



**SHANKAR
IAS ACADEMY™**

The Best IAS Academy In South India SINCE 2004

UPSC
PRELIMINARY EXAMINATIONS
DECODED SYLLABUS



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1. HISTORY

ANCIENT INDIA

| DECODED SYLLABUS | TOPICS | SOURCES |
|--|---|--|
| Stone Age | Paleolithic, Mesolithic, Neolithic - Occupation, Tools, Pottery, Settlements, Lifestyle, Prehistoric Art (Cave paintings). Chalcolithic - Early towns and settlements, Farming Cultures (Ahar, Malwa, Jorwe etc) , Pottery (Ochre colored), Dwelling and Burial practices | Primary - Old NCERT Class 11 Chapter 5,6 Themes in Indian History Part I Secondary - Tamil Nadu History book Class 11 |
| Indus Valley Civilization- Bronze Age | Origin, Geographical Extent, Cities and towns, Urban planning, Important structures, Agriculture, Trade and economy, Political organisation, Religious practices- Nature and animal worship , Crafts and Pottery, Seals , Bronze and terracotta figurines, Decline and its causes. | Primary - Old NCERT Class 11 Chapter 7 Themes in Indian History Part I Secondary - Tamil Nadu History book Class 11 |
| Early Vedic Age (1500- 900 BCE) | Advent of Aryans, Family and kinship - Tribal , Rig Veda, Social Practices, Tribal Polity and administration. Occupation and economy, Religion and Vedic Gods. | Primary - Old NCERT Class 11 Chapter 8 Themes in Indian History Part I Secondary - Tamil Nadu History book Class 11 |
| Later Vedic Age (900 - 600 BCE) | Transition to Later Vedic Age , Developments in Political Organisation and Economy, Social Order (Rise of Gotra system, Ashramas, Caste), Differences between Rig Vedic and Later Vedic society, Use of Iron- PGW Iron Phase, Vedas and Upanishads, Religion and rituals. Heterodox Philosophical systems. | Primary - Old NCERT Class 11 Chapter 9, 25 Themes in Indian History Part I Secondary - Tamil Nadu History book Class 11 Nitin Singhania book Chapter 14 |
| Mahajanapadas / Age of Buddha (600-300 BCE) | (a) Rise of State polity, 2nd Urbanisation- Rise of new cities, Magadhan Empire - Administration & Economy , Republican States , Society and Religion , Iranian & Macedonian invasion. (b) Jainism and Buddhism- Birth of Mahavira / Buddha, Origin and Spread, Doctrines and Principles, Monastic establishments (Basadis/ Viharas), Jain & Buddhist Councils, Art and Architecture , Literature. | Primary - Old NCERT Class 11 Chapter 10, 11,12,13 Themes in Indian History Part I - Nitin Singhania Book Secondary - Tamil Nadu History book Class 11 |
| Mauryan Empire | Rise of the Mauryan dynasty, Chandragupta Maurya, Administration, bureaucracy, taxation and polity, Chanakya's Arthashastra. Ashoka - Inscriptions (minor and major rock edicts) , Art and Architecture, Ashoka's Dhamma and patronage of Buddhism. | Primary - Old NCERT Class 11 Chapter 14,15 Themes in Indian History Part I Secondary - Tamil Nadu History book Class 11 |
| Post Mauryan Age | (a) Sungas and Kanwas. (b) Central Asian Invasions - Indo Greeks, Shakas, Parthians, Kushans. Their Impact- Money Economy, expansion in trade, silk route. Influx of foreign elements in polity, army, crafts. | Primary - Old NCERT Class 11 Chapter 16, 17,19 Themes in Indian History Part I Secondary - Tamil Nadu History |



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|--|---|---|
| | Religious Devilmments- Mahayana Buddhism, Gandhara and Mathura school of art, Science & Technology, Literature. (c) Satavahanas- Polity and administration, Economy, Social Organisation , Religious Patronage, Art and Architecture. | book Class 11 |
| Megaliths and Sangam Age | Megalithic culture- burials, pottery, tools, settlements. Sangam Age- Tamil Sangam literature , Chera, Chola and Pandyas, Evolution of early Tamil polity and society from Sangam Literature. | Primary - Old NCERT Class 11 Chapter 18 Themes in Indian History Part I Secondary - Tamil Nadu History book Class 11 |
| Guptan Age | Rise of the Guptas, Expansion and Administration, Trade and economy, Societal practices and status of women, Religion, Art and Architecture, Developments in Science and technology. Religious Literature- Ramayana, Mahabharata, Puranas. Secular Works- Works of Court poets like Kalidasa, Bhasa etc Scientific works of Aryabhata, Varahamihra etc. Decline of Guptas. | Primary - Old NCERT Class 11 Chapter 20,21 Themes in Indian History Part I Secondary - Tamil Nadu History book Class 11 |
| Post Guptas | Harshavardhana- Polity, Land Grants and its impact, Social conditions, Harsha and Buddhism, Hiuen Tsang visit and account of India. Literature- Works of Bhana & Harsha. | Primary - Old NCERT Class 11 Chapter 23 Secondary - Tamil Nadu History book Class 11 |
| Pallavas & Chalukyas in South | Pallavas and Chalukyas in South. Administration and economy. Chalukya art, Pallava art and Literary works. | Primary - Old NCERT Class 11 Chapter 24 Themes in Indian History Part I Secondary - Tamil Nadu History book Class 11 |

MEDIEVAL INDIA

| DECODED SYLLABUS | TOPICS | SOURCES |
|--|---|--|
| Chola Empire (9th- 12th century) | The rise of Cholas, Administration and taxation, Territorial Expansion, Society and Culture. Chola Art & Architecture. | Primary - Old NCERT Class 11 Chapter 3 - Themes in Indian History Part II Secondary - Tamil Nadu History book Class 11 |
| Ghaznavid and Turkish Invasions (1000-1200 CE) | Coming of Ghaznavids, Status of Rajput States and reasons for defeat, Ghurid invasion . Alberuni's Kitab-ul-Hind. | Primary - Old NCERT Class 11 Chapter 5 Themes in Indian History Part II Secondary - Tamil Nadu History book Class 11 |
| Delhi Sultanate (1200-1400 CE) | Nature of the State, Administration of Delhi Sultanate, State Departments and various posts, Military reforms. Land revenue and taxation, local and village administration, Cities and towns. Trade and crafts, Agriculture, export & imports, Economic and social life. Religion and customs under the Sultanate, Scientific advancements. | Primary - Old NCERT Class 11 Chapter 6,7,8 Themes in Indian History Part II Secondary - Tamil Nadu History book Class 11 |



