

	ANCIENT HISTORY
LECTURE-1	<ul> <li>Sources of Ancient Indian History</li> <li>Pre-historic phases- <ul> <li>Stone age(Palaeolithic, Mesolithic and Neolithic)</li> </ul> </li> <li>Chalcolithic phase (Ahar and Jorwe culture should be discussed in detail)</li> <li>INDUS VALLEY CIVILISATION <ul> <li>Origin and extent</li> <li>Town planning</li> <li>Agriculture</li> <li>Animal domestication</li> <li>Technology and craft</li> <li>Trade and traded articles with other civilizations</li> <li>Political organisation</li> <li>Pottery and terricota figures</li> <li>Believe and faiths</li> <li>Important excavated sites and their findings</li> </ul> </li> </ul>
LECTURE-2	<ul> <li>VEDIC &amp; LATER VEDIC PERIOD</li> <li>Vedic literature-Vedas, Upnishad, Purana, Brahamanas, Arnayakas and others and concerned themes</li> <li>Aryans - advent and their origin, their society and its features such as caste system and status of women in it.</li> <li>Religion and compare changes In Vedic to later Vedic phase</li> <li>Political organisation</li> <li>Pottery</li> <li>Various schools of Indian Philosophy</li> <li>Vedanta and Vedanga.</li> </ul>
TEST- 1	CODE- AH01
LECTURE-3	<ul> <li>JAINISM AND BUDDHISM</li> <li>Reasons to rise these religions</li> <li>Their founders and their life events</li> <li>Core ideals of both religions- such as, middle path,triratnas etc.</li> <li>Followers and patronage</li> <li>Literature - tripitakas and angama and other sources</li> <li>Sects- Hinayana , Mahayana and Swetambara and Digambara , other smaller sects</li> <li>Similarities and differences between these religions</li> <li>Reasons to decline</li> </ul>
TEST- 2	CODE- AH02



LECTURE-4	<ul> <li>Mahajanpadas and their extent         <ul> <li>Alexender invasion</li> </ul> </li> <li>Reasons for the rise of Magadha empire</li> <li>Mauryan Age         <ul> <li>Chandragupta Maurya</li> <li>Ashoka – dhamma and pillars</li> <li>Mauryan administration and economy</li> <li>Literature- Arthshastra and Mudraraksha and saptang theory</li> <li>Reasons to decline Mauryan empire</li> </ul> </li> </ul>
LECTURE-5	<ul> <li>Post mauryan period-</li> <li>Indo-Greeks, Shakas, Parthians, Kushanas, and society under them</li> <li>Kanishka- should be discussed in detail</li> <li>Gandhara and Mathura school of art</li> <li>Satvahanas of Deccan and society under them</li> <li>Chola, Chera and Pandya</li> <li>Beginnings of Brahmanism and Sangam literature</li> </ul>
TEST- 3	CODE- AH03
LECTURE-6	<ul> <li>Gupta Empire-</li> <li>Chandragupta-1,</li> <li>Samundragupta and his policies and PrayagPrashasti</li> <li>Chandragupta-II</li> <li>Administration, trade and economy and social development under Gupta rulers</li> <li>Art and culture, science and technology and golden age</li> <li>Fall of empire</li> </ul>
LECTURE-7	<ul> <li>Post Gupta Era</li> <li>Harsha</li> <li>Vakatakas&amp;Chalukyas of Badami</li> <li>Pallavas</li> <li>Other developments in south India</li> </ul>
TEST- 4	CODE- AH04
	MEDIEVAL INDIAN HISTORY
LECTURE-8	<ul> <li>Ancient to medieval transition phase</li> <li>The Palas,</li> <li>The Gurjara-Pratiharas</li> <li>Rashtrakutas and tripartite struggle</li> <li>administration, economy and society under Palas, Pratihara and Rashtrakutas</li> <li>Chola Empire <ul> <li>Rajaraja and Rajendra I (discussed in detail)</li> <li>Architecture, society and military strength</li> <li>Local government and</li> </ul> </li> <li>Mahmud of Ghazni</li> <li>Muhammad Ghori</li> </ul>



LECTURE-9 & 10	<ul> <li>THE DELHI SULTANAT         <ul> <li>Slave Dynasty- QutbuddinAibak, Iltutmish, Raziya, Balban and major developments during slave dynasty</li> <li>The Khalji Dynasty- AlauddinKhalji (reforms and military Campaigns)</li> <li>The Tughlaq Dynasty- GhiyasuddinTughlaq                 <ul></ul></li></ul></li></ul>
TEST- 5	CODE- MH01
LECTURE-11	<ul> <li>THE AGE OF VIJAYANAGAR AND BAHMANI KINGDOM</li> <li>Krishna Deva Raya- administration, economy, society and architecture of vijaynagar</li> <li>Mahmud Gawan</li> <li>The Advent of the Portuguese</li> <li>Mahmud Begarha</li> <li>Malwa and Mewar</li> <li>RanaKumbha</li> <li>ZainulAbidin</li> <li>The Sufi Movement- famous silisila's such as chisti and suharnwardi</li> <li>Bhakti Movement- Sankara, Ramanuja, Madhava, Surdas, Mirabai, Tulsidas, Chaitanya, Ramananda, Kabir ,</li> <li>Guru nanak and sikkhism</li> <li>The Vaishnavite Movement</li> </ul>
TEST- 6	CODE- MH02
	Achieve



LECTURE-12 & 13	<ul> <li>MUGHAL EMPIRE <ul> <li>Babur - The Battle of Panipat I, The Battle of Khanwaetc</li> <li>Humayun's Conquest of Gujarat and his Tussle with Sher Shah</li> <li>Sher Shah Suri and his countributions</li> <li>AKBAR- <ul> <li>Battle of Panipat II</li> <li>Land Revenue Administration- Zabti or Bandobast system. Dahsala System</li> <li>Mansabdari System</li> <li>Rajput policy</li> <li>Din-i-Ilahi and religious policy</li> <li>Mughal Advance towards the Deccan - factors which impelled Akbar to involve himself in the Deccani affairs.</li> </ul> </li> <li>Jahangir- Nurjahan and her influence</li> <li>Shah jahan- architecture and painting development</li> <li>Economic and social life under the Mughals</li> <li>Cultural and religious developments</li> <li>Disintegration Of The Mughal Empire</li> <li>Aurangzeb's Reign, Aurangzeb's Religious Policy</li> <li>Aurangzeb and the Deccani States</li> <li>Rise of Malik Ambar</li> <li>Popular Revolts and Movements for Regional Independence: Jats, Satnamis, Afghans and Sikhs</li> <li>Cultural Contribution of the Deccan States- Ali Adil Shah, Ibrahim Adil Chek L Musherment of Oxione to States- Ali Adil Shah, Ibrahim</li> </ul></li></ul>
TEST- 7	Adil Shah II, Muhammad QuliQutb Shah ➤ Shivaji ➤ Shivaji's Administration CODE- MH03
	MODERN INDIAN HISTORY
LECTURE-14	<ul> <li>British Conquest of India</li> <li>Decline of Mughal empire</li> <li>Rise of regional politics</li> <li>India in Eighteenth Century</li> <li>Advent of Europeans</li> <li>Factors that led to conquest of India by British</li> <li>Conquest of regional powers</li> <li>Resistance of Indian powers and causes of failure</li> <li>Evolution of British paramountcy over princely states</li> </ul>
LECTURE-15	<ul> <li>British Administration</li> <li>British colonialism in India</li> <li>British policies in India</li> <li>British Economic Policies and their impact</li> <li>Rise of capitalist class</li> <li>Activities of Christian Missionaries</li> <li>Governors- Generals and administration till 1857</li> <li>Colonial administration till 1857</li> </ul>



