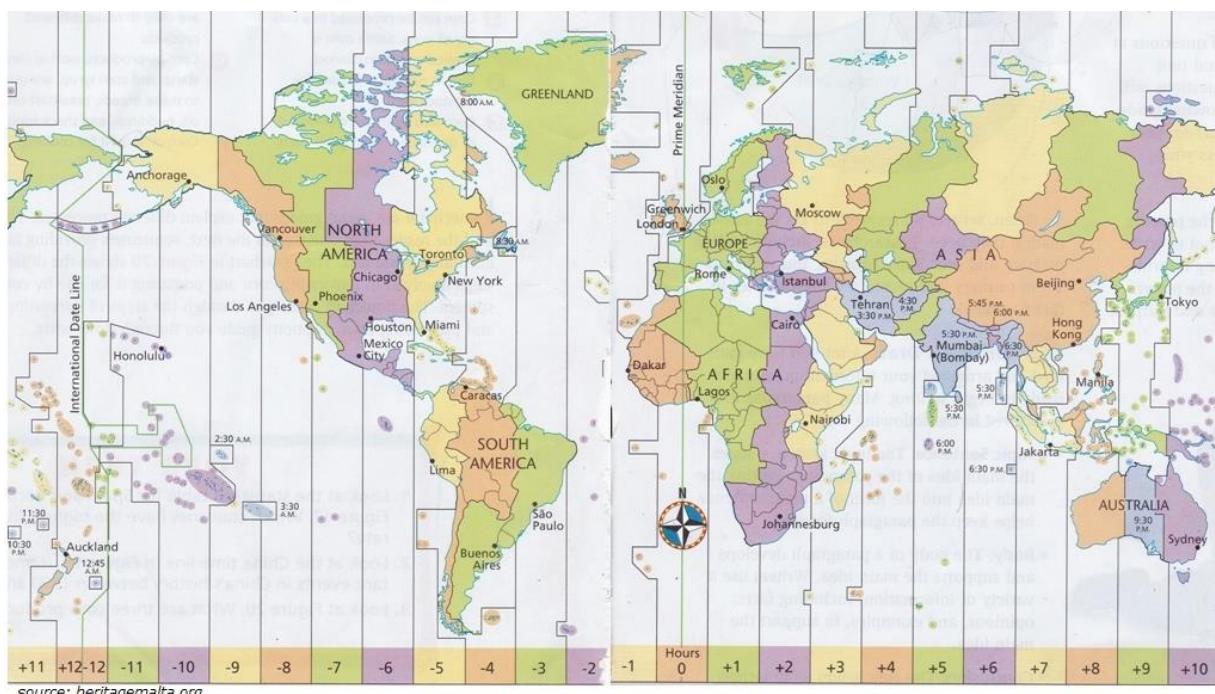
Waterfalls	Height (in Meters)	Location	On (River)
Angel Falls	979	Venezuela	Churun River (a tributary of Orinoco River)
Tugela Falls	948	South Africa	Tugela River
Tres Hermanas Falls	914	Peru	N/A
Olo'upena Falls	900	Hawaii (USA)	N/A
Yumbilla Falls	896	Peru	N/A

The following table enlists the major Waterfalls (**Based on Flow Rate**) of the world:

Waterfalls	Mean annual flow rate ( $\text{m}^3/\text{s}$ )	Width (m)	River	Location
Boyoma Falls	17,000	1,372	Lualaba	Democratic Republic of the Congo
Guaíra Falls	13,300		Parana	Paraguay & Brazil
Khone Phapheng Falls	11,610	10,783	Mekong	Laos
Niagara Falls	2,407	1,203	Niagara	Canada
Iguazú Falls	1,746	2,700	Iguazu	Argentina & Brazil
Victoria	1,088	1,708	Zambezi	Zambia & Zimbabwe

# 38. TIME LINE

- Parallels of longitude determine the time of a given place.
- Local time (of any place) is measured in reference to Greenwich Time (London), which changes at the rate of four min/degree of longitude.
- Greenwich Time Line is also known as "**Prime Meridian**" i.e.  $0^{\circ}$ .
- International Standard Time is measured in reference of the Prime Meridian (or Greenwich).
- The Earth rotates through  $360^{\circ}$  in 24 hours or  $15^{\circ}$  in 1 hour or  $1^{\circ}$  in 4 minutes. Therefore, the local time varies at the rate of 4 min/degree of longitude from the Greenwich Time.



- As shown in the map given above, Kolkata is approximately  $90^{\circ}$  east of Greenwich; so, Kolkata is  $(90^{\circ} \times 4 = 360 \text{ min})$  six hours ahead of the Greenwich Time (London).

# 39. INTERNATIONAL BOUNDARIES

The following tables describes the important International Boundaries/Lines:

<b>Name</b>	<b>Description</b>
The 17th Parallel	It is the Line Between North & South Vietnam
The 38th parallel	It is the Line Between North & South Korea (Before the Korean war)
The 49th Parallel (also The Medicine Line)	It is the Boundary Between Canada & the USA
The 24th Parallel	It is the Line that Pakistan claims for the demarcation purpose, but India does not accept it
The Siegfried Line	It is the Boundary Between France and Germany
The Maginot Line	It is France's Defensive Line
The Hindenburg Line	It was the Line that described Germany's position during the World War I
The Oder–Neisse line	It is the Boundary Between Germany & Poland
The Radcliffe Line	It is the Boundary Between India & Pakistan
The McMahon Line	It is the Boundary Between India & China (However, originally signed between Britain & Tibet)
The Mannerheim Line	It was a defensive line drawn on the Karelian Isthmus by Finland against the Soviet Union
The Durand Line	It is the Boundary Between Pakistan & India (formerly between British India and Afghanistan)
The Line of Control (LoC)	It is the military control line between India and Pakistan (in the state of Jammu & Kashmir)
The Line of Actual Control (LAC)	It is the Effective Boundary between India and China

# 40. LANDLOCKED STATES OF INDIA

The following table enlists the landlocked states of India:

Name	Location	Image
Haryana	(North)	
Jharkhand	East	
Madhya Pradesh	Central	
Chhattisgarh	(Central) East	

Telangana	South	
-----------	-------	---

# 41. LANDLOCKED COUNTRIES OF WORLD

The following table enlists the landlocked countries of the world:

Name	Continent/Location
Lesotho	Africa (Locked by only one country i.e. South Africa)
Vatican City	Europe (Locked by only one Country i.e. Italy)
San Marino	Europe (Locked by only one Country i.e. Italy)
Mongolia	Asia (Locked by two countries namely Russia & China)
Bhutan	Asia (Locked by two countries namely India & China)
Nepal	Asia (Locked by two countries namely India & China)
Andorra	Europe (Locked by two countries namely France & Spain)
Liechtenstein	Europe (it is one of the double landlocked countries between Switzerland & Austria)
Moldova	Europe (Locked by two countries namely Ukraine & Romania)
Swaziland	Africa (Locked by two countries namely South Africa & Mozambique)
Uzbekistan	Asia (it is double landlocked country surrounded by Afghanistan, Kazakhstan, Kyrgyzstan, Tajikistan, and Turkmenistan)
Afghanistan	Asia
Armenia	Asia
Azerbaijan	Asia
Kazakhstan	Asia
Kyrgyzstan	Asia
Tajikistan	Asia
Turkmenistan	Asia
Uzbekistan	Asia
Laos	Asia
Austria	Europe

Belarus	Europe
Hungary	Europe
Kosovo	Europe
Luxembourg	Europe
Macedonia	Europe
Moldova	Europe
Serbia	Europe
Slovakia	Europe
Switzerland	Europe
Bolivia	South America
Paraguay	South America
Botswana	Africa
Burkina Faso	Africa
Burundi	Africa
Central African Republic	Africa
Chad	Africa
Czech Republic	Africa
Ethiopia	Africa
Malawi	Africa
Mali	Africa
Niger	Africa
Rwanda	Africa
South Sudan	Africa
Uganda	Africa
Zambia	Africa
Zimbabwe	Africa

## 42. COUNTRIES WITH CAPITALS

The following tables illustrates the Countries with their Capitals, Currencies, Language, & Religion/s:

Country	Capitals	Currency	Language	Religion*
Afghanistan	Kabul	Afghani	Pashto, Dari (Persian)	Islam
Albania	Tirana	Lek	Albanian	Islam, Christianity
Algeria	Algiers	Algerian Dinar	Arabic; Tamazight; French	Islam
Andorra	Andorra la Vella	Euro	Catalan	Christianity
Angola	Luanda	Kwanza	Portuguese	Christianity
Antigua & Barbuda	Saint John's	East Caribbean Dollar	English	Christianity
Argentina	Buenos Aires	Argentine Peso	Spanish	Christianity (But Secular Country)
Armenia	Yerevan	Dram	Armenian	Christianity
Australia	Canberra	Australian Dollar	English	Christianity (But Secular Country)
Austria	Vienna	Euro	German	Christianity
Azerbaijan	Baku	Manat	Azerbaijani	Islam
The Bahamas	Nassau	Bahamian Dollar	English	Christianity
Bahrain	Manama	Bahraini Dinar	Arabic	Islam
Bangladesh	Dhaka	Taka	Bangla	Islam
Barbados	Bridgetown	Barbadian Dollar	English	Christianity

Belarus	Minsk	Belarusian Ruble	Belarusian; Russian	Christianity
Belgium	Brussels	Euro	Dutch; French; German	Secular
Belize	Belmopan	Belize Dollar	English	Christianity
Benin	Porto-Novo	West African CFA Franc	French	Christianity
Bhutan	Thimphu	Ngultrum	Dzongkha	Buddhism, Hindu
Bosnia & Herzegovina	Sarajevo	Convertible Mark	Bosnian; Croatian; Serbian	Islam, Christianity
Botswana	Gaborone	Pula	English; Tswana	Christianity
Brazil	Brasilia	Real	Portuguese	Christianity
Brunei	Bandar Seri Begawan	Brunei Dollar	Malay	Islam
Bulgaria	Sofia	Lev	Bulgarian	Secular
Burkina Faso	Ouagadougou	West African CFA Franc	French	Islam, Christianity
Burundi	Bujumbura	Burundi Franc	Kirundi; French	Christianity
Cambodia	Phnom Penh	Riel	Khmer	Buddhism
Cameroon	Yaoundé	Central African CFA Franc	French; English	Christianity
Canada	Ottawa	Canadian Dollar	English; French	Christianity (But Secular Country)
Cape Verde	Praia	Cape Verdean Escudo	Portuguese	Christianity
Central African Republic	Bangui	Central African CFA Franc	Sango; French	Christianity

Chad	N'Djamena	Central African CFA Franc	French; Arabic	Islam, Christianity
Chile	Santiago	Chilean Peso	Spanish	Christianity
China	Beijing	Chinese Yuan	Mandarin	N/A
Colombia	Bogota	Colombian Peso	Spanish	Christianity
Comoros	Moroni	Comorian Franc	Comorian; Arabic; French	Islam
Democratic Republic of the Congo	Kinshasa	Congolese Franc	French	Christianity
Republic of the Congo	Brazzaville	Central African CFA Franc	French	N/A
Costa Rica	San Jose	Colon	Spanish	Christianity
Cote d'Ivoire (Ivory Coast)	Yamoussoukro; Abidjan	West African CFA Franc	French	Islam, Christianity
Croatia	Zagreb	Croatian	Kuna	Christianity
Cuba	Havana	Cuban Peso	Spanish	Christianity
Cyprus	Nicosia	Euro	Greek; Turkish	Christianity, Islam
Czech Republic	Prague	Czech Koruna	Czech; Slovak	N/A
Denmark	Copenhagen	Danish Krone	Danish	Christianity
Djibouti	Djibouti City	Djiboutian Franc	Arabic; French	Islam, Christianity
Dominica	Roseau	East Caribbean Dollar	English; French; Antillean Creole	Christianity
Dominican Republic	Santo Domingo	Dominican Peso	Spanish	Christianity
East Timor (Timor-Leste)	Dili	United States Dollar	Tetum; Portuguese	Christianity

Ecuador	Quito	United States Dollar	Spanish	Christianity
Egypt	Cairo	Egyptian Pound	Arabic	Islam
El Salvador	San Salvador	United States Dollar	Spanish	Christianity
Equatorial Guinea	Malabo	Central African CFA Franc	Spanish; French; Portuguese	Christianity
Eritrea	Asmara	Nakfa	Arabic; Tigrinya; English	Christianity, Islam
Estonia	Tallinn	Estonian Kroon; Euro	Estonian	Secular
Ethiopia	Addis Ababa	Birr	Amharic	Islam, Christianity
Fiji	Suva	Fijian Dollar	English; Bau Fijian; Hindi	Christianity, Hindu, Islam
Finland	Helsinki	Euro	Finnish; Swedish	Christianity
France	Paris	Euro; CFP Franc	French	Secular
Gabon	Libreville	Central African CFA Franc	French	Christianity
The Gambia	Banjul	Dalasi	English	Islam
Georgia	Tbilisi	Lari	Georgian	Christianity
Germany	Berlin	Euro	German	Christianity
Ghana	Accra	Ghanaian Cedi	English	Christianity, Islam
Greece	Athens	Euro	Greek	(Christianity) Orthodoxy
Grenada	St. George's	East Caribbean Dollar	English; Patois	Christianity
Guatemala	Guatemala City	Quetzal	Spanish	Christianity

Guinea	Conakry	Guinean Franc	French	Islam, Christianity
Guinea-Bissau	Bissau	West African CFA Franc	Portuguese	Islam, Christianity
Guyana	Georgetown	Guyanese Dollar	English	Christianity, Hindu, Islam
Haiti	Port-au-Prince	Gourde	Haitian Creole; French	Christianity
Honduras	Tegucigalpa	Lempira	Spanish	Christianity
Hungary	Budapest	Forint	Hungarian	Christianity
Iceland	Reykjavik	Icelandic Krona	Icelandic	Christianity
India	New Delhi	Indian Rupee	Hindi; English	Secular
Indonesia	Jakarta	Rupiah	Indonesian	Islam
Iran	Tehran	Rial	Persian	Islam
Iraq	Baghdad	Iraqi Dinar	Arabic; Kurdish	Islam
Republic of Ireland	Dublin	Euro	English; Irish	Christianity
Israel	Jerusalem	Shekel	Hebrew; Arabic	Judaism, Christianity, Islam, Druze
Italy	Rome	Euro	Italian	Christianity
Jamaica	Kingston	Jamaican Dollar	English	Christianity
Japan	Tokyo	Yen	Japanese	Buddhism or Shinto (But Secular Country)
Jordan	Amman	Jordanian Dinar	Arabic	Islam
Kazakhstan	Astana	Tenge	Kazakh; Russian	Islam, Christianity
Kenya	Nairobi	Kenyan Shilling	Swahili; English	Christianity

Kiribati	Tarawa Atoll	Kiribati Dollar	English; Gilbertese	Christianity
North Korea	Pyongyang	North Korean Won	Korean	Secular
South Korea	Seoul	South Korean Won	Korean	Atheist (but some follow Buddhist & Christian)
Kosovo	Pristina	Euro	Albanian; Serbian	Islam
Kuwait	Kuwait City	Kuwaiti Dollar	Arabic; English	Islam
Kyrgyzstan	Bishkek	Som	Kyrgyz; Russian	Islam, Russian Orthodoxy
Laos	Vientiane	Kip	Lao (Laotian)	Buddhism
Latvia	Riga	Lats	Latvian	Christianity
Lebanon	Beirut	Lebanese Pound	Arabic; French	Islam, Christianity
Lesotho	Maseru	Loti	Sesotho; English	Christianity
Liberia	Monrovia	Liberian Dollar	English	Christianity
Libya	Tripoli	Libyan Dinar	Arabic	Islam
Liechtenstein	Vaduz	Swiss Franc	German	Christianity
Lithuania	Vilnius	Lithuanian Litas	Lithuanian	Christianity
Luxembourg	Luxembourg	Euro	German; French; Luxembourgish	Christianity (But it is a Secular Country)
Macedonia	Skopje	Macedonian Denar	Macedonian	Christianity, Islam
Madagascar	Antananarivo	Malagasy Ariary	Malagasy; French; English	Traditional Religion

Malawi	Lilongwe	Malawi Kwacha	English	Christianity, Islam
Malaysia	Kuala Lumpur	Ringgit	Malay	Islam
Mali	Bamako	West African CFA Franc	French	Islam, Christianity
Malta	Valletta	Euro	Maltese; English	Christianity
Marshall Islands	Majuro	United States Dollar	Marshallese; English	Christianity
Mauritania	Nouakchott	Ouguiya	Arabic	Islam
Mauritius	Port Louis	Mauritian Rupee	English	Christianity, Islam
Mexico	Mexico City	Mexican Peso	Spanish	Christianity
Federal States of Micronesia	Palikir	United States Dollar	English	Christianity
Moldova	Chisinau	Moldovan Leu	Moldovan (Romanian)	Christianity
Monaco	Monaco	Euro	French; Italian; English	Christianity
Mongolia	Ulaanbaatar	Togrog	Mongolian	Buddhism
Montenegro	Podgorica	Euro	Montenegrin	Islam, Christianity
Morocco	Rabat	Moroccan Dirham	Arabic	Islam
Mozambique	Maputo	Mozambican Metical	Portuguese	Christianity, Islam
Myanmar (Burma)	Nypyidaw	Kyat	Burmese	Buddhism
Namibia	Windhoek	Namibian Dollar	English; Afrikaans; German	Christianity
Nauru	Yaren	Australian Dollar	English; Nauran	Christianity

Nepal	Kathmandu	Nepalese Rupee	Nepali	Hindu, Buddhism, Islam
Netherlands	Amsterdam; The Hague	Euro	Dutch	Christianity (But a Secular Country)
New Zealand	Wellington	New Zealand Dollar	English	Christianity (But a Secular Country)
Nicaragua	Managua	Cordoba	Spanish	Christianity
Niger	Niamey	West African CFA Franc	French	Islam, Christianity
Nigeria	Abuja	Naira	English	Christianity, Islam
Norway	Oslo	Norwegian Krone	Norwegian	Christianity
Oman	Muscat	Omani Rial	Arabic	Islam
Pakistan	Islamabad	Pakistani Rupee	Urdu; English	Islam
Palau	Melekeok	United States Dollar	English; Palauan	Christianity
Panama	Panama City	Balboa	Spanish	Christianity
Papa New Guinea	Port Moresby	Papa New Guinean Kina	English; Tok Pisin; Hiri Motu	Christianity
Paraguay	Asuncion	Guarani	Spanish; Guarani	Christianity
Peru	Lima	Nuevo Sol	Spanish	Christianity
Philippines	Manila	Philippine Peso	Filipino; English	Christianity, Islam
Poland	Warsaw	Złoty	Polish	Christianity
Portugal	Lisbon	Euro	Portuguese	Christianity
Qatar	Doha	Qatari Riyal	Arabic	Islam

Romania	Bucharest	Romanian Rupee	Romanian	Christianity
Russia	Moscow	Ruble	Russian	Christianity
Rwanda	Kigali	Rwandan Franc	Kinyarwanda; French; English	Christianity
Saint Kitts and Nevis	Basseterre	East Caribbean Dollar	English	Christianity
Saint Lucia	Castries	East Caribbean Dollar	English; French	Christianity
Saint Vincent & The Grenadines	Kingstown	East Caribbean Dollar	English	Christianity
Samoa	Apia	Tala	Samoan; English	Christianity
San Marino	San Marino	Euro	Italian	Christianity
Sao Tome and Principe	Sao Tome	Dobra	Portuguese	Christianity
Saudi Arabia	Riyadh	Saudi Riyal	Arabic	Islam
Senegal	Dakar	West African CFA Franc	French	Islam
Serbia	Belgrade	Serbian Dinar	Serbian	Christianity
Seychelles	Victoria	Seychellois Rupee	Seychellois Creole; French; English	Christianity
Sierra Leone	Freetown	Leone	Krio; English	Islam, Christianity
Singapore	Singapore	Singapore Dollar	English; Malay; Mandarin Chinese	Buddhist, Christianity
Slovakia	Bratislava	Euro	Slovak	Christianity
Slovenia	Ljubljana	Euro	Slovene	Christianity

Solomon Islands	Honiara	Solomon Islands Dollar	Solomons Pijin	Christianity
Somalia	Mogadishu	Somali Shilling	Somali; Arabic	Islam
South Africa	Pretoria; Cape Town; Bloemfontein	Rand	Zulu; Xhosa; Afrikaans	Christianity
Spain	Madrid	Euro	Spanish	Christianity
Sri Lanka	Colombo	Sri Lankan Rupee	Sinhala; Tamil	Buddhist, Hindu, Islam
Sudan	Khartoum	Sudanese Pound	Arabic; English	Islam
Suriname	Paramaribo	Surinamese Dollar	Dutch	Christianity
Swaziland	Mbabane	Lilangeni	English; SiSwati	Christianity
Sweden	Stockholm	Swedish Krona	Swedish	Christianity
Switzerland	Berne	Swiss Franc	German; French; Italian	Christianity
Syria	Damascus	Syrian Pound	Arabic	Islam, Christianity
Taiwan	Taipei	New Taiwan Dollar	Mandarin	Polytheistic ancient Chinese religion, Buddhism
Tajikistan	Dushanbe	Somoni	Tajik; Russian	Islam
Tanzania	Dar es Salaam; Dodoma	Tanzanian Schilling	Swahili	Islam, Christianity
Thailand	Bangkok	Thai Baht	Thai	Buddhism
Togo	Lome	West African CFA Franc	French	Traditional/Na tive religion, Christianity

Tonga	Nuku'alofa	Pa'anga	Tongan; English	Christianity
Trinidad and Tobago	Port-of-Spain	Trinidad and Tobago Dollar	English	Christianity, Hindu, Islam
Tunisia	Tunis	Tunisian Dinar	Tunisian; French	Islam
Turkey	Ankara	Turkish Lira	Turkish	Islam (But Secular country)
Turkmenistan	Ashgabat	Turkmen New Manat	Turkmen; Russian	Islam
Tuvalu	Vaiaku	Tuvaluan Dollar	Tuvaluan; English	Christianity
Uganda	Kampala	Ugandan Shilling	Swahili; English	Christianity
Ukraine	Kiev	Hryvnia	Ukrainian; Russian	Eastern Orthodoxy
United Arab Emirates	Abu Dhabi	Dirham	Arabic	Islam
United Kingdom	London	Pound Sterling	English	Christianity
United States of America	Washington D.C.	United States Dollar	English; Spanish	Christianity
Uruguay	Montevideo	Uruguayan Peso	Spanish	Christianity
Uzbekistan	Tashkent	Uzbekistan Som	Uzbek; Russian	Islam
Vanuatu	Port-Vila	Vanuatu Vatu	Bislama; English; French	Christianity
Vatican City	Vatican City	Euro	Latin; Italian	Christianity
Venezuela	Caracas	Bolivar Fuerte	Spanish	Christianity
Vietnam	Hanoi	Dong	Vietnamese	Native religious practice, Christianity

Yemen	Sanaa	Yemeni Rial	Arabic	Islam
Zambia	Lusaka	Zambian Kwacha	English	Christianity
Zimbabwe	Harare	United States Dollar	English	Christianity

\*List of religion/s illustrates only those religions, which are practiced by majority of the people (in their respective country). In addition, there are number of religions practiced by minority of people in most of the countries, not enlisted here.

## 43. TOP TEN COUNTRIES BY AREA

The following table enlists top ten largest countries with their geographical area:

Country	Area in Sq. km	Location
Russia	17,098,246	Eurasia
Canada	9,984,670	North America
China	9,572,900	Asia
The United States	9,525,067	North America (after including sea territories, it is third largest)
Brazil	8,515,767	South America
Australia	7,692,024	Australia
India	3,287,263	Asia
Argentina	2,780,400	South America
Kazakhstan	2,724,900	Asia
Algeria	2,381,741	Africa

## 44. TOP TEN SMALLEST COUNTRIES

The following table enlists the top ten smallest countries of the world:

Country	Area in Sq. km	Population	Location
Vatican City	0.44		Italy (Europe)
Monaco	2.02	North America	France (Europe)
Nauru	21	10,084	Pacific Ocean
Tuvalu	26	10,640	Pacific Ocean
San Marino	61	32,576	Italy (Europe)
Liechtenstein	160	37,340	Europe
Marshall Islands	181	72,191	Pacific Ocean
Saint Kitts and Nevis	261	54,961	Caribbean Sea
Maldives	300	393,500	Indian Ocean
Malta	316	445,426	Mediterranean Sea

## 45. TOP TEN COUNTRIES BY POPULATION

The following table illustrates the top ten countries by population:

Country	Population	% of World Population
China	1,377,171,510	18.79
India	1,291,090,094	17.61
The United States	323,833,000	4.42
Indonesia	258,705,000	3.53
Brazil	206,063,797	2.81
Pakistan	193,977,638	2.65
Nigeria	186,988,000	2.55
Bangladesh	160,914,278	2.2
Russia	146,600,000	2
Japan	126,960,000	1.73

## 46. HOT DESERTS

The following table enlists the major Hot Desert of the world:

Desert	Area (in Sq. km)*	Located in
Sahara Desert	9,100,000	North Africa
Arabian Desert	2,600,000	West Asia (Middle East)
Great Victoria Desert	647,000	Australia
Kalahari Desert	570,000	South of Africa
Great Basin Desert	490,000	North America
Syrian Desert	490,000	Middle East
Karoo Desert	400,000	South Africa
Thar Desert	376,000	India & Pakistan
Chihuahuan Desert	362,600	Mexico
Great Sandy Desert	284,993	Northwestern Australia
Sonoran Desert	260,000	USA & Mexico
Simpson Desert	176,500	Central Australia
Gibson Desert	156,000	Western Australia
Mojave Desert	124,000	USA
Atacama Desert	105,000	South America
Namib Desert	81,000	South-west of Africa

\* The above given area is relative and not a fixed value.

## 47. COLD DESERTS

The following table illustrates the major Cold Desert of the world:

Desert	Area (in Sq. km) *	Located in
Antarctica	14,000,000	Antarctica
Arctic Desert	N/A	Arctic
Greenland	2,166,086	Greenland
Russian Arctic	N/A	Russia
Gobi Desert	1,300,000	China & Mongolia (Asia)
Patagonian Desert	670,000	South America
Karakum Desert	350,000	Turkmenistan
Taklamakan Desert	337,000	China

\* The above given area is relative and not a fixed value.