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|--|---|--|
| | <p>Art and Architecture of Delhi Sultanate, Construction and rise of new Cities.</p> <p>Accounts of foreign travellers like Ibn Batutta, Court poets and Historians like Amir Khusrau, Barauni etc.</p> | |
| | <p>The Mamluks (1206-1290) – Qutb-ud-din Aibak, Iltutmish – Chagalani system, Raziya Sultana, Balban- Policies and administration, Mongol menace, Khaljis (1290-1320), The Tughlaqs(1320-1414), The Sayyid dynasty (1414- 1451), The Lodis(1451-1526).</p> | |
| <p>Vijayanagara and Bahmini Kingdom</p> | <p>Rise of Vijayanagara State, Harihara and Bukkaraya, Political Organisation - Nayaka System, Social life and Economy, Krishna Devaraya- administration and foreign policy,</p> <p>Literary works , Architechure of Vijajanagara- Structures of Hampi.</p> <p>Visit of Foreign travellers- Nicolo Conti, Abdul Razack, Nuniz, Barbosa.</p> <p>Bahmini Kingdom- Polity & Internal Conflicts, Administration and Economy. Conflict with Vijayanagara- Battle of Talikotta , Rise of Deccani culture, Architechure of Bahminis, Disintegration of Bahminis. Annexation by Mughal empire.</p> <p>Arrival of Portuguese, Impact on Indian Politics, trade and economy. Relationship with Indian rulers.</p> | <p>Primary - Old NCERT Class 11 Chapter 9</p> <p>Themes in Indian History Part II</p> <p>Secondary - Tamil Nadu History book Class 11</p> |
| <p>Religious and Cultural Developments in India(1200- 1500 CE)</p> | <p>Rise of concept of Bhakti, Vaishnavites and Saiviites in South (Alvars and Nayanmars), Shankaracharya and Ramanuja, Bhakthi movements in North India and Maharashtra . Saguna and Nirguna schools, Bhakthi Saints and Poets, Bhakti Literature, Impact on Social life.</p> <p>Sufi movements- Basic concept, 12 orders or Silsilahs, Sufi saints- Nizamuddin Auliya, Moinuddin Chisti, Baba Farid. Sufi impact on Indian arts, culture and society.</p> | <p>Primary - Old NCERT Class 11 Chapter 11</p> <p>Themes in Indian History Part II</p> <p>Secondary - Tamil Nadu History book Class 11</p> |
| <p>Mughal Empire</p> | <p>1526-1555 Babar(1526-1530), First Battle of Panipat, Battle of Kanwa , Babar Nama. Humayun (1530- 1535, 1555-56) Suri dynasty (1535- 1555) – SherShah’s reign, Administration and land revenue policy , Law & Order, Economic Reforms.</p> <p>1556-1707 Akbar’s Reign (1556-1605) - Second battle of Panipat, Early expansion under Bairam khan, Administration and Polity, Mughal army, Land revenue system of TodarMal, Mansabdari System and political organisation, Akbar’s Rajput Policy, Religious tolerance and social reforms.</p> <p>Economic and Social Conditions- City and village life, Zamindars and peasantry, Religious ideas, status of women.</p> | <p>Primary - Old NCERT Class 11 Chapter 12,13,14, 15,16,17,18,19</p> <p>Themes in Indian History Part II</p> <p>Secondary - Tamil Nadu History book Class 11</p> |



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| | <p>Arabic and Persian Literature, Account of court Historians and Poets, Foreign accounts of travellers on Mughal society and polity.</p> <p>Mughal Arts- Miniature Painting, Mughal Architecture and Monuments. Traditional crafts, Export and imports, Science and Technology.</p> <p>Disintegration of Mughal Empire (1707-1856)</p> <p>Deccan Conquests of Aurangzeb- Impact. Causes of disintegration.</p> | |
| Rise of Marathas | <p>Maratha expansion under Shivaji, Maratha army and administration, Chauth and Sardeshmukhi, Conflict with Mughals and other Deccan powers.</p> | <p>Primary - Old NCERT Class 11 Chapter 19 - Themes in Indian History Part II</p> <p>Secondary - Tamil Nadu History book Class 11</p> |

ART & CULTURE

| DECODED SYLLABUS | TOPICS | SOURCES |
|--------------------------------------|--|--|
| Indian Art & Architecture | <p>IVC- Various sites associated with Architecture. Their significance and location. Sculptures, figurines & seals.</p> <p>Mauryan Architecture- Ashokan Pillars, Stupas, Cave Architecture- Chaitiyas & Viharas, Sculptures.</p> <p>Post Mauryan – Features of three schools of art- Gandhara, Mathura, Amaravati. Rock cut caves.</p> <p>Gupta period- Cave Architecture- Ajanta, Ellora, Bagh, Nasik etc</p> <p>Temple Architecture – Nagara Style.</p> <p>Temple Architecture in South India -Pallava style, Dravidian Style- Chola temples, Vesara Style, Nayaka school, Hoysala Style, Pala school of temples.</p> <p>Medieval / Islamic Architecture- Delhi Sultanate- Different characteristics and introduction of new features of various dynasties- The Mamluks, Khiljis, Lodhis.</p> <p>Mughal Architecture – Features and important structures.</p> <p>Provincial Styles- Bengal, Malwa, Rajputana.</p> | <p>Ancient & Medieval Primary - Old NCERT Class 11</p> <p>Nitin Singhania Book Chapter 1</p> <p>SIA Book</p> <p>The Hindu - MetroPlus</p> |
| Indian Paintings | <p>Prehistoric Paintings</p> <p>Cave paintings in Paleolithic, Mesolithic, Neolithic, Chalcolithic periods. Their location, colors, themes.</p> <p>Mural Paintings- Ajanta, Ellora, Sittanavasal etc.</p> <p>Miniature paintings – Mughal Era</p> | <p>Ancient & Medieval Primary - Old NCERT Class 11</p> |



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| | Regional Paintings Different Schools- Rajasthani, Pahari, Kishangarh, Bundi, Kangra, Basholi, Tanjore. Folk Paintings Madhubani, Pattachitra, Kalighat, Pattua, Kalamkari, Warli etc. | Nitin Singhania Book Chapter 2 SIA Book The Hindu – Metro Plus |
| Indian Music | Classical Music- Hindustani and Carnatic Forms- Their features and styles. Folk Music- Pandwani, Lavani, Dandiya, Wanawan, Khonjom Parwa etc. | Ancient & Medieval Primary - Old NCERT Class 11 |
| Dance Forms | 8 Classical dance forms- Bharatanatyam, Kuchipudi, Mohiniyattam, Odissi, Kathakali, Sattriya, Manipuri, Kathak. Folk dances- Chauu, Raslila, Garba, Dandiya, Ghoomar, Padayani etc | Nitin Singhania Book Chapter 5,6 Nitin Singhania Book The Hindu - Friday Review |
| Indian Theatre | Ritual theatres of different traditions like Ankianat, Ramlila. Entertainment theatre forms- Tamasha, Nautanki, Swang etc. | Ancient & Medieval Primary - Old NCERT Class 11 Nitin Singhania Book Chapter 7 SIA Book |
| Indian Puppetry | String Puppets- Kathputli, Bommalatam. Shadow Puppets- RavanChayya, Togalu Gombayetta. Rod puppets- Putul Nautch, Yampuri. | Nitin Singhania Book Chapter 8 SIA Book |
| Fairs & Festivals | Important Tribal and Northeast festivals. Ex- Losar, Wangala, Bihu. | Nitin Singhania Book Chapter 18 SIA Book |
| Indian Literature | Ancient India – Vedas, Brahmanas, Aranyakas, Upanishads, Ramayana, Mahabharata, Puranas. Sanskrit Literature - Prose, Drama & Poetry - Works of court poets like Kalidasa, Sudraka, Bhasa of Ancient, Medieval India. Pali & Prakrit Literature Jain texts- Angas, Upangas. Buddhist – Canonical (Tripitakas) and non-canonical (Jatakas). Persian/ Arabic Literature - Works of court historians of Delhi Sultanate, Mughals, Bahminis. Ex-Ain-i-Akbari by Abul Fazl, Tarikh-i-Firozshahi by Barauni. | Ancient & Medieval Primary - Old NCERT Class 11 Nitin Singhania Book Chapter 13 SIA Book |

FOCUS AREAS - (Conceptual Clarity + Facts)

- 1) IVC- Presence/ absence of items or practices, sites .
- 2) Ancient/ Medieval terms- Professions, govt departments
- 3) Timeline/ Contemporaries
- 4) Sites/ports - significance & location
- 5) Literary works /recent trend
- 6) Religious doctrines – in news
- 7) Buddhism, Jainism(1 question/min)
- 8) Architecture/ Inscriptions
- 9) Communities / States & Their Festivals