LECTURE-16	<ul> <li>Early Resistance to British Rule         <ul> <li>Tribal revolts</li> <li>Various tribal movements in India</li> <li>Civil rebellions and peasant revolts</li> <li>Nature and significance of civil rebellions</li> <li>Various peasant movements in India The revolt of 1857 and personalities associated</li> </ul> </li> </ul>
LECTURE-17	<ul> <li>Social Reforms in British India</li> <li>Regeneration, reform and renaissance in India</li> <li>Social reformers in India</li> <li>Reforms in western India</li> <li>Reforms in south India</li> <li>Role of reformers</li> <li>Nature and limitation of 19th century renaissance</li> <li>Reasons of rise</li> <li>Caste movement in south India</li> <li>Caste movements in northern and eastern India</li> </ul>
TEST- 8	CODE- MI01
LECTURE-18	<ul> <li>Nationalism in India</li> <li>Rise of nationalism in India</li> <li>Social basis of Indian Nationalism</li> <li>Rise and growth of Indian National Congress</li> <li>Policies and programmes of early nationalists</li> <li>Role of literature and news-media in freedom struggle</li> <li>Intensification of nationalist movement</li> <li>Home Rule League</li> <li>Militants and Revolutionaries</li> <li>Gadar movement</li> </ul>
LECTURE- 1920, 21 & 22	<ul> <li>Indian Freedom Struggle Under Gandhi</li> <li>Gandhi in South Africa</li> <li>Non- cooperation Movement</li> <li>Civil Disobedience Movement</li> <li>Round Table Conference</li> <li>Poona Pact</li> <li>1939 Tripuri Session</li> <li>August Offer</li> <li>Individual Satyagraha 1940-41</li> <li>Quit India Movement</li> <li>British Official response to national movement</li> </ul>
TEST- 9, 10 &	11 CODE- MI02, MI03 & MI04
LECTURE-23	<ul> <li>Struggle by the Masses Trade union movement in India</li> <li>Peasant movements in modern India</li> <li>The states people's movements</li> <li>Socialists and left bloc in congress</li> <li>Indian National Army</li> <li>Naval mutiny of 1946</li> </ul>
Head Offic	e:103,1 <sup>st</sup> Floor, B/1-2, Ansal Building Behind UCO Bank, Dr. Mukherjee Nagar, Delhi-110009. Contact: 7042496042, 7042496043, <u>www.galaxyclasses.co.in</u>

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LECTURE-24	<ul> <li>Partition of India</li> <li>Rise and growth of communalism</li> <li>Partition of India and attainment of freedom</li> <li>Wavell Plan</li> <li>Cabinet Mission Plan</li> <li>Mountbatten Plan</li> </ul>
TEST- 12	CODE- MI05
	WORLD HISTORY
LECTURE-25	<ul> <li>Industrial Revolution <ul> <li>Decline of feudalism</li> <li>Beginning of Renaissance</li> <li>Pre-industrial Europe</li> <li>Agricultural Revolution</li> <li>Factors that led to industrial revolution</li> <li>Impact of industrial revolution</li> </ul> </li> <li>French Revolution <ul> <li>Causes</li> <li>The revolution in France</li> <li>France under Napoleon</li> <li>Impact of Revolution</li> </ul> </li> <li>Significance of Revolution</li> <li>Emergence of USA</li> <li>Foundation of American Colonies</li> <li>The Independence of United States of America</li> <li>The American Revolution</li> <li>How did the American Revolution</li> <li>How did the American Revolution influence the French Revolution?</li> <li>Volitical Effects of the Revolution</li> <li>How did the American Revolution influence the French Revolution?</li> <li>US Civil War</li> <li>Impact of Civil War on USA</li> <li>Global Impact of US Civil War</li> <li>Impact on India</li> <li>Nationalism in Europe</li> <li>Rise of the nation- state system</li> <li>Unification of flaty</li> <li>Unification of Germany</li> <li>Colonialism and Imperialism</li> <li>Colonialism in Asia</li> <li>Analysis of Colonialism</li> </ul>

LECTURE-26	<ul> <li>World War-I</li> <li>Major causes of the war</li> <li>Course of the war</li> <li>Analysis of major events of the war</li> <li>Consequences of World War I</li> <li>Aftermath of World War I</li> <li>League of Nations</li> <li>Russian Revolution</li> <li>Major events in pre-revolution Russia</li> <li>Causes</li> <li>Course of Revolution</li> <li>Consequences</li> <li>Aftermath of the war</li> <li>Post-Lenin Russia</li> <li>Inter-War Years (1919 To 1939)</li> <li>The Great Depression - an economic perspective</li> <li>Rise of Fascism in Italy</li> <li>Rise of Nazism in Germany</li> <li>Soviet Union (USSR)</li> <li>World War- II</li> <li>Foundations of the war</li> <li>Aftermath of war</li> <li>Analysis of the war</li> <li>Decolonization phase</li> </ul>
TEST- 13	CODE- WH01
	ART & CULTURE
LECTURE-27	<ul> <li>Palaeolithic art (cave Architecture)</li> <li>Art &amp; culture during Indus Valley civilization</li> <li>Religion and Indian philosophy</li> <li>Architecture and sculpture Since Mauryan age</li> </ul>
LECTURE-28	<ul> <li>Drama/theatre</li> <li>Puppet forms of India</li> <li>Indian pottery</li> </ul>
TEST- 14	CODE- AC01
LECTURE-29	<ul> <li>Indian paintings</li> <li>Classical forms of dance &amp;Folk dance forms</li> <li>Classical music &amp;Musical instruments</li> </ul>
LECTURE-30	<ul> <li>Indian literature</li> <li>Government institutions related to art and culture</li> <li>Culture and social change</li> <li>UNESCO sites and GI tags</li> </ul>
TEST- 15	CODE- AC02



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PHYSICAL GEOGRAPHY	
LECTURE -1	<ul> <li>The Universe &amp; its formation theories.</li> <li>The Solar System</li> <li>Latitude &amp; Important latitudes (from North to South)</li> <li>Longitude</li> <li>Standard Time and Greenwich Mean Time &amp; International Date Line</li> <li>Motions of the Earth and their effects</li> <li>Solstice &amp; Equinox</li> </ul>



LECTURE -2 & 3	<ul> <li>DOMAINS OF THE EARTH-hydrosphere, lithosphere, atmosphere &amp; biosphere</li> <li>Continents and Ocean basins</li> <li>Sources of Information Of the Earth's Interior</li> <li>Division of Earth's Interior- The Crust, The Mantle &amp; The Core</li> <li>Earthquake <ul> <li>Measurement of earthquake</li> <li>Earthquake waves-Body Waves &amp; Surface Waves</li> <li>Shadow Zones</li> <li>Shadow Zones</li> <li>Types of earthquakes</li> </ul> </li> <li>Volcances <ul> <li>Major types of Volcances</li> <li>Intrusive Volcanic Landforms</li> </ul> </li> <li>Minerals</li> <li>Rocks and its types</li> <li>Igneous Rocks</li> <li>Metamorphic Rocks</li> <li>Rock Cycle</li> </ul>
LECTURE -4	TEST-1CODE- PHG01• Continental Drift Theory & Evidence supporting Continental Drift Theory• Forces for continental drift• Convectional current theory• Abyssal Plains• Distribution of Volcanoes and Earthquakes• Concept of sea floor spreading• Plate Tectonics• Movement Of Indian Plate• Evolution Of Landforms• Earth Movements• Endogenic Forces• Exogenic Forces• Landforms created by the action of Running Water & the action of Groundwater• Landforms created by the action of Glacier• Landforms created by the action of Wind• Mountains and types of Mountains• Plateau & Plains