## 48. PETROLEUM PRODUCING COUNTRIES

The following table enlists the major petroleum producing countries of the world:

Country	Production (BBL/Day, est.)
United States	13,973,000
Saudi Arabia	11,624,000
Russia	10,853,000
People's Republic of China	4,572,000
Canada	4,383,000
United Arab Emirates	3,471,000
Iran	3,375,000
Iraq	3,371,000
Brazil	2,950,000
Mexico	2,812,000
Kuwait	2,767,000
Venezuela	2,689,000
Nigeria	2,427,000
Qatar	2,055,000
Norway	1,904,000

# 49. COUNTRIES BY OIL CONSUMPTION

The following table enlists the major oil consuming countries of the world

Country	Consumption (BBL*/Day, est.)
United States	19,840,000
People's Republic of China	9,790,000
Japan	4,464,000
India	3,509,000
Russia	3,196,000
Saudi Arabia	2,817,000
Brazil	2,594,000
Germany	2,400,000
South Korea	2,301,000
Canada	2,259,000
Mexico	2,133,000
France	1,792,000
Iran	1,709,000
Italy	1,454,000
Spain	1,384,000

\*BBL is a unit of volume equivalent to 42 US gallons or 159 liters

# 50. COUNTRIES BY PETROLEUM RESERVE

The following table enlists the countries having maximum reserve of petroleum:

Country	Reserves (MMBBL*, est.)
Venezuela	297,740
Saudi Arabia	268,350
Canada	175,200
Iran	157,300
Iraq	140,300
Kuwait	104,000
UAE	97,800
Russia	80,000
Libya	48,014
Nigeria	37,200
United States	36,420
Kazakhstan	30,002
China	25,585
Qatar	25,382
Brazil	13,986

\* MMbbl = One Million Barrels

# 51. COUNTRIES BY OIL EXPORT

The following table enlists the oil exporting countries in decreasing order:

Country	Export (BBL/Day)
Saudi Arabia	8,865,000
Russia	7,201,000
Kuwait	2,300,000
Iran	1,808,000
Iraq	3,500,000
Kuwait	104,000
United Arab Emirates	2,595,000
Nigeria	2,500,000
Angola	1,738,000
Venezuela	1,712,000
Norway	1,680,000
Canada	1,579,000

## 52. COUNTRIES BY OIL IMPORT

The following table enlists the oil importing countries in decreasing order:

Country	Import (BBL/Day)
United States	7,713,000
China	5,658,000
India	3,782,000
Japan	3,408,000
South Korea	2,450,000
Germany	2,219,000
Italy	1,198,000
France	1,668,000
Netherlands	961,000
Venezuela	1,712,000
Norway	1,680,000
Canada	1,579,000

## 53. COUNTRIES BY COAL PRODUCTION

The following table enlists the coal producing countries in decreasing order:

Country	Production (Million Tonnes)	Share in Total (%)*
China	3,874	46.9
United States	906.9	12.9
Australia	644	6.2
India	537.6	3.9
Indonesia	458	7.2
Russia	357.6	4.3
South Africa	260.5	3.8
Germany	185.8	1.1
Poland	137.1	1.4
Kazakhstan	108.7	1.4

\* Shares are based on data expressed in tonnes oil equivalent

## 54. COUNTRIES BY COAL RESERVES

The following table enlists the coal reserve countries in decreasing order:

Country	Reserves (Million Tonnes)	Share in Total (%)
United States	246,643	27.1
Russia	157,010	17.3
China	114,500	12.6
India	92,445	10.2
Australia	78,500	8.6
South Africa	48,750	5.4
Ukraine	34,153	3.8
Kazakhstan	31,279	3.4
Poland	14,000	1.5
Brazil	10,113	1.1

# 55.COUNTRIES BY COAL CONSUMPTION

The following table enlists the coal consuming countries in decreasing order:

Country	Consumption (Million short Tonnes)	Share in Total (%)
China	4,053	50.7
United States	1,003	12.5
India	788	9.9
Russia	262	3.3
Germany	256	3.3
South Africa	210	2.6
Japan	202	2.5
Poland	162	2.0

## 56. COUNTRIES BY COAL IMPORTS

The following table enlists the coal importing countries in decreasing order:

Country	Import (Million Short Tonnes)	Share in Total (%)
Japan	206.7	17.5
China	195.1	16.6
South Korea	125.8	10.7
India	101.6	8.6
Taiwan	71.1	6.0
Germany	55.1	4.7
Turkey	30.0	2.5
United Kingdom	29.3	2.5
Italy	23.7	1.9
Netherlands	22.8	1.9

## 57. COUNTRIES BY COAL EXPORTS

The following table enlists the coal exporting countries in decreasing order:

Country	Export (Million Short Tonnes)	Share in Total (%)
Indonesia	421.8	29.8
Australia	332.4	23.5
Russia	150.7	10.7
United States	126.7	8.7
Colombia	92.2	6.5
South Africa	82.0	5.8
Canada	38.8	2.7
Kazakhstan	35.2	2.5
Mongolia	24.3	1.7
Vietnam	21.1	1.5

# 58. COUNTRIES BY ALUMINUM PRODUCTION

The following table enlists the Aluminum producing countries in decreasing order:

<b>Country</b>	<b>Production (Thousands of Tonnes)</b>
People's Republic of China	23,300
Russia	3,500
Canada	2,940
United Arab Emirates	2,400
India	2,100
United States	1,720
Australia	1,680
Norway	1,200
Brazil	960
Bahrain	930
Iceland	810
South Africa	735

## 59. COUNTRIES BY BAUXITE PRODUCTION

The following table enlists the Bauxite producing countries in decreasing order:

<b>Country</b>	<b>Production (Thousands of Tonnes)</b>
Australia	81,000
People's Republic of China	47,000
Brazil	32,500
Guinea	19,300
India	19,000
Jamaica	9,800
Kazakhstan	5,500
Russia	5,300
Suriname	2,700
Venezuela	2,200
Greece	2,100
Guyana	1,800

# 60. COUNTRIES BY COPPER PRODUCTION

The following table enlists the Copper producing countries in decreasing order:

<b>Country</b>	<b>Production (Thousands of Tonnes)</b>
Chile	5,750
People's Republic of China	1,760
Peru	1,380
United States	1,360
Democratic Republic of the Congo	1,030
Australia	970
Russia	742
Zambia	708
Canada	696
Mexico	515

# 61. COUNTRIES BY GOLD PRODUCTION

The following table enlists the Gold producing countries in decreasing order:

Country	Production (Metric Tonnes)
People's Republic of China	490
Australia	300
Russia	242
United States	200
Canada	150
Peru	150
South Africa	140
Mexico	120
Uzbekistan	103
Ghana	85

## 62. COUNTRIES BY GOLD EXPORT

The following table enlists the Gold exporting countries in decreasing order:

<b>Country</b>	<b>Value (In Millions of USD)</b>
Switzerland	52,519
Hong Kong (China)	48,312
United States	27,154
South Africa	20,436
China	15,754
United Arab Emirates	14,745
Australia	13,530
Germany	11,037
Peru	9,686

## 63. COUNTRIES BY DIAMOND EXPORT

The following table enlists the Diamond exporting countries in decreasing order:

<b>Country</b>	<b>Value (In Millions of USD)</b>
United Kingdom	9,983
Belgium & Luxembourg	9,941
South Africa	8,465
Russia	4,677
India	2,411
Israel	2,027
Switzerland	1,819
Canada	1,690
Hong Kong (China)	1,047

## 64. COUNTRIES BY DIAMOND PRODUCTION

The following table enlists the Diamond producing countries in decreasing order:

<b>Country</b>	<b>Production (Million Carats, est.)</b>
Russia	39
Botswana	23
Democratic Republic of the Congo	15.7
Australia	12
Canada	10.6
Zimbabwe	10.4
Angola	9.4
South Africa	8.1

# 65.COUNTRIES BY IRON-ORE PRODUCTION

The following table enlists the Iron-ore producing countries in decreasing order:

<b>Country</b>	<b>Production (Thousands of Tonnes)</b>
China	1,380,000
Australia	824,000
Brazil	428,000
India	129,000
Russia	112,000
Ukraine	68,000
South Africa	80,000
United States	43,000
Canada	39,000
Sweden	37,000

## 66. COUNTRIES BY IRON-ORE EXPORT

The following table enlists the Iron-ore exporting countries in decreasing order:

<b>Country</b>	<b>Value (In Million USD)</b>
Australia	54,397
Brazil	32,738
South Africa	5,580
Canada	4,569
India	3,212
Ukraine	3,170
Sweden	3,076
Russia	2,813
Kazakhstan	2,362
Mauritania	1,583

# 67. COUNTRIES BY URANIUM RESERVE

The following table enlists the Uranium reserve countries in decreasing order:

<b>Country</b>	<b>Reserves (in Tonnes)</b>	<b>World Share (in %)</b>
Australia	1,673,000	31
Kazakhstan	651,800	12.1
Canada	485,300	9
Russia	480,300	8.9
South Africa	295,600	5.5
Namibia	284,200	5.3
Brazil	278,700	5.2
Niger	272,900	5
China	265,000	4.92
United States	207,400	3.8

## 68. COUNTRIES BY SILVER PRODUCTION

The following table enlists the Silver producing countries in decreasing order:

<b>Country</b>	<b>Production (In Tonnes)</b>
Mexico	5,400
China	4,000
Peru	3,500
Russia	1,700
Australia	1,700
Bolivia	1,200
Chile	1,200
Poland	1,150
United States	1,090
Canada	720

# 69. COUNTRIES BY MANGANESE PRODUCTION

The following table enlists the Manganese producing countries in decreasing order:

<b>Country</b>	<b>Production (In Tonnes)</b>
South Africa	5,213,338
China	6,000,000
Australia	4,567,000
Brazil	3,128,000
Gabon	2,978,972
Kazakhstan	2,200,000
India	2,092,000
Ukraine	2,000,000
Ghana	1,800,000
Mexico	381,982

## 70. COUNTRIES BY RICE PRODUCTION

The following table enlists the Rice producing countries in decreasing order:

Country	Production (In Million Metric Tonnes*)
China	204
India	152.6
Indonesia	69
Vietnam	43.7
Thailand	37.8
Bangladesh	33.9
Myanmar	33
Philippines	18
Brazil	11.5
Japan	10.7

\* Estimated Value (2012)

# 71. COUNTRIES BY WHEAT PRODUCTION

The following table enlists the Aluminum producing countries in decreasing order:

Country	Production (In Million Metric Tonnes*)
China	122
India	94
United States	58
Russia	52
France	39
Canada	38
Germany	25
Pakistan	24
Australia	23
Turkey	22

\* Estimated Value (2013)

## 72. COUNTRIES BY MAIZE PRODUCTION

The following table enlists the Maze producing countries in decreasing order:

Country	Production (In Tonnes*)
United States	353,699,440
China	217,730,000
Brazil	80,516,571
Argentina	32,119,211
Ukraine	30,949,550
India	23,290,000
Mexico	22,663,953
Indonesia	18,511,853
France	15,053,100
South Africa	12,365,000

\* Estimated Value (2013)

## 73. COUNTRIES BY COTTON PRODUCTION

The following table enlists the Cotton producing countries in decreasing order:

Country	Production (In Metric Tonnes*)
China	6,532,000
India	6,423,000
United States	3,553,000
Pakistan	2,308,000
Brazil	1,524,103
Uzbekistan	849,000
Turkey	697,000
Australia	501,000
Turkmenistan	210,000
Mexico	198,000

\* Estimated Value (2014)

## 74. COUNTRIES BY JUTE PRODUCTION

The following table enlists the Jute producing countries in decreasing order:

Country	Production (In Metric Tonnes*)
India	1,912,000
Bangladesh	1,452,044
China	45,000
Uzbekistan	20,000
Nepal	14,424
Vietnam	3,227
Myanmar	2,650
Zimbabwe	2,500
Egypt	2,400
Thailand	2,200

\* Estimated Value (2012)

## 75. COUNTRIES BY SUGARCANE PRODUCTION

The following table enlists the Sugarcane producing countries in decreasing order:

Country	Production (In Thousand Metric Tonnes*)
Brazil	79,267
India	341,200
China	125,536
Thailand	100,096
Pakistan	63,750
Mexico	61,180
Colombia	34,876
Indonesia	33,700
Philippines	31,874
United States	27,906

\*Estimated Value (2015)

# 76. COUNTRIES BY TOBACCO PRODUCTION

The following table enlists the Tobacco producing countries in decreasing order:

Country	Production (In Tonnes*)
China	3,200,000
India	875,000
Brazil	810,550
United States	345,837
Indonesia	226,700
Malawi	151,150
Argentina	148,000
Tanzania	120,000
Zimbabwe	115,000

\*Estimated Value (2012)

# 77. COUNTRIES BY TEA PRODUCTION

The following table enlists the Tea producing countries in decreasing order:

Country	Production (In Tonnes*)
China	1,939,457
India	1,208,780
Kenya	432,400
Sri Lanka	340,230
Vietnam	214,300
Turkey	212,400
Iran	160,000
Indonesia	148,100
Argentina	105,000
Japan	84,800

\*Estimated Value (2013)

## 78. COUNTRIES BY COFFEE (GREEN) PRODUCTION

The following table enlists the Coffee (Green) producing countries in decreasing order:

Country	Production (In Metric Tonnes*)
Brazil	3,037,534
Vietnam	1,292,389
Indonesia	657,200
Colombia	464,640
India	314,000
Peru	303,264
Honduras	300,000
Ethiopia	275,530
Guatemala	248000
Mexico	246,121

\*Estimated Value (2012)

# 79. COUNTRIES BY RUBBER PRODUCTION

The following table enlists the Rubber (natural) producing countries in decreasing order:

Country	Production (In Metric Tonnes*)
Thailand	3,500,000
Indonesia	3,040,400
Malaysia	970,000
Vietnam	863,773
India	805,000
China	780,000
Côte d'Ivoire	256,000
Brazil	177,100
Philippines	164,200
Myanmar	152,000

\*Estimated Value (2012)

# 80. COUNTRIES BY ORANGE PRODUCTION

The following table enlists the Orange producing countries in decreasing order:

Country	Production (In Metric Tonnes*)
Brazil	18,012,560
United States	8,166,480
China	6,500,000
India	5,000,000
Mexico	3,666,790
Spain	2,933,800
Egypt	2,786,397
Italy	1,770,503
Turkey	1,662,000
South Africa	1,612,828

\*Estimated Value (2012)

# 81. COUNTRIES BY GRAPE PRODUCTION

The following table enlists the Grape producing countries in decreasing order:

Country	Production (In Metric Tonnes*)
China	9,600,000
United States	6,661,820
Italy	5,819,010
France	5,338,512
Spain	5238300
Turkey	4,275,659
Chile	3,200,000
Argentina	2,800,000
Iran	2,150,000
South Africa	1839030

\*Estimated Value (2012)

## 82. COUNTRIES BY BANANA PRODUCTION

The following table enlists the Banana producing countries in decreasing order:

Country	Production (In Metric Tonnes*)
India	24,869,490
China	10,550,000
Philippines	9,225,998
Ecuador	7,012,244
Brazil	6,902,184
Indonesia	6,189,052
Angola	2,991,454
Guatemala	2,700,000
Tanzania	2,524,740
Mexico	2,203,861

\*Estimated Value (2012)

## 83. COUNTRIES BY APPLE PRODUCTION

The following table enlists the Apple producing countries in decreasing order:

Country	Production (In Metric Tonnes*)
China	37,000,000
United States	4,110,046
Turkey	2,889,000
Poland	2,877,336
India	2,203,400
Italy	1,991,312
Iran	1,700,000
Chile	1,625,000
Russian Federation	1,403,000
France	1,382,901

\*Estimated Value (2012)

## 84. COUNTRIES BY MANGOES PRODUCTION

The following table enlists the Mangoes producing countries in decreasing order:

Country	Production (In Metric Tonnes*)
India	15,250,000
China	4,400,000
Kenya	2,781,706
Thailand	2,650,000
Indonesia	2,376,339
Pakistan	1,950,000
Mexico	1,760,588
Brazil	1,175,735
Bangladesh	945,059
Nigeria	860,000

(Data also included Mangosteens and Guavas)

\*Estimated Value (2012)

## 85. TOP RANKING COUNTRIES

The following table enlists the Top Ranking countries in their respective fields:

Statistics	Country
The largest producer of opium	Afghanistan
The largest producer of hashish	Afghanistan
The largest producer of heroin	Afghanistan
The highest infant mortality rate	Afghanistan
The lowest annual energy consumption per capita	Afghanistan
The lowest electricity consumption per capita	Afghanistan
The largest recipient of foreign aid	Afghanistan
The country, which have the highest number of lakes	Canada
The country, which have the longest border	Canada (shared with US)
The highest air temperature ever recorded	57.8° C (Libya, 1922)
The longest railway tunnel	Gotthard Base Tunnel (57,104 m, Switzerland)
The highest consumption of (pure) alcohol per capita	Czech Republic (14.1 liter/year)
The lowest fertility rate	Singapore (0.8 births per woman)
The highest Human Development Index	Norway
The largest Democracy	India
The least corrupt country	Denmark
The largest wind power producer	China
The largest total length of high-speed railways	China
The largest total length of controlled-access highways	China
The largest steel producer	China
The largest renewable energy producer	China

The largest motor vehicle producer	China
The largest forex reserves	China
The largest electricity consumer	China
The largest electricity producer	China
The longest total length of roadways	United States
The largest total length of pipelines	United States
The highest producing off-shore wind farm	United Kingdom
The highest percent of forest area	Surinam (90.2%)
The Highest annual energy consumption per capita	Iceland
The highest consumption of tobacco per capita	Greece
The largest wine producer	France
The longest bridge	Danyang–Kunshan Grand Bridge (164,800 m)
The country having maximum number of time zones	Russia (9 Zones)
The country sharing international boundary with the maximum number of countries	Russia & China (14 countries each)
The country with longest coastline	Canada
The largest perfume exporter	France
The most languages spoken in a country	Papua New Guinea (820)

# 86. MINERAL RESOURCES IN INDIA

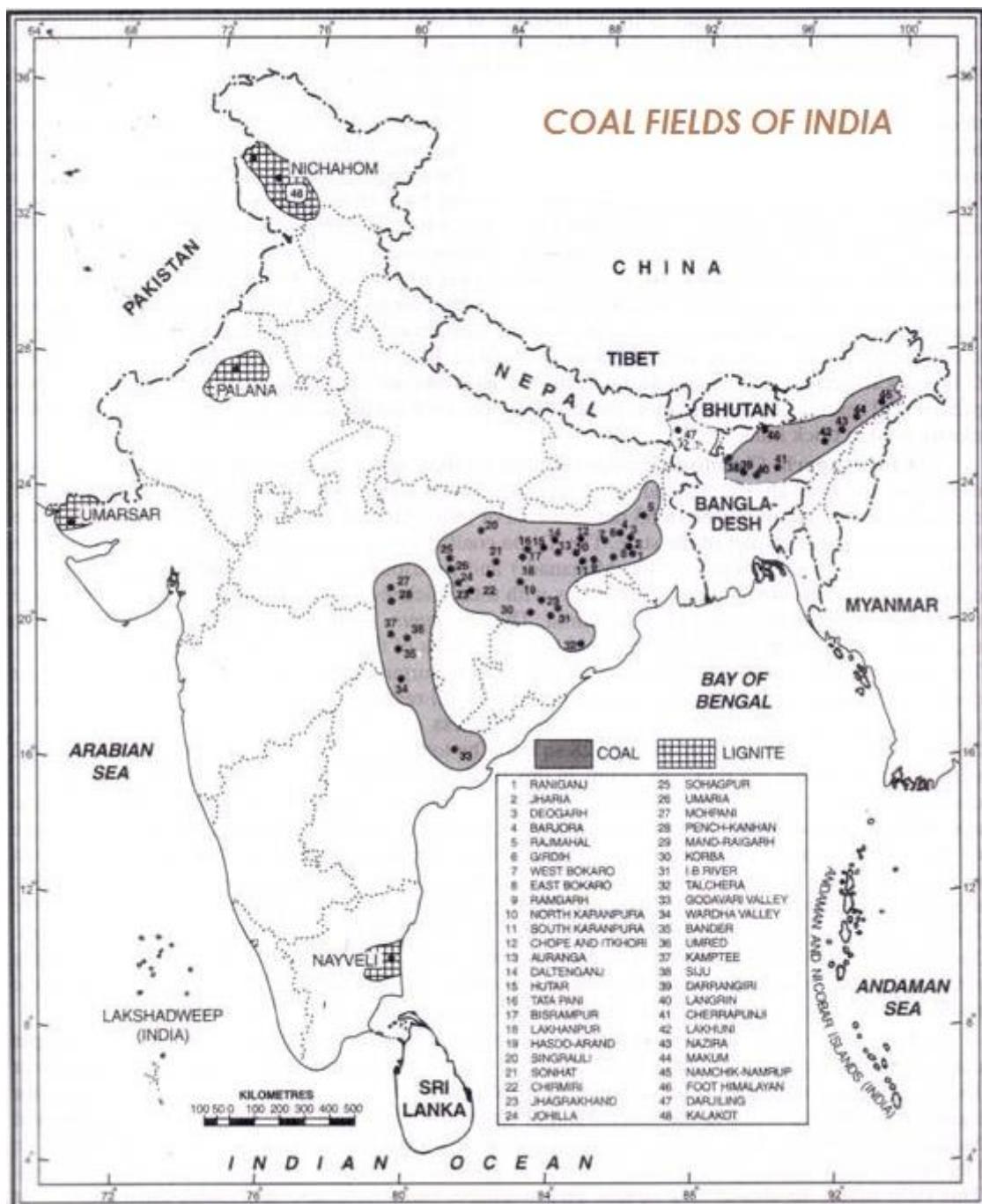
## List of States by Coal Reserves

State	Reserves (In Million Tonnes, est.)
Jharkhand	80,716
Odisha	75,073
Chhattisgarh	52,533
West Bengal	31,318
Madhya Pradesh	25,673

## List of States by Coal Production

State	Production (In Million Tonnes, est.)
Chhattisgarh	127
Jharkhand	113
Odisha	112
Madhya Pradesh	75.5
Andhra Pradesh	50.5
Maharashtra	37

- **Assam** has the largest tertiary coal (about 63% of the total) reserves and major coal regions are Makum, Nazira, Mikir Hills, Dilli-Jeypore, etc.
- Located in Tamil Nadu, **Neyveli** is the largest lignite coal field in India. Other states producing lignite coal are Gujarat, Rajasthan, and Jammu and Kashmir.
- The major coal producing regions in **Jharkhand** are Bokaro, North & South Karanpura, Giridih, Daltonganj, Ramgarh, Rajmahal, etc.
- The major coal producing regions in **Odisha** are Talcher and Ranapur Himgir.

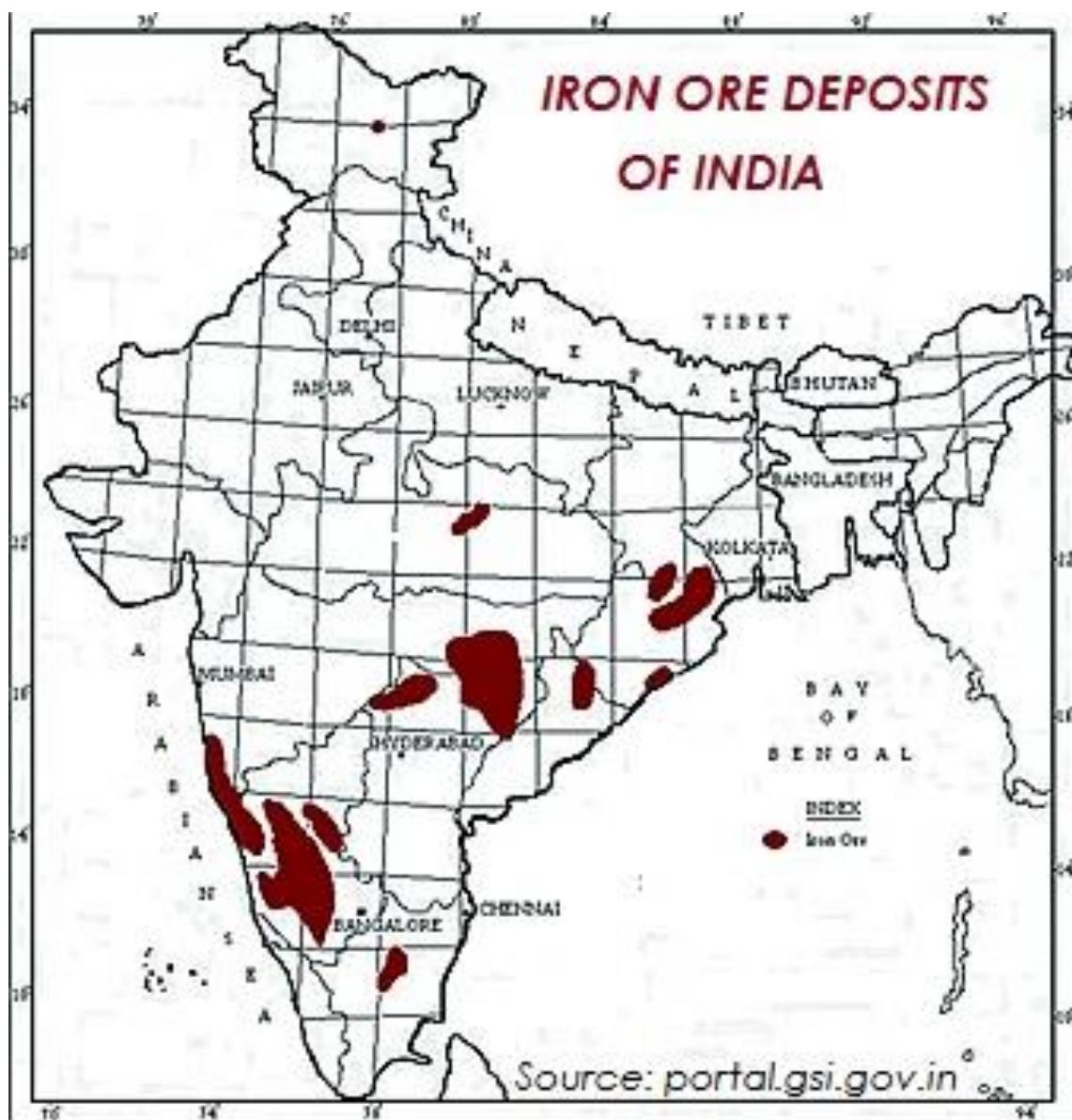


Source: <http://cdn.yourarticlelibrary.com/>

- The major coal producing regions in **Chhattisgarh** and **Madhya Pradesh** are Korba, Umaria, Singrauli, Chirmiri, Sohagpur, etc.
- The major coal producing regions in **Andhra Pradesh** are Adilabad, Karimnagar, Warangal, Khammam, East and West Godavari.
- The major coal producing regions in **Maharashtra** are Nagpur-Wardha region, Ballarpur, Chanda, etc.
- The major coal producing regions in **West Bengal** are Raniganj and Asansol

## 87. IRON ORE RESERVES

- The major iron ore producing regions/mines in **Odisha** are Gurumahisani, Sulaipat, and Badampahar (in Mayurbhanj district); Kiriburu and Bagiaburu (in Keonjhar district); and Bonai (in Sundargarh district).
- The major iron ore producing regions/mines in **Chhattisgarh** are Dhalli Rajhara (in Durg district) and Bailadila (in Bastar district).



- The major iron ore producing regions/mines in **Karnataka** are Donai Malai (in Bellary-Hospet); Bababudan (in Chikmagalur district); Kudremukh (in Chitradurg district); and Arasul (in Shimoga district).

- The major iron ore producing regions/mines in **Jharkhand** are Noamundi, Gua, Budaburu, etc. However, recently one of the largest iron ore reserves has been discovered at Chiria.
- The major iron ore producing regions/mines in **Goa** are Pirna, Sirigao, Kudnem, Baragan etc.