MODERN INDIA

| DECODED SYLLABUS | TOPICS | SOURCES |
|--|--|---|
| Before revolt | Advent of Europeans <ul style="list-style-type: none"> - Portuguese, French, Dutch, English and Danish - Anglo-French wars and carnatic wars Weak Mughal Rulers post Aurangzeb <ul style="list-style-type: none"> - Rise of Regional Kingdoms- Bengal, Hyderabad, Awadh Conquest and Establishment of British Empire <ul style="list-style-type: none"> - Battle of Plassey, Buxar - Mysore , Maratha, Sikh, Afghan wars - Innovative Administrative polices - Ringfence, subsidiary alliance and doctrine of lapse | Old NCERT XII Chapter -1,2,3,4,5,6 Spectrum- Chapter -3,4,5 Themes in Indian History Part III |
| Revolt of 1857 | Causes, spread , nature and consequences Important personalities and area of revolt | Old NCERT XII Chapter 8 Spectrum- Chapter 7 Themes in Indian History Part III |
| Socio Religious Movements | Important associations and leader | Old NCERT XII Chapter 6,7,13 , Spectrum- Chapter 8 & 9 Themes in Indian History Part III |
| Modern Nationalism | Pre-INC organizations, Newspapers Factors for growth of Modern Nationalism | Old NCERT XII Chapter 12 Spectrum- Chapter 10 Themes in Indian History Part III |
| INC- Moderate Phase | Foundation of INC Approach, Ideology, Important leaders and contributions- economic criticism of British Rule | Old NCERT XII Chapter 12,14 Spectrum- Chapter 11 Themes in Indian History Part III |
| Extremist Phase (1905-1918) | Rise of extremism, Partition of Bengal Anti- Partition, Swadeshi Movement Surat Split Minto - Morley reforms | Old NCERT XII Chapter 14 Spectrum- Chapter 12 & 13 Themes in Indian History Part III |
| Revolutionary Activism (1907-1917) | Bengal, Maharastra, Punjab, Abroad Imp leaders and activities | |
| World events and Nationalist response | World War I and response Home Rule Movement Lucknow Pact Russian Revolution and impact Montague Chelmsford Reforms | Old NCERT XII Chapter 15 Spectrum- Chapter 14, 15 Themes in Indian History Part III |



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|-------------------------------------|---|---|
| Emergence of Gandhi | Experience in South Africa Emergence of Satyagraha Technique Experiments in India Champaran, Kheda and Ahmedabad | |
| Non cooperation Movement | Rowlatt Act, Jallianwala bagh massacre Khilafat movement NCM Participation of masses and withdrawal | Old NCERT XII Chapter 15 Spectrum- Chapter 16, 15 Themes in Indian History Part III |
| Phase in between NCM and CDM | Swarajists and No-changers Emergence of socialist, Marxist ideas Peasant, Trade and caste movements Revolutionary Activity- II | Old NCERT XII Chapter 15 Spectrum- Chapter 17 Themes in Indian History Part III |
| Civil Disobedience Movement | Run up to CDM <ul style="list-style-type: none"> - Simon Commission - Nehru Report and response - Lahore session and Poona Swaraj Spread of CDM Govt Response- Gandhi- Irwin Pact Round Table Conferences (RTC) Communal Award- Poona Pact Gandhi Harijan Campaign | Old NCERT XII Chapter 15 Spectrum- Chapter 19 Themes in Indian History Part III |
| Post CDM | GOI Act 1935 Council Entry and Congress Performance Congress Rule in Provinces | Old NCERT XII Chapter 15 Spectrum- Chapter 20, 21 Themes in Indian History Part III |
| 1939- 1947 | Nationalist Response to WW II Bose- Gandhi- Nehru Ideologies August offer, Individual Satyagraha, Cripps Mission Quit India Movement- Resolution and Mass participation Wavell Plan INA (1st phase and Bose arrival), trials Elections- Congress and League's performance Cabinet Mission Plan Atlee Statement, Mountbatten plan India Independence Act and Partition India - Post Independence | Old NCERT XII Chapter 15 Spectrum- Chapter 22, 23, 24, 25 Themes in Indian History Part III |

NOTE

| TOPIC | PRIMARY SOURCE | SECONDARY SOURCE |
|-------------------------------------|--|----------------------------------|
| ANCIENT & MEDIEVAL INDIA | Old NCERT Class 11 Themes in Indian History Part I and II | Tamil Nadu History book Class 11 |
| ART & CULTURE | Ancient & Medieval - Old NCERT Class 11 | Nitin Singhania Book |
| MODERN INDIA | Spectrum Old NCERT Class 12 Themes in Indian History Part I and II | |



2. GEOGRAPHY GEOMORPHOLOGY

| DECODED SYLLABUS | TOPICS | | SOURCES | |
|--|--|------------------------------------|--|--|
| Solar System | Planets, stars, satellites, etc. | | 6th NCERT – Chapter I | |
| Earth | Latitude and Longitude including important Parallels and Meridians. Motions of the Earth - Rotation, Revolution and their effects. Inclination of the Earth's Axis and its effects. Local and Standard Time and the International Date Line, Calendar. Eclipses - Solar, Lunar | | 6th NCERT – Chapter II & III | |
| Interior of the Earth | Sources of Information – Direct, Indirect - Earth Quake Waves, Volcanoes, etc. Crust Mantle Core | | 7th NCERT – Chapter II 11 th NCERT (Fundamentals of Physical geography) – Chapter II & III | |
| Rocks | Rocks & landforms Rocks & Soils Types of Rocks – Igneous, Sedimentary, Metamorphic. Rock Cycle | | 11 th NCERT (Fundamentals of physical geography) – Chapter V | |
| Earthquakes | Waves – P waves, S waves, Body and Surface waves. Shadow Zone Types of Earthquakes and Effects | | 11 th NCERT (Fundamentals of physical geography) – Chapter III | |
| Volcano | Types | | 9th NCERT – Chapter II 11th NCERT (Fundamentals of physical geography) – Chapter VI & VII | |
| | Landforms | | | |
| Distribution of Continents & Oceans | Theories and evidences. Forces of drifting. Plate tectonics. Plate boundaries – Divergent, Convergent and Transform. | | 9 th NCERT – Chapter II & III 11 th NCERT (Fundamentals of physical geography) – Chapter IV 11th NCERT (India physical environment) – Chapter II & III | |
| Landforms in India and across the world | Rivers and lakes. Mountain and Peaks. Plateaus, etc. | | Map reading – Refer Atlas. | |
| MISCELLANEOUS TOPICS | | | | |
| Geomorphic Processes | Endogenic Process | Diastrophism | Orogenic, Epierogenic, Earthquakes, Plate movements | 11th NCERT (Fundamentals of physical geography) – Chapter VI & VII |
| | | Volcanism | Pacific ring of fire, etc. | |
| | Exogenic Forces | Weathering, Mass movements Erosion | | |



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|--------------------------------------|------------------------|---|---|
| | | Transportation & Deposition | |
| Landforms and their Evolution | Erosional landforms | Agents and their Impacts - Wind, Running Water, | 11th NCERT (Fundamentals of physical geography) – Chapter VII |
| | Depositional landforms | Ground Water, Glaciers, Waves & Currents | |

CLIMATOLOGY

| DECODED SYLLABUS | TOPICS | | SOURCES |
|--|--|---|--|
| Composition of atmosphere | Gases, Water Vapour, Dust Particles, etc. | | 7 th NCERT – Chapter IV 9 th NCERT – Chapter IV |
| Structure of atmosphere | Exosphere, Thermosphere, Mesosphere, Stratosphere, Troposphere, Altitude vs Temperature | | 11th NCERT (Fundamentals of physical geography) – Chapter VIII 11 th NCERT (India physical environment) – Chapter IV |
| Solar Radiation, Heat Balance and Temperature | Insolation Aphelion and Perihelion Variability of Insolation at the surface of the Earth Day Season Year Rotation on Axis, Angle of Inclination of sun rays, Length of the day, Transparency of Atmosphere, Configuration of land in terms of its aspect. | | 11th NCERT (Fundamentals of physical geography) – Chapter IX |
| Heat Balance | Heating and cooling of atmosphere | Conduction, Convection, Advection | 11th NCERT (Fundamentals of physical geography) – Chapter IX |
| | Radiation and heat budget | Albedo Shortwave Radiation Long wave Earth Radiation | |
| Temperature | Factors controlling Temperature distribution Inversion of Temperature | | 9 th NCERT – Chapter IV 11th NCERT (Fundamentals of physical geography) – Chapter X |
| | Adiabatic Lapse Rate and Latent Heat of Condensation | | |
| Atmospheric Circulation and Weather Systems | Atmospheric Pressure Belts and Wind Systems Atmospheric Pressure Vertical variation of pressure Horizontal distribution of pressure World Distribution of Sea Level Pressure | | 9 th NCERT – Chapter IV 11th NCERT (Fundamentals of physical geography) – Chapter X |
| | Factors affecting the velocity and direction of the wind. | Pressure Gradient Force, Frictional Force, Coriolis Force, Pressure and Wind (Cyclonic & Anticyclone Circulation) | |
| General Circulation of the Atmosphere – | Latitudinal Variation of Atmospheric Heating Emergence of Pressure Belts Migration of Belts Following apparent Path of Sun | | |