LECTURE -5	<ul> <li>Atmosphere &amp; its Composition</li> <li>Structure of the Atmosphere-Troposphere, Stratosphere, Mesosphere, Thermosphere &amp; Exosphere</li> <li>Solar Radiation <ul> <li>Factors influencing Insolation on Earth</li> <li>Spatial Distribution of Insolation at the Earth's Surface</li> <li>Heating and Cooling of Atmosphere</li> <li>Conduction</li> <li>Convection</li> <li>Advection</li> </ul> </li> <li>Terrestrial radiation</li> <li>Heat Budget and Energy Balance</li> <li>Factors affecting Temperature Distribution</li> </ul>	
TEST- 2 CODE- PHG02		
LECTURE -6	<ul> <li>Atmospheric Pressure</li> <li>Vertical variation of Pressure &amp; Horizontal distribution of Pressure</li> <li>Global Pressure Belts</li> <li>Factors affecting the velocity and direction of the wind</li> <li>Pressure Gradient Force</li> <li>Frictional Force &amp; Coriolis Force</li> <li>Pressure and Wind</li> <li>General circulation of the atmosphere</li> <li>Movement of the planetary winds</li> <li>Seasonal Wind &amp; Local Winds</li> <li>Air Masses</li> <li>Fronts- Cold Front and Warm Front</li> <li>Cyclones -Tropical Cyclones, Extra Tropical Cyclone &amp; Thunderstorms and Tornadoes</li> </ul>	
LECTURE -7	<ul> <li>Humidity- absolute humidity &amp; relative humidity</li> <li>Evaporation and Condensation</li> <li>Clouds and their type</li> <li>Precipitation and its type</li> <li>Types of rainfall</li> <li>World Distribution of Rainfall</li> </ul>	
	TEST- 3 CODE- PHG03	



LECTURE -8	<ul> <li>Hydrological Cycle</li> <li>Relief of the Ocean Floor- The Continental Shelf , The Continental Slope, The Deep Sea Plain &amp; The Oceanic Deeps or Trenches</li> <li>Minor Relief Features</li> <li>Mid-Oceanic Ridges</li> <li>Seamount , Submarine Canyons , Guyots</li> <li>A toll</li> <li>Horizontal and Vertical Distribution of Temperature</li> <li>Salinity of Ocean Waters &amp; Factors affecting ocean salinity</li> <li>Waves</li> <li>Tides &amp; Types of Tides</li> <li>Ocean Currents &amp; Types of Ocean Currents</li> <li>Forces effect Ocean currents Primary forces(setting issue) &amp; Secondary forces</li> </ul>
LECTURE -9 & 10	<ul> <li>Classification of climate <ul> <li>Koppen's Scheme of classification</li> <li>Climate change</li> <li>Global Warming</li> <li>Greenhouse Gases (GHGs)</li> </ul> </li> <li>Natural vegetation <ul> <li>Factors affecting natural vegetation</li> <li>Types of Natural Vegetation</li> <li>Types of Forests</li> <li>Tropical Evergreen Forests</li> <li>Tropical Deciduous Forests</li> <li>Temperate Evergreen Forests</li> <li>Temperate Deciduous Forests</li> <li>Mediterranean Vegetation</li> <li>Coniferous Forests</li> <li>Type of Grasslands</li> <li>Thorny bushes</li> <li>Tundra</li> </ul> </li> </ul>
	TEST- 4 CODE- PHG04
	INDIAN GEOGRAPHY
LECTURE -11	<ul> <li>LOCATION</li> <li>SIZE</li> <li>INDIA AND THE WORLD</li> <li>INDIA'S NEIGHBOURS</li> </ul>



LECTURE -12& 13	<ul> <li>Geological divisions.</li> <li>The Himalayas and other Peninuslar Mountains</li> <li>Indo-Ganga-Brahmaputra Plain</li> <li>Physiography</li> <li>The Northern Plain</li> <li>The Peninsular Plateau</li> <li>The Deccan Plateau</li> <li>Western Ghat</li> <li>Eastern Ghat</li> <li>The Central Highlands</li> <li>The Indian Desert</li> <li>The Coastal Plains</li> <li>The Islands</li> </ul>
LECTURE -14	<ul> <li>Drainage system &amp; Important Drainage Patterns</li> <li>Indian drainage System and its Classification</li> <li>Evolution of the Himalayan Drainage</li> <li>The River Systems of the Himalayan Drainage</li> <li>The Indus River System</li> <li>The Ganga River System</li> <li>The Brahmaputra River System</li> <li>The Peninsular Drainage System</li> <li>Evolution of Peninsular Drainage System</li> <li>River Systems of the Peninsular Drainage</li> <li>✓ East Flowing River</li> <li>✓ West-Flowing Rivers</li> <li>Comparison between Himalayan and Peninsular Rivers</li> </ul>
	TEST- 5 CODE- ING01
LECTURE -15	<ul> <li>Climate &amp; Weather</li> <li>Factors influencing the climate of India including impact of Monsoon Winds , Westerly Jet stream ,Easterly Jet , Western Disturbances and Tropical Cyclones ,El - Nino Effect Southern Oscillation &amp; Role of ITCZ etc.</li> <li>Concept Of Monsoon</li> <li>Cycle of Seasons in India</li> <li>The cold weather season</li> <li>The Hot Weather Season</li> <li>The advancing monsoon season</li> <li>Retreating / Post Monsoon (The Transition Season)</li> <li>Distribution Of Rainfall</li> </ul>
LECTURE -16	<ul> <li>Soil &amp; Components of soil</li> <li>Classification of Soil- Alluvial soil, Black soil, Red and Yellow soils, Laterite soil, Arid soil, Saline soil, Peaty soil &amp; Forest soil</li> <li>Soil Degradation <ul> <li>Soil Erosion -Causes , Factors affecting &amp; impact</li> <li>Soil conservation methods</li> </ul> </li> </ul>



LECTURE -17	<ul> <li>Natural Vegetation</li> <li>Major factors influence Natural Vegetation</li> <li>Indian Forests <ul> <li>Tropical Evergreen and Semi-Evergreen Forests</li> <li>Tropical Evergreen Forests</li> <li>Semi Evergreen Forests</li> <li>Semi Evergreen Forests</li> <li>Tropical Deciduous Forests</li> <li>Moist Deciduous Forests</li> <li>Dry Deciduous Forests</li> <li>Toropical Thorn Forests</li> <li>Montane Forests</li> <li>Tropical Thorn Forests</li> <li>Montane Forests</li> <li>The Southern Mountain Forests</li> <li>Ittoral and Swamp Forests</li> <li>Forest Conservation in India</li> <li>Forest cover in India</li> <li>Forest cover in India</li> <li>The National Forestry</li> <li>Rural Forestry</li> <li>Rural Forestry</li> <li>Kural Forestry</li> <li>Community Forestry</li> <li>Farm Forestry</li> <li>Kagneent</li> <li>Disaster &amp; Classification of Disaster</li> <li>Earthquakes</li> <li>Earthquake Hazard Zones in India</li> <li>Effects of Earthquakes</li> <li>Earthquake Hazard Mitigation</li> <li>Tsunami</li> <li>Tropical cyclone</li> <li>Consequences of Tropical Cyclones</li> <li>Floods- Consequences and Control of floods</li> <li>Droughts-Types of Droughts , Consequences and Mitigation</li> <li>Landslides</li> </ul> </li> </ul>
	> Disaster Management
	TEST- 6 CODE- ING02
	HUMAN GEOGRAPHY
LECTURE - 18	<ul> <li>Nature of Human Geography</li> <li>Environmental Determinism</li> <li>Fields and Sub-fields of Human Geography</li> <li>Social Geography</li> <li>Urban Geography</li> <li>Political Geography</li> <li>Population Geography</li> <li>Settlement Geography</li> <li>Economic Geography</li> </ul>