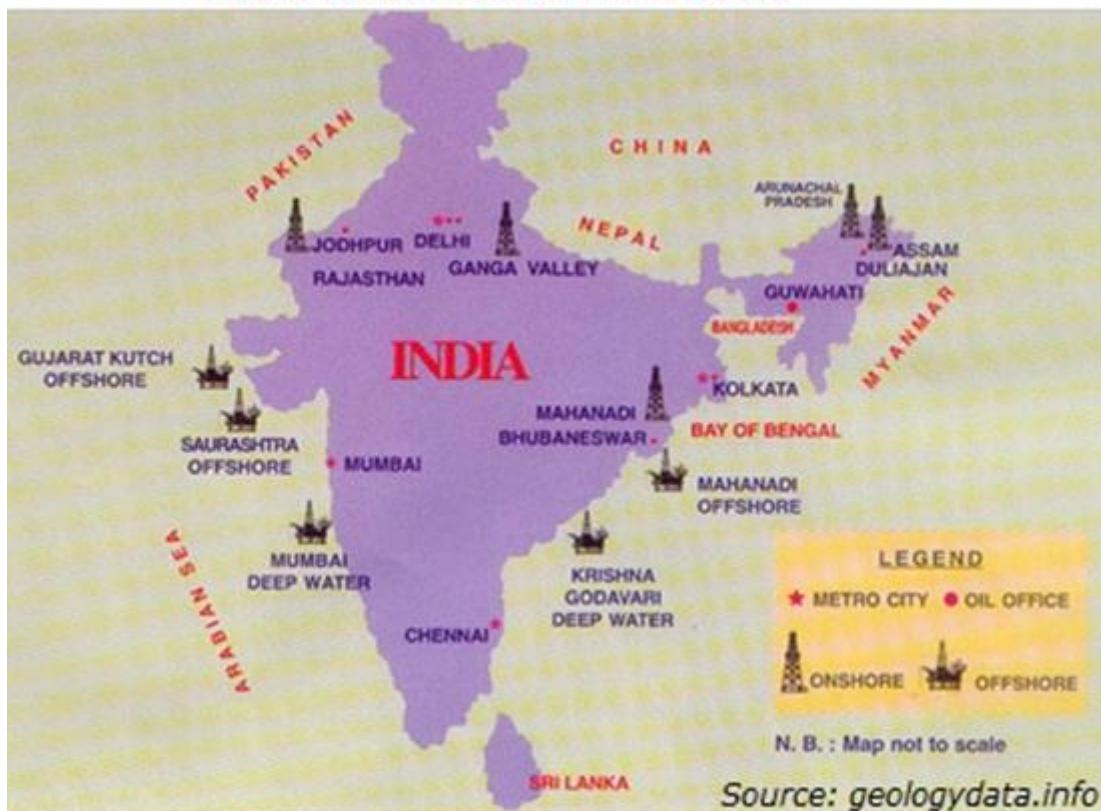
## List of States by Iron Production

State	Production (In Million Tonnes, est.)
Odisha	62
Chhattisgarh	30
Karnataka	22
Jharkhand	22
Goa	10

## 88. PETROLEUM IN INDIA

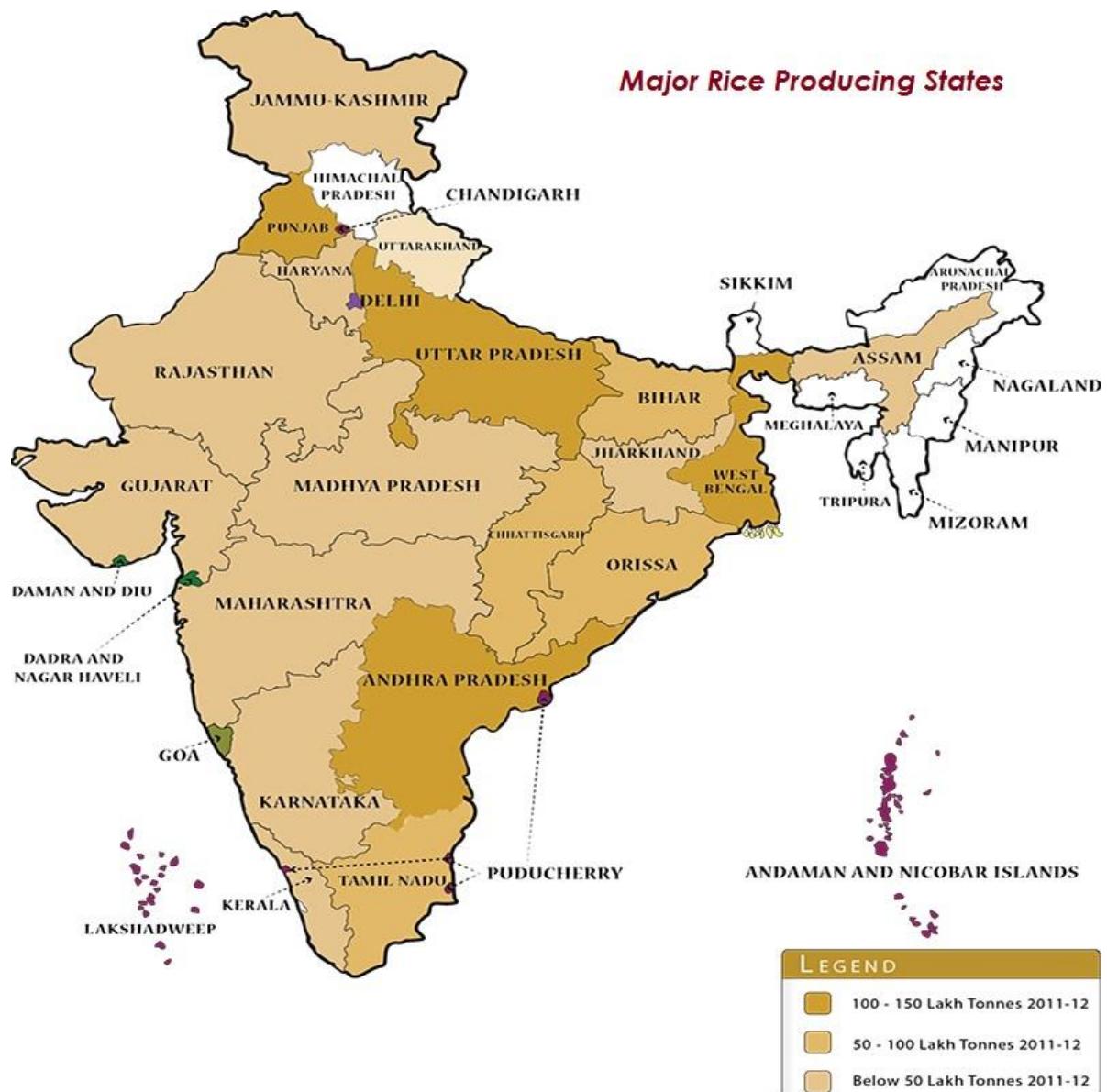
- Located in Lakhimpur district of Assam, **Digboi** is the oldest oil producing region of India.
- Bappapung and Hunsapung are the two major oil fields of Digboi.
- Major oil fields of **Gujarat** are Amkleswar (largest), Cambay, Kosamba, Kalol, Mehsana, Nowgam, Dholka, Sananda, Lunej, Wavel Bakal, and Kathana.
- Located about 150 km north west of Mumbai City in the Arabian Sea, Bombay High is one of the leading oil producing regions.

### OIL PRODUCING REGIONS



## 89. RICE IN INDIA

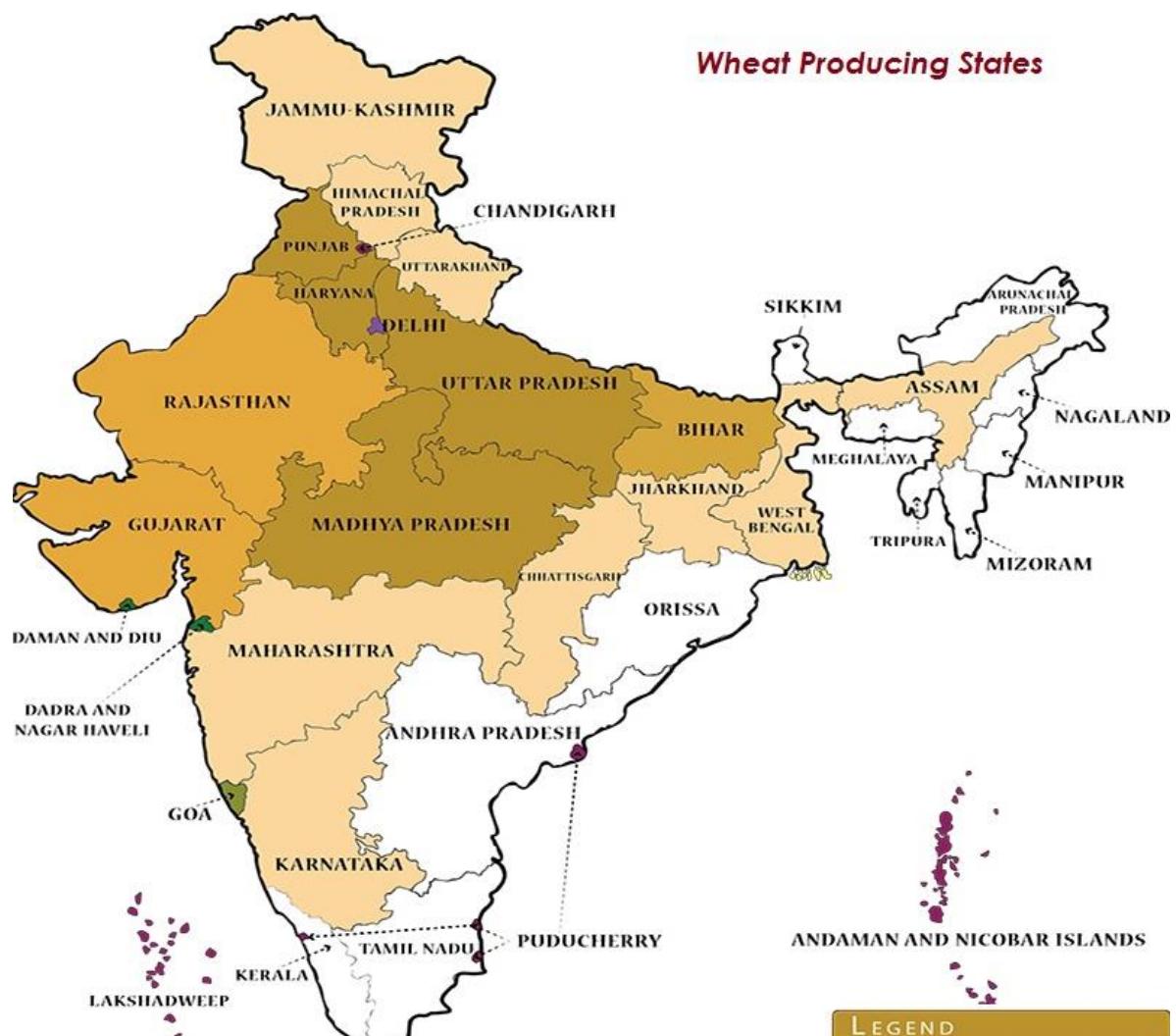
- India is one of the largest producers of white rice and brown rice in the world. It shares about 20% of rice production of the world.
- Following are the major rice producing regions (in India):
  - West Bengal
  - Punjab
  - Uttar Pradesh
  - Andhra Pradesh
  - Tamil Nadu
  - Bihar
  - Chhattisgarh
  - Odisha
  - Assam



## 90. WHEAT IN INDIA

- Wheat is one of the most important Rabi Crops. It is grown between September and December and harvested between February and May.
- Uttar Pradesh has the highest amount of wheat production; however, with 4,693 kg/hectare, Punjab has the highest per hectare wheat production.
- Following are the major wheat producing regions in India:
  - Uttar Pradesh
  - Punjab
  - Haryana
  - Madhya Pradesh
  - Rajasthan
  - Bihar
  - Gujarat
  - Maharashtra
  - Uttarakhand
  - West Bengal

## Wheat Producing States



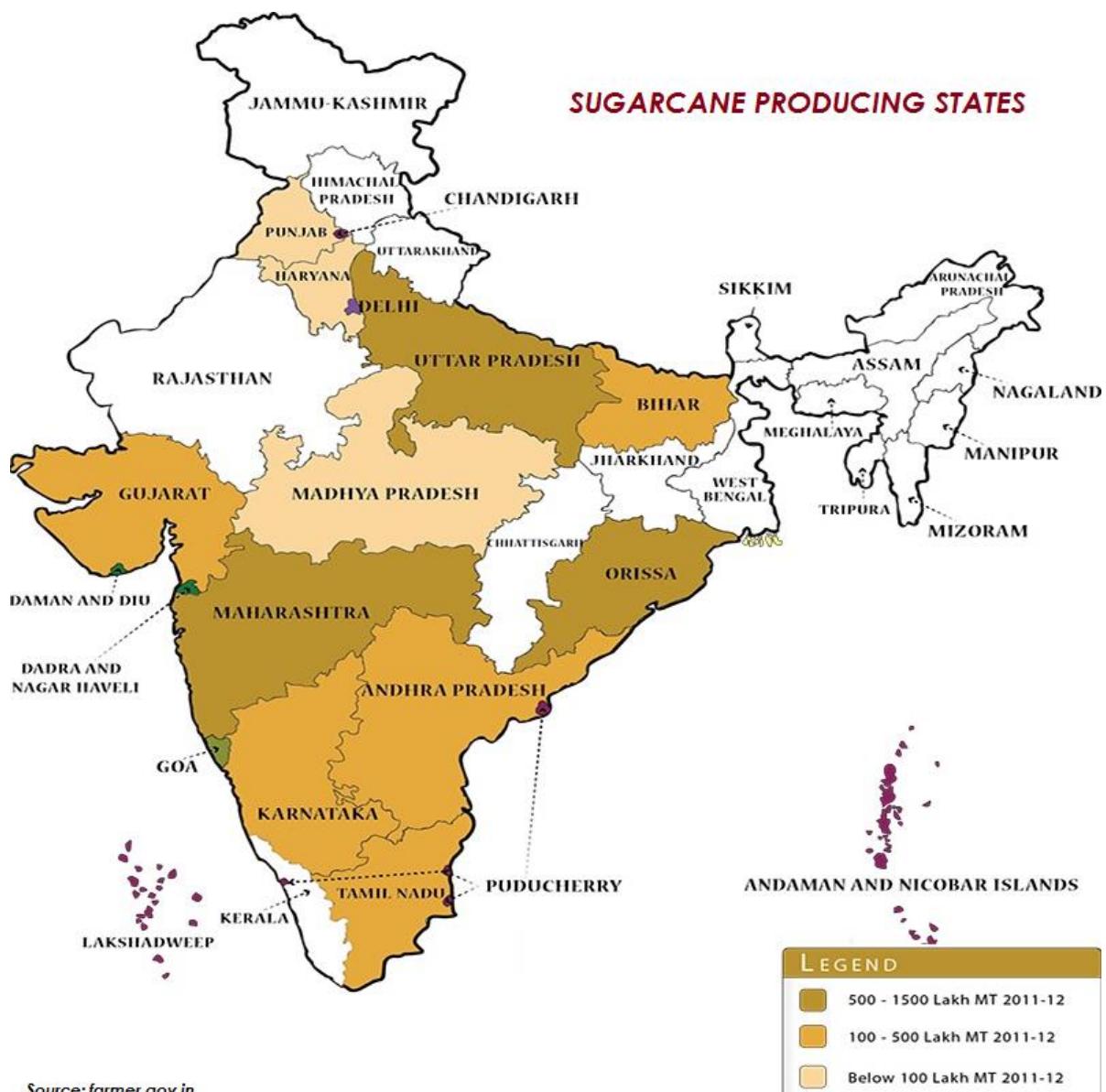
Source: [farmer.gov.in](http://farmer.gov.in)

### LEGEND

- █ 10 - 30 Million Tons 2011-12
- █ 4 - 10 Million Tons 2011-12
- █ 0.05 - 4 Million Tons 2011-12

# 91. SUGARCANE IN INDIA

- India is the second (rank) producer of sugarcane in the world after Brazil.
- **Uttar Pradesh** is the biggest producer of sugarcane in India; however, with 107 tonnes/hectare, **Tamil Nadu** has the highest per hectare sugarcane production.
- Following are the major wheat producing regions in India:
  - Uttar Pradesh
  - Maharashtra
  - Tamil Nadu
  - Karnataka
  - Andhra Pradesh
  - Bihar
  - Gujarat
  - Haryana
  - Punjab
  - Odisha



## 92. COFFEE IN INDIA

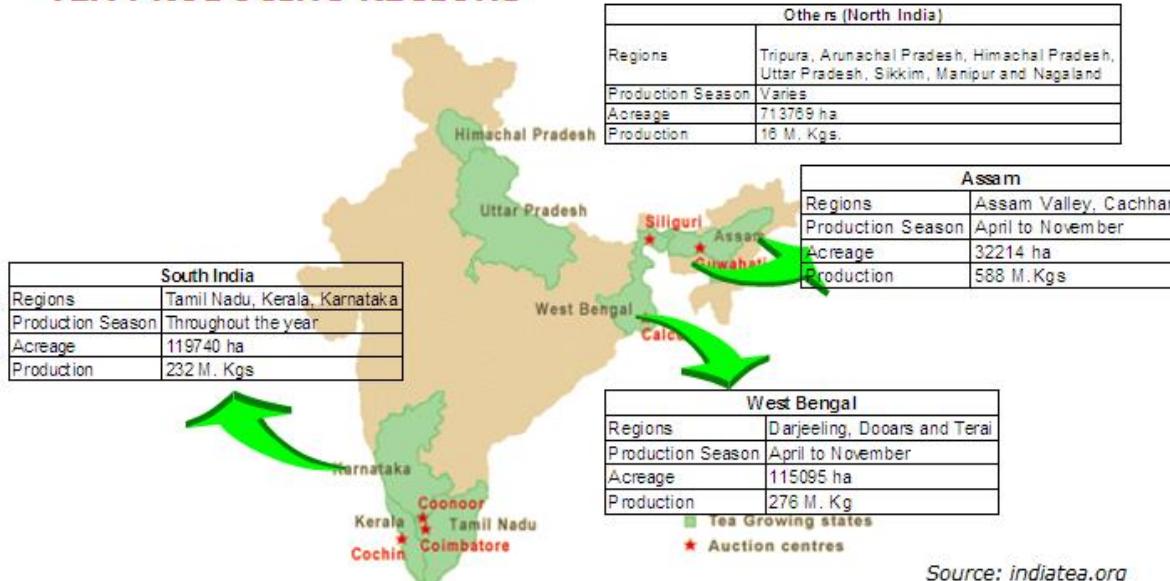
- India is a leading coffee producing country in the world. **Arabica** and **Robusta** are the two types of coffee that grow in India.
- With (about) 70% of total share (of coffee production), Karnataka is the largest coffee producer.
- Following are the major coffee producing regions in India:
  - Karnataka
  - Kerala
  - Tamil Nadu
  - Andhra Pradesh
  - Odisha



# 93. TEA IN INDIA

- India is the second largest producer of tea in the world (after China).
- Assam is the largest tea producer state in India.
- Following are the major tea producing regions in India:
  - Assam
  - West Bengal
  - Tamil Nadu
  - Karnataka
  - Kerala
  - Uttar Pradesh
  - Uttarakhand
  - Himachal Pradesh

## TEA PRODUCING REGIONS



## 94. COTTON IN INDIA

- India is the second largest producer of cotton in the world (after China).
- Gujarat is the largest cotton producer state in India.
- Following are the major cotton producing regions in India:
  - Gujarat
  - Maharashtra
  - Telangana
  - Karnataka
  - Andhra Pradesh
  - Haryana
  - Madhya Pradesh
  - Rajasthan
  - Punjab
  - Tamil Nadu

## COTTON PRODUCING REGIONS

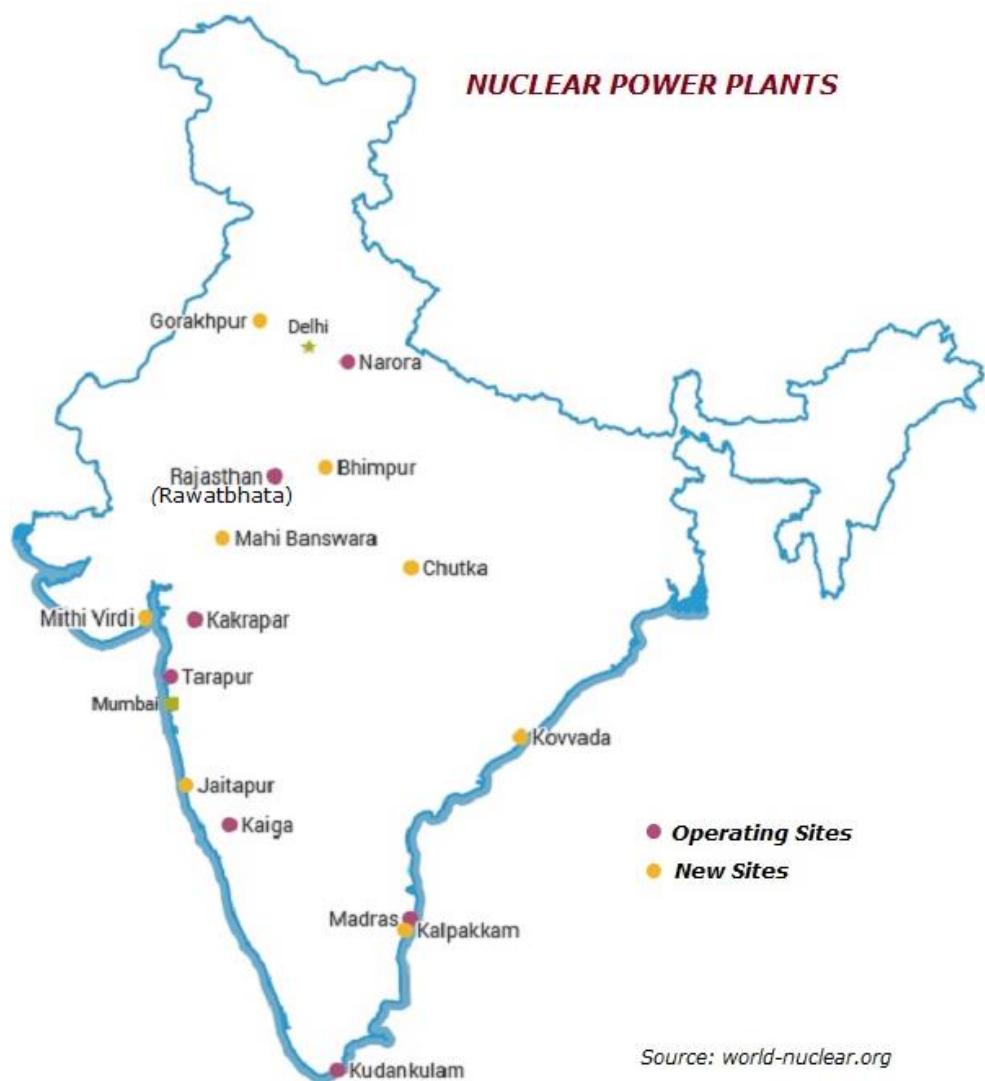


## 95. MILK IN INDIA

- India is the second largest (cow) milk producer in the world after China.
- With 17% total share, Uttar Pradesh is the largest milk producing state in India.
- Following are the major milk producing regions in India:
  - Uttar Pradesh
  - Rajasthan
  - Andhra Pradesh
  - Gujarat
  - Punjab
  - Madhya Pradesh
  - Maharashtra
  - Haryana
  - Tamil Nadu
  - Bihar

# 96. NUCLEAR POWER PLANTS IN INDIA

- Nuclear Power production in India is one of the growing sources of energy in India.
- Located in Maharashtra, Tarapur is the first and largest nuclear power plant in India.
- Following are the major Operating nuclear power plants in India:
  - Tarapur (Maharashtra)
  - Rawatbhata (Rajasthan)
  - Kudankulam & Kalpakkam (Tamil Nadu)
  - Kaiga (Karnataka)
  - Kakrapar (Gujarat)
  - Narora (Uttar Pradesh)



# 97.THERMAL POWER PLANTS IN INDIA

- Thermal power is the biggest source of power in India.
- More than 70% of total energy consumed in India is shared by thermal power.
- Following are the major Thermal Power Plants (producing more than 1,500 MW) in India:

Name	Location	Capacity
Mundra Thermal Power Station	Gujarat	4,620 MW
Vindhyachal Thermal Power Station	Madhya Pradesh	4,260 MW
Mundra Ultra Mega Power Plant	Gujarat	4,150 MW
KSK Mahanadi Power Project	Chhattisgarh	3,600 MW
Jindal Tamnar Thermal Power Plant	Chhattisgarh	3,400 MW
Tiroda Thermal Power Station	Maharashtra	3,300 MW
Barh Super Thermal Power Station	Bihar	3,300 MW
Talcher Super Thermal Power Station	Odisha	3,000 MW
Sipat Thermal Power Plant	Chhattisgarh	2,980 MW
NTPC Dadri	Uttar Pradesh	2,637 MW
NTPC Ramagundam	Telangana	2,600 MW
Korba Super Thermal Power Plant	Chhattisgarh	2,600 MW
Mejia Thermal Power Station	West Bengal	2,430 MW
Sterlite Jharsuguda Power Station	Odisha	2,400 MW
Kahalgaon Super Thermal Power Station	Bihar	2,340 MW
Chandrapur Super Thermal Power Station	Maharashtra	2,340 MW
Singrauli Super Thermal Power Station	Uttar Pradesh	2,050 MW
Rihand Thermal Power Station	Uttar Pradesh	2,000 MW
Simhadri Super Thermal Power Plant	Andhra Pradesh	2,000 MW
Kudankulam Nuclear Power Plant	Tamil Nadu	2,000 MW
North Chennai Thermal Power Station	Tamil Nadu	1,830 MW

Dr Narla Tata Rao Thermal Power Station	Andhra pradesh	1,760 MW
Kothagudem Thermal Power Station	Telangana	1,720 MW
Anpara Thermal Power Station	Uttar Pradesh	1,630 MW
Trombay Thermal Power Station	Maharashtra	1,580 MW
Suratgarh Super Thermal Power Plant	Rajasthan	1,500 MW
Vallur Thermal Power Project	Tamil Nadu	1,500 MW
Indira Gandhi Super Thermal Power Project	Haryana	1,500 MW

# 98. HYDRO POWER PLANTS IN INDIA

- With the total capacity of 47,057 MW, India is the seventh largest producer of Hydroelectric energy in the world.
- Following are the major Hydro Power Plants (producing more than 100 MW) in India:

Name	River	Location	Capacity (MW)
Tehri Dam	Bhagirathi	Uttarakhand	2400 MW
Srisailam Dam	Krishna	Andhra Pradesh	1670 MW
Nagarjunasagar	Krishna	Andhra Pradesh	965 MW
Sardar Sarovar	Narmada	Gujarat	1450 MW
Baspa-II	Baspa	Himachal Pradesh	300 MW
Nathpa Jhakri	Satluj	Himachal Pradesh	1500 MW
Bhakra Dam	Satluj	Punjab	1325 MW
Pandoh Dam	Beas	Himachal Pradesh	990 MW
Baira Siul	Ravi	Himachal Pradesh	198 MW
Chamera-I	Ravi	Himachal Pradesh	540 MW
Chamera-II	Ravi	Himachal Pradesh	300 MW
Pong	Beas	Himachal Pradesh	396 MW
Uri Hydroelectric Dam	Jhelum	Jammu & Kashmir	480 MW
Dulhasti	Chenab	Jammu & Kashmir	390 MW
Salal	Chenab	Jammu & Kashmir	690 MW
Sharavathi	Sharavati	Karnataka	1035 MW
Kalinadi	Kalinadi	Karnataka	955 MW
Idukki	Periyar	Kerala	780 MW
Bansagar Dam	Sone	Madhya Pradesh	425 MW

Bargi Dam	Narmada	Madhya Pradesh	105 MW
Omkareshwar	Narmada	Madhya Pradesh	520 MW
Indira Sagar	Narmada	Madhya Pradesh	1000 MW
Loktak	Manipur	Manipur	105 MW
Koyna	Koyna	Maharashtra	1960 MW
Bhira Hydroelectric Project	Mulshi Dam	Maharashtra	150 MW
Teesta VI	Teesta	Sikkim	510 MW
Tanakpur	Sharda	Uttarakhand	120 MW
Dhauliganga-I	Dhauliganga	Uttarakhand	280 MW
Loharinag Pala	Bhagirathi	Uttarakhand	600 MW

# 99. WIND POWER PLANTS IN INDIA

- In 1986, the first wind power is set up at Ratnagiri in Maharashtra, Okha in Gujarat, and Tuticorin in Tamil Nadu.
- With the swift development (of wind power in India), at present, India is the fourth largest wind power installed country in the world.
- With the total capacity of 7455.2 MW, Tamil Nadu is the largest producer of Wind Energy followed by Maharashtra (4450.8 MW), Gujarat (3645.4 MW), and Rajasthan (3307.2 MW).
- Following are the major Wind Power Plants (producing more than 50 MW) in India:

