UPSC Syllabus
(Explained)
Micro Topics Listing
Pre cum Mains
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**ANCIENT HISTORY**

### 1. Pre Historic Cultures In India
- Periodization of Indian pre history
- Sources of pre history
- Stone age
  - Paleolithic (2 million BC – 10,000 BC)
  - Mesolithic (10,000 BC – 8,000 BC)
  - Paleolithic (8000 BC – 4000 BC)
- Chalcolithic Age (4000 BC – 1500 BC)
- Iron age (1500 BC-200 BC)
- Impact of Iron

### 2. Pastoral and Farming Communities
- Neolithic Phase
- Chalcolithic Phase
- Early Iron Phase
- Geographical Distribution and Characteristics

### 3. Indus Valley Civilization
- Major cities
- Town Planning
- Harappan Trade
- Agriculture
- Domestication of animals
- Crafts
- Religion
- Harappan Pottery
- Weights and Measures
- Script and Language
- Images
- Decline of Harappan Culture

### 4. Vedic Society
- Original Home of Aryans
- Features of Aryan Culture
- Vedic Texts
- Sources for Reconstructing Vedic Society and Culture
- Geography of the Rig Vedic Period and geography of the later Vedic Phases
- Economic Conditions
- Political Organisation and Evolution of Monarchy
- Social Organisation and Varna System
- Religion and Thought

### 5. Pre Mauryan Period
- Formation of states
- The Sixteen Mahajanapadas
- Republics
- Rise of urban centres
- Haryanka dynasty
- Shishunaga dynasty
- Nanda dynasty

### 6. The Mauryan Empire
- Chandragupta and Bindusara
- Megasthenes
- Asoka and His Successors
- Asoka’s Inscriptions and Sites
- Asoka’s Dhamma
- Mauryan. Administration, Economy, Society and Art
- The Arthasastra

### 7. Post-Mauryan India (sc 200-AD 300)
- Society: Evolution of Jatis
- Sangam Texts-and Society
1. Central Asian Politics and the Advance of Babur towards India
   - The Timurids
   - The Timurid-Uzbek and Uzbek-Iran Conflict and Babur
   - Babur’s Advance towards India

2. Struggle for Empire in North-India (Afghans, Rajputs and Mughals)
   - Struggle between Ibrahim Lodi and Babur
   - the Battle of Panipat
   - Babur’s problems after the Battle of Panipat
   - Struggle with Rana Sanga
   - Problems of the Eastern Areas and the Afghans
   - Babur’s Contribution and Significance of his Advent into India

3. Struggle for Empire in North India
   - Humayun and the Afghans
   - Early Activities of Humayun, and the Tussle with Bahadur Shah
   - The Gujarat Campaign
   - The Bengal Campaign, and Struggle with Sher Khan

4. The Establishment of the North Indian Empire
   - The Surs
   - Sher Shah’s Early Life
   - Social and Political Background of Bihar and the Rise of Sher Shah to Power.
   - The Sur Empire (1540-56)
   - Contributions of Sher Shah

5. Consolidation and Expansion of the Empire - Akbar
   - Conflict with the Afghans - Hemu
   - Struggle with the Nobility: Bairam Khan’s
   - Regency; Revolt of Uzbek Nobles
   - Early Expansion of the Empire (1560-76) - Malwa, Garh-Katanga, Rajasthan, Gujarat, Eastern India
   - Relations with the Rajputs - Growth of a Composite Ruling Class
   - Rebellions, and Further Expansion of the Empire in the North West

6. State and Government under Akbar
   - Akbar’s Concept of Suzerainty
   - Structure of Government, Central and Provincial - the Vikalat, the Central Ministries, Provincial
   - Government, District and Local Government
   - The Working of Government - the Ruler,
Land-Revenue System, the Dahsala System, the Mansabdari System and the Army

7. Akbar’s Religious Views
- Relations with the Ulama and Social Reforms
- The Early Phase (1556-73)
- The Second Phase (1573-80) - the Ibadat Khana
- Debates - the Mahzar - Breach with Orthodox
- Ulama - Re-organisation of Madadd-i-Maash Grants
- Third or Final Phase - Din-i-Ilahi - State Policies and religious toleration

8. The Deccan and the Mughals (Upto 1657)
- The Deccani States upto 1595
- Mughal Advance towards the Deccan
- Mughal Conquest of Berar, Khandesh and Parts of Ahmadnagar
- Rise of Malik Ambar, and Frustration of
- Mughal Attempt at Consolidation (1601-27)
- Extinction of Ahmadnagar, Acceptance of Mughal
- Suzerainty by Bijapur and Golconda
- Shah Jahan and the Deccan (1636-57)
- Cultural Contribution of the Deccani States