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|--|--|--|---|
| Pattern of Planetary Winds | Distribution of continents & Oceans Rotation of the Earth | | |
| | Geostrophic Wind, Jet Streams & Rossby Waves | | |
| | Major Jet Steams: Subtropical Jet Stream & Polar Jet Stream | | |
| | Air Mass and Air masses based on Source Regions | | |
| Circulation | Simplified Global Circulation – Hadley Cell, Ferrell Cell. Seasonal Wind, Local Wind, Land and Sea Breezes, Mountain and Valley winds, AIR MASS – fronts, Extra Tropical Cyclone, Thunderstorms, Tornadoes, etc. | | 7 th NCERT – Chapter IV 11 th NCERT (Fundamentals of physical geography) – Chapter X & XI GC Leong – Chapter XIII & XIV |
| Water in the Atmosphere | Water Vapour, Precipitation, Humidity – Absolute and Relative. Saturation – Dew Point | | 11th NCERT (Fundamentals of physical geography) – Chapter XI |
| | Evaporation and Condensation. | Dew, Frost, Fog & Mist, etc. | |
| | Clouds | Types – Cirrus Cumulus, Stratus Nimbus. High – Cirrus Cirrostratus Cirrocumulus Middle – Altostratus Altopcumulus Low – Stratocumulus Nimbostratus Vertical Development – Cumulus and Cumulonimbus | 11th NCERT (Fundamentals of physical geography) – Chapter XI GC Leong – Chapter XIII |
| Water in the Atmosphere | Precipitation | Rainfall , Snowfall , Sleet , Hail Hailstones, etc. | 11th NCERT (Fundamentals of physical geography) – Chapter XI |
| | Types of Rainfall | Conventional, Orographic, Cyclonic World Distribution of Rainfall | |
| Important climatic phenomena and its effects. | ENSO and LA Nina, IOD, Polar vortex, etc. | | IMD and earth sciences ministry websites. |
| World Climate | Hot, Wet Equatorial Climate Tropical Monsoon and Tropical Marine Climates Savanna or Sudan Climate Hot Desert and Mid-Latitude Desert Climates Warm Temperate Western Margin (Mediterranean) Climate Temperate Continental (Steppe) Climate Warm Temperate Eastern Margin (China Type) Climate Cool Temperate Western Margin (British Type) Climate Cool Temperate Continental (Siberian) Climate Cool Temperate Eastern Margin (Laurentian) Climate Arctic or Polar Climate | | GC Leong – Chapter XV to XXV |



OCEANOGRAPHY

| DECODED SYLLABUS | TOPICS | | SOURCES | |
|--|---|---|--|---|
| Oceans | Relief of the Ocean floor | | 11 th NCERT (Fundamentals of physical geography) – Chapter XIII | |
| | Divisions of the ocean floor | Continental Shelf, Continental Slope Deep sea plain, Oceanic deep and Trenches, etc. | | |
| | Minor relief features | Mid oceanic ridges, Seamount, Submarine, canyons, Guy outs, Atoll, etc. | | |
| | Temperature of the Ocean Water | Vertical, Spatial | | |
| | | Factors affecting Temperature distribution | | Latitude Unequal distribution of land & Water Prevailing wind Ocean Currents |
| | | Horizontal & Vertical Distribution | | Thermo cline 3 layers |
| | Salinity of the Ocean Water | Factors affecting salinity | | Evaporation and precipitation Fresh water flow from rivers Wind Ocean currents, etc. |
| Horizontal and vertical distribution of salinity | | | | |
| Movements of ocean Water | Factors influencing Movement | Temperature, Salinity, Density Sun moon winds. | 11 th NCERT (Fundamentals of physical geography) – Chapter XIV | |
| | Motion – Horizontal & Vertical Currents. Waves | | | |
| | Relation between Gravitational Forces and Tides | Tidal currents Types of Tides Importance of Tides | | |
| | Ocean Currents | Types of ocean currents Surface currents & Deep water currents based on Depth Cold and Warm Currents based on Temperature Major Ocean currents of the World Effects of Ocean Currents | | |



BIOGEOGRAPHY

| DECODED SYLLABUS | TOPICS | SOURCES |
|---------------------|--|--|
| Soil | Soil Characteristics Factors Responsible for Soil Formation Stages of Soil Formation Soil Forming Processes Soil Profiles and Horizons Soil Classification Soil Erosion and Conservation | 11th NCERT (India physical environment) – Chapter VI |
| | | |
| Natural vegetations | Types of forest and their distribution | 9 th NCERT – Chapter V 10 th NCERT – Chapter II 11th NCERT (Fundamentals of physical geography) – Chapter XV |
| | Classification of forests | |
| Wild life | Flora | 11th NCERT (India physical environment) – Chapter V |
| | Fauna | |
| | Types, Distribution, Status, etc. | |

ECONOMIC GEOGRAPHY

(FOR DATA REFER UPDATED SOURCES. EX- OFFICIAL WEBSITES)

| DECODED SYLLABUS | TOPICS | SOURCES | |
|-------------------|---|--|--|
| Mineral resources | Distribution of minerals. | Complete 8 th and 10 th NCERTs. | |
| | Important mining regions | | |
| | Distribution, production and international trade of Metallic and non-metallic minerals. | | |
| | Conservation | | |
| Energy resources | Production of conventional energy | 8 th NCERT – Chapter III 10 th NCERT – Chapter V 12 th NCERT (India people and economy) – Chapter VII | |
| | Reserves and sources of energy | | |
| | Coal | | Nature and origin of coal. Constituents and kinds of coal. Coal fields and coal production. By products of coal. Conservation of Coal Petroleum. |
| | Petroleum | | Nature and properties of petroleum Origin and recovery, Exploration. Petroleum refining, Petroleum reserves |
| | Natural gas Reserves and Production | | |
| | Hydro-electricity | | Distribution of potential hydro-power. Hydro-electric power generation. |
| | Atomic (nuclear) energy | | World distribution of uranium. Production of uranium, Thorium. |
| | | 8 th NCERT – Chapter III 10 th NCERT – Chapter V | |



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|--------------------------------|--|--|--|
| | | Production of atomic (nuclear) energy, Important nuclear reactor sites. | 12 th NCERT (India people and economy) – Chapter VII |
| Energy resources | Non-conventional sources of energy | Solar energy, Wind energy, Geothermal power, Tidal energy Wave energy, Biomass energy, etc. | |
| Industrial distribution | Iron and Steel Industry Textile Industry Chemical Industry Agro-industries Pulp and paper industry Cement industry Petroleum refining industry | Essential conditions, Location, development and distribution. Factors of production. | 8 th NCERT – Chapter V 10 th NCERT – Chapter VI 12 th NCERT (India people and economy) – Chapter VIII |
| | Industrial Regions | Characteristics, Principal industrial regions of India and the world. | |
| Agriculture | Land resource | Land-use Land capability classification Causes of Land Degradation. Impact of Land Degradation. Steps taken by Government. Sustainable Land Management | 8 th NCERT – Chapter II 10 th NCERT – Chapter IV 12 th NCERT (India people and economy) – Chapter V |
| | Productivity of Crops and conditions for growth | Crops - Wheat, Rice, Maize (Corn) Barley, Beverages – Tea, Coffee, Tobacco, Cotton, Jute, Raw Silk Natural Rubber, Sugarcane. Conditions of growth. Varieties, Methods of cultivation, Production pattern, International trade. | |
| Transportation | Road Rail Air Inland water ways | Important national highways, railways and national ways and their locations. Golden quadrilateral. Diamond quadrilateral. | 10 th NCERT – Chapter VII 12 th NCERT (India people and economy) – Chapter X & XI |

SOCIAL GEOGRAPHY

| | | | |
|-------------------|-------------------------------|--|--|
| Demography | Population distribution | Factors of population distribution— Physical factors, Socio-cultural factors and Demographic factors, etc. World population distribution. Population density Determinants of population growth | 12 th NCERT (Human geography) – Chapter II, III, IV 12 th NCERT (India people and economy) – Chapter I, II, III |
| | Characteristics of population | Age composition Population pyramids Sex composition Literacy, etc. | |

All these topics should be done parallelly for both India and the world geography. Give due and more focus on Physical Geography and map reading for both India and the world.