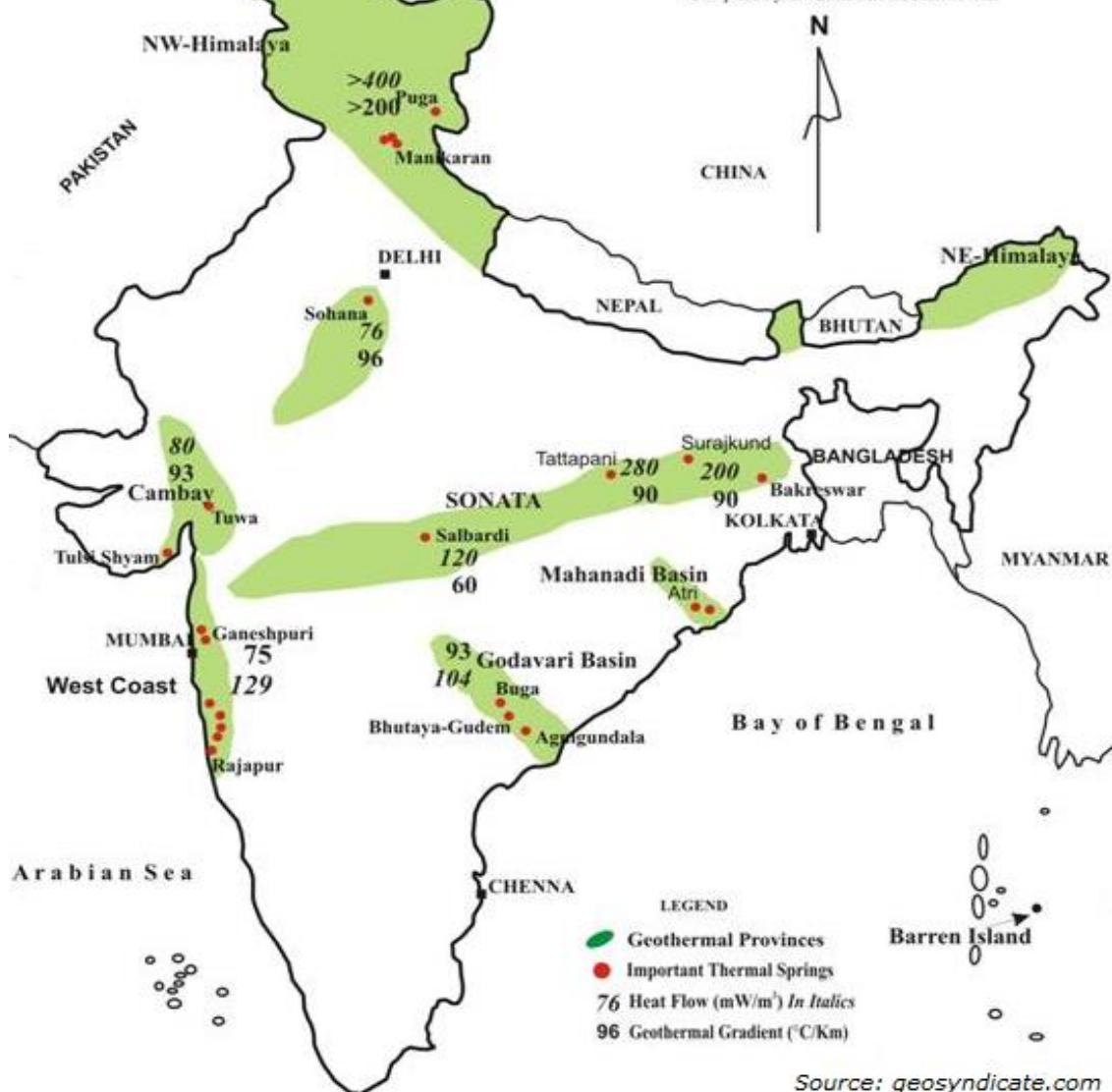
Name	Location	State	Capacity (MW)
Muppandal windfarm	Kanyakumari	Tamil Nadu	1500
Jaisalmer Wind Park	Jaisalmer	Rajasthan	1064
Brahmanvel windfarm	Dhule	Maharashtra	528
Dhalgaon windfarm	Sangli	Maharashtra	278
Vankusawade Wind Park	Satara District	Maharashtra	259
Vaspet	Vaspet	Maharashtra	144
Mamatkheda Wind Park	Mamatkheda	Madhya Pradesh	100.5
Anantapur Wind Park	Nimbagallu	Andhra Pradesh	100
Damanjodi Wind Power Plant	Damanjodi	Odisha	99
Jath	Jath	Maharashtra	84
Welturi	Welturi	Maharashtra	75
Acciona Tuppadahalli	Chitradurga District	Karnataka	56.1
Dangiri Wind Farm	Jaiselmer	Rajasthan	54
Bercha Wind Park	Ratlam	Madhya Pradesh	50

# 100. GEOTHERMAL POWER PLANTS IN INDIA

- Geothermal energy is thermal energy, which is generated through the natural hot springs.
- In India, by the time, geothermal energy installed capacity is experimental; however, the potential capacity is more than 10,000 MW.
- Following are the six most promising geothermal energy sites in India:
  - **Tattapani** in Chhattisgarh
  - **Puga** in Jammu & Kashmir
  - **Cambay Graben** in Gujarat
  - **Manikaran** in Himachal Pradesh
  - **Surajkund** in Jharkhand
  - **Chhumathang** in Jammu & Kashmir
- Following are the six major geothermal provinces in India:
  - Himalayan Province e.g. Himachal Pradesh, Jammu & Kashmir, etc.
  - Areas of Faulted blocks e.g. Aravalli belt, Naga-Lushi, West coast regions and Son-Narmada lineament.
  - Volcanic Arc e.g. Andaman and Nicobar Arc (Barren Island).
  - Deep sedimentary basin of Tertiary age e.g. Cambay basin in Gujarat.
  - Radioactive Province e.g. Surajkund, Hazaribagh, and Jharkhand.
  - Cratonic Province e.g. Peninsular India

## Geothermal Map of India

Compiled by D Chandrasekharam



Source: [geosyndicate.com](http://geosyndicate.com)

# 101. OTHER ENERGY SOURCES IN INDIA

## **Solar Energy**

---

- India is one of the leading Solar Energy producing countries in the world.
- By the time, the total installed grid connected solar power capacity is (about) 7,568 MW; however, the proposed target is 100,000 MW that set to achieve by 2022.
- With the total production of 1285.932 MW, **Rajasthan** is ranked first, followed by Tamil Nadu (1267 MW), Gujarat (1120 MW), and Andhra Pradesh (864 MW).

## **Tidal Energy**

---

- India is estimated to have a potential of 40 to 60 GW of Wave Energy all around its coastal area.
- **Sagar Shakthi** is a 1 MW OTEC (Ocean Thermal Energy Conversion) plant built off the Tuticorin coast.
- Located at **Borya** and **Budhal** villages in the coastal region of Ratnagiri district, are the major tidal energy plants in Maharashtra.

## 102. NATIONAL PARKS OF INDIA

- National Parks in India are the protected areas where hunting, poaching, tree cutting, wandering, etc. are strictly prohibited.
- The first National Park in India is established in 1936 namely Hailey National Park, which now known as Jim Corbett National Park (Uttarakhand).
- Following is the list of all major National Parks of India:

Name	Location	Area (sq. km)	Year of Establishment
Jim Corbett National Park	Uttarakhand	1318.5	1936
Mudumalai National Park	Tamil Nadu	321.5	1940
Hazaribagh National Park	Jharkhand	184	1954
Kanha National Park	Madhya Pradesh	940	1955
Tadoba National Park	Chandrapur (Maharashtra)	625	1955
Madhav National Park	Madhya Pradesh	375	1959
Gir National Park	Gujarat	1412	1965
Bandhavgarh National Park	Madhya Pradesh	446	1968
Sanjay Gandhi National Park	Maharashtra	104	1969
Bandipur National Park	Karnataka	874	1974
Kaziranga National Park	Assam	859	1974
Namdapha National Park	Arunachal Pradesh	1985	1974
Navegaon National Park	Maharashtra	134	1975
Blackbuck National Park, Velavadar	Gujarat	34	1976
Guindy National Park	Tamil Nadu	3	1976
Valmiki National Park	Bihar	898	1976
Dudhwa National Park	Uttar Pradesh	490	1977

Keibul Lamjao National Park	Manipur	40	1977
Khangchendzonga National Park	Sikkim	1784	1977
Pench National Park	Madhya Pradesh	758	1977
Eravikulam National Park	Kerala	97	1978
Mollem National Park	Goa	107	1978
Nameri National Park	Assam	137	1978
North Button Island National Park	Andaman and Nicobar Islands	0.44	1979
Saddle Peak National Park	Andaman and Nicobar Islands	32.5	1979
Vansda National Park	Gujarat	23.99	1979
Desert National Park	Rajasthan	3162	1980
Gulf of Mannar Marine National Park	Tamil Nadu	6.23	1980
Marine National Park, Gulf of Kutch	Gujarat	163	1980
Silent Valley National Park	Kerala	237	1980
Simlipal National Park	Odisha	845	1980
Dachigam National Park	Jammu & Kashmir	141	1981
Guru Ghasidas (Sanjay) National Park	Chhattisgarh	1440	1981
Keoladeo Ghana National Park	Bharatpur (Rajasthan)	29	1981
Hemis National Park	Jammu & Kashmir	4400	1981
Indravati National Park	Chhattisgarh	1258	1981
Kishtwar National Park	Jammu & Kashmir	400	1981
Panna National Park	Madhya Pradesh	542	1981
Ranthambore National Park	Rajasthan	392	1981
Sanjay National Park	Madhya Pradesh	466	1981

Satpura National Park	Madhya Pradesh	524	1981
Kanger Ghati National Park	Chhattisgarh	200	1982
Nanda Devi National Park	Uttarakhand	630	1982
Periyar National Park	Kerala	305	1982
Sirohi National Park	Manipur	41	1982
Valley of Flowers National Park	Uttarakhand	87.5	1982
Mahatma Gandhi Marine National Park	Andaman and Nicobar Islands	281.5	1983
Mandla Plant Fossils National Park	Madhya Pradesh	0.27	1983
Rajaji National Park	Uttarakhand	820	1983
Van Vihar National Park	Madhya Pradesh	4.45	1983
Great Himalayan National Park	Himachal Pradesh	754	1984
Sundarbans National Park	West Bengal	1330	1984
Bannerghatta National Park	Karnataka	104	1986
Mouling National Park	Arunachal Pradesh	483	1986
Neora Valley National Park	West Bengal	88	1986
Nokrek National Park	Meghalaya	47	1986
Singalila National Park	West Bengal	78.6	1986
Anshi National Park	Karnataka	417	1987
Gugamal National Park	Maharashtra	361	1987
Kudremukh National Park	Karnataka	600	1987
Middle Button Island National Park	Andaman and Nicobar Islands	0.44	1987
Mount Harriet National Park	Andaman and Nicobar Islands	46.6	1987
Pin Valley National Park	Himachal Pradesh	807	1987
South Button Island National Park	Andaman and Nicobar Islands	0.03	1987

Bhitarkanika National Park	Odisha	145	1988
Nagarhole National Park	Karnataka	643	1988
Gangotri National Park	Uttarakhand	2390	1989
Indra Gandhi Wildlife Sanctuary and National Park	Tamil Nadu	117	1989
Sri Venkateswara National Park	Andhra Pradesh	353	1989
Sultanpur National Park	Haryana	1.43	1989
Govind Pashu Vihar Wildlife Sanctuary	Uttarakhand	472	1990
Manas National Park	Assam	500	1990
Murlen National Park	Mizoram	100	1991
Campbell Bay National Park	Andaman and Nicobar Islands	426	1992
Galathea National Park	Andaman and Nicobar Islands	110	1992
Phawngpui Blue Mountain National Park	Mizoram	50	1992
Salim Ali National Park	Jammu & Kashmir	9	1992
Ntangki National Park	Nagaland	202	1993
Gorumara National Park	West Bengal	79	1994
Kasu Brahmananda Reddy National Park	Telangana	1.42	1994
Mahavir Harina Vanasthali National Park	Telangana	14.5	1994
Mrugavani National Park	Telangana	3.6	1994
Rani Jhansi Marine National Park	Andaman and Nicobar Islands	256	1996
Dibru-Saikhowa National Park	Assam	340	1999
Orang National Park	Assam	78.8	1999
Mukurthi National Park	Tamil Nadu	78	2001

Anamudi Shola National Park	Kerala	7.5	2003
Clouded Leopard National Park	Tripura	5	2003
Kalesar National Park	Haryana	100	2003
Mathikettan Shola National Park	Kerala	12.8	2003
Pambadum Shola National Park	Kerala	1.3	2003
Chandoli National Park	Maharashtra	317.6	2004
Omkareshwar National Park	Madhya Pradesh	293.5	2004
Rajiv Gandhi (Rameswaram) National Park	Karnataka	2.4	2005
Mukundra Hills National Park	Rajasthan	200.5	2006
Bison (Rajbari) National Park	Tripura	31.6	2007
Papikonda National Park	Andhra Pradesh	1012.8	2008
Inderkilla National Park	Himachal Pradesh	104	2010
Khirganga National Park	Himachal Pradesh	710	2010
Simbalbara National Park	Himachal Pradesh	27.8	2010
Jaldapara National Park	West Bengal	216	2012
Balphakram National Park	Meghalaya	220	2013

Following is the list of all major **Wildlife Sanctuaries** (of India):

Name	Location
Name	Location
Chandraprabha Sanctuary	Uttar Pradesh
Dandeli Wildlife Sanctuary	Karnataka
Dachigam Sanctuary	Jammu & Kashmir
Indian Wild Ass Sanctuary	Rann of Kutch (Gujarat)
Karakoram Wildlife Sanctuary	Jammu & Kashmir

Periyar Sanctuary	Kerala
Tadwai Sanctuary	Warrangal (Andhra Pradesh)
Tungabhadra Sanctuary	Bellary (Karnataka)
Bharatpur Bird Sanctuary	Rajasthan
Chilka Lake Bird Sanctuary	Puri (Odisha)
Ghatprabha Bird Sanctuary	Karnataka
Kumarakom Bird Sanctuary (also Vembanad Bird Sanctuary)	Kerala
Kaundinya Bird Sanctuary	Chittoor (Andhra Pradesh)
Mayani Bird Sanctuary	Satara (Maharashtra)
Nal Sarovar Bird Sanctuary	Ahmedabad (Gujarat)
Nelapattu Bird Sanctuary	Nellore (Andhra Pradesh)
Pulicat Lake Bird Sanctuary	Tamil Nadu & Andhra Pradesh
Ranganthittu Bird Sanctuary	Karnataka
Sultanpur Bird Sanctuary	Gurgaon (Haryana)
Salim Ali Bird Sanctuary	Chorao Island (Goa)
Vedanthangal Bird Sanctuary	Tamil Nadu
Mount Abu Wildlife Sanctuary	Rajasthan
Buxa Tiger Reserve	West Bengal
Sariska Tiger Reserve	Rajasthan
Pachmarhi Biosphere Reserve	Madhya Pradesh
Sunderban Tiger Reserve	West Bengal

## 103. INDIAN TRIBES

The following table enlists major tribes and their geographical location of India (state-wise):

<b>Habitat</b>	<b>Tribes</b>
Andaman and Nicobar Islands	Jarawas
	Nicobarese
	Onges
	Sentinelese
	Shom Pens
	Andamanese
Andhra Pradesh	Andh
	Bhil
	Bagata
	Chenchu
	Yerukulas
Arunachal Pradesh	Abor
	Aka
	Apatani
	Dafla
	Mishmi
Assam	Chakma
	Garo
	Khasi
	Jaintia
	Kuki
	Mikir
Bihar	Asur
	Baiga

	Bedia
	Birhor
	Gond
	Kharwar
Chhattisgarh	Andh
	Baiga
	Bhil
	Gadaba
	Gond
	Munda
	Pao
Gujarat	Bavacha
	Bhil
	Koli
	Rathawa
	Varli
Himachal Pradesh	Gaddi
	Gujjar
	Lamba
	Pangwala
Jammu & Kashmir	Bakarwal
	Balti
	Beda
	Bot
Jharkhand	Asur
	Baiga
	Gond
	Munda
	Oraon

	Santhal
Karnataka	Adiyan
	Warda
	Chenchu
	Irular
	Toda
	Varli
	Yerava
Kerala	Ervallan
	Irular
	Kammara
	Malayarayar
	Palliyar
	Uraly
Madhya Pradesh	Bhaina
	Bhattra
	Bhil
	Biar
	Damor
	Gond
	Kawar
	Korwa
	Munda
Maharashtra	Bamcha
	Bhil
	Bhandara
	Gondiya
	Dhodia
	Gond

	Kharia
	Kol
	Kondh
Manipur	Angami
	Chiru
	Kacha Naga
	Koirao
	Kom
Meghalaya	Chakma
	Garo
	Hajong
	Khasi
	Jaintia
	Kuki
	Mikir
	Pawi
Mizoram	Chakma
	Garo
	Hmar
	Lakher
	Synteng
Nagaland	Kachari
	Naga
Odisha	Bathudi
	Bhuiya
	Bhumia
	Binjhal
	Birhor
	Chenchu

	Dal
	Tharua
Punjab	Balmiki
	Bangali
	Barar
	Bazigar
	Dagi
	Gagra
	Khatik
	Nat
	Od
	Bhil
Rajasthan	Mina
	Nayaka
	Patelia
	Seharia
	Bhutia
Sikkim	Lepcha
	Ervallan
	Irular
	Kadar
	Kochu Velan
	Koraga
	Palliyar
	Toda
	Uraly
Tamil Nadu	Chaimal
	Chakma
	Garoo
Tripura	

	Khasia
	Lushai
	Orang
	Riang
Uttarakhand	Bhotia
	Buksa
	Jannsari
	Raji
	Tharu
Uttar Pradesh	Bhotia
	Jaunsari
	Raji
West Bengal	Bhumji
	Birhor
	Birjia
	Chakma
	Chero
	Korwa
	Lodha
	Magh

# 104. WORLD TRIBES

The following table enlists major tribes (of the world) and their geographical location:

<b>Tribes</b>	<b>Homeland</b>
Aeta	Philippines
Ainu	Japan
Aleuts	Alaska, USA
Bedouin	Arab (desert region)
Berbers	North Africa (east to west)
Bindibu or Aborigins	Australian Desert
Baruya	Papua New Guinea
Bushmen/San	Southern Africa (Kalahari Desert)
Chukchi	Northern part of Russia
Eskimo	North America
Fulani	West Africa
Hausa	North & west Africa
Hotten tots/Khoikhoi	Southwestern Africa
Ibans	Brunei, Malaysia, Indonesia
India Tribes	Amazon Rainforest (Brazil)
Inuit	North America
Kalmyks	Russia
Kazakhs	Central Asia
Kirghiz	Kyrgyzstan
Koryaks	Russian Far East
Lapps	Northern Finland
Maoris	New Zealand
Masai	Kenya and Tanzania
Orang Asli	Peninsular Malaysia

Pygmies	Central Africa
Red Indian	North America
Samoyeds	Siberia regions
Semangs	Malay Peninsula
Tuareg	North Africa
Yokuts	South-west USA
Zulus	Southern part of Africa

## PART IV: INDIAN ECONOMY

# 105. INDIAN ECONOMY FACT SHEET

The following table illustrates the major facts of Indian economy:

Field	Facts
Total Population	1,210,193,422
Sex Ratio	942
Urban Population	31.16 %
Population Density	382 persons per square kilometer
Literacy Rate	72.99%
Male Literacy Rate	80.89 %
Female Literacy Rate	64.64 %
% of Schedule Caste	16.635
% of Schedule Tribe	8.614
Child Sex Ratio	919
GDP Annual Growth Rate	7.5% (2016-17)
GDP (nominal) Ranking 2016	7 <sup>th</sup> largest economy (India is 9 <sup>th</sup> fastest growing nation of the world)
GDP (PPP) Ranking 2016	3 <sup>rd</sup> largest economy (after China and USA)
Foreign Direct Investment (FDI)	\$31 billion in 2015 (China \$28 billion & the US \$27 billion)
Largest trading partner of India	China (USA stands second)
Largest export partner of India	USA (UAE stands second)
Largest import partner of India	China (Saudi Arabia, Switzerland, & USA stand 2, 3, & 4 respectively)
Unemployment rate	9.60% (2011 census), Kerala has the highest graduate unemployment rate (over 30%)
Per capita income	USD 1581.6

Total Road length (network) ranking of India	2 <sup>nd</sup> (USA stands first)
Total Rail length (network) ranking of India	4 <sup>th</sup> (USA – 1st, China – 2 <sup>nd</sup> , & Russia – 3 <sup>rd</sup> )
HDI ranking of India	130 <sup>th</sup> (Norway is the first rank country)
Inflation rate of India	5.9 (2015)
Contribution of Agriculture in GDP (of India)	17.83% (2014)
Contribution of Industry in GDP (of India)	30.09% (2014)
Contribution of Services in GDP (of India)	52.08% (2014)

## **PART V: SCIENCE**

# 106. BRANCHES OF SCIENCE

The following table enlists branches of science and their meaning:

Term	Meaning
<b>A</b>	
Acarology	study of mites
Accidence	Study of Grammar
Acology	Study of medical remedies
Acoustics	Science of sound
Aedoeology	Study of generative organs
Aerobiology	Study of airborne organisms
Aerodynamics	Science of movement in a flow of air or gas
Aerolithology	Study of meteorites
Aerology	Study of the atmosphere
Aeronautics	Study of navigation through air or space
Agriology	The comparative study of primitive peoples
Agrobiology	Study of plant nutrition
Agrology	Study of agricultural soils
Agronomics	Study of productivity of land
Agrostology	Study of grasses
Alethiology	Study of truth
Algedonics	Science of pleasure and pain
Anaesthesiology	Study of anesthetics
Anatomy	Study of internal structure of the body
Andragogy	Theory and practice of education of adults
Anemology	Study of wind
Angiology	Study of blood flow and lymphatic system
Aphnology	Science of wealth

Apiology	Study of bees
Arachnology	Study of spiders
Archaeology	Study of human material remains
Archology	Science of the origins of government
Arctophily	Study of teddy bears
Areology	Study of Mars
Aretaics	The science of virtue
Astacology	The science of crayfish
Astheniology	Study of diseases of weakening and aging
Astrogeology	Study of extraterrestrial geology
Astrometeorology	Study of effect of stars on climate
Astronomy	Study of celestial bodies
Astrophysics	Study of behavior of interstellar matter
Astroseismology	Study of star oscillations
Autecology	Study of ecology of one species
Autology	Scientific study of oneself
Axiology	Science of the ultimate nature of value

## B

Bacteriology	Study of bacteria
Barodynamics	Science of the support and mechanics of bridges
Barology	Study of gravitation
Bibliology	Study of books
Bibliotics	Study of documents to determine authenticity
Bioecology	Study of interaction of life in the environment
Biology	Study of life
Biometrics	Study of biological measurement
Bionomics	Study of organisms interacting in their environments
Botany	Study of flora (plants)
Bromatology	Study of food

Brontology	Scientific study of thunder
<b>C</b>	
Cacogenics	Study of racial degeneration
Caliology	Study of bird's nests
Cambistry	Science of international exchange
Campanology	Art of bell ringing
Caricology	Study of sedges
Carpology	Study of fruit
Cartography	Science of making maps and globes
Cartophily	Hobby of collecting cigarette cards
Catacoustics	Science of echoes or reflected sounds
Catechetics	Art of teaching by question and answer
Cetology	Study of whales and dolphins
Chalcography	Art of engraving on copper or brass
Chemistry	Study of properties of substances
Chrematistics	Study of wealth; political economy
Climatology	Study of climate
Clinology	Study of aging or individual decline after maturity
Codicology	Study of manuscripts
Coleopterology	Study of beetles and weevils
Cometology	Study of comets
Cosmetology	Study of cosmetics
Cosmology	Study of the universe
Criminology	Study of crime
Cryobiology	Study of life under cold climate
Cryptology	Study of codes
Ctetology	Study of the inheritance of acquired characteristics
Cytology	Study of living cells
<b>D</b>	

Dactyliology	Study of rings
Dactylography	Study of fingerprints
Dactylogy	Study of sign language
Demography	Study of Population
Demology	Study of human behavior
Dendrochronology	Study of tree rings
Dendrology	Study of trees
Dermatoglyphics	Study of skin patterns and fingerprints
Dermatology	Study of skin
Desmology	Study of ligaments
Diographics	Art of making diagrams or drawings
Diplomatics	Science of deciphering ancient writings and texts
Dysgenics	Study of racial degeneration
<b>E</b>	
Ecclesiology	Study of church affairs
Ecology	Study of environment
Economics	Study of material wealth
Edaphology	Study of soils
Egyptology	Study of ancient Egypt
Ekistics	Study of human settlement
Electrochemistry	Study of relations between electricity and chemicals
Electrostatics	Study of static electricity
Embryology	Study of embryos
Endemiology	Study of local diseases
Endocrinology	Study of glands
Entomology	Study of insects
Epistemology	Study of grounds of knowledge
Eremology	Study of deserts
Ergology	Study of effects of work on humans

Ergonomics	Study of people at work
Eschatology	Study of death; final matters
Ethnogeny	Study of origins of races or ethnic groups
Ethnology	Study of cultures
Ethnomethodology	Study of everyday communication
Ethology	Study of natural or biological character
Ethonomics	Study of economic and ethical principles of a society
Etymology	Study of origins of words
Euthenics	Science concerned with improving living conditions
<b>F</b>	
Fluviology	Study of watercourses
Folkloristics	Study of folklore and fables
<b>G</b>	
Gastroenterology	Study of stomach; intestines
Genealogy	Study of descent of families
Genesiology	Study of reproduction and heredity
Genethlialogy	Art of casting horoscopes
Geochronology	Study of measuring geological time
Geogeny	Science of the formation of the earth's crust
Geogony	Study of formation of the earth
Geography	Study of surface of the earth and its inhabitants
Geology	Study of earth's crust
Geomorphogeny	Study of the origins of land forms
Geponics	Study of agriculture
Geotechnics	Study of increasing habitability of the earth
Geratology	Study of decadence and decay
Gerocomy	Study of old age
Gerontology	Study of the elderly; aging
Glaciology	Study of ice ages and glaciation

Glossology	Study of language; study of the tongue
Glyptography	Art of engraving on gems
Gnomonics	Art of measuring time using sundials
Gnosiology	Study of knowledge; philosophy of knowledge
Graminology	Study of grasses
Grammatology	Study of systems of writing
Graphemics	Study of systems of representing speech in writing
Gromatics	Science of surveying
Gynaecology	Study of women's physiology
Gyrostatics	Study of rotating bodies
<b>H</b>	
Haemataulics	Study of movement of blood through blood vessels
Hagiology	Study of saints
Halieutics	Study of fishing
Hamartiology	Study of sin
Harmonics	Study of musical acoustics
Hedonics	Part of ethics or psychology dealing with pleasure
Heliology	Science of the sun
Helioseismology	Study of sun's interior by observing its surface oscillations
Helminthology	Study of worms
Hematology	Study of blood
Heortology	Study of religious feasts
Hepatology	Study of liver
Heraldry	Study of coats of arms
Heresiology	Study of heresies
Herpetology	Study of reptiles and amphibians
Hierology	Science of sacred matters
Hippiatrics	Study of diseases of horses
Hippology	Study of horses

Histology	Study of the tissues of organisms
Histopathology	Study of changes in tissue due to disease
Historiography	Study of writing history
Historiology	Study of history
Homiletics	Art of preaching
Hoplology	Study of weapons
Horography	Art of constructing sundials or clocks
Horology	Science of time measurement
Horticulture	Study of gardening
Hydrobiology	Study of aquatic organisms
Hydrodynamics	Study of movement in liquids
Hydrogeology	Study of ground water
Hydrography	Study of investigating bodies of water
Hydrokinetics	Study of motion of fluids
Hydrology	Study of water resources
Hydrometeorology	Study of atmospheric moisture
Hydropathy	Study of treating diseases with water
Hyetology	Science of rainfall
Hygiastics	Science of health and hygiene
Hygienics	Study of sanitation; health
Hygiology	Study of cleanliness
Hygrology	Study of humidity
Hygrometry	Science of humidity
Hymnography	Study of writing hymns
Hypnology	Study of sleep; study of hypnosis
Hypsography	Science of measuring heights
<b>I</b>	
Iamatology	Study of remedies
Iatromathematics	Archaic practice of medicine in conjunction with astrology