LECTURE -19	<ul> <li>Human Development</li> <li>Difference between Growth &amp; Development</li> <li>Approaches to Human Development</li> <li>Measuring Human Development – Human Development Index</li> <li>Human Activities</li> <li>Classification of Human Activities</li> <li>&gt; Primary <ul> <li>✓ Types of agricultural systems</li> <li>Subsistence Agriculture</li> <li>Plantation Agriculture</li> <li>Extensive Commercial Grain Cultivation</li> <li>Mixed Farming</li> <li>Dairy Farming</li> <li>Mediterranean Agriculture</li> </ul> </li> <li>&gt; Secondary</li> <li>&gt; Tertiary</li> <li>&gt; Quaternary</li> </ul>
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<ul> <li>Transport and Communication</li> <li>Transport</li> <li>Modes of Transportation</li> <li><b>Land Transport</b>.</li> <li>Road Transport Major highways of the world, Road Transport Of India &amp; Classification Of Road Transport vis-å-vis rail transport</li> <li>Importance of Road Tansport vis-å-vis rail transport</li> <li>Railways-Trans-continental Railways,Trans-Siberian Railways, Trans-Canadian Railways etc</li> <li>Railways in India</li> <li>Three categories Indian Railways</li> <li>Broad gauge</li> <li>Metre gauge</li> <li>Metre gauge</li> <li>Metre gauge</li> <li>Narrow gauge</li> <li>Water Transport</li> <li>Sea Routes- Important Sea Routes of the world</li> <li>National Waterways of World &amp; India</li> <li>Inportant Inland waterways of the world</li> <li>National Waterways</li> <li>Casatal Shipping</li> <li>The Sue Canal</li> <li>Important Projects such as Stagarmala Project. SetuBharatam project &amp; Bharatmala Project</li> <li>Miner Joris in India</li> <li>Important Projects in India</li> <li>Important networks of pipeline of India</li> <li>Major Ainports in India</li> <li>Major Ainports in India</li> <li>Astellite Communication</li> <li>Satellite Communication</li> <li>Cyber Space - Internet</li> <li>International Trade</li> </ul>
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LECTURE -21	<ul> <li>Land Resources And Agriculture</li> <li>Land Use and the land-use categories</li> <li>Agricultural Land Uses in India</li> <li>Cropping Seasons in India</li> <li>Types of farming <ul> <li>Irrigated</li> <li>Rainfed</li> </ul> </li> <li>Foodgrains</li> <li>Cereals-Rice &amp;Wheat</li> <li>Coarse Cereals- Jowar, Bajra &amp; Maize</li> <li>Pulses- Gram, Tur (Arhar)</li> <li>Oilseeds</li> <li>Fibre Crops- Cotton &amp; Jute</li> <li>Other Crops- Sugarcane, Tea &amp; Coffee</li> <li>Agricultural Development in India and Strategy</li> <li>Problems of Indian Agriculture</li> </ul> <li>Water Resources</li> <li>Types of Water Resources-Surface Water Resources, Groundwater Resources &amp; Lagoons and Backwaters</li> <li>Irrigation</li> <li>Generation of electricity</li> <li>Emerging Water Problems</li> <li>Deterioration of Water Quality</li> <li>Water Conservation and Management</li> <li>Prevention of water pollution</li> <li>Recycle and Reuse of water</li> <li>Watershed Management</li>
	➤ Rainwater Harvesting
LECTURE -22	<ul> <li>Mineral And Energy Resources</li> <li>Minerals &amp; Classification of minerals</li> <li>Distribution of Minerals in India</li> <li>Important minerals found in India their distribution</li> <li>Ferrous Minerals-Iron Ore &amp; Manganese</li> <li>Non-ferrous minerals- Bauxite- Copper</li> <li>Non-Metallic Minerals- Mica</li> <li>Rock Minerals- Limestone</li> <li>Energy Resources</li> <li>Classified of Energy Resources</li> <li>Conventional- Coal, Petroleum &amp; Natural Gas</li> <li>Non-conventional sources- Nuclear/Atomic Energy sources, Solar Energy, Wind Energy, Tidal and Wave Energy, Geothermal Energy &amp; Bioenergy</li> <li>Conservation of Mineral Resources</li> </ul>

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LECTURE -23	<ul> <li>International Trade</li> <li>Basis of International Trade <ul> <li>Difference in National Resources</li> <li>Population and cultural factors</li> <li>Stage of economic development</li> <li>Extent of foreign investment</li> <li>Transport</li> </ul> </li> <li>Balance of Trade and Balance of Payments</li> <li>World Trade Organisation</li> <li>Regional Trade Blocs</li> <li>Manufacturing Industries</li> <li>Classification of Manufacturing Industrie</li> <li>Importance of manufacturing industries</li> <li>Location of industries</li> <li>Industrial Policy</li> <li>Major Industries</li> <li>Iron and Steel Industry</li> <li>Sugar Industry</li> <li>Petrochemical Industries</li> <li>Knowledge based industries</li> <li>Liberalisation, Privatisation, Globalisation (LPG) and Industrial Development in India</li> <li>Industrial Regions in India</li> <li>Industrial Districts</li> </ul>
	TEST- 8 CODE- HG02
LECTURE -24	<ul> <li>World Population- World &amp; India</li> <li>Population Distribution</li> <li>Factors affecting Population</li> <li>Density of population</li> <li>Population Growth-World &amp; India <ul> <li>Four distinct phases of growth of population in India</li> </ul> </li> <li>Components of Population Change</li> <li>Demographic Transition</li> <li>Adolescent</li> <li>Population Composition <ul> <li>population pyramids</li> <li>Rural Urban Composition</li> <li>Literacy</li> <li>Composition of Working Population</li> <li>Population Control Measures</li> </ul> </li> </ul>



LECTURE -25	<ul> <li>Human Settlements -World &amp; India</li> <li>Temporary Settlements</li> <li>Permanent Settlements</li> <li>Classification of Settlements</li> <li>Factors affecting the location of rural settlements</li> <li>Patterns of rural settlements</li> <li>Rural settlements in India</li> <li>Types</li> <li>Clustered Settlement</li> <li>Semi-Clustered Settlements</li> <li>Dispersed Settlements</li> <li>Problems of Rural Settlements</li> <li>Jispersed Settlements</li> <li>Urban Settlements</li> <li>Yppes of Urban Settlements</li> <li>Yopes of Urban Settlements</li> <li>Town <ul> <li>Classification of Towns</li> <li>Administrative towns</li> <li>Trading and Commercial Towns</li> <li>Cultural Towns</li> <li>Cultural Towns</li> </ul> </li> <li>Yopes Of Urban Settlements</li> <li>Problems of Urban Settlements</li> <li>Cultural Towns</li> <li>Cultural Towns</li> <li>Megapolis/Megacity</li> <li>Million City</li> <li>Evolution of Towns in India</li> <li>Indicators of HDI</li> <li>Social problems like crimes, terrorism, and war and political factors</li> </ul>
	TEST- 9 CODE- HG03