INDIAN PHYSICAL GEOGRAPHY

| | | |
|-------------------------|--|--|
| Location | Mainland, oceans and islands extensions | 9 th NCERT – Chapter I 12 th NCERT (India physical environment) – Chapter I |
| Structure | The Peninsular Block The Himalayas and other Peninsular Mountains Indo-Ganga-Brahmaputra Plain. | 9 th NCERT – Chapter II 12 th NCERT (India physical environment) – Chapter II |
| Physiography | The Northern and North-eastern Mountains | |
| | The Northern Plain | |
| | The Peninsular Plateau | |
| | The Indian Desert | |
| | The Coastal Plains | |
| The Islands | | |
| Drainage systems | Himalayan drainage system | Source or Origin Tributaries |
| | Peninsular drainage system | Distributaries Dams and irrigation canals Hydroelectric projects |
| | Smaller Rivers Flowing Towards the West | Water ways Flows through state, national parks, WLS, etc. |
| | Small Rivers Flowing towards the East | Border sharing Important Drainage Patterns |
| Climate | Factors determining the climate of India | Factors related to Location and Relief Factors Related to Air Pressure and Wind |
| | Mechanism of Weather in the Winter Season Mechanism of Weather in the Summer Season Mechanism of South west monsoon Mechanism of retreating monsoon | 9 th NCERT – Chapter IV, V 12 th NCERT (India physical environment) – Chapter IV, V, VI |
| | The rhythm of seasons | |



| | | | |
|---|---|--|---|
| | Famous Local Storms of Hot Weather Season Characteristics of Monsoonal Rainfall Traditional Indian seasons Distribution of Rainfall Climatic Regions of India | | |
| Forest | Types of forests, their climatic conditions, characteristics and their distribution | Tropical Evergreen and Semi Evergreen forests Tropical Deciduous forests Tropical Thorn forests Montane forests Littoral and Swamp forests. | |
| Soil | Classification of soils | | |
| | Soil genesis and characteristics | | |
| | Distribution | | |
| Agriculture | Types of Farming Cropping Seasons in India Cropping pattern Agro climate of India Conditions required for crop cultivation Irrigation system | | 8 th NCERT – Chapter IV 10 th NCERT – Chapter IV 12 th NCERT (India people and economy) – Chapter V |
| Resources – their distribution | Forest and Wildlife Resources Water Resources Minerals and Energy Resources | | 8 th NCERT – Chapter II, III 10 th NCERT – Chapter II, III, V 12 th NCERT (India people and economy) – Chapter V, VI, VII |
| Industries | Primary, secondary and tertiary | | 8 th NCERT – Chapter V 10 th NCERT – Chapter VI 12 th NCERT (India people and economy) – Chapter VIII |

QUESTIONS FROM PREVIOUS YEAR PRELIMS PAPERS

| | |
|--|---|
| Minimum number of states to cross from origin and destination. | Ex - Kottayam to Kohima. |
| Physical features and their extension | Ex - Himalayas extends over five states only. |
| Geographical proximities | Ex - Island which is close to Nicobar. |
| Unique geographical feature particular to specific location | Ex - water receding in Chandipur. |
| Degradation of water bodies | Ex - Aral Sea shrinking. |
| Latitudinal and longitudinal proximities | Ex - City longitudinally closest to Delhi |
| Countries sharing border with sea/ocean. | Ex - Black Sea |

Focus Areas:

Indian physical geography with special focus on north eastern region. Agriculture.
 Map reading – west Asia, south and south East Asia.



3. POLITY

CONSTITUTION AND PANCHAYAT RAJ

CONSTITUTIONAL FRAMEWORK

| DECODED SYLLABUS | TOPICS | REFERENCE |
|--|---|---|
| Historical background and making of constitution | Features of each act from 1773 to 1947 (All acts are very important) | |
| Salient features | Philosophical basis for each feature such as democracy, liberty. | PRIMARY SOURCE : NCERT (NEW) Class 11 political theory -1 chapters(all) |
| Preamble | Content, objective and its amendment | Class 11 Indian Constitution at work chapters 1, 2, 9 and 10. |
| Union and its territory | Procedure for creation of new state, UT. | Laxmikanth's Indian polity Chapters 1 to 11 |
| Citizenship | Features like single citizenship and link with topics like qualification to become President of India. Focus on NRC . | SECONDARY SOURCE : Class 6 social & political life-1 chapters 1 and 2 Class 7 social & political life-2 chapters 1 and 10 Class 8 social and political life-3 chapter 1 Class 9 democratic politics-1 chapters 1,2 and 3. Class 10 Democratic politics-2 chapters 3, 7 and 8. |
| Fundamental rights(FR) | Writs, Constitutional Remedies, Rights outside part 3, Relate each Fundamental Right in Current affairs like privacy, right to marry. | |
| Directive Principles of State Policy(DPSP) and Fundamental Duties(FD) | Purpose, list, important amendment, non-justiciability, comparison of Preamble vs FR vs DPSP vs FD | |
| Amendment | Types, Which type of amendment is required for amending certain part, article or schedule. Important amendments : 1st, 25th, 39th, 42nd, 44th, 69th, 73rd, 74th, 77th, 81st, 85th, 91st to recent amendments. | |
| Basic structure | Origin, list & purpose, constitutionality | |



SYSTEM OF GOVERNMENT

| | | |
|-------------------------------|--|---|
| Parliamentary system | Features of parliamentary government | <p>Primary source : Class 11 Indian Constitution at work chapter 7 Laxmikanth's Indian polity Chapters 12-16 and Current affairs.</p> <p>Secondary source : Class 10 Democratic politics-2 chapters 1 and 2</p> |
| Federal system | Federal and unitary features | |
| Centre state relations | <p>Trends in centre state relations – frequently in news like GST, president rule and similar related issues.</p> <p>Punchhi commission recommendations & Sarkaria commission recommendations.</p> <p>NITI AAYOG'S role in centre state relations.</p> | |
| Inter-state relations | River water sharing disputes, Inter-state and Zonal councils | |
| Emergency provisions | President rule, Financial emergency | |

EXECUTIVE

| | | |
|--|--|---|
| CENTRAL GOVERNMENT | | <p>Primary source : Class 11 Indian Constitution at work chapter 4 Laxmikanth's Indian polity Chapters 17-20,26-28,46,47 and Current affairs.</p> |
| President | Executive Powers and functions of the President, Ordinance. | |
| Vice president | | |
| Prime Minister and council of ministers | <p>PM'S relationship with President and Council of ministers</p> <p>Individual and collective responsibility of council of ministers</p> | |
| Attorney general of india | powers and functions. | |
| Cabinet secretary | Powers and functions of Cabinet secretary | <p>Secondary source : Class 7 Social & Political life-2 Chapter 2</p> |
| STATE GOVERNMENT | | |
| Governor | Executive Functions, appointment, Governor Vs State Govt. Vs Central Government Relationship. | |
| Chief minister and Council of Ministers | CM'S relationship with Governor and Council of Ministers | |
| Advocate general of state | Powers and Functions | |
| Chief secretary | Powers and Functions of Chief Secretary. | |