Ichnography	Art of drawing ground plans; a ground plan
Ichnology	Science of fossilized footprints
Ichthyology	Study of fish
Iconography	Study of drawing symbols
Iconology	Study of icons; symbols
Ideogeny	Study of origins of ideas
Immunogenetics	Study of genetic characteristics of immunity
Immunology	Study of immunity
Immunopathology	Study of immunity to disease
Insectology	Study of insects
Irenology	Study of peace
<b>K</b>	
Kalology	Study of beauty
Karyology	Study of cell nuclei
Kinematics	Study of motion
Kinesics	Study of gestural communication
Kinesiology	Study of human movement and posture
Kinetics	Study of forces producing or changing motion
Koniology	Study of atmospheric pollutants and dust
Ktenology	Science of putting people to death
Kymatology	Study of wave motion
<b>L</b>	
Labeorphily	Collection and study of beer bottle labels
Larithmics	Study of population statistics
Lepidopterology	Study of butterflies and moths
Leprology	Study of leprosy
Lexicology	Study of words and their meanings
Lexigraphy	Art of definition of words
Lichenology	Study of lichens

Limnobiology	Study of freshwater ecosystems
Limnology	Study of bodies of fresh water
Linguistics	Study of language
Liturgiology	Study of liturgical forms and church rituals
<b>M</b>	
Magirics	Art of cookery
Magnanerie	Art of raising silkworms
Magnetics	Study of magnetism
Malacology	Study of mollusks
Malariology	Study of malaria
Mastology	Study of mammals
Mechanics	Study of action of force on bodies
Meconology	Study of or treatise concerning opium
Melittology	Study of bees
Metallography	Study of the structure and constitution of metals
Metallurgy	Study of alloying and treating metals
Metaphysics	Study of principles of nature and thought
Metapsychology	Study of nature of the mind
Meteorology	Study of weather
Metrics	Study of versification
Metrology	Science of weights and measures
Microbiology	Study of microscopic organisms
Muscology	Study of mosses
Museology	Study of museums
Mycology	Study of funguses
Mythology	Study of myths; fables; tales
<b>N</b>	
Naology	Study of church or temple architecture
Neonatology	Study of newborn babies

Neossology	Study of nestling birds
Nephology	Study of clouds
Nephrology	Study of the kidneys
Neurobiology	Study of anatomy of the nervous system
Neurology	Study of nervous system
Neuropsychology	Study of relation between brain and behaviour
Neurypnology	Study of hypnotism
Neutrosophy	Study of the origin and nature of philosophical neutralities
Nomology	Science of the laws; especially of the mind
Noology	Science of the intellect
Nosology	Study of diseases
Nostology	Study of senility
Numerology	Study of numbers
Numismatics	Study of coins
<b>O</b>	
Obstetrics	Study of midwifery
Oceanography	Study of oceans
Odontology	Study of teeth
Oenology	Study of wines
Oikology	Science of housekeeping
Olfactology	Study of the sense of smell
Ombrology	Study of rain
Oncology	Study of tumors
Oneirology	Study of dreams
Onomasiology	Study of nomenclature
Onomastics	Study of proper names
Ontology	Science of pure being; the nature of things
Oology	Study of eggs
Ophiology	Study of snakes

Ophthalmology	Study of eye diseases
Optics	Study of light
Optometry	Science of examining the eyes
Orchidology	Study of orchids
Ornithology	Study of birds
Orology	Study of mountains
Orthoepy	Study of correct pronunciation
Orthography	Study of spelling
Orthopterology	Study of cockroaches
Osmics	Scientific study of smells
Osphresiology	Study of the sense of smell
Osteology	Study of bones
Otorhinolaryngology	Study of ear, nose, and throat
<b>P</b>	
Paedology	Study of children
Paedotropy	Art of rearing children
Paidonosology	study of children's diseases; pediatrics
Palaeoanthropology	Study of early humans
Palaeobiology	Study of fossil plants and animals
Palaeoclimatology	Study of ancient climates
Palaeolimnology	Study of ancient fish
Palaeolimnology	Study of ancient lakes
Palaeontology	Study of fossils
Paleo-osteology	Study of ancient bones
Palynology	Study of pollen
Parapsychology	Study of unexplained mental phenomena
Parasitology	Study of parasites
Paroemiology	Study of proverbs
Pathology	Study of disease

Patrology	Study of early Christianity
Pedagogics	Study of teaching
Pedology	Study of soils
Penology	Study of crime and punishment
Petrology	Study of rocks
Pharmacognosy	Study of drugs of animal and plant origin
Pharmacology	Study of drugs
Pharyngology	Study of the throat
Philately	Study of postage stamps
Philosophy	Science of knowledge or wisdom
Phoniatics	Study and correction of speech defects
Phonology	Study of speech sounds
Photobiology	Study of effects of light on organisms
Phraseology	Study of phrases
Phycology	Study of algae and seaweeds
Physics	Study of properties of matter and energy
Physiology	Study of processes of life
Piscatology	Study of fishes
Pisteology	science or Study of faith
Planetology	Study of planets
Pneumatics	Study of mechanics of gases
Podology	Study of the feet
Polemology	Study of war
Potamology	Study of rivers
Prosody	Study of versification
Protistology	Study of protists
Proxemics	Study of man's need for personal space
Psalligraphy	Art of paper-cutting to make pictures
Psephology	Study of election results and voting trends

Pseudology	Art or science of lying
Pseudoptics	Study of optical illusions
Psychobiology	Study of biology of the mind
Psychogenetics	Study of internal or mental states
Psychology	Study of mind
Psychopathology	Study of mental illness
Psychophysics	Study of link between mental and physical processes
Pteridology	Study of ferns
Pyretology	Study of fevers
Pyroballyology	Study of artillery
Pyrography	Study of woodburning
<b>Q</b>	
Quinology	Study of quinine
<b>R</b>	
Raciology	Study of racial differences
Radiology	study of X-rays and their medical applications
Rhabdology	Art of calculating using numbering rods
Rhochrematics	Science of inventory management and the movement of products
<b>S</b>	
Sarcology	Study of fleshy parts of the body
Schematonics	art of using gesture to express tones
Sedimentology	Study of sediment
Seismology	Study of earthquakes
Selenodesy	Study of the shape and features of the moon
Selenology	Study of the moon
Semantics	Study of meaning
Semantology	science of meanings of words
Semasiology	Study of meaning; semantics
Semiology	Study of signs and signals

Semiotics	Study of signs and symbols
Sociobiology	Study of biological basis of human behavior
Sociology	Study of society
Somatology	science of the properties of matter
Spectrology	Study of ghosts
Speleology	Study and exploration of caves
Sphagnology	Study of peat moss
Stasiology	Study of political parties
Statics	Study of bodies and forces in equilibrium
Stemmatology	Study of relationships between texts
Stoichiometry	Science of elements of animal tissues
Stratigraphy	Study of geological layers or strata
Symptomatology	Study of symptoms of illness
Synecology	Study of ecological communities
Synectics	Study of processes of invention
Syntax	Study of sentence structure
<b>T</b>	
Teleology	Study of final causes; analysis in terms of purpose
Telmatology	Study of swamps
Thalassography	science of the sea
Thanatology	Study of death and its customs
Thaumatology	Study of miracles
Theology	Study of religion; religious doctrine
Theriogenology	Study of animals' reproductive systems
Thermodynamics	Study of relation of heat to motion
Thermokinematics	Study of motion of heat
Thermology	Study of heat
Theriology	Study of wild mammals
Thremmatology	Science of breeding domestic animals and plants

Threpsology	Science of nutrition
Tonetics	Study of pronunciation
Topology	Study of places and their natural features
Toxicology	Study of poisons
Traumatology	Study of wounds and their effects
Trichology	Study of hair and its disorders
Trophology	Study of nutrition
Tsiganology	Study of gypsies
Typhlology	Study of blindness and the blind
<b>U</b>	
Uranography	Descriptive astronomy and mapping
Uranology	Study of the heavens; astronomy
Urenology	Study of rust molds
Urology	Study of urine; urinary tract
<b>V</b>	
Venereology	Study of venereal disease
Vermeology	Study of worms
Vexillology	Study of flags
Victimology	Study of victims
Vinology	Scientific study of vines and winemaking
Virology	Study of viruses
Vulcanology	Study of volcanoes
<b>X</b>	
Xylography	Art of engraving on wood
<b>Z</b>	
Zenography	Study of the planet Jupiter
Zoogeography	Study of geographic distribution of animals
Zoogeology	Study of fossil animal remains
Zoology	Study of Fauna (animals)

Zoonosology	Study of animal diseases
Zoophytology	Study of plant-like animals
Zoosemiotics	Study of animal communication

# 107. SCIENTIFIC INSTRUMENTS

The following table explains name and definition of scientific instruments:

Instrument	Use
Accelerometer	Measures acceleration
Altimeter	Measures altitude (height)
Ammeter	Measures electric charges
Anemometer	Measures wind speed
Barometer	Measures atmospheric pressure
Bolometer	Measures electromagnetic radiation
Calipers	Measures the distance between two opposite sides of an object
Calorimeter	Measures the heat of chemical reactions or physical changes as well as heat capacity
Cardiograph	Measures heart rate
Cryometer	Measures freezing temperature
Dynamometer	Measures the power output of an engine
Electrometer	Measures electric charges
Galvanometer	Measures electric current
Hydrometer	Measures density of liquids
Hygrometer	Measures moisture content (Humidity) in the atmosphere
Hypsometer	Measures height (altitude)
Lactometer	Measures milk purity
Magnetometer	Measures magnetic property of a substance
Nephelometer	Measures suspended particulates in a liquid or gas colloid
Ohmmeter	Measures resistance in different applications of electrical testing
Ondometer	Measures the frequency of electromagnetic waves

Photometer	Measures the intensity of light
Pyknometer	Measures density of substance
Pyrometer	Measures high temperature
Radar	Determines the range, angle, or velocity of objects
Refractometer	Measures refractive index
Sextant	Measures the angle between any two visible objects
Sphygmomanometer	Measures blood pressure
Stethoscope	Used to listen heart beats
Telemeter	Measures distances to remote objects
Thermometer	Measures temperature
Tonometer	Measure the internal pressure of the eye
Venturimeter	Measures the rate of a flow of a fluid flowing through a pipe
Voltmeter	Measures electrical potential difference between two points in an electric circuit

# 108. MEASUREMENTS

The following table explains the metric units and their measurements:

Term	Symbol	value
yotta	Y	$10^{24}$
zetta	Z	$10^{21}$
exa	E	$10^{18}$
peta	P	$10^{15}$
tera	T	$10^{12}$
giga	G	$10^9$
mega	M	$10^6$
kilo	k	$10^3$
hecto	h	$10^2$
deka	da	$10^1$
deci	d	$10^{-1}$
centi	c	$10^{-2}$
milli	m	$10^{-3}$
micro	$\mu$	$10^{-4}$
nano	n	$10^{-9}$
pico	p	$10^{-12}$
femto	f	$10^{-15}$
atto	a	$10^{-18}$
zepto	z	$10^{-21}$
yocto	y	$10^{-24}$

## Units of Length

---

Units	Measurement
10 millimeters (mm) =	1 centimeter (cm)
10 centimeters =	1 decimeter (dm)
10 decimeters =	1 meter (m)
10 meters =	1 dekameter
10 dekameters =	1 hectometer
10 hectometers =	1 kilometer

## Units of Area

---

Units	Measurement
100 square millimeters (mm <sup>2</sup> ) =	1 square centimeter (cm <sup>2</sup> )
100 square centimeters =	square decimeter (dm <sup>2</sup> )
100 square decimeters =	square meter (m <sup>2</sup> )
100 square meters =	1 square dekameter (dam <sup>2</sup> )
100 square dekameters =	1 square hectometer (hm <sup>2</sup> )
100 square hectometers =	1 square kilometer (km <sup>2</sup> )

## Units of Liquid Volume

---

Units	Measurement
10 milliliters (mL) =	1 centiliter (cL)
10 centiliters =	1 deciliter (dL) = 100 milliliters
10 deciliters =	1 liter = 1000 milliliters
10 liters =	1 dekaliter (daL)
10 dekaliters =	1 hectoliter (hL) = 100 liters
10 hectoliters =	1 kiloliter (kL) = 1000 liters

## Units of Volume

---

Units	Measurement
1000 cubic millimeters ( $\text{mm}^3$ ) =	1 cubic centimeter ( $\text{cm}^3$ )
1000 cubic centimeters =	1 cubic decimeter ( $\text{dm}^3$ )
1000 cubic decimeters =	1 cubic meter ( $\text{m}^3$ )

## Units of Mass

---

Units	Measurement
10 milligrams (mg) =	1 centigram (cg)
10 centigrams =	1 decigram (dg)
10 decigrams =	1 gram (g)
10 grams =	1 dekagram (dag)
10 dekagrams =	1 hectogram (hg)
10 hectograms =	1 kilogram (kg)
1000 kilograms =	1 megagram (Mg) or 1 metric ton(t)

## Units of Length (Area)

---

Units	Measurement
12 inches (in) =	1 foot (ft)
3 feet =	1 yard (yd)
16½ feet =	1 rod (rd), pole, or perch
40 rods =	1 furlong (fur) = 660 feet
8 furlongs =	1 U.S. statute mile (mi) = 5280 feet
1852 meters (m) =	1 international nautical mile

## International System of Units

Unit Name	Symbol	Quantity
meter	m	Length
kilogram	kg	Mass
second	s	Time
ampere	A	Electric Current
kelvin	K	Thermodynamic temperature
mole	mol	Amount of substance
candela	cd	Luminous intensity
radian	rad	Angle
steradian	sr	Solid Angle
hertz	Hz	Frequency
newton	N	Force, weight
pascal	Pa	pressure, stress
joule	J	energy, work, heat
watt	W	Power, radiant, flux
coulomb	C	Electric charge
volt	V	Voltage, electromotive force
farad	F	Electric capacitance
ohm	$\Omega$	Electric resistance
tesla	T	Magnetic flux density
degree Celsius	$^{\circ}\text{C}$	Temperature
becquerel	Bq	radioactivity
henry	H	Magnetic induction
Angstrom	$\text{\AA}$	Wave length

## Conversion of Units

Unit I	Value in another unit
1 Inch	2.54 centimeter
1 Foot	0.3048 meter
1 Foot	30.48 centimeter
1 Yard	0.9144 meter
1 Mile	1609.34 meter
1 Chain	20.1168 meter
1 Nautical mile	1.852 kilometer
1 Angstrom	$10^{-10}$ meter
1 Square inch	6.4516 square centimeter
1 Acre	4046.86 square meter
1 grain	64.8 milligram
1 dram	1.77 gm
1 ounce	28.35 gm
1 pound	453.592 gram
1 horse power	735.499 Watt

# 109. SCIENTIFIC ABBREVIATIONS

The following table describes the major scientific terms:

<b>Abbreviation</b>	<b>Explanation</b>
ADH	Antidiuretic Hormone
AIDS	Acquired Immune Deficiency Syndrome
AMU	Atomic Mass Unit
AWACS	Airborne Warning and Control System
BASIC	Beginner's All Purpose Symbolic Instruction Code
BCG	Bacillus Calmette-Guerin
BTU	British Thermal Unit
CCTV	Closed-Circuit Television
CFC	Chloro Fluoro Carbon
CNG	Compressed Natural Gas
CNS	Central Nervous System
CRO	Cathode-Ray Oscilloscope
CRT	Cathode Ray Tube
DDT	Dichloro Diphenyl Trichloroethane
DNA	Deoxyribonucleic Acid
EMF	Electromotive Force
FBTR	Fast Breeder Test Reactor
ICU	Intensive Care Unit
LASER	Light Amplification by Stimulated Emission of Radiation
LCD	Liquid Crystal Display
LED	Liquid Emitting Diode
LNG	Liquefied Natural Gas
LORAN	Long Range Navigation
LPG	Liquefied Petroleum Gas

MASER	Microwave Amplification by Stimulated Emission of Radiation
PVC	Polyvinyl Chloride
RADAR	Radio Detection and Ranging
RNA	Ribose Nucleic Acid
SARS	Severe Acute Respiratory Syndrome
SONAR	Sound Navigation and Ranging
STAR	Satellite for Telecommunication Applications and Research
STP	Standard Temperature and Pressure
TB	Tuberculosis
TFT	Thin Film Transistor
TNT	Tri Nitro Toulene

## Computer Science Abbreviation

Abbreviation	Explanation
AGP	Accelerated Graphic Port
ALU	Arithmetic and Logic Unit
ASCII	American Standard Code for Information Interchange
BASIC	Beginner All Purpose Symbolic Instruction Code
BIOS	Basic Input and Output System
CAN	Campus Area Network
CCNA	Cisco Certified Network Associate
CD	Compact Disk
CEH	Certified Ethical Hacking
CMD	Command
CMOS	Complimentary Metal Oxide Semi-Conductor
COBOL	Common Business Oriented Language

CPU	Central Processing Unit
CSS	Cascading Style Sheets
DBMS	Database Management System
DDOS	Distribution Denial of Service
DIR	Directory
DOC	Document
DVD	Digital Versatile Disc
EDSAC	Electronic Dialog Storage Automatic Computer
FTP	File Transfer Protocol
GHZ	Gigahertz
GUI	Graphic User Interface
HDD	Harddisk Drive
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
HTTPS	Hypertext Transfer Protocol Secure
IC	Integrated Circuit
ICT	Infomation Communication Technology
IDE	Integrated Drive Electronics
IP	Internet Protocol
ISP	Internet Service Provider
LAN	Local Area Network
LSIC	Large Scale Integrated Circuit
MAC	Media Access Control
MAN	Metropolitan Area Network
MHZ	Megahertz
MICR	Magnetic-Ink Character Recongnition
MOS	Metaoxide Semi-Conductor
OS	Operating System
PAN	Personal Area Network

PC	Personal Computer
PDF	Portable Document Format
PDT	Parallel Data Transmission
PHP	PHP Hypertext Preprocessor
PROM	Programmable Read Only Memory
RAM	Random Access Memory
RFI	Remote File Inclusion
ROM	Read only Memory
RW	Re-writeable
SDT	Serial Data Transmission
SEO	Search Engine Optimization
SIM	Subscriber Identification Module
SIMMs	Single in-line Memory Module
SQL	Structured Query Language
TCP	Transmission Control Protocol
UNIVAC	Universal Automatic Computer
URL	Universal Resource Locator
USB	Universal Serial Board
USSD	Unstructured Supplementary Service Data
VDU	Visual Display Unit
VGA	Visual Graphic Adaptor
VPN	Virtual Private Network
WAN	Wide Area Network
WLAN	Wireless Local Area Network
WWW	World Wide Web
XML	Extensible Mark-up Language
XXS	Cross Site Scripting

# 110. SCIENTIFIC LAWS

The following table enlists major laws of science:

Scientist Name	Law	Field
Niels Henrik Abel	Abel's theorem	Calculus
Gene Amdahl	Amdahl's law	Computer science
Gus Archie	Archie's law	Geology
Archimedes	Archimedes' principle	Physics
Amedeo Avogadro	Avogadro's law	Thermodynamics
John Stewart Bell	Bell's theorem	Quantum mechanics
Frank Benford	Benford's law	Mathematics
Daniel Bernoulli	Bernoulli's principle	Physical sciences
Jean Baptiste Biot and Félix Savart	Biot–Savart law	Electromagnetics, fluid dynamics
Robert Boyle	Boyle's law	Thermodynamics
Samuel C. Bradford	Bradford's law	Computer science
C.H.D. Buys Ballot	Buys Ballot's law	Meteorology
Arthur Cayley and William Hamilton	Cayley–Hamilton theorem	Linear algebra
Jacques Charles	Charles's law	Thermodynamics
Subrahmanyan Chandrasekhar	Chandrasekhar limit	Astrophysics
Charles Augustin de Coulomb	Coulomb's law	Physics
Pierre Curie	Curie's law	Physics
Jean le Rond d'Alembert	D'Alembert's paradox	Fluid dynamics, Physics
John Dalton	Dalton's law of partial pressure	Thermodynamics
Henry Darcy	Darcy's law	Fluid mechanics

Christian Doppler	Doppler effect	Physics
Paul Ehrenfest	Ehrenfest's theorem	Quantum mechanics
Albert Einstein	Einstein's general theory of relativity	Physics
Paul Erdős and József Beck	Erdős–Beck theorem	Mathematics
Michael Faraday	Faraday's law of induction	Electromagnetism
	Faraday's law of electrolysis	Chemistry
Johann Carl Friedrich Gauss	Gauss's law	Mathematics, Physics
	Gauss's law for magnetism	Mathematics, Physics
	Gauss's digamma theorem	Mathematics, Physics
	Gauss's hypergeometric theorem	Mathematics, Physics
	Gaussian function	Mathematics, Physics
Thomas Graham	Graham's law	Thermodynamics
Jacob and Wilhelm Grimm	Grimm's law	Linguistics
John L. Gustafson	Gustafson's law	Computer science
Heinrich Hertz	Hertz observations	Electromagnetism
Germain Henri Hess	Hess's law	Thermodynamics
David Hilbert	Hilbert's basis theorem	Mathematics
Robert Hooke	Hooke's law	Physics
John Hopkinson	Hopkinson's law	Electromagnetism
Edwin Hubble	Hubble's law	Cosmology
Friedrich Hund	Hund's rules	Atomic physics
James Joule	Joule's laws	Physics
Michael Kasha	Kasha's rule	Photochemistry
Johannes Kepler	Kepler's laws of planetary motion	Astrophysics

Gustav Kirchhoff	Kirchhoff's laws	Electronics, thermodynamics
Hermann Franz Moritz Kopp	Kopp's law	Thermodynamics
Irving Langmuir	Langmuir equation	Surface Chemistry
Pierre-Simon Laplace	Laplace transform	Mathematics
	Laplace's equation	Physics
	Laplace operator	Probability Theory
	Laplace distribution	Statistical mechanics
Henri Louis le Chatelier	Le Chatelier's principle	Chemistry
Gottfried Wilhelm Leibniz	Leibniz's law	Ontology
Heinrich Lenz	Lenz's law	Physics
Guglielmo Marconi	Marconi's law	Radio technology
Vladimir Markovnikov	Markovnikov's rule	Organic chemistry
Pierre Louis Maupertuis	Maupertuis' principle	Mathematics
James Clerk Maxwell	Maxwell's equations	Electrodynamics
Gregor Mendel	Mendelian inheritance/Mendel's laws	Genetics
Robert Metcalfe	Metcalfe's law	Network theory
Hermann Minkowski	Minkowski's theorem	Number theory
Eilhard Mitscherlich	Mitscherlich's law	Crystallography
Gordon Moore	Moore's law	Computing
John Forbes Nash	Nash embedding theorem	Topology
Walther Nernst	Nernst equation	Electrochemistry
Isaac Newton	Newton's law of cooling	Thermodynamics
	Newton's law of universal gravitation	Astrophysics
	Newton's laws of motion	Mechanics
Georg Ohm	Ohm's law	Electronics
Blaise Pascal	Pascal's law	Physics

	Pascal's theorem	Geometry
Max Planck	Planck's law	Electromagnetism
Ptolemy	Ptolemy's theorem	Geometry
Pythagoras	Pythagorean theorem	Geometry
Sir Chandrasekhara Venkata Raman	Raman scattering	Physics
Richard Rado	Rado's theorem	Discrete mathematics
Srinivasa Ramanujan and Trygve Nagell	Ramanujan–Nagell equation	Mathematics
Thales	Thales' theorem	Geometry
Johann Daniel Titius and Johann Elert Bode	Titius–Bode law	Astrophysics
Evangelista Torricelli	Torricelli's law	Physics
Steven Weinberg and Edward Witten	Weinberg–Witten theorem	Quantum Gravity
Hermann Weyl	Weyl character formula	Mathematics
Wilhelm Wien	Wien's law	Physics
Thomas Young and Pierre-Simon Laplace	Young–Laplace equation	Fluid dynamics

# 111. SCIENTIFIC FIELDS

The following table illustrates the major scientific fields and their founders:

Subject	Founder/Father	Description (if any)
Biogeography	Alfred Russel Wallace	Wallace worked on the impact of human activity on the natural world
Biology	Aristotle	
Botany	Theophrastus	
Evolution	Charles Darwin	On the Origin of Species (1859)
Genetics	Gregor Mendel	Studied the inheritance of traits in pea plants (forms the basis for Mendelian inheritance)
Microbiology	Antonie van Leeuwenhoek	The first to microscopically observe micro-organisms in water and the first to see bacteria
Molecular biology	Linus Pauling	
Molecular biophysics	Gopalasamudram Narayana Iyer Ramachandran	Founded the molecular biophysics unit (1970)
Paleontology	Leonardo da Vinci	
Parasitology	Francesco Redi	The founder of experimental biology. He was the first person who challenged the theory of spontaneous generation by demonstrating that maggots come from eggs of flies
Protozoology	Antonie van Leeuwenhoek	First to produce precise, correct descriptions of protozoa.
Atomic theory (early)	Democritus	Founder of atomism in cosmology
Atomic theory (modern)	Father Roger Boscovich &	First coherent description of atomic theory

	John Dalton	First scientific description of the atom as a building block for more complex structures.
Chemistry (early)	Jabir	First introduced the experimental method to Islamic alchemy
Chemistry (modern)	Antoine Lavoisier	Elements of Chemistry (1787)
	Jöns Berzelius	Development of chemical nomenclature (1800s)
	John Dalton	Revival of atomic theory (1803)
Nuclear chemistry	Otto Hahn	Applied Radiochemistry (1936)
Periodic table	Dmitri Mendeleev	He arranged the sixty-six elements known at the time in order of atomic weight by periodic intervals (1869)
Physical chemistry	Mikhail Lomonosov	The first person to read lectures in physical chemistry and coin the term in 1752
Geodesy (mathematical geography)	Eratosthenes	
Plate tectonics	Alfred Wegener	
Speleology	Édouard-Alfred Martel	
Cognitive therapy	Aaron T. Beck	
Electrophysiology	Emil du Bois-Reymond	
Gynaecology	J. Marion Sims	
Histology	Marcello Malpighi	
Medicine	Charaka	Wrote the Charaka Samhitā and founded the Ayurveda system of medicine
Psychology (experimental)	Wilhelm Wundt	Founded the first laboratory for psychological research
Plastic surgery	Sushruta &	Wrote the Sushruta Samhita
	Harold Gillies	

Psychoanalysis	Sigmund Freud	
Surgery (early)	Sushruta	Wrote the Sushruta Samhita
Atomic bomb	Enrico Fermi	
	J. Robert Oppenheimer	
	Leslie Groves	
	Edward Teller	
Classical mechanics	Isaac Newton	
Electricity	William Gilbert &	Wrote 'De Magnete' (1600)
	Michael Faraday	Discovered electromagnetic induction (1831)
Modern astronomy	Nicolaus Copernicus	Developed the first heliocentric model in <i>De revolutionibus orbium coelestium</i> (1543)
Nuclear physics	Ernest Rutherford	
Nuclear science	Marie Curie & Pierre Curie	
Optics	Ibn al-Haytham (Alhazen)	
Quantum mechanics	Max Planck	
Relativity	Albert Einstein	
Thermodynamics	Sadi Carnot	
Algebra	Brahmagupta	
	Muhammad Al-Khwarizmi (Algorismi)	
	Diophantus	
Calculus	Isaac Newton &	
	Gottfried Leibniz	
Computer science	George Boole &	
	Alan Turing	
Geometry	Euclid	

Number theory	Pythagoras	
Trigonometry	Aryabhata & Hipparchus	
Fuzzy logic	Lotfi Asker Zadeh	
Anthropology	Herodotus	
Geography	Eratosthenes	
Demography	Ibn Khaldun	
History	Herodotus	He also coined the term 'History'
International law	Alberico Gentili	
	Francisco de Vitoria	
	Hugo Grotius	
Linguistics (early)	Panini	
Sociology	Ibn Khaldun	
	Auguste Comte (also coined the term)	Father of modern sociology
Accounting and Bookkeeping	Luca Pacioli	
Economics (early)	Chanakya / Kautilya	
Mathematical economics	Daniel Bernoulli	
Microcredit	Muhammad Yunus	Founded Grameen Bank