GS NCERT SESSION PLAN	
S. No.	Polity



19

Lecture - 4	<ul> <li>UNION AND ITS TERRITORY         <ul> <li>&gt; Union Of States (Article 1-4)</li> </ul> </li> <li>Re-Organisation Of States         <ul> <li>&gt; D h a r</li> <li>C o m m i s s i o n</li> <li>, J V P Committee, Fazl Ali Commission</li> </ul> </li> <li>CITIZENSHIP (Article 5-11)</li> <li>&gt; Acquisition Of Citizenship, Loss Of Citizenship</li> <li>&gt; Single Citizenship</li> <li>&gt; Comparison of Non Resident Indian (NRI), Person of Indian Origin (PIO) &amp; Overseas Citizen of India (OCI) Cardholder</li> </ul>	
Lecture – 5&6	<ul> <li>FUNDAMENTAL RIGHTS (Article 12 - 35)</li> <li>&gt; Features Of Fundamental Rights</li> <li>&gt; Right To Equality</li> <li>✓ Equality Before Law And Equal Protection Of Laws</li> <li>&gt; Right To Freedom</li> <li>&gt; Protection In Respect Of Conviction For Offences</li> <li>✓ No ex-post-facto law, No double jeopardy, No self-incrimination</li> <li>&gt; Protection Of Life And Personal Liberty</li> <li>✓ Right To Education</li> <li>&gt; Right Against Exploitation</li> <li>&gt; Right To Freedom Of Religion</li> <li>&gt; Culture And Education Rights</li> </ul>	COUT (COO)
Lecture – 7&8	<ul> <li>DIRECTIVE PRINCIPLES OF STATE POLICY (DPSP)</li> <li>Features, Classification, Implementation and Criticism of DPSP.</li> <li>Conflict between fundamental rights &amp; Directive Principals.</li> <li>FUNDAMENTAL DUTIES (FD)</li> </ul>	
TEST-2	CODE-PL02	
Lecture – 9	<ul> <li>PRESIDENT</li> <li>➢ Election Of The President         <ul> <li>✓ Electoral College, Election Process</li> <li>➢ President-Qualification, Oath and Powers</li> <li>➢ Impeachment Of President</li> <li>➢ Powers And Functions Of The President</li> <li>✓ Executive Powers, Legislative Powers, Financial Powers, Military Powers, Emergency Powers, Veto Powers, Ordinance Making Power , Pardoning Powers</li> </ul> </li> <li>ATTORNEY GENERAL OF INDIA</li> <li>COMPTROLLER AND AUDITOR GENERAL OF INDIA</li> </ul>	
Head O	Iffice:103,1st Floor, B/1-2, Ansal Building Behind UCO Bank, Dr. M	ukheriee Nagar Delhi-110009

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Lecture - 10	<ul> <li>THE VICE-PRESIDENT         <ul> <li>Election Of The VICE- President</li> <li>VicePresident-Qualification, Oath and Powers</li> <li>Powers And Functions</li> </ul> </li> <li>THE PRIME MINISTER         <ul> <li>Appointment Of The Prime Minister</li> <li>Powers And Functions Of The Prime Minister</li> </ul> </li> <li>CENTRAL COUNCIL OF MINISTERS         <ul> <li>Composition Of The Council Of Ministers</li> <li>Cabinet Ministers, Minister of States, Deputy Ministers</li> <li>Responsibility Of Ministers</li> <li>Role Of Cabinet</li> </ul> </li> </ul>	
TEST-3	CODE-PL03	
	Hethele Hethele	(C102)



Lecture - 11&12	<ul> <li>PARLIAMENT         <ul> <li>Parliament and its houses             <ul></ul></li></ul></li></ul>	
Lecture – 13	<ul> <li>CONSTITUTION AMENDMENT BILLS         <ul> <li>Procedure For Amendment</li> <li>BASIC STRUCTURE OF THE CONSTITUTION</li> <li>Name Of The Case (Year), Elements Of The Basic Structure (As Declared By The Supreme Court)</li> </ul> </li> </ul>	
TEST-4	CODE-PL04	



Lecture - 14 Lecture - 15	<ul> <li>➢ Powers And Functions Of Governor         <ul> <li>✓ Executive powers, Legislative powers, Financial powers, Judicial powers</li> <li>➢ Comparing Ordinance-Making Power Of President And Governor</li> <li>➢ Comparing Pardoning Powers Of President And Governor</li> <li>➢ Ctief Minister- Appointment, Removal, Oath, Tenure And Resignation</li> <li>➢ State Council of Ministers</li> </ul> </li> <li>STATE LEGISLATURE</li> <li>➢ Legislative Assembly, Legislative Council</li> <li>S P E A K E R O F L E G I S L A T I V E ASSEMBLY</li> <li>CHAIRMAN OF LEGISLATIVE COUNCIL</li> <li>CENTRE-STATE RELATIONS             <ul> <li>✓ Legislative relations, Administrative relations, Financial relations.</li> <li>INTER STATE COUNCIL</li> <li>CENTRE STATE RELATION DURING EMERGENCIES</li> <li>DEVELOPMENTS IN CENTRE-STATE</li> </ul> </li> </ul>	
Lecture - 16	<ul> <li>RELATIONS</li> <li>JUDICIAL SYSTEM OF INDIA</li> <li>Structure Of The Judiciary</li> <li>Supreme Court</li> <li>Strength Of Supreme Court Judges</li> <li>Qualifications, Appointment, Oath, Tenure, Salary And Impeachment Or Removal</li> <li>Jurisdiction Of Supreme Court <ul> <li>Original Jurisdiction, Writ</li> <li>Jurisdiction, Appellate Jurisdiction, Advisory Jurisdiction</li> </ul> </li> <li>HIGH COURT</li> <li>SUBORDINATE COURTS</li> <li>NATIONAL LEGAL SERVICES AUTHORITY</li> <li>LokAdalats, Family Courts, Gram Nyayalayas</li> <li>JUDICIAL REVIEW, JUDICIAL ACTIVISM, JUDICIAL RESTRAINT, PUBLIC INTEREST LITIGATION</li> </ul>	
	CODE-PL05	

Lecture – 17	<ul> <li>LOCAL GOVERNMENT         <ul> <li>Growth Of Local Government In India</li> </ul> </li> <li>PANCHAYATI RAJ         <ul> <li>Three-Tier System</li> <li>Evolution Of Panchayati Raj</li> <li>BalwantRai Mehta Committee, Ashok Mehta Committee, G V K Rao Committee, L M Singhvi Committee, Thungon Committee, Gadgil Committee</li> </ul> </li> <li>GRAM SABHA</li> <li>THE MUNICIPALITIES         <ul> <li>Three Types Of Municipalities</li> </ul> </li> </ul>	
Lecture – 18	<ul> <li>EMERGENCY PROVISIONS</li> <li>➢ National Emergency         <ul> <li>✓ Parliamentry Approval, Duration And Revocation Of Proclamation</li> <li>✓ Effects Of National Emergency</li> <li>✓ Effect On The Fundamental Rights</li> </ul> </li> <li>➢ President's Rule</li> <li>➢ Financial Emergency</li> </ul>	
Lecture – 19	<ul> <li>ELECTION MACHINERY         <ul> <li>Election Commission Of India</li> <li>✓ Chief Electoral Officer , District Election Officer , Returning Officer , Presiding Officer</li> </ul> </li> <li>ELECTION PROCESS</li> <li>INDEPENDENT ELECTION COMMISSION</li> <li>ELECTORAL REFORMS</li> <li>Introduction Of Vvpat, Introduction Of Nota Option, First Past The Post System</li> </ul>	P RE 10
TSET-6	CODE-PL06	
Lecture – 20	<ul> <li>Constitutional Bodies</li> <li>Union Public Service Commission</li> <li>State Public Service Commission</li> <li>Joint State Public Service Commission</li> <li>National Commission For Sc</li> <li>National Commission For St</li> <li>Special Officer For Linguistic Minorities</li> </ul>	