LEGISLATURE

| | | |
|--------------------------|--|---|
| Parliament | Speaker, Chairman, joint sitting, money bill, budget, comparison of Rajya Sabha Vs Lok Sabha, parliamentary committees, devices in parliamentary proceedings like censure motion, privileges and general rules of business. Acts/laws in current affairs such as labour laws, codes. | Primary source: Class 11 Indian Constitution at work Chapter 5 Laxmikanth's Indian polity Chapters 22-24,29. PRS website : http://www.prsindia.org/ IAS Parliament : https://www.iasparliament.com/ Secondary source : Class 8 social and political life-3 chapters 3 and 4 |
| State legislature | Legislative council vs assembly, Bills referred to the President and general rules of business. | |

JUDICIARY

| | | |
|---|---|--|
| Supreme court | Independence of supreme court, Jurisdiction like centre-state disputes, Judicial review, Enforcement of FR. | Primary source : Class 11 Indian Constitution at work chapter 6 Laxmikanth's Indian polity Chapters 25, 30 and 31. Secondary source : Class 8 social and political life-3 Chapters 5 and 6 |
| Tribunals | Recently in news like NGT, Administrative tribunal. | |
| High court and subordinate courts | Jurisdiction , Writs of Supreme Vs High Court | |
| National and state legal service authority, Gram nyayalaya act | Functions and powers. | |

LOCAL GOVERNMENT (PANCHAYAT RAJ)

| | | |
|---------------------|---|---|
| Panchayats | Evolution, Functions, 73rd amendment Vs 74th amendment Compulsory and voluntary provision, Basic schemes related to rural development. Give more focus to panchayat than municipality. | Class 11 Indian Constitution at work chapter 8 Laxmikanth's Indian polity chapter 34,35. Ministry website related to Panchayat Raj, Rural & Urban Development (Refer only schemes) https://www.panchayat.gov.in/ http://mohua.gov.in/ https://rural.nic.in/ |
| Municipality | Types of Urban government, Difficulties faced by urban government in fulfilling the aspirations of people(current affairs and internet) eg. Water scarcity in urban region, pollution. Basic schemes related to urban development | |



UNION TERRITORY

| | | |
|------------------------|---|---|
| Union territory | State legislature vs union territory Legislature State governor vs UT'S administrator UT'S ADMINISTRATOR vs CM AND COUNCIL OF MINISTERS | Laxmikanth's Indian Polity Chapter 36. Current affairs. |
|------------------------|---|---|

SPECIAL STATUS & PROVISION, SPECIAL AREAS AND SCHEDULE 1-12

| | | |
|--|--|--|
| Special status & Provision, Special areas and schedule 1-12 | Special status to J & K – article 370,35A. Who can modify acts, rules for 5th and 6th schedule areas. List of states coming under 5th & 6th schedule. schedule 1-12 basics. | Laxmikanth's Indian Polity Chapter 32 & 37. Refer schedule 1-12 in 3rd Chapter |
|--|--|--|

CONSTITUTIONAL AND NON CONSTITUTIONAL BODIES

| | | |
|---|--|---|
| Constitutional and Non Constitutional Bodies | Give more focus to bodies which are frequently in the news. Study by comparing two-three bodies. appointment, tenure, report it submits. CAG,FINANCE COMMISSION,ELECTION COMMISSION are core area. | Official website and laxmikanthi's Chapters 38-56 Some of the website of constitutional / non constitutional bodies(Refer more such official websites in news) https://cic.gov.in/ https://cag.gov.in/ |
|---|--|---|

POLITICAL SYSTEM

| | | |
|-------------------------------|---|--|
| A - Political parties | Focus on mainly Anti Defection Law and Elections to Parliament, State Legislature, President and vice | Laxmikanth's Indian Polity Chapters 64-70 Election commission's website FAQ https://eci.gov.in/ Current affairs |
| B - Elections | President. | |
| C - Electoral reform | Representation of people's act. | |
| D - Anti defection law | | |



PUBLIC POLICY AND RIGHTS ISSUE

| | | |
|--|--|--|
| A - TRIBES(Most important) | It is easier to understand issues related to each section of Population if their policy and issues are studied together. | Official website for policy and Current affairs for issues. https://tribal.nic.in/ |
| B - Scheduled caste, Women, child. | | https://wcd.nic.in/ |
| C - Minorities | | http://www.minorityaffairs.gov.in/ |
| D - Transgender and differently abled | | http://socialjustice.nic.in/ |

| SUMMARY OF IMPORTANT AREAS IN POLITY | SOURCE |
|---|--|
| 1) Evolution acts of constitution 2) FR,FD,DPSP 3) PRESIDENT,PM, Parliament system as a whole(broad features) 4) Supreme court review & jurisdiction. High Court jurisdiction and writs. 5) 1-12 SCHEDULE 6) TRIBAL RIGHTS ISSUE 7) PARIAMENTARY COMMITTEES 8) Have an eye on proposed reforms/amendments 9) such as simultaneous elections and link them with possible article to be amended. 10) Basic structure doctrine & centre state relationship. | 1. For entire polity Primary source(Book) are: A. New NCERT 11th std (i) Political theory (ii) Indian Constitution at work B. Laxmikanth's Indian Polity. 2. In official websites read about us, schemes/acts & FAQ. 3. For current affairs follow https://www.iasparliament.com/ |



4. ECONOMICS

ECONOMIC AND SOCIAL DEVELOPMENT-SUSTAINABLE DEVELOPMENT

| DECODED SYLLABUS | TOPICS | REFERENCE BOOKS |
|--|---|---|
| Planning | Need and role of government in Planning Review and achievements of 5 year Plans NITI AAYOG | 11th NCERT chapter 2, chapter 3 |
| Agriculture | Land Reforms Green Revolution Food Security - Subsidies -MSP, FRP WTO Agricultural Marketing- NAM NABARD | Primary -Shankar IAS academy Economics part 2 Chapter 2 |
| Industry | Industrial Policies from 1948 PSUs - Maharatnas, Miniratnas, Navaratnas Disinvestments- National Investment Fund MSMEs Policies- NIMZ, Make in India, IIP | Primary -Shankar IAS academy Economics Part 2 chapter 3 |
| Service | Composition, growth | Primary -Shankar IAS academy Economics part 2 Chapter 4 |
| National income | Concept and Working | Primary - Shankar IAS academy Economics part 1 chapter 1 Secondary –Sankarganesh Chapter 2, |
| Circular flow of income Methods: income, product, expenditure | | Economic Survey |
| National Income Accounting GDP, GNP, NDP, NNP (@Factor Costs, @ Market Prices), NI, PCI,PI ICOR, GDP Deflator | | |
| Concepts of National Income Central Statistical Organisation | | |
| Growth and Development | Reports and Indices | Primary -Shankar IAS academy Economics Part 1 Chapter 2 Economic Survey |
| | HDI, GII, MPI etc | |
| PUBLIC FINANCE | | |
| Budget | Types - gender based, zero based, incremental | Primary -Shankar IAS academy Economics Part1 chapter 3 Secondary - Sankarganesh Chapter 5 Economic Survey |
| a) Revenue | Receipts - Tax (direct and indirect- GST), Non Tax | |
| | Expenditure | |
| b) Capital | Receipts - Debt and Non debt | |
| | Expenditure | |



| | | |
|------------------------------------|--|--|
| Public Debt | Internal, external and other liabilities | |
| Deficits | Fiscal, budget, Revenue, Primary | |
| FRBM | Recommendations | |
| Finance commission | 13th and 14th Recommendations | |
| Business Cycle | Recession, depression, recovery, boom | |
| Fiscal Policy | Expansionary and contractionary | |
| MONEY | | |
| Functions | Primary, secondary | Primary -Shankar IAS academy Economics Part1 chapter 4 Economic Survey |
| Forms of Money | | |
| Money supply | Monetary and Liquidity Aggregates | |
| Money Multiplier | | |
| Currency management | Role of RBI and Government | |
| INFLATION | | |
| Causes | Demand Pull, Cost Push, Structural | Primary -Shankar IAS academy Economics Part 1 Chapter 5 Secondary - Sankarganesh Chapter 9 Economic Survey |
| Based on Rates | Creeping, Walking, Running, Galloping | |
| Inflation Measurement | WPI, CPI - Rural, Urban, Industrial workers, | |
| Effects of Inflation | on different sectors, professionals and society | |
| Inflation control | | |
| a) Fiscal Policy | Taxation and Expenditure Regulation | |
| b) Monetary Policy | Quantitative- bank Rate, OMO, CRR, SLR, Repo, Reverse Repo and Qualitative | |
| EXTERNAL SECTOR | | |
| Balance Of Payment | Current and Capital Account | Primary -Shankar IAS academy Economics Part 1 Chapter 6 Secondary - Sankarganesh Chapter 10. Economic Survey |
| Exports | Sector wise growth rates | |
| Imports | Sector wise growth rates | |
| Twin Deficits | CAD and Fiscal Deficits | |
| FDI | Definition, Routes, FDI Caps, | |
| FERA, FEMA | | |
| Exchange Rate Determination | Fixed, Adjustable peg, Floating | |
| Exchange Rate | Depreciation, Appreciation, Revaluation, Devaluation | |
| | REER, NER, RER, PPP | |
| Forex Reserves | | |
| Rupee Convertibility | Current and Capital Account | |
| External Debt | | |