# 112. CHEMICALS

The following table describes the major chemicals used in everyday life:

Chemical Name	Chemical Formula	Common Name	Source
Acetic acid	$\text{CH}_3\text{COOH} + \text{H}_2\text{O}$	5% Solution: White vinegar	grocery store, photo store
Acetone	$\text{CH}_3\text{COCH}_3$	Acetone, nail polish remover	drug store, paint store
Acetylsalicylic acid	$\text{C}_9\text{H}_8\text{O}_4$	Aspirin	drug store
Aluminum	Al	Aluminum foil, aluminum wire and sheet	grocery store, hardware store
Aluminum hydroxide	$\text{Al}(\text{OH})_3$	General; "antacid tablets" lumina hydrate blended with magnesium hydroxide	drug store
Ammonia	$\text{NH}_3(\text{aq})$	Ammonia	drug store
Ammonium phosphate	$(\text{NH}_4)_3\text{PO}_4$	Fertilizer	garden/Agricultural supply
Ammonium sulfate	$(\text{NH}_4)_2\text{SO}_4$	Fertilizer	garden/Agricultural supply
Ascorbic acid	$\text{C}_6\text{H}_8\text{O}_6$	Vitamin C	drug store
Boric acid	$\text{H}_3\text{BO}_3$	Ant/Roach Killer	drug store, hardware store
Butane	$\text{C}_4\text{H}_{10}$	lighter fuel	grocery store
Caffeine	$\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2$	No-Doz	drug store, grocery store
Calcium carbonate	$\text{CaCO}_3$	Limestone, Carbonate of Lime	garden store & others
Calcium chloride	$\text{CaCl}_2$	Ice melter, road salt/deicer	hardware store

Calcium hypochlorite	$\text{Ca}(\text{ClO})_2$	Bleaching powder, chlorinating powder	grocery store, hardware store
Calcium phosphate	$\text{Ca}(\text{H}_2\text{PO}_4)_2$	Superphosphate	garden supply
Calcium sulfate	$\text{CaSO}_4$	Gypsum, Plaster of Paris	hardware store
Camphor	$\text{C}_{10}\text{H}_{16}\text{O}$		grocery store
Carbonic acid	$\text{H}_2\text{CO}_3$	soda water (seltzer)	grocery store
Citric acid	$\text{C}_6\text{H}_8\text{O}_7$	Sour salt	grocery store
Ethanol	$\text{CH}_3\text{CH}_2\text{OH}$	Ethyl alcohol, alcohol	liquor store
Fructose	$\text{C}_6\text{H}_{12}\text{O}_6$	Fruit sugar	grocery store
Glucose	$\text{C}_6\text{H}_{12}\text{O}_6$	Dextrose, corn syrup	grocery store, drug store
Glycerin, Glycerol	$\text{C}_3\text{H}_8\text{O}_3$	Propanetriol	grocery store, drug store
Hydrochloric acid	HCl	Muriatic acid, Masonry cleaner	hardware store
Kerosene	$\text{C}_n\text{H}_{2n+2}$	Lamp oil	home store
Lactic acid	$\text{CH}_3\text{COHCOOH}$	Milk acid	grocery store
Magnesium silicate	$\text{Mg}_3\text{Si}_4\text{O}_{10}(\text{OH})_2$	Talc	grocery store
Nitrous oxide	$\text{N}_2\text{O}$	Whipping gas, Laughing gas	grocery store, drug store
Oxalic acid	$\text{C}_2\text{H}_2\text{O}_4$	rust remover	grocery store, drug store
Potassium carbonate	$\text{K}_2\text{CO}_3$	Potash	garden supply
Sodium bicarbonate	$\text{NaHCO}_3$	Baking soda,	grocery store, drug store
Sodium carbonate	$\text{Na}_2\text{CO}_3$	Washing soda	grocery store, drug store

Sodium chlorate	$\text{NaClO}_3$		grocery store, drug store
Sodium chloride	$\text{NaCl}$	Salt	grocery store
Sodium hydroxide	$\text{NaOH}$	Caustic soda	grocery store
Sodium hypochlorite	$\text{NaClO}$	Bleach	grocery store
Sodium thiosulfate	$\text{Na}_2\text{S}_2\text{O}_3$	Hypo	photography supply stores
Sucrose	$\text{C}_{12}\text{H}_{22}\text{O}_{11}$	Sugar	grocery store
Sulfuric acid	$\text{H}_2\text{SO}_4$	Vitriol	hardware store
Urea	$\text{H}_2\text{NCONH}_2$	Ice melter, fertilizer	garden supply stores

# 113. DISEASES

## Vitamin Deficiency Diseases

Vitamin Name	Chemical Name/s	Deficiency Disease	Food Sources
Vitamin K	Phylloquinone, Menaquinones	Bleeding diathesis	Leafy green vegetables e.g. spinach, egg yolks, liver
Vitamin E	Tocopherols, Tocotrienols	Sterility in males and abortions in females, mild hemolytic anemia in newborn infants	Fruits and vegetables, nuts and seeds
Vitamin D	Cholecalciferol (D3), Ergocalciferol (D2)	Rickets and osteomalacia	Fish, eggs, liver, mushrooms
Vitamin C	Ascorbic acid	Scurvy	Fruits and vegetables
Vitamin B9	Folic acid, Folinic acid	Megaloblastic anemia and deficiency during pregnancy is associated with birth defects, such as neural tube defects	Leafy vegetables, pasta, bread, cereal, liver
Vitamin B7	Biotin	Dermatitis, enteritis	Raw egg yolk, liver, peanuts, leafy green vegetables
Vitamin B6	Pyridoxine, Pyridoxamine, Pyridoxal	Anemia peripheral neuropathy	Meat, vegetables, tree nuts, bananas
Vitamin B5	Pantothenic acid	Paresthesia	Meat, broccoli, avocados
Vitamin B3	Niacin, Niacinamide	Pellagra	Meat, fish, eggs, many vegetables,

			mushrooms, tree nuts
Vitamin B2	Riboflavin	Ariboflavinosis, glossitis, angular stomatitis	Dairy products, bananas, popcorn, green beans, asparagus
Vitamin B12	Cyanocobalamin, Hydroxocobalamin, Methylcobalamin	Megaloblastic anemia	Meat, poultry, fish, eggs, milk
Vitamin B1	Thiamine	Beriberi, Wernicke- Korsakoff syndrome	Pork, oatmeal, brown rice, vegetables, potatoes, liver, eggs
Vitamin A	Retinol	Night blindness, hyperkeratosis, and keratomalacia	Orange, ripe yellow fruits, leafy vegetables, carrots, pumpkin, squash, spinach, fish, soya milk, milk

## Diseases Caused by Bacteria

Disease Name	Bacteria Pathogen	Affected Organs	Transmission Through
Anthrax	Bacillus Anthracis	Skin & Lung	Infected environment e.g. infected animals
Chlamydial urethritis	Chlamydia trachomatis	Cervix, Eye, Urethra	Sexual
Cholera	Vibrio cholerae	Intestine	Food & water
Diphtheria	Corynebacterium diphtheriae	Nose, throat	Infected person
Gonorrhoea	Neisseria gonorrhoeae	Urinary tract	Sexual

Leprosy (or Hansen's disease (HD))	Mycobacterium leprae and Mycobacterium lepromatosis	Skin, bone, nerves	Contact
Plague	Yersinia pestis	Lymph	Infected fleas
Pneumonia	Bacterial pneumonia (also from virus)	Lung	Environment
Pertussis (also whooping cough)	Bordetella pertussis	Lung	Infected environment
Salmonellosis	Salmonella	Intestine	Food
Syphilis	Treponema pallidum	Skin, Cardiovascular organs	Sexual
Tetanus	Clostridium tetani	Muscle (spasms)	Infected environment
Tuberculosis (TB)	Mycobacterium tuberculosis	Lung	Infected air
Typhus	Rickettsia bacteria	Skin	Bugs or by other means of contact

## Diseases Caused by Virus

Disease Name	Virus	Affected Organs	Transmission Through
Adenovirus Infections	Adenovirus (DNA)	Lungs, Eyes	Contact
AIDS	Human immunodeficiency virus (HIV)	T-lymphocytes	Sexual or by other fluid contact
Arbovirus encephalitis	RNA viruses	Brain	Mosquito, tick or another arthropod
Chicken pox (Varicella)	Varicella zoster virus (VZV)	Skin, Nervous System	Contact
Cytomegalovirus Disease	Cytomegalovirus (CMV)	Blood, Lungs	Contact

Dengue Fever	(Dengue virus) RNA	Blood, Muscles	Mosquito
Ebola	Ebola viruses	whole body	bodily fluids
German Measles (Rubella)	(Rubella virus) RNA	Skin	Contact
Hepatitis A	(Hepatovirus A) RNA	Liver	Contaminated Food, Water
Hepatitis B	(Hepatitis B virus (HBV)) DNA	Liver	Contact with body Fluids
Herpes Simplex	(Herpes simplex virus(HSV)) DNA	Skin, Pharynx, Genital organs	Contact
Influenza	(Influenza virus) RNA	Respiratory Tract	Droplets
Measles (Rubeola)	(Measles virus (MeV)) RNA	Respiratory Tract, Skin	Contact
Mumps (Epidemic Parotitis)	(Mumps virus) RNA	Salivary Glands, Blood	Contact
Polio (Poliomyelitis)	(Poliovirus) RNA	Intestine, Brain, Spinal Cord	Food, Water, Contact
Rabies	(Lyssaviruses, Rabies virus) RNA	Brain, Spinal cord	Contact with body Fluids
Smallpox (Variola)	(Variola major and Variola minor) DNA	Skin, Blood	Contact, Droplets
Yellow Fever	(Yellow fever virus) RNA	Liver, Blood	Mosquito (Aedes Aegypti)

## Diseases Caused by Fungus

Disease Name	Causing Fungi	Organs Affected
Athlete's foot (Tinea Pedis)	Fungi	Foot, skin
Ringworm	Fungi	Skin
Fungal Meningitis	Fungi	Blood, immune system
Psoriasis	Fungi	Skin

Onychomycosis	Fungi	Nail
---------------	-------	------

# 114. BLOOD GROUP

The following table illustrates blood groups of parents and determinations the blood group of their offsprings:

		Father's Blood Type				Possibility -ty of Child's Blood type
		A	B	AB	O	
Mother's Blood Type	A	A or O	A, B, AB, or O	A, B, or AB	A or O	Possibility -ty of Child's Blood type
	B	A, B, AB, or O	B or O	A, B, or AB	B or O	
	AB	A, B, or AB	A, B, or AB	A, B, or AB	A or B	
	O	A or O	B or O	A or B	O	

## **PART VI: SCIENCE & TECHNOLOGY**

# 115. INDIAN SPACE

The following table illustrates the major Indian space research organizations along with their location and salient features:

Organization	Location	Features
Vikram Sarabhai Space Centre	Thiruvananthapuram	It is the largest ISRO base and the main technical center and the venue of development of the SLV-3, ASLV, and PSLV series. The base supports India's Thumba Equatorial Rocket Launching Station and the Rohini Sounding Rocket programme.
Liquid Propulsion Systems Centre (LPSC)	Thiruvananthapuram & Bengaluru	The LPSC is responsible for design, development, testing, and implementation of liquid propulsion control packages, liquid stages and liquid engines for launch vehicles and satellites.
Physical Research Laboratory	Ahmedabad	It is the study and research center of solar planetary physics, infrared astronomy, geo-cosmo physics, plasma physics, astrophysics, archaeology, and hydrology
Semi-Conductor Laboratory	Chandigarh	Research & Development in the field of semiconductor technology, micro-electromechanical systems and process technologies relating to semiconductor processing.
National Atmospheric Research Laboratory	Chittoor	It is the study and research center of fundamental and applied research in Atmospheric and Space Sciences.
Space Applications Centre (SAC)	Ahmedabad	The SAC deals with the various aspects of practical use of space technology including geodesy, satellite based telecommunications, surveying, rem

		ote sensing, meteorology, environment monitoring, etc.
North-Eastern Space Applications Centre	Shillong	It provides developmental support to North East by undertaking specific application projects using remote sensing, GIS, satellite communication and conducting space science research.
ISRO Propulsion Complex	Mahendragiri	It handles testing and assembly of liquid propulsion control packages, liquid engines, and stages for launch vehicles and satellites.
ISRO Satellite Centre	Bengaluru	The satellites Aryabhata, Bhaskara, APPLE, and IRS-1A were constructed at this site, and the IRS and INSAT satellite series are presently under development here.
Satish Dhawan Space Centre	Sriharikota	The Sriharikota (an island) acts as a launching site for India's satellites.
Thumba Equatorial Rocket Launching Station	Thiruvananthapuram	It is used to launch sounding rockets.
Indian Deep Space Network (IDSN)	Bengaluru	It is responsible to receive, process, archive, and distribute the spacecraft health data and payload data in real time.
National Remote Sensing Centre	Hyderabad	It applies remote sensing technology to manage natural resources and study aerial surveying.
Master Control Facility	Bhopal and Hassan	It has earth stations and Satellite Control Centre (SCC) for controlling satellites
Indian Institute of Remote Sensing (IIRS)	Dehradun	It is an independent unit of the Indian Space Research Organization (ISRO), Department of Space, Govt. of India that provides training and education to develop trained professionals.

Balasore Rocket Launching Station (BRLS)	Balasore, Odisha	
Antrix Corporation	Bengaluru	The marketing arm of ISRO.

## **PART VII: SPORTS**

# 116. NATION'S SPORT

The following table illustrates the countries with their National Sports:

Country	National Sport	Picture
Afghanistan	Buzkashi	
Argentina	Pato	
Australia	Cricket/Australian Rules Football	
Bangladesh	Kabaddi	
Bhutan	Archery	
Brazil	Capoeira	

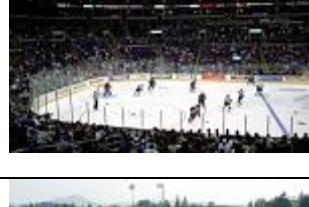
Canada	Lacrosse (summer), Ice hockey (winter)	
India	Hockey	
Indonesia	Badminton	
Japan	Sumo	
Pakistan	Hockey	
Russia	Bandy/Chess	
Sri Lanka	Volleyball	
UK	Cricket	

United States	Baseball	
---------------	----------	---

# 117. SPORTS' PLAYGROUND

The following table illustrates sports with their respective playgrounds:

Playground	Sport/s	Picture
Arena	Horse riding, Polo	
Board	Table Tennis	
Course	Golf	
Court	Tennis, Badminton, Net Ball, Handball, Volleyball, Squash	
Diamond	Baseball	
Field	Football, Hockey	

Mat	Judo, Karate, Taikwondo	
Pitch	Cricket	
Pool	Swimming	
Ring	Skating, Boxing	
Rink	Curling, Ice Hockey	
Track	Athletics	
velodrome	Cycling	

# 118. NUMBER OF PLAYERS

The following table illustrates name of the sports with the number of players:

<b>Sport</b>	<b>No. of player (in one Team)</b>
Badminton	In Single - 1 player & In Double - 2 players
Baseball	9
Basketball	5
Billiards/Snooker	1
Boxing	1
Chess	1
Cricket	11
Croquet	3 or 6
Football (Soccer)	11
Golf	Not fixed
Hockey	11
Kabaddi	7
Kho Kho	9
Lacrosse	10
Netball	7
Polo	4
Rugby football	15
Table Tennis	In Single - 1 player & In Double - 2 players
Tennis	In Single - 1 player & In Double - 2 players
Volleyball	6
Water Polo	7

# 119. STADIUMS

## Stadiums of World

The following table illustrates the major stadiums (of the world) with their geographic location:

Stadium	Purpose	Location
Rungrado 1st of May Stadium	Multi-purpose stadium	Pyongyang, North Korea
Michigan Stadium	American Football	Ann Arbor, Michigan, United States
Beaver Stadium	American Football	State College, Pennsylvania, United States
Soccer City	Multi-purpose stadium	Johannesburg, South Africa
Wembley	Multi-purpose stadium	London, England
Camp Nou	Multi-purpose stadium	Barcelona, Spain
Estadio Azteca	Football	Mexico City
Allianz Arena	Football	Bayern Munich
Estadio Do Maracana	Multi-purpose stadium	Brazil

## List of Stadiums (India)

The following table illustrates the major stadiums (of India) with their geographic location:

Stadium	Purpose	Location
Indira Gandhi Arena or Indira Gandhi Indoor Stadium	Indoor Stadium	Delhi
Jawaharlal Nehru Stadium	Multipurpose sports	Delhi
Feroz Shah Kotla Ground	Cricket	Delhi

Ambedkar Stadium	Football	Delhi
Shivaji Hockey Stadium	Hockey	Delhi
Major Dhyan Chand National Stadium or National Stadium	Hockey	Delhi
Sardar Vallabhbhai Patel Indoor Stadium	Multipurpose sports	Mumbai
Wankhede Stadium	Cricket	Mumbai
Brabourne Stadium	Cricket	Mumbai
Eden Gardens	Cricket	Kolkata
Green Park Stadium	Multi-purpose stadium	Kanpur
Keenan Stadium	Multi-purpose stadium	Jamshedpur
Jawaharlal Nehru Stadium	Multi-purpose stadium	Chennai
Barabati Stadium	Multi-purpose stadium	Cuttack, Odisha

# 120. SPORTPERSONS

## Sportpersons of World

The following table enlists the popular sportsperson (of the World):

Name	Sports	Country	Photograph
Cristiano Ronaldo	Soccer	Portugal	
Lionel Messi	Soccer	Argentina	
LeBron James	Basketball	USA	
Roger Federer	Tennis	Switzerland	
Kevin Durant	Basketball	USA	
Novak Djokovic	Tennis	Serbia	

Cam Newton	American football	USA	
Phil Mickelson	Golf	USA	
Jordan Spieth	Golf	USA	
Kobe Bean Bryant	Basketball	USA	
Lewis Hamilton	Formula One racing	United Kingdom	
Tiger Woods	Golf	USA	
Rafael Nadal	Tennis	Spain	

Manny Pacquiao	Boxer	Philippines	
Serena Williams	Tennis	USA	
Maria Sharapova	Tennis	Russian	
Caroline Wozniacki	Tennis	Denmark	
Danica Sue Patrick	Car racing	USA	
Stacy Lewis	Golf	USA	
Usain Bolt	Runner (100 m)	Jamaica	

Florence Griffith-Joyner	Runner (100 m)	USA	
--------------------------	----------------	-----	---

## **Greatest Sportsmen (India)**

The following table enlists the greatest sportsmen (of India):

Name	Sports	Country	Photograph
Sachin Tendulkar	Cricket	Maharashtra	
Dhyan Chand	Hockey	Uttar Pradesh	
Abhinav Bindra	Shooting	Uttarakhand	
Milkha Singh	Runner	Chandigarh	

Kapil Dev	Cricket	Chandigarh	
Sushil Kumar	Freestyle Wrestler	Delhi	
Mahendra Singh Dhoni	Cricket	Jharkhand	
Viswanathan Anand	Chess	Tamil Nadu	
Leander Paes	Tennis	West Bengal	
Prakash Padukone	Badminton	Karnataka	
Geet Sethi	Billiards & Snooker	Delhi	

Mahesh Bhupathi	Tennis	Tamil Nadu	
Pankaj Advani	Billiards & Snooker	Maharashtra	
Vikas Gowda	Discus throw	Karnataka	
Saurav Ghosal	Squash	West Bengal	
Dhanraj Pillay	Hockey	Maharashtra	
Jeev Milkha Singh	Golf	Chandigarh	
Balbir Singh Sr.	Hockey	Punjab	

Sunil Gavaskar	Cricket	Maharashtra	
----------------	---------	-------------	---

## Greatest Sportswomen (India)

The following table enlists the greatest sportswomen (of India):

Name	Sports	Country	Photograph
Deepika Kumari	Archery	Jharkhand	
PT Usha	Runner	Kerala	
Anjum Chopra	Cricket	New Delhi	
Anju Bobby George	Athletics	Kerala	
Dipika Pallikal	Squash	Tamil Nadu	

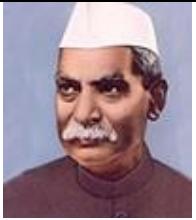
Karnam Malleswari	Weightlifting	Andhra Pradesh	
Mithali Raj (Lady Sachin)	Cricket	Rajasthan	
Sania Mirza	Tennis	Maharashtra	
Saina Nehwal	Badminton	Haryana	
MC Mary Kom	Boxing	Manipur	

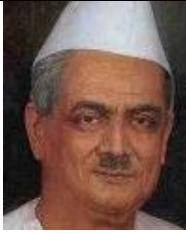
## **PART VIII: MISCELLANEOUS**

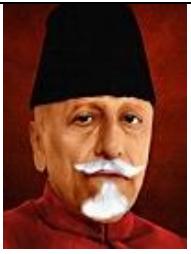
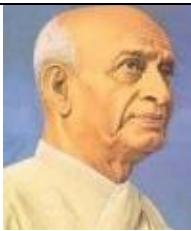
# 121. FIRST IN INDEPENDENT INDIA

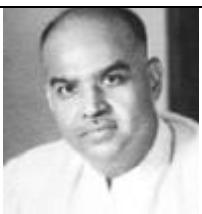
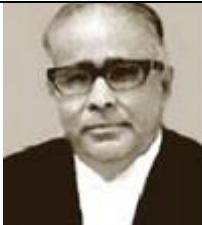
## First (Male) in Independent India

The following table enlists First in India (in male category) after independence:

<b>The First (Male) of Independent India</b>	<b>Name</b>	<b>Tenure/Time</b>	<b>Picture</b>
Who was the First President	<b>Dr. Rajendra Prasad</b>	Jan. 26, 1950 to May 14, 1962	
Who was the First Prime Minister	Pt. Jawaharlal Nehru	Aug. 15, 1947 to May 27, 1964	
Who was the First (& last) Indian Governor General	C. Rajagopalachari	June 21, 1948 to Jan. 26 1950	
The First Indian who went in Space	Rakesh Sharma	1984 Mission: <i>Soyuz T-11</i>	
Who was the First Commander-in-Chief	Kodandera Madappa Cariappa	Jan. 16, 1949 to Jan. 14, 1953	

Who was the First President who died while in office	Zakir Husain	May 13, 1967 to May 3, 1969	
Who was the First Prime Minister who did not face the Parliament	Charan Singh	July, 28 1979 to January 14, 1980	
Who was the First Field Marshal of India	S.H.F. Jamshedji Manekshaw	June 8, 1969 to Jan. 15, 1973	
Who was the First Indian who crossed the English Channel	Mihir Sen	1958	
Who did receive the First Jnanpith Award	G. Sankara Kurup	1965	
Who was the First Speaker of Lok Sabha	Ganesh Vasudev Mavalankar	May 15, 1952 to Jan. 13 1956	
Who was the First Air Chief Marshal	Subroto Mukerjee	April 1954 to Nov. 1960	

Who was the First Education Minister	Abul Kalam Azad	Aug. 15, 1947 to Feb. 2, 1958	
Who was the First Home Minister (& First Deputy Prime Minister)	Vallabhbhai Jhaverbhai Patel	Aug. 15, 1947 to Dec. 15, 1950	
Who was the First Vice-President	Dr. S. Radhakrishnan	Jan. 26 1952 to May 12, 1962	
Who was the First Naval Chief	Vice Admiral Ram Dass Katari	April 22, 1958 to June 4, 1962	
Who was the First (Indian) President of the International Court of Justice (Hague)	Dr. Nagendra Singh	1985 to 1988	
Who did First receive Param Vir Chakra	Major Som Nath Sharma		
Who did First receive Ramon Magsaysay Award	Acharya Vinoba Bhave	1958	

Who was the First Indian who received Nobel Prize in Medicine	Har Gobind Khorana	1968	
The First Indian who received Stalin (now Lenin) Peace Prize	Saifuddin Kitchlew	1952	
Who was the First Chief Justice of Supreme Court	Justice Hirala J. Kania	Jan. 26, 1950 to Nov. 6, 1951	
The First person (Indian) who received Nobel Prize in <i>Economics</i>	Amartya Sen	1998	
Who was the First person resigned from the Central Cabinet	Shyama Prasad Mukherjee	April 6, 1950	
Who was the First Chief Justice of Supreme Court Acted as the President of India (Acting President)	Justice M. Hidayatullah	July 20, 1969 to Aug. 24, 1969	

Who was the First Finance Minister	Shanmukham Chetty	1947 to 1949	
Who was the First Prime Minister resigned without completing his tenure	Morarji Desai	March 24, 1977 to July 28, 1979 Resigned in - 1979	
Who was the First Defence Minister	Baldev Singh	1947–1952	
Who was the First Law Minister	Bhimrao Ramji Ambedkar	Aug. 15, 1947 to Sep. 1951	
Who was the First Chief Minister died during his tenure	C. N. Annadurai	Feb. 1967 to Feb. 3, 1969 Died in Feb. 3, 1969	

## First (Female) in Independent India

The following table enlists First in India (in female category) after independence:

<b>The First (Female) of Independent India</b>	<b>Name</b>	<b>Tenure/Time</b>	<b>Picture</b>
The First Woman who became Cabinet Minister (She was Health Minister)	Rajkumari Amrit Kaur	1947 to 1957	
Who was the First Woman Governor (of a state) (She served as governor of the United Provinces of Agra and Oudh)	Mrs. Sarojini Naidu	1947 to 1949	
Who was the First (& only) Woman Prime Minister	Mrs. Indira Gandhi	Jan. 24, 1966 to March 24, 1977 & Jan. 14, 1980 to Oct. 31, 1984	
Who was the First Woman Judge of Supreme Court	Justice M. Fathima Beevi	Oct. 6, 1989 to April 29, 1992	
Who was the First Woman Ambassador (First woman who cleared Indian Civil Services Exam and first woman who joined Indian Foreign Service)	Miss C. B. Muthamma	Joined IFS in 1949	

Who was the First Woman President of the United Nations General Assembly	Vijaya Lakshmi Pandit	1953	
Who was the First Woman Chief Minister of state	Sucheta Kriplani	Oct. 2, 1963 to March 13, 1967	
Who was the First Woman Speaker of Lok Sabha	Meira Kumar	June 4, 2009 to May 18, 2014	
Who was the First woman crossed the English Channel  (She is first Indian female sportsperson who received Padma Shri in 1960)	Arati Saha	1959	
Who was the First woman cosmonaut (from India)	Kalpana Chawla	In 1997, first flew on Space Shuttle Columbia	
Who was the First Indian woman received Academy Award (for Best Costume Design)	Bhanu Athaiya	1982 (for movie Gandhi)	

The first Indian female gymnast who won Medal at Commonwealth Games	Dipa Karmakar	2014	
Who did receive the First title of Miss World	Reita Faria	1966	
Who did receive the First title of Miss Universe	Sushmita Sen	1994	
Who was the First Woman President	Pratibha Devi Singh Patil	July 25, 2007 to July 25, 2012	
Who was the First (female) train driver	Surekha Yadav	1988	
Who was the First woman commercial Pilot	Durba Banerjee	1956	

The first Indian woman who received the 'Légion d'honneur'	Dr. Asha Pande	2010	
The youngest woman who achieved the title of grandmaster (Chess)	Humpy Koneru	2001	
Who is the first 100% visually challenged Indian Foreign Service Officer	NL Beno Zephine	2015	
The First woman who received Jnanpith Award	Ashaporna Devi	1976	
The First woman who received the 'Bharat Ratna' award	Indira Gandhi	1971	
The first woman (in the world) who climbed Mount Everest twice	Santosh Yadav	First in – 1992 & Second time in 1993	

## First in India Before Independence

The following table enlists First in India before independence:

<b>The First in India (Before Independence)</b>	<b>Name</b>	<b>Tenure/Time</b>	<b>Picture</b>
Who was the First President of Indian National Congress	Womesh Chandra Bonnerjee	1885	
The First person who cleared the Indian Civil Service Exam (ICS)	Satyendranath Tagore	1863	
The First person who received a Nobel Prize (in literature)	Rabindra Nath Tagore	1913	
The First person who received a Nobel Prize (in Physics)	C. V. Raman	1930	
The First Indian who became a pilot (of solo air flight)	Jehangir Ratanji Dadabhoy Tata (JRD Tata)	1929	
The First Indian leader who visited England	Raja Ram Mohan Roy	1832	

The first Indian who was appointed as member of the British House of Lords	Satyendra Prasanno Sinha	1919	
Who were the first ( <b>two</b> ) female graduates	Kadambini Ganguly &	Passed in 1882 & degree received in 1883	
Who were the first ( <b>two</b> ) female graduates	Chandramukhi Basu	Passed in 1882 & degree received in 1883	
Who was the First woman honors graduate	Kamini Roy	1886	
Who the first woman to read <b>law</b> at Oxford University (She was the first female advocate)	Cornelia Sorabji	1889	

# 122. FIRST IN WORLD

## First (Male) in World

The following table enlists First in the world (in male category):

<b>The First (Man) in the World</b>	<b>Name</b>	<b>Tenure/Time</b>	<b>Picture</b>
The first person who reached North Pole. (However, there is a contradiction that probably it was Robert Edwin Peary reached first)	Frederick Cook	1908	
The first person who reached South Pole	Roald Engelbregt Gravning Amundsen	1911	
The first person who climbed Mount Everest	Sir Edmund Hillary & Tenzing Norgay	1953	
Who was the first President of U.S.A.	George Washington	1789 to 1797	
Who was the first Prime Minister of Great Britain	Robert Walpole	1721 to 1742	

Who was the first Secretary General of the United Nations	Trygve Lie	1946 to 1952	
The first man who did drew the map of the earth	Anaximander	N/A	
The first male (tourist) who traveled space	Dennis Anthony Tito	2001	
Who was the first human to journey into outer space	Yuri Alekseyevich Gagarin (Russian)	1961	
The First Chinese Pilgrim who traveled India	Faxian	Between A.D. 399 & 412	
The First European who visited China	Marco Polo		

The person who first circumnavigated the Earth (Journey around the world through sea)	Ferdinand Magellan	1519 to 1522	
The First US President who visited India	Dwight D. Eisenhower	1959	
The First person who landed on Moon	Neil Alden Armstrong	1969	

## First (Woman) in World

The following table enlists First in the world (in female category):

<b>The First (Woman) in the World</b>	<b>Name</b>	<b>Tenure/Time</b>	<b>Picture</b>
Who was the first woman Prime Minister of England	Margaret Hilda Thatcher	1979 to 1990	
Who was the first woman Prime Minister of a country	Sirima Ratwatte Dias Bandaranaike (of Sri Lanka)	1960–65, 1970–77, and 1994–2000 (3 times)	

The first woman who climb Mt. Everest	Junko Tabei (from Japan)	1975	
The first woman who reached Antarctica	Caroline Mikkelsen (Denmark)	1935	
Who was the first female space tourist	Anousheh Ansari (Iranian-American)	2006	
The First woman who swam across sea channels off five continents	Bula Choudhury (India)	2005	
The first (Indian) woman who is appointed as a Civilian Police Advisor of the U.N.	Kiran Bedi	2003	
The first woman who received a Nobel Prize  (She received Nobel Prize two times and her daughter <b>Irène Joliot-Curie</b> also won the Nobel Prize in Chemistry in 1935)	Marie Curie (Poland)	1903 (in Physics) & 1911 (in Chemistry)	

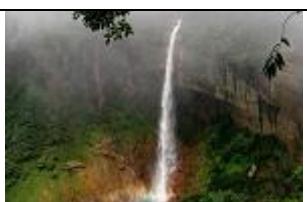
# 123. LARGEST, LONGEST, TALLEST ...