Lecture – 21	<ul> <li>Non Constitutional Bodies</li> <li>NitiAayog Composition Objective</li> <li>Erstwhile Planning Commission</li> <li>The National Development Cou</li> <li>National Human Right Commission</li> <li>State Human Rights Commission</li> <li>Human Rights Courts</li> <li>Central Information Commission</li> <li>State Information Commission</li> <li>Central Vigilance Commission</li> <li>Whistle Blowers Act (2011)</li> <li>Central Bureau Of Investigation</li> <li>Lokpal</li> </ul>	n ncil sion on
Lecture – 22	<ul> <li>OTHER CONSTITUTIONAL DIMEN</li> <li>Co-Operative Societies</li> <li>Official Language</li> <li>Classical Language Status</li> <li>Tribunals</li> <li>Rights And Liabilities Of The Government</li> <li>Authoritative Text Of The Cons In Hindi Language</li> <li>Jammu And Kashmir Status (A</li> <li>Important Features Of Special 4</li> <li>Pressure Groups And Movemer</li> </ul>	titution rt. 370) Status
TEST-7	CODE-PL07	209
		1212
S. No.	ECONOMICS	Polity
	MICRO ECONOMICS	



LECTUR E-1& 2	<ul> <li>Introduction</li> <li>EconomicsVs Economy</li> <li>Types of Economics Microeconomics Positive And Normative</li> <li>Central problems of Economy Production Possibility Curve, Opportunity Cost,</li> <li>Types of Economics System Centrally Planned Economy Market Economy</li> <li>Sectors of Economy Primary, Secondary And Tertiary Sectors</li> </ul> Consumer behaviour and Demand Vitility Cardinal & Ordinal Utility Analysis Indifference Curve Consumers Budget&its Equilibrium Demand <ul> <li>Meaning &amp;Law of Demand</li> <li>Factors of Demand</li> <li>Demand Curve</li> <li>Movement And Shift in Demand Curve</li> <li>Elasticity of Demand</li> <li>Types of Goods</li> </ul>	
	Demand Curve > Elasticity of Demand	



LECTUR E-4Market Structure And Price Determination> Concept> Forms of Market- Perfect Competitition, Monopoly, Monopolistic, Duopoly, Monoposony& Oligopoly> Firms Revenue Curve in Different Markets> Market Equilibrium Under Perfect Competition> Effects of Shifts In Demand And supply> Simple Application Tools for Demand Supply Curves	<ul> <li>&amp; Implicit)</li> <li>&gt; Total Cost, Average Cost An Marginal Cost and their Relations</li> <li>&gt; Revenue and its Forms</li> </ul> Market Structure And Price Determination <ul> <li>&gt; Concept</li> <li>&gt; Forms of Market- Perfect Competitition, Monopoly, Monopolistic, Duopoly, Monoposony&amp; Oligopoly</li> <li>&gt; Firms Revenue Curve in Different Markets</li> <li>&gt; Market Equilibrium Under Perfect Competition</li> <li>&gt; Effects of Shifts In Demand And supply</li> <li>&gt; Simple Application Tools for</li> </ul>	<ul> <li>E-2&amp; 3</li> <li>Schedule and its Function         <ul> <li>Movement And Shift i Supply Curve</li> </ul> </li> <li>Cost         <ul> <li>Concept and its Types(Explice &amp; Implicit)</li> <li>Total Cost, Average Cost An Marginal Cost and their Relations</li> <li>Revenue and its Forms</li> </ul> </li> <li>Market Structure And Price Determination         <ul> <li>Concept</li> <li>Forms of Market- Perfect Competitition, Monopoly, Monopolistic, Duopoly, Monoposony&amp; Oligopoly</li> <li>Firms Revenue Curve in Different Markets</li> <li>Market Equilibrium Under Perfect Competition</li> <li>Effects of Shifts In Demand And supply</li> <li>Simple Application Tools for</li> </ul> </li> </ul>
	<ul> <li>Concept and its Types(Explicit &amp; Implicit)</li> <li>Total Cost, Average Cost And Marginal Cost and their Relations</li> </ul>	<ul> <li>▶ Meaning and Law of Supply</li> <li>▶ Supply Curve, Supply Schedule and its Function</li> <li>▶ Movement And Shift in Supply Curve</li> <li>Cost</li> <li>▶ Concept and its Types(Explicit &amp; Implicit)</li> <li>▶ Total Cost, Average Cost And Marginal Cost and their Relations</li> </ul>
LECTUR E-2&3 ≻ Meaning and Law of Supply Supply Curve, Supply Schedule and its Function ≻ Movement And Shift in	<ul> <li>Total Product, Average Product and Marginal Product</li> <li>Law of Variable proportions</li> <li>Producer's Equilibrium</li> </ul>	

	<ul> <li>Indian economy on the eve of independence</li> <li>➢ Indian Economy (1950-1990)</li> <li>➢ Goals of Five Year Plans</li> <li>➢ Planning Commision, National Development ConciL AND NITI Ayog</li> <li>➢ Economic Reforms Since 1991</li> <li>➢ Economic Crisis and its causes</li> <li>&gt; Liberalisation, Privatisation and Globalisation</li> <li>➢ New Economic Policy (NEP)</li> <li>➢ World Trade Organisation (WTO)</li> </ul>	
LECTUR E-5 &6	<ul> <li>National Income Accounting</li> <li>Meaning</li> <li>Circular flow of National Income</li> <li>Methods of calculating Income</li> <li>The product or value-added method</li> <li>Expenditure Method</li> <li>Income Method</li> <li>Factor cost, Basic Prices and Market Prices</li> <li>GDP, (GNP), (NNP), Personal Income And Disposable Income</li> <li>GDP Deflator</li> <li>The Multiplier Mechanism</li> <li>Paradox of Thrift</li> <li>GDP and Welfare</li> <li>Taxes , its Types &amp; Implications on People And the Economy, LafferCurve,Tax GDP ratio</li> </ul>	au contraction of the second sec



LECTUR E-7& 8	<ul> <li>Inflation</li> <li>&gt; Meaning&amp; Base Effect in Inflation</li> <li>&gt; Causes</li> <li>&gt; Core Inflation v/s Headline Inflation</li> <li>&gt; Cost push inflation v/s Demand pull Inflation</li> <li>&gt; Relation between Growth And Inflation: Phillips Curve</li> <li>&gt; Impacts</li> <li>&gt; Measures</li> </ul> Money and Banking Money <ul> <li>&gt; Money &amp; its Functions</li> <li>&gt; Stock of Money- M0,M1,M2,M3 &amp;M4</li> <li>&gt; Money Multiplier</li> </ul> Banking Structure <ul> <li>&gt; Moneny Creation By</li> <li>&gt; Banking Reforms by the Commercial Banking System</li> <li>&gt; Reserve Bank of India</li> <li>&gt; Control</li> <li>&gt; Non-Performig Asset(NPA)</li> <li>&gt; Financial Inclusion-Micro Finance</li> <li>&gt; Label ATMs</li> <li>&gt; Recent Development</li> </ul>	
TEST- 2	2 CODE- MACE01	
		·/
LECTUR E-9 & 10	<ul> <li>Government Budget and the Economy</li> <li>History of Budget in India</li> <li>Annual Financial Statement</li> <li>Government Receipts &amp; Expenditure and their Classification</li> <li>Objectives of Government Budget</li> <li>Balanced, Surplus and Deficit Budget etc.</li> <li>Measures of Government Deficit         <ul> <li>Fiscal Policy</li> <li>Gender Budget</li> </ul> </li> </ul>	