FINANCIAL INCLUSION

| | | |
|--|---|---|
| Banking | | |
| Evolution | from 1786 to till now | Primary -Shankar IAS academy Economics Part 1 Chapter 7 Secondary -Sankarganesh Chapter 6 Economic Survey |
| | Payment banks, small Finance Banks | |
| Banking Structure | commercial, cooperatives, RRBs | |
| RBI | Functions | |
| Reforms | PSL, Lead bank scheme | |
| NPA | Classification, Management, Government Initiatives, RBI Initiatives | |
| Basel Norms, Banking Ombudsman Scheme | | |
| NBFC | | |

FINANCIAL MARKETS

| | | |
|-----------------------|-------------------------------|---|
| Money market | Organised, Unorganised, NBFCs | Primary -Shankar IAS academy Economics Part 1 Chapter 8 Secondary - Sankarganesh Chapter 7 |
| Capital market | Instruments, Bull, Bear | |
| SEBI | Functions and Role | |

POVERTY & UNEMPLOYMENT

| | | |
|---------------------|---|---|
| Poverty | Definition, Measurement and Poverty alleviation schemes | Secondary - Sankarganesh Chapter 4, SIA, ES Economic Survey |
| Unemployment | Types, Causes, Measurement | |

SOCIAL SECTOR INITIATIVES

| | | |
|------------------|---|---|
| Health | Health Coverage, Government Initiatives | Primary -Shankar IAS academy Economics part 2 Chapter 5 Economic Survey |
| Education | Government Initiatives | |

DEMOGRAPHICS

| | | |
|---------------------|----------------------|--|
| Demographics | Sectoral Composition | Primary -Shankar IAS academy Economics part 2 Chapter 5 |
| | Demographic Dividend | |

FOCUS AREAS:

1. Organisations in news – CCEA, NITI AAYOG, RBI, CACP, FICCI, SEBI IRDAI, NABARD, WTO, IMF, WORLD BANK, ADB, NDB, OECD etc
2. Reports and Indices
3. Government schemes and initiatives
4. Economic survey – Primary -Shankar IAS academy material and video
5. Important economic terminologies in News
6. Trends for GDP, GNP, Poverty etc
7. Composition of Various sectors Growth rates etc
8. www.arthapedia.in

Note:

Primary reference book: Shankar IAS academy book.

For further reference Secondary -Sankarganesh, Economic Survey.



5. ENVIRONMENT

ENVIRONMENTAL ECOLOGY

| DECODED SYLLABUS | TOPICS | SOURCES |
|------------------|--|---|
| Ecology | Ecology definition Environment definition Environment components (biotic and abiotic) | Shankar IAS Environment Chapter 1 |
| Ecosystem | Ecosystem definition Functions of ecosystem | Shankar IAS Environment Chapter 1 |
| | Energy flow Food Web Ecological pyramid-pyramid of biomass, numbers, energy | Shankar IAS Environment Chapter 2, 12th NCERT Biology Last 4 Chapters |
| | Bioaccumulation Bio magnification | Shankar IAS Environment Chapter 2 |
| | Bioremediation | Shankar IAS Environment Chapter 5 |
| | Biopiracy | Shankar IAS Environment |
| | Bioleaching Bioterrorism | Shankar IAS Environment |
| | Ecotone-characteristics Niche-types | Shankar IAS Environment Chapter 1 |
| | Carbon footprint Ecological footprint | Shankar IAS Environment |
| | Eutrophication | Shankar IAS Environment Chapter 2 |
| | Algal blooms-red tide | Shankar IAS Environment Chapter 2 |
| | Biological oxygen demand | Shankar IAS Environment |
| | Ecological succession- Primary, Secondary succession, Climax | Shankar IAS Environment Chapter 2 |
| | Biotic interaction-mutualism, communalism, etc | Shankar IAS Environment Chapter 2 |
| | Bio-geochemical cycle Hydrological cycle Carbon cycle Nitrogen cycle Phosphorus cycle Sulphur cycle | Shankar IAS Environment Chapter 2 |



CLASSIFICATION OF ECOSYSTEMS

| | | |
|------------------------------------|--|---|
| Aquatic ecosystems | Lakes-ecology, characteristics Estuaries Mangroves-characteristics, root modification Coral reefs-types, threat Coral bleaching Wetlands-types, national wetland conservation program | Shankar IAS Environment Chapter 4 |
| | Ramsar sites, montreux record | Shankar IAS Environment |
| Terrestrial ecosystems | Forest ecosystem-types of forest Desert ecosystem Grasslands ecosystem Deforestation-causes Desertification-causes | Shankar IAS Environment Chapter 3 |
| ENVIRONMENTAL POLLUTION | | |
| Environmental Pollution | Pollutants-classifications, causes, sources Air pollution-major pollutants Smog-formation, effects Indoor Air pollution Fly ash-composition, utilisation National Air quality monitoring programme National ambient air quality standards (NAAQS) Water pollution-sources, effects, control measures Soil pollution-sources, causes, types, effects, control measures Noise pollution-impacts, control measures Radio active pollution-sources, types, effects, control measures E-waste management Solid waste management | Shankar IAS Environment Chapter 5, Environmental Ministry |
| | Environmental impact assessment | Shankar IAS Environment Chapter 6 |
| BIODIVERSITY | | |
| Biodiversity | Biodiversity-term Levels of biodiversity-Genetic diversity, Species diversity Ecosystem/community diversity | Shankar IAS Environment Chapter 7 |
| Measurement of biodiversity | Species richness-alpha, beta, gamma Species evenness | |
| Modes of conservation | Ex-situ conservation-zoological parks, seed banks, etc In-situ conservation-wildlife sanctuary, national park, etc | |
| Fauna diversity | Vertebrates-fish, reptiles, birds, amphibians, mammals In-vertebrates-annelids, arthropods, protozoa, arachnids, etc | Shankar IAS Environment Chapter 8 |



| | | |
|----------------------------|--|---|
| Flora diversity | Algae, Fungi, Bacteria, Virus Bryophytes, Pteridophytes, Angiosperms, Gymnosperms | |
| Animal adaptation | Hibernation, Aestivation, Nocturnal, Diurnal | Refer From Internet |
| Plant adaptation | Hydrophatic, Xerophytic, Mesophytes | |
| Protection Measures | | |
| National initiative | Wildlife sanctuary and National Parks | Read From Govt. website |
| | Conservation reserves and community reserves Coastal protected areas Sacred groves of India | |
| Global initiative | Man and biosphere Biosphere reserves World network of biosphere reserves Biodiversity hotspots Biodiversity hope spots World Heritage sites | Shankar IAS Environment Chapter 12 |
| | IUCN-(red data book) endangered, critically endangered, etc | Read From IUCN Website With Related To Habitat |