## Largest in India

The following table enlists the Largest, Longest, Tallest, Highest, Biggest, & Smallest in India:

What/Which is	Name/Location	Numeric Value	Image
The Largest Lake (Fresh Water Lake)	Wular Lake (Jammu & Kashmir)	Surface Area - 30 to 260 km <sup>2</sup>	
The Longest River	Ganga	Length – 2,525 km	
The Tallest Statue (Dedicated to Vallabhbhai Patel)	Statue of Unity (Gujarat)	Height - 182 meters (Under construction)	
The Highest Mt. Peak	Mount Godwin-Austen (or K2) (Jammu & Kashmir)	Height - 8,611 metres	
The Biggest Stadium	<i>Yuva Bharati Kriangan Stadium</i> (or Salt Lake Stadium) (Kolkata)	Field size - 105 x 70 metres	
The Smallest State	Goa (South-West India)	Area - 3,702 sq. km.	

The Largest Mosque	Jama Masjid (Delhi)	Capacity - 25,000 Person	
The Largest Cave Temple (Largest rock-cut ancient Hindu temples)	Kailasa Temple, (Cave 16) Ellora, Maharashtra		
The Largest zoological garden	Arignar Anna Zoological Park (Chennai, Tamil Nadu)	Area - 602 hectares	
The Longest Bridge (on water)	Dhola-Sadiya Bridge (On Lohit River)	Length - 9.15 km (Connect Assam & Arunachal Pradesh)	
The Largest saline water Lake	Chilika Lake (Odisha)	Surface Area - 1,165 sq. km (about)	
The Largest artificial Lake	Dhebar Lake (also known as Jaisamand Lake) (Rajasthan)	Surface Area- 87 sq. km	
The Biggest Planetarium (also biggest in Asia & second biggest in the world)	Birla Planetarium (Kolkata, West Bengal)		

The Tallest Dam	Tehri Dam on Bhagirathi River Uttarakhand	Height - 260.5 m	
The Highest gravity dam  (It is one of the largest dams in the world)	Bhakra Dam on Sutlej River  (Himachal Pradesh)	Height - 225.55 Meters. (or 741 feet)	
The Highest Plunge Waterfall	Nohkalikai Falls (Meghalaya)	Height - 340 Meters (or 1,115 Feet)	
The Tallest Waterfall	Thoseghar waterfalls (Maharashtra)	Height- 500 Meters	
The Highest Lake	<i>Tso Lhamo</i> Lake or <i>Chho Lhamo</i> (Sikkim)	Altitude - 5,330 Meters	
The Highest Road	Leh-Manali Highway (Khardung La Pass), Jammu & Kashmir	Altitude - 5,610 Meters	
The Longest Glacier	Siachen Glacier (Jammu & Kashmir)	Length - 76 km	

The Highest Airport	Kushok Bakula Rimpochee Airport (Leh, Jammu & Kashmir)	Altitude - 3,256 Meters	
The Longest Rail Tunnel	Pir Panjal Railway Tunnel (Jammu & Kashmir)	Length - 11,215 m	
The Longest Railway Platform	Gorakhpur Railway Station (Uttar Pradesh)	Length - 1.35 Km	
The Longest Sea Beach	Marina Beach (Coramandel coast on the Bay of Bengal)	Length – 13 Km	
The Longest National Highway	National Highway 44 From Srinagar to Kanyakumari	Length - 3,745 Km	
The Biggest river Island	Mājuli or Majoli (In the Brahmaputra River, Assam)	Area - 1,250 sq. km	
The Longest Tributary River	Yamuna	Length - 1,376 km	

The Largest National Park	Hemis National Park (Jammu & Kashmir)	Area - 4,400 sq. km	
The Longest Canal	Indira Gandhi Canal (Punjab, Haryana, & Rajasthan)	Length – 640 Km (about)	
The Coldest Place (also known as the gateway to Ladakh)	Dras (Jammu & Kashmir)	Ave. Minimum Temp. <b>-22</b>	
The Lowest Region	Kuttanadu (Kerala)	Altitude: <b>-2.2</b> Meters (Below Sea Level)	
Extreme South Point (of Mainland)	Cape Comorin (Kanyakumari, Tamil Nadu)		
Extreme South Point	Indira Point (Nicobar Islands)		
The Tallest Building	Imperial Tower (1 & 2) Mumbai	Height – 254 Meters	

## Largest in World

The following table enlists the Largest, Longest, Tallest, Highest, Biggest, & Smallest in the world:

What/Which is	Name/Location	Numeric Value	Image
The Biggest Airport	King Khalid International Airport (Saudi Arabia)	Total built up Area – 315 sq. km	
The Busiest Airport (by passenger traffic)	Hartsfield-Jackson Atlanta International Airport (Georgia, USA)		
The Largest Creature	Blue Whale	Average Mass – 110 Tons & Average Length – 24 Meter	
The Largest (Hot) Desert	Sahara Desert (North Africa)	Area - 9,400,000 sq. km	
The Tallest Dam	Jinping-I Dam (China)	Height – 305 Meters	
The Largest Island	Greenland	Area - 2,130,800 sq. km	

The Largest Temple	Angkor Wat (Angkor, Cambodia)	Area - 1,626,000 sq. meters	
The Highest Railway Station	Tanggula Railway Station (Amdo County, Tibet)	Altitude - 5,068 Meters	
The Busiest (passenger) Railway Station	Shinjuku R. Station (Tokyo, Japan)		
The Largest Railway Station (by platforms)	Grand Central Terminal (New York City, USA)	No. of Platforms - 44	
The Tallest Railway Station (Building)	Nagoya Station (Japan)		
The Largest Stadium	Rungrado 1st of May Stadium (Pyongyang, North Korea)	Capacity – 150,000 (people) (Earlier it was Czech Republic's Great Strahov Stadium, but no more in use)	
The Longest Epic	Mahabharata		

The Longest Mountain Range	Andres (S. America)	Length - 7,000 km	
The Longest (Road) Highway	Pan-American Highway (Covering North, Central, & South America)	Length - 30,000 Km	
The Heaviest Terrestrial (on land) Animal	African Bush Elephant	Max. Mass - 12.3 Tons	
The Heaviest Living Reptile (also the largest living reptile)	Saltwater Crocodile	Max. Mass – 200 kg	
The Heaviest Living Bird	Common Ostrich	Max Mass - 156.8 kg	
The Tallest Animal	Giraffe	Height - 5.5 Meters (Male)	
The fastest flying bird	Peregrine Falcon	Max. Air speed - 400 km/h	

The Tallest Building	Burj Khalifa (Dubai, UAE)	Height – 829.8 Meters	
The Highest Settlement	La Rinconada (Peru)	Altitude – 5,100 Meters	
The Northernmost City (with more than 100,000 inhabitants)	Norilsk (Russia)	Coordinates - 69°20'N 88°13'E	
The southernmost City	Ushuaia (Argentina)	Coordinates - 54°48'S 68°18'W	
The Highest Mt. Peak	Mount Everest (Himalayan Range) (Nepal)	Height – 8848 Meters	
The Highest (navigable) Lake	Lake Titicaca (on the border of Bolivia and Peru)	Altitude - 3,812 Meters	
The Lowest Lake	Dead Sea (on the border of West Bank, Israel and Jordan)	427 Meters Below Sea Level	

Deepest Lake	Baikal (Russia)	Depth – 1,642 Meters	
The Largest Fresh Water Lake (by surface area)	Lake Superior (on the border of the USA & Canada)	Surface Area - 82,100 km	
The Largest Gulf	Mexico Gulf (Atlantic Ocean)	Surface Area - 1,550,000 sq. km	
The Deepest River Gorge	Kali Gandaki Gorge or Andha Galchi (Nepal)	Depth - 5,571 Meter	
The Longest River	Nile (North Africa)	Length - 6,853 km	
The Longest River (by volume water)	Amazon River (South America)	Length - 6,400 km	
The Highest Waterfall	Angel Falls (Venezuela)	Height - 979 m	

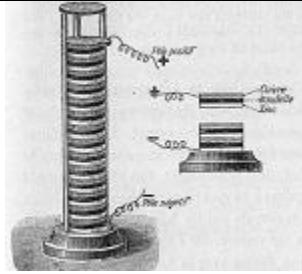
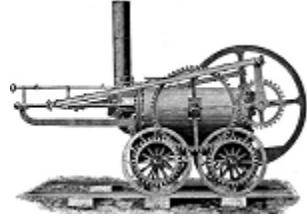
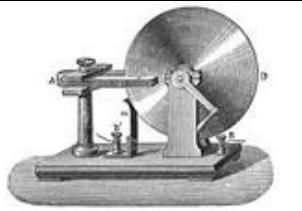
## 124. DISCOVERY & INVENTION

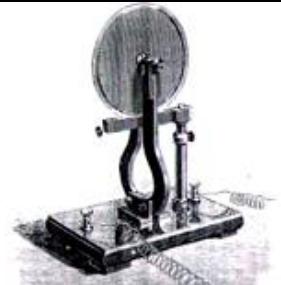
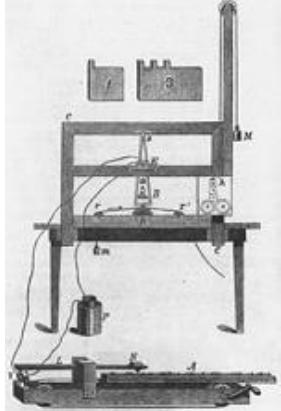
The following table enlists the major discoveries/inventions and their discoverers/inventors:

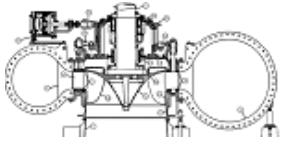
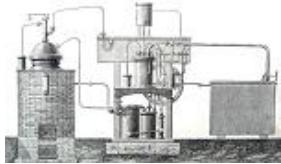
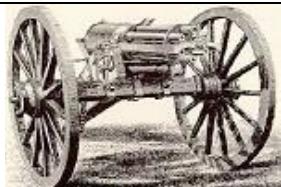
Discovery/Invention	Discoverer/Inventor	Time/Period	Image
Magnifying Glass	Roger Bacon (Great Britain)	13 <sup>th</sup> Century	
Printing Press	Johannes Gutenberg (German)	1440 (About)	
Watch (Portable Clocks)	Peter Henlein (Germany)	1509 (About)	
Optical Microscope (& also the Compound Microscope)	Zacharias Janssen (Dutch)	End of 16 <sup>th</sup> Century	

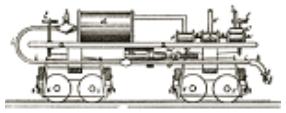
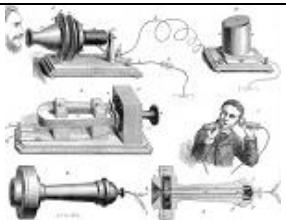
Telescope	Galileo (Italian) (however, in 1608, three inventors namely Hans Lippershey, Zacharias Janssen, & Jacob Metius invented that Galileo improved)	1609	
Barometer	Evangelista Torricelli (Italian)	1643	
Piano	Bartolomeo Cristofori di Francesco (Italian)	In the very beginning of 18 <sup>th</sup> Century	
Steam Boat	Denis Papin (French)	1704	
Steam Engine	Thomas Newcomen (British)	1712	
Watt Steam Engine	James Watt (Scottish)	1776	

Mercury Thermometer	Daniel Gabriel Fahrenheit (Polish-German)	1714	
Achromatic Lens	John Dollond (British)	1758	
Submarine	David Bushnell (American)	1775	
Bifocal Lens	Benjamin Franklin	1770s	
Power Loom	Edmund Cartwright (British)	1784	
Gas Turbine	John Barber (British)	1791	

Electric Battery	Alessandro Volta (Italian)	1800	
(Railway) Steam Locomotive	Richard Trevithick (British)	1804	
Stethoscope	René Laennec	1819	
Hygrometer (Crude hygrometer was invented by Leonardo da Vinci in 1480)	Johann Heinrich Lambert (French)	1755	
Electric Motor	Michael Faraday (British)	1821	
Typewriter	William Austin Burt (American)	1829	

Sewing Machine	Barthélémy Thimonnier (French)	1829	
Dynamo	Michael Faraday (British)	1831	
Telegraph	Samuel Morse (American)	1832-33	
Revolver (However, the first Flintlock Revolver patented by Elisha Collier in 1814)	Samuel Colt (American)	1835	
Pedal Driven Bicycle	Kirkpatrick Macmillan (Scottish)	1839	

Pneumatic Tire	Robert William Thomson (Scottish)	1845	
Francis Turbine	James Bicheno Francis (British American) & Uriah A. Boyden (American)	1848	
Refrigerator (In 1805, an American inventor Oliver Evans experimented a closed vapor-compression refrigeration cycle for the production of ice)	Alexander Twining & James Harrison (However, in 1859, Ferdinand Carré of France developed the first gas absorption refrigeration system)	1850	
Elevator/Lift (for the building)	Elisha Otis (American)	1852	
Machine Gun	Richard Jordan Gatling (American)	1861	
Dynamite	Alfred Bernhard Nobel (Swedish)	1867	

Air Brake	George Westinghouse (American)	1872	
Telephone	Alexander Graham Bell (Scottish)	1875	
Phonograph/ Gramophone		1877	
Film/Movie Camera (However, movie camera was invented by Francis Ronalds in 1845)	Louis Le Thomas Alva Edison (American) Prince (French)	1888	
Electric Lamp/Bulb (by using "a carbon filament")	Thomas Alva Edison (American)	1879	
The First Steam-powered Automobile	Nicolas-Joseph Cugnot (French)	1768	N/A
The First Car Powered by an internal combustion Engine fueled by Hydrogen	François Isaac de Rivaz (French)	1807	N/A
The First Petrol or Gasoline-powered Automobile	Karl Benz German	1886	

Inflatable Tire	John Boyd Dunlop (Scottish)	1887	
X-Ray	Wilhelm Conrad Röntgen (German)	1895	
Radio Telegraph	Guglielmo Marconi (Italian)	1890s	
Nuclear Reactor (namely Chicago Pile-1)	Enrico Fermi (Italian)	1942	
The first general-purpose Electronic Digital Computer	John Presper Eckert, Jr. & John William Mauchly (Americans)	1945	
Transistor	William Shockley, John Bardeen & Walter Brattain (Americans)	1947	
Fiber Optics	Narinder Singh Kapany (Indians)	1960	

ARPANET, (the precursor to the Internet)	Leonard Kleinrock (American)	1969	N/A
Radio	Guglielmo Marconi (Italian)	N/A	N/A

# 125. COLOR REVOLUTIONS IN INDIA

The following table enlists the color revolutions in India:

<b>Revolutions</b>	<b>Related to</b>	<b>Initiator</b>
Black Power Revolution	Petroleum	N/A
Blue Revolution	Fish	Hiralal Chaudhuri
Brown Revolution	Leather, Cocoa	N/A
Grey Revolution	Fertilizer	N/A
Green Revolution	Agriculture	Norman Borlaugm (in Mexico – first in the world & M.S. Swaminathan (in India)
White Revolution	Milk (Dairy Farming)	Verghese Kurien
Silver Revolution	Eggs	N/A
Pink Revolution	Drugs & Pharmaceuticals	N/A
Golden Revolution	Horticulture & Honey	N/A
Golden Fiber Revolution	Jute	N/A
Red Revolution	Meat and Tomato	N/A
Yellow Revolution	Oil Seeds	N/A
Silver Fiber Revolution	Cotton	N/A
Round Revolution	Potato	N/A

# 126. SEVEN WONDERS

## Seven Wonders of India

The following table enlists the seven wonders of India (based on NDTV along with the Ministry of Tourism, Government of India):

Wonder	Location	Image
Meenakshi Amman Temple (Devoted to Parvati/Minakshi and Shiva)	Madurai, Tamil Nadu	
Dholavira (Ancient Civilization)	Kutch District, Gujarat	
Red Fort (Built by Mughal Emperor Shah Jahan in 1648)	Delhi (UNESCO World Heritage Site)	
Jaisalmer Fort (Built by the Rajput ruler Rawal Jaisal in 1156 AD)	Jaisalmer, Rajasthan (UNESCO World Heritage Site)	
Konark Sun Temple (Built by king Narasimhadeva I of Eastern Ganga Dynasty in 1255 AD)	Konark, Odisha (UNESCO World Heritage Site)	

Nalanda (Was Buddhist monastery and great education center during the ancient kingdom of Magadha)	Bihar	
Khajuraho Group of Monuments (famous for their nagara-style architectural symbolism, it was built between 950 and 1050 by the Chandela dynasty)	Chhatarpur District, Madhya Pradesh (UNESCO World Heritage Site)	

## Seven Wonders of Industrial World

The following table enlists the seven wonders of the Industrial World:

Wonder	Description	Image
SS Great Eastern	<p>It was an iron sailing steam ship designed by Isambard Kingdom Brunel, and built by J. Scott Russell &amp; Co. at Millwall.</p> <p>Location - River Thames, London, UK</p>	
Bell Rock Lighthouse	<p>Built between 1807 and 1810 by Robert Stevenson on the Bell Rock in the North Sea, it is the world's oldest surviving sea-washed lighthouse.</p> <p>(Location - off the coast of Angus, Scotland)</p>	
Brooklyn Bridge	<p>Built in 1883, the Brooklyn Bridge is a hybrid cable-stayed/suspension bridge in New York City, USA.</p>	
London Sewerage System	<p>Constructed in late 19<sup>th</sup> Century, the London sewerage system is part of the water infrastructure serving London, England.</p>	

First Transcontinental Railroad (Pacific Railroad)	Built between 1863 and 1869, the Pacific Railroad was a 3,069 km contiguous railroad line of the United States.	
Panamá Canal	Constructed in 1914, Panama Canal is a man-made 77 km waterway in Panama that connects the Atlantic Ocean (via the Caribbean Sea) with the Pacific Ocean.	
Hoover Dam	Constructed in 1930s, Hoover dam is a concrete arch-gravity dam in the Black Canyon of the Colorado River. It is located on the border of Nevada and Arizona (in the USA).	

## Seven Wonders of Underwater World

The following table enlists the seven wonders of the Underwater World:

Wonder	Description	Image
Palau	Palau is an island country located in the western Pacific Ocean.	
Belize Barrier Reef	The Belize Barrier Reef is a series of coral reefs straddling the coast of Belize.	
Great Barrier Reef	The Great Barrier Reef is the world's largest coral reef system along the East of Australian Coast.	

Deep-Sea Vents	It is a fissure in a planet's surface from which geothermally heated water released.	
Galápagos Islands	It is an archipelago of volcanic islands located on either side of the Equator (in the Pacific Ocean).	
Lake Baikal	It is a rift lake, located in southern Siberia, Russia.	
Red Sea	Lying between Africa and Asia, the Red Sea is a seawater inlet of the Indian Ocean.	

## New Seven Wonders of Nature

The following table enlists the New seven wonders of the Nature:

Wonder	Description	Image
Iguazu Falls	It is fall of the Iguazu River (located on the border of the Argentine and Brazil).	
Jeju Island	It is the largest island off the coast of the Korean Peninsula.	

Komodo Island	It is one of the islands of the Republic of Indonesia.	
Puerto Princesa Underground River	Located about 80 km north of the city center of Puerto Princesa, Puerto Princesa is a protected area in Philippines.	
Table Mountain	It is a flat-topped mountain located in the city of Cape Town in South Africa.	
Halong Bay	It is a UNESCO World Heritage Site located in Vietnam.	
Amazon Rainforest	Located in South America, it is a moist broadleaf forest that covers most of the Amazon basin.	

## New Seven Wonders of World

The following table enlists the New seven wonders of the world:

Wonder	Description	Image
Great Wall of China	Located in China, the Great Wall is a series of fortifications made of stone, brick, tamped earth, wood, and other materials.	

Petra	It is a historical and archaeological city in the southern Jordan.	
Christ the Redeemer	It is an Art Deco statue of Jesus Christ located in Rio de Janeiro, Brazil. It was created by Polish-French sculptor Paul Landowski and built by the Brazilian engineer Heitor da Silva Costa.	
Machu Picchu	Located in Peru, it is the most familiar icon of Inca civilization.	
Chichen Itza	Built by the Maya people of the Terminal Classic period, it was a large pre-Columbian city in Mexico.	
Colosseum	Located in Rome, Italy, it is an oval amphitheater (built in Ancient period).	
Taj Mahal	Located on the south bank of the Yamuna river, Agra, India, it is an ivory-white marble mausoleum.	
Great Pyramid of Giza (Honorary included)	Located in the Giza pyramid complex bordering (in El Giza, Egypt), it is the oldest and largest of the three pyramids.	

## Seven Wonders of Ancient World

The following table enlists the seven wonders of the Ancient World:

Wonder	Description	Image
Great Pyramid of Giza	Located in the Giza pyramid complex bordering (in El Giza, Egypt), it is the oldest and largest of the three pyramids.	
Hanging Gardens of Babylon	Probably, built by King Nebuchadnezzar II (in 600 BC), it was a distinctive feature of ancient Babylon.	
Statue of Zeus at Olympia	It was a giant seated statue (about 13 m tall) located in Greece. It was made by the Greek sculptor Phidias around 435 BC.	
Temple of Artemis	Dedicated to the goddess Artemis, temple of Artemis was a Greek temple.	
Mausoleum at Halicarnassus	It was a tomb built between 353 and 350 BC at Halicarnassus, Turkey.	
Colossus of Rhodes	Erected in the city of Rhodes, Greece, Colossus was a statue of the Greek titan-god of the sun Helios.	