LECTUR E-16 & 17	Agriculture and Rural Development         ➤ Introduction         ➤ Challenges         ➤ Green Revolutions         ➤ Food Security         ➤ Land Reforms         ➤ Agricultural Market System         ➤ Self Help Groups         ➤ Initiatives         ➤ Sustainable Development and Organic Farming	
LECTUR E-20	<ul> <li>Infrastructure         <ul> <li>Relevance of Infrastructure</li> <li>state of Infrastructure in India</li> </ul> </li> <li>Energy         <ul> <li>Consumption Pattern of Commercial Energy</li> <li>Its Role in Economic Development</li> </ul> </li> <li>Health         <ul> <li>Healthcare System in India</li> <li>Indicators of Health and Health Infrastructure</li> </ul> </li> </ul>	
LECTUR E-21	<ul> <li>Sustainable Development</li> <li>Carrying capacity</li> <li>Absorptive capacity</li> <li>Population Explosion</li> <li>Industrial Revolution</li> <li>Opportunity cost</li> <li>Comparative Development</li> <li>Experiences of India and Its</li> <li>Neighbours</li> <li>Developmental strategies of India, Pakistan and China and their Strategies</li> <li>Comparison of the developmental indicators of India, China and Pakistan</li> <li>Indicators of Human Development 2015</li> <li>Development Strategies</li> </ul>	
TEST-	5 CODE- INEO2	

## GS NCERT SESSION PLAN SCIENCE



	PHYSICS
LECTURE-1	<ul> <li>Units And Symbols</li> <li>Scalar and Vector Quantities</li> <li>Motion</li> <li>Rectilinear motion</li> <li>Angular motion</li> <li>Rotational motion</li> <li>Force</li> <li>Torque (or Moment of Force)</li> <li>Applications of Centripetal and Centrifugal forces</li> <li>Newton's Laws of Motion</li> <li>Impulse</li> <li>Friction</li> <li>Work</li> <li>Energy</li> <li>Power</li> <li>Gravitation</li> <li>Newton's Law of Gravitation (Universal Law of Gravitation)</li> <li>Gravity</li> <li>Satellite</li> <li>Polar satellite</li> </ul>
Achieve 2041	



	<ul> <li>Mechanical Properties of Solids</li> </ul>
	<ul> <li>Elasticity and Plasticity</li> </ul>
	➤ Stress and Strain
	≻ Hooke's Law
	➤ Modulus of Elasticity
	Young's Modulus of Elasticity
	Mechanical Properties of Fluids
	Fluid Pressure
	Atmospheric pressure
	Pascal's Law Buoyancy
	Archimedes' Principle
	Applications of Archimedes Principle
	Surface Tension
	Capillarity
	• Flow of Fluid
	Bernoulli's Theorem
	Viscosity
	Factors affecting Viscosity
	Stoke's Law
	Application of Stoke's Law
<ul> <li>Terminal Velocity</li> <li>THERMAL PROPERTIES OF MATTER</li> </ul>	
	➢ Ideal-gas equation and Absolute temperature
	<ul> <li>≻ Boyle's law</li> </ul>
	<ul> <li>≻ Charles' law</li> </ul>
	≻ Kirchhoff's law
	➢ Black Body
	➢ Newton's Law of Cooling
	• THERMODYNAMICS
	≻ Thermal equilibrium
	> Zeroth law of thermodynamics
	<ul> <li>First law of thermodynamics</li> </ul>
	$\succ$ Heat engines
	$\succ$ Second law of thermodynamics
	OSCILLATIONS
	<ul> <li>➤ Simple Harmonic Motion</li> </ul>
	• WAVES
	> Types of Waves
	<ul> <li>Types of Waves</li> <li>Types of Mechanical Waves</li> </ul>
	<ul> <li>Sound Waves</li> </ul>
	<ul> <li>Doppler Effect</li> </ul>
	> Electromagnetic Waves



	• ELECTRICITY
	≻ Charge
	≻ Coulomb's law
	> Electrolysis
	> Types of Electric Current
	$\succ$ Electric Cell
	≻ Faraday's Laws of Electrolysis Ohm's law
	Conductors, Resistors, Semiconductors and Insulators
	> Ammeter and Voltmeter
	➤ Heating Effect of Electricity
	≻ Electric Power
	> Capacitor
	• MAGNETISM
	➤ Magnetic Field
	➤ Magnetism and Matter
LECTURE-3	≻ Bar Magnet
	≻ Gauss's law
	➤ Magnetic properties of materials
	➤ Ferromagnetism
	➤ Diamagnetism
	➢ Paramagnetism
	➤ Magnetic Permeability
	<ul> <li>Gauss's law</li> <li>Magnetic properties of materials</li> <li>Ferromagnetism</li> <li>Diamagnetism</li> <li>Paramagnetism</li> <li>Magnetic Permeability</li> <li>Magnetic Susceptibility and Retentivity</li> <li>Permanent magnets and Electromagnets</li> <li>Electromagnetic Induction</li> <li>Faraday's law of Induction</li> </ul>
	Permanent magnets and Electromagnets
	Electromagnetic Induction
	> Fleming's Right Hand Rule
	≻ Inductance
	> AC generator
	> AC generator
TEST- 1	CODE- PHY01



	<ul> <li>OPTICS</li> <li>Light</li> <li>Reflection of light</li> <li>Laws of Reflection</li> <li>Mirror</li> <li>Use of Spherical Mirrors</li> <li>Mirror Formula</li> <li>Law of Refraction</li> <li>Refractive Index</li> <li>Total Internal Reflection</li> <li>Spherical Lenses</li> <li>Lens Formula</li> </ul>
LECTURE-4	<ul> <li>Power of a lens</li> <li>Dispersion of Light</li> <li>Creation of Rainbow</li> <li>Scattering of light</li> <li>Colours</li> <li>Human Eye</li> <li>Defects of Human Eye</li> <li>Optical Instrument</li> <li>The Microscope</li> <li>Telescope</li> </ul>
LECTURE-5	<ul> <li>DUAL NATURE OF RADIATION AND MATTER</li> <li>Electron emission</li> <li>Einstein's photoelectric equation</li> <li>Wave nature of matter</li> <li>The heisenberg's uncertainty principle</li> <li>Atoms and nuclei</li> <li>MODERN PHYSICS</li> <li>Semiconductor</li> <li>Classification of metals, conductors and semiconductors</li> <li>Light emitting diode</li> <li>Solar cell</li> <li>Transistor</li> <li>COMMUNICATION SYSTEMS</li> </ul>
TEST- 2 C	CODE- PHY02



S. No.	CHEMISTRY
S. No. Lecture - 1	<ul> <li>BASIC CONCEPTS OF CHEMISTRY</li> <li>Matter and its states</li> <li>Comparison between Solids, Liquids and Gases</li> <li>Change of States of Matter</li> <li>Sublimation</li> <li>Evaporation</li> <li>Particles of Matter</li> <li>Classification of Matter</li> <li>Properties of Matter and Their Measurement</li> <li>Laws of Chemical Combinations <ul> <li>Law of Conservation of Mass</li> <li>Law of Constant</li> </ul> </li> <li>Gas Laws <ul> <li>Sobje's Law, Charles' Law &amp; Gay Lussac's Law:</li> <li>Combined Gas Law or Ideal Gas Equation</li> </ul> </li> <li>Atomic Structure and Atomic Theories</li> <li>Dalton's Atomic Theory</li> <li>Modern Atomic Theory</li> <li>Jifferent Atomic Species</li> <li>Isotope&amp;Isobars</li> </ul>
Lecture - 2	<ul> <li>Isotope&amp;Isobars</li> <li>Atomic and Molecular Masses</li> <li>Atomic Mass, Average Atomic Mass&amp;Molecular Mass</li> <li>Mole Concept and Molar Masses</li> <li>Mole Concept and Molar Masses</li> <li>Elements Compounds and Mixtures</li> <li>Classification of Elements - Periodic Table</li> <li>Halogens, Noble Gases</li> <li>Alloys, Metallurgy and Ores</li> <li>Chemical Formula</li> <li>Solution, Solute and Solvent</li> <li>Tyndall effect</li> <li>Colloidal Solution</li> <li>CHEMICAL BONDING AND STRUCTURE</li> <li>Electronic Theory of Valency</li> <li>Types of Chemical Bonds</li> <li>✓ Electrovalent or ionic bond , Covalent bond, Hydrogen Bond, Coordinate or Dative covalent bond</li> <li>Van der Waals' forces</li> <li>CHEMICAL REACTIONS</li> <li>Types of Chemical Reactions, Exothermic and Endothermic Reactions, Reversible and Irreversible Reactions</li> <li>Acid base and salts</li> <li>Radioactivity</li> </ul>