CLIMATE CHANGE

| | | |
|------------------------------|---|--|
| Climate Change | Global warming Green house effect, Green house gases Global warming potential, Global emissions | Shankar IAS Environment Chapter 14 |
| | Acid rain, Ocean acidification Ozone depletion | Shankar IAS Environment Chapter 15,16 |
| Mitigation strategies | Carbon sequestration, Carbon sink Carbon credit, Carbon offsetting, Carbon tax Geo-engineering | Shankar IAS Environment Chapter 18 |
| | Green building Green rating for integrated habitat assessment (GRIHA) | Shankar IAS Environment Chapter 19 |
| | UNFCC Agenda 21 REDD and REDD+ IPCC Green climate fund Global environment facility | Shankar IAS Environment Chapter 20 |



ACTS AND POLICIES

| | | |
|--------------------------|---|--|
| Acts and Policies | <p>Paris climate deal Wildlife protection act 1972 Environmental protection act 1986,eco sensitive zones Biological diversity act 2002 Schedule tribes and other forest dwellers act 2006 Prevention of animal cruelty act National forest policy Coastal regulation zone Wetlands rule 2010 National green tribunal</p> | <p>Read From Internet Shankar IAS Environment Chapter 22</p> |
| | <p>Animal welfare board Central zoo authority National biodiversity authority</p> | <p>Shankar IAS Environment Chapter 24</p> |
| | <p>Convention on biological diversity (CBD) Ramsar convention on wetlands CITES TRAFFIC Convention on the conservation of migratory species (CMS) Coalition against wildlife trafficking (CAWT) Global tiger forum Stockholm convention Basel convention Rotterdam convention United Nations convention to combat desertification International whaling commission (IWC) Vienna convention and Montreal protocol Kyoto protocol Nagoya protocol Cartagena protocol</p> | <p>Shankar IAS Environment Chapter 25,Environmental Ministry Website</p> |

AGRICULTURE

| | |
|--|----------------------------|
| <p>MUST READ: Glossary And Appendix Of Shankar IAS Environment Page 291-303. (Ramsar Wetlands, Project Tiger Reserves, Biosphere Reserves, Mangrove Sites Important)</p> | <p>Shankar Class Notes</p> |
|--|----------------------------|

FOCUS AREA:

- 1) Direct terms
- 2) International organisations
- 3) Wildlife sanctuaries and national parks and related habitats
- 4) Animals and their related habitats
- 5) Acts and policies



6. INTERNATIONAL ORGANISATIONS

| TOPICS | SUB-TOPICS | BOOKS & REFERENCE |
|---|--|--|
| International organisations | United Nations System, Specialised Agencies, Programmes and Funds, International Law, Conventions, Disarmament, others | <p>Books: Shankar International organisations</p> <p>Consolidated IO - IAS Parliament Current affairs material</p> <p>PIB and MEA website, IYB (India and its neighbours), THE HINDU</p> <p>Reference: IDSA, Official Website of organisations</p> |
| Regional Organisations | EU, ASEAN, SAARC, BIMSTEC, SCO, APEC, ANZUS, African Union, Mekong Ganga Cooperation, Gulf Cooperation council, OAS, ECOWAS, SADC, ANDEAN, CELAC, CARICOM, COMESA, MERCOSUR, etc | |
| Financial and Trade organisations | IMF, World Bank Group, ADB, NDB, AIIB, WTO, RCEP, OECD, OPEC, others | |
| Cultural, Ethnic, Linguistic and religious organisations | Arab League, OIC, Commonwealth of Nations, ... | |
| Ideological and Political Groupings | NAM, NATO, G8, G20, G24, BRICS, G77, ... | |
| NGO and their Purpose | Recently in News | |
| Important reports and organisations | Recently in News | |



7. SCIENCE & TECHNOLOGY

| DECODED SYLLABUS | TOPICS | SOURCES |
|--|--|--|
| Space Technology | <p>Space Terms – Kuiper belt, Goldilocks Zone, Exo planet, Tidal locking, Meteors, Asteroid etc.,</p> <p>Space Phenomenon- Supernova explosion, neutrino, Gravitational Waves, Red Shift phenomenon etc.,</p> <p>Important Missiles around the world – eLISA, LIGO, Quantum satellite,</p> <p>Missiles with unique characteristics like nuclear powered or Solar powered & first to achieve the milestone Signature Missions around the world</p> <p>Important Missiles from India Chandrayan, Mangalyan, Astrosat etc.,</p> <p>Space vehicles – Types (PSLV, GSLV) & its Weight carrying capacity, its altitude etc.,</p> <p>Innovation in Space vehicles – RLV etc.,</p> <p>Various Satellites & its Applications</p> | Newspaper +PIB+SIA Class Notes |
| Defence | Important Missiles, Tech Components(SPI),Vehicles | SIA Class Notes |
| Electronics and Green Tech | <p>Solar Energy -Photo Voltaic cell & Solar thermal cells(Functioning not needed), Govt. initiatives</p> <p>Wind energy, B.S.Norms, E.Vehicles</p> <p>Coal-Formation, it's by product E.g. Fly ash, Pollution from coal(NCERT)</p> <p>Bio Fuels-4 generation of Bio fuels</p> <p>Fuel Cells Hydrogen Cells Microbial Cells Bio Toilet</p> | Newspaper(Advertisements) SIA Class Notes |
| Information Technology (IT)+Robotics(A.I) | <p>Wi-Fi & Bluetooth,5 generations of networks, E-governance – BHIM, UPI , M Stripes etc., Emerging trends-IoT , Big Data, A.I,C.P.S, Block chain. V.Reality, A. Reality, Malwares.,</p> <p>E-Governance-BHIM,UPI,M Stripes etc.,</p> | SIA Class notes Newspaper |
| Nuclear + Particle Science(Nano Tech) | <p>Types of Nuclear reactors and its fuel</p> <p>International Thermonuclear Experiment Reactor (ITER) +3 Stages, Nuclear Power Programming.</p> <p>Thorium – Its Source and its advantages for India w.r.t Nuclear Energy, Medical uses(Cyber Knife)</p> <p>Applications of Nano Technology(by his/her interest- current affairs)</p> | SIA Class notes(particle science) |



| | | |
|------------------------------------|--|---|
| <p>Bio Technology + IPR</p> | <p>Genetic Material - DNA & RNA and its differences</p> <p>Types of RNA - Messenger RNA (mRNA), Transfer RNA (tRNA), Ribosome translation RNA (rRNA)</p> <p>DNA replication – Transcription & Translation</p> <p>Genetic Engineering – Applications, Tools (Recombinant DNA) & its methods (Gene Silencing, Gene Knockdown, Grafting etc..)</p> <p>Stem Cells – Induced pluripotent cells, Somatic Cell Nuclear Transfer Technology</p> <p>Tissue Culture</p> <p>Innovation in Medicine technology – CRISPR, bacteriophage etc.,</p> | <p>12th NCERT (Only Biology, refer units which are discussed in 1st class)</p> <p>Newspaper</p> <p>SIA Class Notes</p> <p>9th & 10th –Science & Tech Vol.I & Vol.II (Important)</p> <p>Full NCERT Book is not recommended</p> |
| <p>Health</p> | <p>Human Immune System (Difference of Antibodies, Antigens & Why Vaccination-C.Affairs)</p> <p>Diseases - its Source (Bacteria or Virus or fungi) , Mode of Transmission (Water, Air or Sexually Transmitted) & its Vectors (Mosquito or bat or Worms)</p> <p>Disease – Symptoms & its effects on humans</p> <p>Anti-Microbial resistance or Anti Biotic Resistance</p> | <p>SIA Class Notes</p> <p>Newspaper reading</p> |

Other Informations:

- 1) Use NCERTs (9th & 10th) to get basic idea like what is DNA, RNA, Chromosome tec.,
- 2) Read Newspaper daily especially life page and Thursday edition Supplementary → Just understand the Concept (E.g. mode of transmission in human body, its target area (liver heart etc.), functioning of medicine developed) Scientist names and Institutions name are not important.
- 3) Apply the same method for all other domain (Space, ICT etc.,)
- 4) Use Class notes, Newspaper, Sci & tech column in Newspaper on Sunday's for organized study and revision.
- 5) It is very important that you go through the last 10 year papers (both prelims & mains)
- 6) Benefits of going through previous year question papers
 - Prioritize important topics
 - To know what & How to study (Studying Broadly is important than Studying Deeply)