Lighthouse of Alexandria (or Pharos of Alexandria)	Built by the Ptolemaic Kingdom between 280 and 247 BC in Egypt, it was ancient lighthouse.	 A detailed black and white illustration of the Lighthouse of Alexandria. The structure is a tall, multi-tiered tower with a square base. Each tier is decorated with a series of small windows or recesses. The top tier features a large, ornate entrance or balcony. A long, thin staircase or walkway extends from the side of the tower, supported by a series of small pillars. The tower is set against a dark, hazy background, suggesting a coastal or urban environment.
--	--	---

## 127. IMPORTANT DATES

The following table enlists the important dates of India:

<b>Date</b>	<b>Known for</b>
January 09	Pravasi Bhartiya Divas/Non Resident Indian (NRI) Day
January 12	National Youth Day
January 15	Indian Army Day
January 24	National Girl Child Day/Balika Divas
January 25	National Voters' Day (also National Tourism Day)
January 26	Republic Day
January 30	Martyr's Day
February 24	Central Excise Tax Day
February 28	National Science Day
March 03	National Defence Day
March 04	National Safety Day
March 12	Central Industrial Security Force (CISF) Foundation Day
March 18	Ordnance Factories' Day
May 21	Anti-Terrorism Day
July 01	National Doctors' Day
July 26	Kargil Vija Divas
August 15	Independence Day
August 20	Sadbhavna Divas
August 29	National Sports Day
September 05	Teacher's Day
September 14	Hindi Divas
September 15	Engineers' Day
October 2	Gandhi Jayanthi
October 20	National Solidarity Day

November 26	National Law Day
December 02	National Pollution Control Day
December 04	Navy Day
December 23	Kisan Divas

# 128. OLD AND NEW NAME

## Changed Name (in India)

The following table enlists the changed name of the Indian Cities:

Old Name	New Name	Image
Bangalore	Bengaluru	
Madras	Chennai	
Calcutta	Kolkata	
Bombay	Mumbai	
Mangalore	Mangaluru	
Mysore	Mysuru	
Cawnpore	Kanpur	

Baroda	Vadodra	
Pataliputra	Patna	
Pondicherry	Puducherry	
Poona	Pune	
Trivandrum	Thiruvananthapuram	
Quilon	Kollam	
Aleppey	Alappuzha	
Cochin	Kochi	
Calicut	Kozhikode	

Palghat	Palakkad	
Trichur	Thrissur	
Cannanore	Kannur	
Saket	Ayodhya	
Umrvati	Amravati	
Tanjore	Thanjavur	
Lakhnau	Lucknow	
Trichy	Tiruchirappalli	

Jeypore	Jaipur	
Orissa	Odisha	
Ootacamund	Udhagamandalam	
Panjim	Panaji	
Vizagapatam	Visakhapatnam	
Belgaum	Belagavi	
Hubli	Hubballi	
Gulbarga	Kalburgi	

Bijapur	Vijayapura	
Banaras	Varanasi	

## Old Name & New Name

The following table enlists the old and respective new name of the Indian Cities:

Old Name	New/Modern Name
Prayag	Allahabad
Patliputra	Patna
Bhagyanagar	Hyderabad
Calcutta	Kolkata
Calicut	Kozhikode
Madras	Chennai
Bombay	Mumbai
Baroda	Vadodara
Cochin	Kochi
Benares	Varanasi
Tuticorin	Thoothukudi
Cape Comorin	Kanya Kumari
Gulbarga	Kalaburagi
Belgaum	Belagavi
Bangalore	Bengaluru
Mysore	Mysuru
Tumkur	Tumakuru

## Changed Name (World)

The following table enlists changed name of the major countries of the world:

Old Name	New Name	Image
Abyssinia	Ethiopia (East Africa)	
Angora	Ankara (Turkey)	
Basutoland	Lesotho (South Africa)	
Batavia	Jakarta (Indonesia)	
Burma	Myanmar (Asia)	
Ceylon	Sri Lanka (South Asia)	
Christina	Oslo (Norway)	

Congo	Zaire (Central Africa)	
Constantinople	Istanbul (Turkey)	
Dacca	Dhaka (Bangladesh)	
Dutch East Indies	Indonesia (South-East Asia)	
Dutch Guyana	Surinam (South America)	
Edo	Tokyo	
Ellice Islands	Tuvalu (South Pacific Ocean)	
Formosa	Taiwan (East Asia)	
Gold Coast	Ghana (West Africa)	

Greenland	Kalaallit Nunaat	
Holland	The Netherlands (West Europe)	
Kampuchea	Cambodia (Asia)	
Leopoldville	Kinshasa (Democratic Republic of the Congo)	
Mesopotamia	Iraq (South-West Asia)	
Mahmoodpur	Lahore (Pakistan)	
New Hebrides	Vanuatu (South Pacific Ocean)	
Nippon	Japan (East Asia)	

Northern Rhodesia	Zambia (South-Central Africa)	
Nyasaland	Malawi (South-Central Africa)	
Oea	Tripoli (North Africa)	
Peking	Beijing (China)	
Persia	Iran (South-West Asia)	
Rangoon	Yangon (Myanmar)	
Raj Shahi	Islamabad (Pakistan)	
Rhodesia	Zimbabwe (South-Central Africa)	

Saigon	Ho Chi Minh City (Vietnam)	
Salisbury	Harare (Zimbabwe)	
Sandwich Wands	Hawaiian Islands (The United States)	
Siam	Thailand (Asia)	
South West Africa	Namibia (South-West)	
Spanish Guinea	Equatorial Guinea (West Africa)	
Stalingrad	Volgograd (Russia)	
Tanganyika & Zanzibar	Tanzania (South-East Africa)	

Turicum	Zürich (Switzerland)	
---------	-------------------------	---

# 129. SOBRIQUET

## Sobriquet of Indian Cities

The following table enlists the major cities (of India) and their Sobriquet:

<b>Sobriquet (Nickname)</b>	<b>New Name</b>	<b>Image</b>
City of Taj	Agra (Uttar Pradesh)	
Boston/Manchester of India	Ahmedabad (Gujarat)	
Sangam City	Allahabad (Uttar Pradesh)	
Land of Black Diamond	Asansol (West Bengal)	
City of Peace	Bardhaman (West Bengal)	
Temple City of India	Bhubaneswar (Odisha)	

The Venice of the East	Alappuzha (Kerala)	
Garden City of India Silicon Valley of India Space City of India Science City of India IT Capital of India Pensioners Paradise	Bengaluru (Karnataka)	
Detroit of Asia Automobile Capital of India HealthCare Capital of India	Chennai (Tamil Nadu)	
Textile City of India Manchester of South India	Coimbatore (Tamil Nadu)	
Scotland of India	Coorg (Karnataka)	
School Capital of India	Dehradun (Uttarakhand)	
Queen of the Hills	Darjeeling (West Bengal)	

Tea City of India	Dibrugarh (Assam)	
Ruhr of India	Durgapur (West Bengal)	
Gateway of North East India	Guwahati (Assam)	
Switzerland of the East	Haflong (Assam)	
City of Pearls	Hyderabad (Telangana)	
Pink City	Jaipur (Rajasthan)	
Golden City of India	Jaisalmer (Rajasthan)	
Steel City of India Pittsburgh of India	Jamshedpur (Jharkhand)	

Perfume Capital of India	Kannauj (Uttar Pradesh)	
Land of looms and lores	Kannur (Kerala)	
Leather City of the World Manchester of The East	Kanpur (Uttar Pradesh)	
Queen of the Arabian Sea	Kochi (Kerala)	
City of Wrestlers	Kolhapur (Maharashtra)	
City of Joy	Kolkata (West Bengal)	
City of Letters City of Latex City of Mural	Kottayam (Kerala)	
Prince of Arabian sea Cashew Capital of the World	Kollam (Kerala)	

Shiraz-e-Hind Constantinople of the East City of Nawabs	Lucknow (Uttar Pradesh)	
Athens of the East City of Festivals Temple City Jasmine City City of Divine Nectar	Madurai (Tamil Nadu)	
Mango City of Bengal	Malda (West Bengal)	
Rome of The East City of Delicacies Cradle of Indian Banking Gateway of Karnataka	Mangalore (Karnataka)	
City of Seven Islands Financial Capital of India City of Dreams City of Slums and Skyscrapers Gateway of India Hollywood of India	Mumbai (Maharashtra)	
Queen of the Mountains	Mussoorie (Uttarakhand)	
Orange City	Nagpur (Maharashtra)	

Royal City	Patiala (Punjab)	
City of Weavers	Panipat (Haryana)	
City of Rallies World Cultural Capital Food Capital of Asia Fashion Capital of India	New Delhi	
Paris of the East	Pondicherry (Puducherry)	
Oxford of the East Queen of Deccan	Pune (Maharashtra)	
Yoga City	Rishikesh (Uttarakhand)	
Scotland of the East	Shillong (Meghalaya)	
City of Blood	Tezpur (Assam)	

White City City of Lakes Venice of the East	Udaipur (Rajasthan)	
Spiritual capital of India Oldest city (in the world)	Varanasi (Uttar Pradesh)	
Blue City Sun City	Jodhpur (Rajasthan)	
Wine capital of India Grape city of India California of India	Nashik (Maharashtra)	
Diamond City of India City of Diamonds Textile city of India	Surat (Gujarat)	
Evergreen City of India	Trivandrum (Kerala)	
City of Destiny	Visakhapatnam (Andhra Pradesh)	
Land of Warriors	Zunheboto (Nagaland)	

All Seasons State	Himachal Pradesh	
Blue Mountains	Nilgiri (South India)	
Sorrow of Bengal	Damodar River	
Sorrow of Assam	Brahmaputra River	
Spice Garden of India	Kerala	
Land of Sunrise in India	Arunachal Pradesh (North-east India)	
House of Clouds	Meghalaya (North-east India)	
God's Own Land of India	Kerala (South India)	

## Sobriquet (in the World)

The following table enlists the major countries with their sobriquet (in the world):

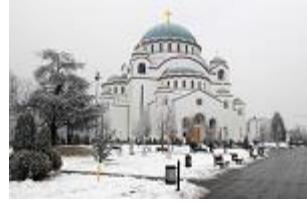
Sobriquet (Nickname)	New Name	Image
Britain of the East	Japan (East Asia)	
Battle field of Europe	Belgium (West Europe)	
City of Cycles	Beijing (China)	
City of Dreaming Spires	Oxford (UK)	
City of Eternal Springs	Quito (Ecuador)	
City of Sky Scrappers	New York (USA)	
City of Magnificent Distances	Washington DC (USA)	

City of Golden Gate	San Francisco (USA)	
City of Seven Hills	Rome (Italy)	
Forbidden City	Lhasa (Tibet)	
Gateway of Tears	Strait of Bab-el Mandeb	
George Cross Island	Malta (Mediterranean Sea)	
Granite City	Aberdeen (Scotland)	
Herring Pond	Atlantic Ocean	

Holy Land	Palestine (West Asia)	
Hermit Kingdom	Korea (East Asia)	
Island of Cloves	Madagascar (Indian Ocean)	
Land of Eagles	Albania (East Europe)	
Land of Golden Fleece	Australia	
Land of Lilies	Canada (North America)	
Land of Golden Pagoda	Myanmar (Asia)	
Land of Maple	Canada (North America)	

Land of Thousand Lakes	Finland	
Land of Morning Calm	Korea (East Asia)	
Land of Rising Sun	Japan (East Asia)	
Land of Setting Sun	UK (West Europe)	
Land of Midnight Sun	Norway (North-west Europe)	
Land of Tulips	Netherlands (West Europe)	
Land of White Elephant	Thailand (Asia)	
Land of Thunder Bolt	Bhutan (Asia)	

Land of Thousand Elephants	Laos (Asia)	
Manchester of the Orient	Osaka (Japan)	
Land of Thunder Dragon	China (Asia)	
Nation of Thousand Hills	Rwanda (Africa)	
Pearl of Arabia	Bahrain (South-west Asia)	
Pillars of Hercules	Strait of Gibraltar (Europe)	
Roof of the World	Pamirs (Plateau) (Asia)	

Sorrow of China	Huang Ho River	
Sick Man of Europe	Turkey (Asia)	
Sugar Bowl of World	Cuba (Caribbean Sea)	
White City	Belgrade (Serbia)	
Windy City	Chicago (USA)	
World's Bread Basket	Prairies of North America	
Island of Fire	Iceland (West Europe)	
Land of Windmills	Holland (West Europe)	

World Loneliest Islands	Tristan Da Cunha	
Workshop of Europe	Belgium (West Europe)	
White Man's Grave	Guinea Coast (West Africa)	
Store House of the World	Mexico (Central America)	
Modern Babylon	London (UK)	
Sea of the Mountains	British Columbia (West Canada)	
Saw Mill of Europe	Sweden (North Europe)	

The Eye of Greece	Athens (South-east Europe)	
Rich Port	Puerto Rico (Caribbean Sea)	
Rich Coast	Costa Rica (Central America)	
Playground of Europe	Switzerland (Central Europe)	
Pearl of Orient	Hong Kong (China)	
Mother-in-Law of Europe	Denmark (West Europe)	
Land of the Humming Bird	Trinidad (Caribbean Sea)	
Land of the Flying Fish	Barbados (Caribbean Sea)	

Land of Kangaroos	Australia	
Gift of the Nile	Egypt (North-east Africa)	
Dark Continent	Africa	
Cockpit of Europe	Belgium (West Europe)	
City of Popes	Rome (Italy)	
City of Arabian Nights	Baghdad (Iraq)	

# 130. POPULAR CITIES OF INDIA

The following table enlists major cities with their significance/specializations:

Name	Known for	Located in
Agra	Taj Mahal	Uttar Pradesh
Ambala	Air Force Training Center	Haryana
Ahmedabad	Cotton Textile	Gujarat
Aligarh	Aligarh University & lock industry	Uttar Pradesh
Allahabad	Kumbh Mela (Hindu Pilgrimage Center)	Uttar Pradesh
Alleppy	Known as 'Venice of the East' because of the canal network	Kerala
Alwaye	Rare Earth Factory	Kerala
Amarnath	Ice Cave, Lord Shiva temple	Jammu & Kashmir
Amritsar	Golden Temple	Punjab
Anand	Amul Dairy	Gujarat
Asansol	Coal Mining	West Bengal
Auroville	An experimental township (founded by Mirra Alfassa in 1968 and designed by architect Roger Anger)	Tamil Nadu and Puducherry
Avadi	Tank Industry	Tamil Nadu
Badrinath	Hindu Pilgrimage Center	Uttarakhand
Bengaluru	Hindustan Aeronautics Ltd.	Karnataka
Barauni	Oil Refinery	Bihar
Bareilly	Furniture	Uttar Pradesh
Bhilai	Steel Plant	Chhattisgarh
Bhopal	Bharat Heavy Electricals Ltd.	Madhya Pradesh
Bhubaneshwar	Lingaraja Temple	Odisha
Bikaner	Camel Hair Products	Rajasthan
Bokaro	Steel Plant	Jharkhand

Burnpur	Steel Plant	West Bengal
Cambay	Petroleum	Gujarat
Cherrapunji	Heavy Rainfall	Meghalaya
Chittaranjan	Locomotive Industry	West Bengal
Kochi	Ship Building	Kerala
Dehradun	Indian Military Academy & Forest Research Institute	Uttarakhand
Delhi	Red Fort, Lotus Temple, Jama Masjid, etc.	Delhi
Dhanbad	Mines Institute, Coal Mining	Jharkhand
Dhariwal	Woolen Industries	Punjab
Digboi	Oil Fields	Assam
Durgapur	Steel Plant	West Bengal
Fatehpur Sikri	Buland Darwaza	Uttar Pradesh
Firozabad	Glass Industry	Uttar Pradesh
Gwalior	Artificial silk, rayon, fort, etc.	Madhya Pradesh
Haldia	Oil Refinery	West Bengal
Hyderabad	Charminar, Cigarette factory, etc.	Telangana
Haridwar	Hindu Pilgrimage Center (Kumbh Mela)	Uttarakhand
Indore	Artificial silk	Madhya Pradesh
Jabalpur	Marbles, handlooms, lens, pottery	Madhya Pradesh
Jaipur	Hawa Mahal (known as 'Pink City')	Rajasthan
Jamshedpur	Steel Plant	Jharkhand
Jharia	Coal Mining	Jharkhand
Kanpur	Leather industry, Aircraft, etc.	Uttar Pradesh
Karnal	National Dairy Research Institute	Haryana
Katni	Pottery, Handloom, Kattha (catechu), etc.	Madhya Pradesh
Khetri	Copper Mines	Rajasthan

Kolkata	Grand Colonial Architecture, Art Galleries, and Cultural Festivals	West Bengal
Kolar	Gold Mines	Karnataka
Ludhiana	Hosieries, cycle, etc.	Punjab
Madurai	Meenakshi Temple, Handloom silk sarees	Tamil Nadu
Meerut	Sport Goods, Scissors, etc.	Uttar Pradesh
Moradabad	Brassware	Uttar Pradesh
Mumbai	Film City	Maharashtra
Mysore	Sandal Wood	Karnataka
Nagpur	National Environmental Engineering Research Institute, Orange	Maharashtra
Nashik	Kumbh Mela (Hindu Pilgrimage Center)	Maharashtra
Nepanagar	Newsprint factory	Madhya Pradesh
Neyveli	Lignite Mining (Coal)	Tamil Nadu
Panna	Diamond Mining	Madhya Pradesh
Perambur	Integral Coach Factory	Tamil Nadu
Pimpri	Penicillin Factory	Maharashtra
Pinjore	HMT Factory	Haryana
Pune	Film & TV Institute	Maharashtra
Renukoot	Aluminum Industry	Uttar Pradesh
Rishikesh	Antibiotics Plant	Uttarakhand
Roorkee	Engineering University	Uttarakhand
Rourkela	Cable Factory	Odisha
Saharanpur	Institute of Paper Technology	Uttar Pradesh
Salem	Bauxite	Tamil Nadu
Sambalpur	Coal Mining	Odisha
Sarnath	Buddhist Stupa	Uttar Pradesh
Sholapur	Cotton Textile	Maharashtra
Shriharikota	Satellite launching station	Andhra Pradesh

Singhbhum	Copper and Iron Mines	Jharkhand
Surat	Cotton Textile	Gujarat
Tarapur	First Atomic Power Station of India	Maharashtra
Thumba	First Rocket Launching Station of India	Kerala
Titagarh	Paper Industry	West Bengal
Trombay	Atomic Energy	Maharashtra
Tuticorin	Port City	Tamil Nadu
Ujjain	Kumbh Mela (Hindu Pilgrimage Center)	Madhya Pradesh
Varanasi	Hindu Pilgrimage Center, Banarsi Sarees	Uttar Pradesh
Visakhapatnam	Ship Building	Andhra Pradesh
Warangal	Carpets	Telangana
Zawar	Zinc Mines	Rajasthan

# 131. CITIES AND FOUNDERS

The following table enlists the major Indian Cities with their Founders/Architects:

<b>City</b>	<b>Founder/Architect</b>
Delhi	Tomara (Tanwar Rajput ruler)
Ajmer	Ajayraj Singh Chauhan
Jaunpur	Feroz Shah Tughlaq
Agra	Sikandar Lodi
Fatehpur Sikri	Mughal Emperor Akbar
Kolkata	Job Charnock
Bhopal	Dost Mohammad Khan
Jaipur	Sawai Jai Singh
Hyderabad	Quli Qutub Shah
Amritsar	Guru Ram Das
Nagpur	Bhakt Buland
Chandigarh	Le Corbusier
Bhubaneswar	Otto Königsberger
Pataliputra	Ajatashatru
Bengaluru (earlier Bangalore)	Kempe Gowda I

# 132. INDIAN DANCES

The following table enlists the major Indian dances with their respective geographic regions (states):

<b>State</b>	<b>Dances</b>
Andhra Pradesh	Kuchipudi
	Kolattam
Arunachal Pradesh	Bardo Chham
Assam	Bihu dance
	Jhumur Naach
	Bagurumba
	Ali Ai Ligang
Bihar	Kathaputli
	Bhako
	Jhijiya
	Karma
	Jat-Jatni Bidpada
	Ramkhelia
Jharkhand	Karma/Munda
Chhattisgarh	Panthi
	Raut Nacha
	Gaur Maria Dance
Goa	Dashavatara
	Dekhni
	Dhalo
	Dhangar
	Fugdi
Gujarat	Garba
	Dandiya Raas

	Tippani Dance
Himachal Pradesh	Kinnauri Nati
	Namgen
Haryana	Saang
	Ras Leela
	Jhumar Dance
	Gugga Dance
	Khoria Dance
Karnataka	Yakshagana
	Bayalata
	Dollu Kunitha
	Veeragaase dance
Jammu and Kashmir	Kud
	Dumhal
Kerala	Mohiniyattam
	Kathakali
	Kathakali
	Thirayattam
	Theyyam
	Thullal
	Koodiyattam
	Duffmuttu or Aravanmuttu
	Oppana
	Kaikottikali or Thiruvathirakali
	Margamkali
	Thitambu Nritham
	Chakyar Koothu
	Chavittu Nadakam
Madhya Pradesh	Tertali

	Charkula
	Jawara
	Matki Dance
	Phulpatti Dance
	Grida Dance
	Maanch
Maharashtra	Pavri Nach
	Lavani
Manipur	Thang Ta
	Manipuri
	Dhol Cholom
Mizoram	Cheraw Dance
Nagaland	Chang Lo or Sua Lua
Odisha	Ghumura Dance
	Ruk Mar Nacha (& Chhau dance)
	Goti Pua
	Nacnī
	Odissi
	Baagh Naach or Tiger Dance
	Dalkhai
	Dhap
	Ghumra
	Karma Naach
	Keisabadi
Puducherry	Garadi
Punjab	Bhangra
	Giddha
	Malwai Giddha
	Jhumar

	Karthi
	Kikkli
	Sammi
	Dandass
	Ludi
	Jindua
Rajasthan	Ghoomar
	Kalbelia
	Bhavai
	Kachchhi Ghodi
Sikkim	Singhi Chham
Tamil Nadu	Bharatanatyam
	Kamandi or Kaman Pandigai
	Devarattam
	Kummi
	Kolattam
	Karagattam or Karagam
	Mayil Attam or Peacock dance
	Paampu attam or Snake Dance
	Oyilattam
	Puliyattam
	Poikal Kudirai Attam
	Bommalattam
	Theru Koothu
Tripura	Hojagiri
Telangana	Bathukamma
West Bengal	Gambhira
	Kalikapatadi
	Nacnī

	Alkap
	Domni
Uttrakhand	Chholiya
North India	Kathak (Basically in Uttar Pradesh)

# 133. INTERNATIONAL ORGANIZATIONS

The following table enlists the major International Organizations, establishment year, and the location of their Headquarters:

Organization	Abbreviation	Headquarters	Year of Establishment
United Nations Organization	UNO	New York (USA)	1945
United Nations Children's' Fund	UNICEF	New York (USA)	1946
United Nations Conference on Trade and Development	UNCTAD	Geneva (Switzerland)	1964
World Health Organization	WHO	Geneva (Switzerland)	1948
International Labor Organization	ILO	Geneva (Switzerland)	1919
International Committee of the Red Cross	ICRC	Geneva (Switzerland)	1863
World Trade Organization	WTO	Geneva (Switzerland)	1995
United Nations Educational Scientific and Cultural Organization	UNESCO	Paris (France)	1945
World Meteorological Organization	WMO	Geneva (Switzerland)	1950
World Intellectual Property Organization	WIPO	Geneva (Switzerland)	1967
International Organization for Standardization	IOS	Geneva (Switzerland)	1947
International Atomic Energy Agency	IAEA	Vienna (Austria)	1957

Organization of Petroleum Exporting Countries	OPEC	Vienna (Austria)	1960
International Monetary Fund	IMF	Washington DC (USA)	1945
World Bank	WB	Washington DC (USA)	1945
International Maritime Organization	IMO	London (UK)	1959
Amnesty International	AI	London (UK)	1961
International Court of Justice	ICJ	The Hague (Netherlands)	1945
Food and Agricultural Organization	FAO	Rome (Italy)	1945
North Atlantic Treaty Organization	NATO	Brussels (Belgium)	1949
International Renewable Energy Agency	IRENA	Abu Dhabi (UAE)	2009
South Asian Association for Regional Cooperation	SAARC	Kathmandu (Nepal)	1985
Association of South East Asian Nations	ASEAN	Jakarta (Indonesia)	1967
Asia Pacific Economic Cooperation	APEC	Singapore	1989
Organization of Islamic Cooperation	OIC	Jeddah (Saudi Arabia)	1969
Organization for the Prohibition of Chemical Weapons	OPCW	The Hague, (Netherlands)	1997
Worldwide Fund for Nature	WWF	Gland, Vaud (Switzerland)	1961
World Economic Forum	WEF	Cologny, (Switzerland)	1971

International Hydrographic Organization	IHO	Monaco	1921
International Cricket Council	ICC	Dubai, (UAE)	1909
International Union for Conservation of Nature	IUCN	Gland, (Switzerland)	1948
International Council on Monuments and Sites	ICOMOS	Paris, (France)	1965
United Nations World Tourism Organization	UNWTO	Madrid, (Spain)	1974

## 134. BOOKS & AUTHORS

The following table enlists the major books and their authors:

<b>Book</b>	<b>Author</b>
Tolerance	Mamata Banerjee
The Z Factor	Subhash Chandra
The Turbulent Years – 1980-1996 – Vol II	Pranab Mukherjee
MARU BHARAT SARU BHARAT" (My India Noble India)	Jain Acharya Ratnasundari Swarji Mahara
Objective Railway Engineering- Track, Works & Others	M M Agarwal
Anything But Khamosh	Shatrughan Sinha
The Kiss of Life How a Superhero and my son defeated cancer	Bilal Siddiqui & Emraan Hashmi
The Making of India: The Untold Story of British Enterprise	Kartar Lalvani
A State in Denial – Pakistan's Misguided and Dangerous Crusade	B G Verghese
Endurance: My Year in Space and Our Journey to Mars	Scott Kelly
Transcendence	Apj Abdul Kalam
A Kingdom for his Love	Vani Mahesh and Shinie Antony
Two Year Eight Months and Twenty-Eight Night	Salman Rushdi
The Red Sari	Javier Moro
Enoch, I am a British Indian	Sarinder Joshua
Duroch ModiNomics	Sameer Kochhar
Who was Shivaji ?	Sri Govind Pansare
Indian Paper Money	Razack
Gandhi: An Illustrated Biography	Pramod Kapoor

The Culture Heritage of Trans Himalayas-Kinnaur	P S Nagi Loktus
Neither a Hawk nor a Dove	Khurshid M Kasuari
God of Antarctica	Yashwardhan Shukla (13 year old )
Indian Parliamentary Diplomacy	Meira Kumar
Super Economies	Raghav Bahal
China: Confucius in the Shadow	Poonam Surie
My Years with Rajiv and Sonia	R D Pradhan
My country My Life	L K Advani
Khushwantnama -The Lessons of My Life	Khushwant singh
Syntheism – Creating God in The Internet Age	Alexander Bard
Joseph Anton (Autobiography)	Sulman Rushdie
Narendra Modi: A Political Biography	Andy Marino
One Life is Not Enough	Natwar Singh
My Unforgettable Memories	Mamata Banerjee
Rationalised Roman for Kashmiri	Dr R L Bhat
The Wrong Enemy: America in Afghanistan, 2001- 2014	Carlotta Gall
Strictly Personal, Manmohan and Gursharan	Daman Singh
Lal Bahadur Shastri: Lessons in Leadership	Pavan Choudary
The Accidental Prime Minister: the making and unmaking of Manmohan Singh	Sanjaya Baru
Crusader or Conspirator? Coalgate and other Truths	PC Parakh
Walking With Giants	G. Ramachandran
Unbreakable (Autobiography of Mary Kom)	Mary Kom
Playing It My Way	Sachin Tendulkar and Boria Mazumder

Truth Always Prevails	Sadruddin Hashwani
Lowland	Jhumpa Lahiri
Unaccustomed Earth	Jhumpa Lahiri
Interpreter of Maladies	Jhumpa Lahiri
The God of Small Things	Arundhati Roy
And then One Day: A Memoir	Nasiruddin Shah (Autobiography)
Assassination of Rajiv Gandhi: An Inside Job?	Faraz Ahmad
True Colours	Adam Gilchrist
A Man and A Motorcycle, How Hamid Karzai Came to Power	Bette Dam
I am Malala	Malala Yousufzai and Christina Lamb
My Music My Life	Pt Ravi Shankar
The Lives of Others	Neel Mukherjee
Why I Assassinated Gandhi	Nathuram Godse and Gopal Godse
Black Tornado: The Three Sieges of Mumbai 26/11	Sandeep Unnithan
The Red Sari (On Sonia Gandhi)	Javier Moro
Dramatic Decade: The Indira Gandhi Years - Pranab Mukherjee 2014: The Election That Changed India	Rajdeep Sardesai
Fragile Frontiers: The Secret History of Mumbai Terror Attacks	SK Rath
Born Again on the Mountain	Arunima Sinha
Kiran Bedi — Kaise Bani Top Cop	Kiran Bedi
Flood of Fire	Amitav Ghosh
Family Life	Akhil Sharma
30 Women in Power: Their Voices, Their Stories	Naina Lal Kidwai
Food for All	Uma Lele
To the Brink and Back: India's 1991 Story	Jairam Ramesh

Unbelievable – Delhi to Islamabad	Prof Bhim Singh
Globalisation, Democratization and Distributive Justice	Dr. Mool Chand Sharma
Complete Story of Indian Reforms: 2G, Power & Private Enterprise	Pradeep Baijal
Mrs Funny Bones	Twinkle Khanna
Sourav Ganguly: Cricket, Captaincy and Controversy	Saptarshi Sarkar
The Kumbh Mela: Mapping the Ephemeral Megacity	Tarun Khanna
Ghosts of Calcutta	Sebastian Ortiz
R D Burman: The Prince of Music	Khagesh Dev Burman
Transcendence: My Spiritual Experiences with Pramukh Swamiji	Abdul Kalam
Green Signals: Ecology, Growth, and Democracy in India	Jairam Ramesh
Beyond Doubt: A Dossier on Gandhi's Assassination	Teesta Setalvad
Modi – Incredible emergence of a star (in Chinese language)	Tarun Vijay
Education of Muslims	Professor J S Rajput
Runs in Ruins	Sunil Gavaskar
Akbar – The Aesthete	Dr Indu Anand
India at Risk	Jaswant Singh
The Narrow Road to the Deep North	Richard Flanagan
Untold Story of the Indian Public Sector	Dr U D Choubey
50 years of man in space	Garik Israelien, Brian May and David J Eicher
My Name is Abu Salem	Hussain Zaidi
Dark Star: The Loneliness of Being Rajesh Khanna	Gautam Chintamani
Final Test: Exit Sachin Tendulkar	Dilip D'Souza

A Bend in the River

V S Naipaul