Lecture - 3	<ul> <li>BASIC ORGANIC CHEMISTRY, HYDROCARBONS</li> <li>Some organic compounds, their properties and uses         <ul> <li>✓ Methane , Methyl alcohol, Ethyl alcohol , Methyl Isocyanate, Urea, Dichlorodiphenyltrichloro ethane, Trinitrotoluene (TNT), Chloroform, Glycerol, Formic acid, Acetic acid, Oxalic acid</li> <li>&gt; Allotropes of Carbon</li> </ul> </li> <li>CHEMISTRY IN EVERYDAY LIFE         <ul> <li>&gt; Synthetic Materials in Everyday Life</li> <li>&gt; Manure, Fertilizers and Pesticides</li> <li>&gt; RDX (Research and development explosive, Dynamite</li> <li>&gt; Polymers- Polythene, Teflon, Thermocol, Carbon fibres, Nylon, Rubber</li> <li>&gt; Analgesics (Pain relievers), Antibiotics, Antiseptics and Disinfectants</li> <li>&gt; Chemicals in Food</li> <li>&gt; Fire Extinguisher</li> <li>&gt; Chemicals in Cosmetics</li> </ul> </li> </ul>
S. No.	Biology
Lecture - 1	<ul> <li>The living world</li> <li>Biological Classification of Plants and Animals         <ul> <li>Monera, Protista, Fungi, Plantae, Animalia</li> </ul> </li> <li>Plant Kingdom         <ul> <li>Plant Parts and Their Functions</li> <li>Structural Organization in Plants</li> <li>Transport Of Water And Minerals In Plants</li> <li>Thallophytes, Bryophytes, Pteridophytes etc.</li> <li>Morphology &amp; Anatomy of flowering plants.</li> </ul> </li> </ul>
Lecture - 2	<ul> <li>Plant Tissues         <ul> <li>Nutrition in Plants</li> <li>Photosynthesis – Food Making Process In Plants</li> </ul> </li> <li>Classification of Animal Kingdom         <ul> <li>Phylums- Annelida, Mollusca etc.</li> <li>Classes- reptilian, mammalia, pisces etc.</li> </ul> </li> </ul>
Lecture - 3	<ul> <li>Cell &amp; cell organelle</li> <li>&gt; Prokaryotic Cells vs. Eukaryotic Cells</li> <li>&gt; Cell cycle and cell division</li> </ul>
TEST-1	TEST CODE- BI01
Lecture - 4	<ul> <li>Animal Tissues         <ul> <li>Epithelial Tissue,Connective Tissue,Muscular Tissue etc.</li> </ul> </li> <li>Biomolecules         <ul> <li>Vitamins, fats , enzymes</li> <li>Deficiency diseases</li> </ul> </li> </ul>



Lecture - 5	<ul> <li>Human Digestive System</li> <li>Digestion and absorption,</li> <li>Digestive Glands</li> <li>Human Respiratory System</li> <li>&gt; Respiration</li> <li>&gt; Mechanism of Breathing</li> <li>&gt; Exchange of Gases</li> <li>&gt; Transport of Gases</li> </ul>
Lecture - 6	<ul> <li>Circulatory System</li> <li>Blood&amp;Blood Vessels</li> <li>Lymph (Tissue Fluid)</li> <li>Cardiac Cycle</li> <li>Blood Groups</li> <li>Endocrine system</li> <li>Glands and Hormones</li> <li>Pancreas</li> <li>Hormones of Heart, Kidney and Gastrointestinal Tract</li> <li>Mechanism of Hormone Action</li> <li>Neural Control and Coordination</li> </ul>
TEST-2	TEST CODE-BI02
Lecture – 7	<ul> <li>Nervous System</li> <li>Human Brain</li> <li>Reflex Action and Reflex Arc</li> <li>Movements</li> <li>Muscular System – Muscle Types</li> <li>Skeletal System</li> </ul>
Lecture – 8	<ul> <li>Reproduction</li> <li>Reproduction in organism</li> <li>Reproduction in plants</li> <li>Human reproduction</li> <li>Fertilization, Implantation&amp;Vitro Fertilization</li> <li>Excretory System</li> <li>Microbes in human welfare</li> </ul>
	Diseases Acute and Chronic Diseases
Lecture – 9	<ul> <li>Diseases Acute and Chronic Diseases</li> <li>Communicable Diseases</li> <li>Diseases Caused by Microorganisms</li> <li>Organ-Specific And Tissue Specific Diseases</li> <li>Vaccination and Immunization</li> <li>Diseases in Indian Children</li> </ul>

S. No.	Ecology & Environment
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Lecture-1	<ul> <li>Organism and The Environment         <ul> <li>Level of Organization</li> <li>Environment, Habitat and Niche</li> </ul> </li> <li>Ecosystem- Structure and Function         <ul> <li>Components, structure and functions of ecosystem</li> <li>Energy flow, Food Chain, Food Web</li> <li>Ecological pyramids and efficiencies</li> <li>Terrestrial &amp; Aquatic Ecosystem</li> <li>Major Biomes</li> </ul> </li> </ul>
Lecture-2	<ul> <li>Biogeo Chemical Cycling or Nutrient Cycling         <ul> <li>Nutrient Cycles, Carbon, Nitrogen, Phosphorus &amp; Sulphur Cycle</li> </ul> </li> <li>Population, Biotic Community and Succession         <ul> <li>Population</li> <li>Ecological interdependence and interaction</li> <li>Biotic Community</li> <li>Succession</li> </ul> </li> </ul>
Lecture-3&4	<ul> <li>Biodiversity</li> <li>Levels and magnitude of biodiversity</li> <li>Gradients and uses of biodiversity</li> <li>Threats and conservation to biodiversity</li> <li>Biodiversity hotspots</li> <li>IUCN Red List or Red Data List or Red Book</li> <li>International efforts for conserving biodiversity</li> <li>Biodiversity Conservation in India</li> <li>Animal &amp; Plant diversity of India</li> <li>Marine diversity</li> </ul>
TEST-1	TEST CODE -EV01
Lecture-5	<ul> <li>Pollution and Global Environmental Change</li> <li>Kinds of pollution; Air, Water, Soil and Noise- Sources, types and effects</li> <li>Ozone depletion, Green house &amp; smog</li> <li>Pollution mitigation strategies</li> <li>Major Global Environmental Issues – climate change, global warming etc.</li> <li>Environmental Impact Assessment</li> </ul>
Lecture-6	<ul> <li>Acts and policies to protect environment         <ul> <li>Institutions and Measures</li> <li>National Wildlife Action Plan</li> <li>Environmental Organizations</li> <li>Wetland Ecosystem- Ramsar Convention, Ramsar Sites</li> <li>International Environmental Conventions</li> </ul> </li> </ul>
TEST-2	TEST CODE -EV02

GS NCERT

SESSION PLAN

## **Duration of Course 5 Months**

Total Classes 120 (2 Hours Each) Head Office:103,1st Floor, B/1-2, Ansal Building Behind UCO Bank, Dr. Mukherjee Nagar, Delhi-110009.

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