9. Foreign Policy of the Mughals
- Akbar and the Uzbeks
- The Question of Qandahar and Relations with Iran
- Shah Jahan’s Balkh Campaign
- Mughal - Persian Relations - the Last Phase

10. India in the First Half of the Seventeenth Century
- Jahangir’s Accession - his Early Difficulties
- Territorial Consolidation and Expansion of the Empire - Mewar, East India and Kangra
- Nur Jahan, and the Nur Jahan ‘Junta’
- The Rebellions of Shah Jahan, and the coup de main of Mahabat Khan
- Jahangir as a Ruler

11. Aurangzeb - Religious Policies, North India and the Rajputs
- War of Succession
- Religious Policy : First Phase (1658-79)
- Reforms and Puritanical Measures, Hindu
- Temples, Jizyah; Second Phase (1679-1707)
- Territorial Consolidation and Expansion of Empire - North India
- Popular Revolts - Jats, Satnamis, Afghans and Sikhs
- Breach with Marwar and Mewar

12. Climax and Crisis of the Mughal Empire the Marathas and the Deccan
- Rise of the Marathas - Early Career of Shivaji
- Treaty of Purandar - the Agra Visit
- Shivaji’s Swarajya - Administration and Achievements
- Aurangzeb and the Deccani States (1658-87)
- Marathas and the Deccan (1687-1707)
- Assessment of Aurangzeb and the Jagirdari Crisis

13. Society-Structure and Growth
- Rural Society
- Towns and Town Life
- Artisans and Master-Craftsmen
- Women
- Servants and Slaves
- Standard of Living
- The Ruling Classes - Nobility, Rural Gentry
- The Middle Strata
- The Commercial Classes

14. Economic Life-Patterns and Prospects
- Inland Trade
- Overseas Trade - Role of Foreign Trading
- Companies - Position of Indian Merchants Over-land Trade
MODERN HISTORY

1. Scenario before 1857
   - Later Mughals
   - Regional powers in 18th Century
   - The British conquest of India
   - The wars during British conquest of India
   - British Administration before 1857

2. Revolt of 1857
   - Indian National Movement (1858-1905)
   - Early Nationalists and Swadeshi Movement
   - Government of India Act 1909
   - Home rule league movement

3. The struggle for Swaraj
   - Montague’s statement – Aug 1917
   - Emergence of Gandhi – as a mass leader
   - Khilafat & non-Cooperation Movement (NCM)
   - Swaraj party
   - Revolutionary Terrorism phase II (1920’s)
   - Simon Commission and Nehru report

4. Intimation of freedom

5. Towards achievement of freedom
   - Popular struggles in the princely states
   - 2nd World War and Nationalist response

6. Partition of India
   - Rise of Communalism
   - Wavell plan
   - Cabinet Mission Plan
   - Mountbatten plan

7. During the freedom struggle
   - Indian renaissance/socio-religious movement
   - Civil Rebellions during British
   - Tribal movements during British period
   - Peasant’s movement during British period

15. Religion, Fine Arts, Science and Technology
   - Fine Arts: Architecture, Painting, Language and Literature, Music
   - Science and Technology

16. Northern India in the First Half of the Eighteenth Century
   - Bahadur Shah I, and the Beginning of the Struggle
   - For Wizarat: Rajput Affairs - Marathas and the
   - Deccan: Accentuation of the Party Struggle

17. The Maratha Bid for Supremacy
   - The Marathas and their Policy of Expansion
   - The Marathas and Nizam-ul-Mulk
   - The Maratha Advance into Gujarat and Malwa
   - The Maratha Advance into Doab and Punjab:
     - First Phase (1741-52); Second Phase (1752-61);
     - Third Battle of Panipat
POST INDEPENDENCE INDIA

1. Re-organisation of states
   - Constitutional provisions related to State formation
   - Factors that lead to merger
   - Accession of the princely states
   - Accession of States under France and Portuguese
   - Accession of Sikkim
   - Rehabilitation of the Refugees
   - Federal crisis
   - Regional aspirations, insurgencies and areas of tension
   - Accommodation and national integration

2. Linguistic Regionalism In India
   - Constitutional position and language policy
   - Language and regionalism
   - Recent controversy due to rise of Hindi

3. Tribal Issue And Policy Consolidation
   - Issues & Present Status
   - Policy consolidation

4. Issue Of Women And Evolution Of Women Movement
   - Issues & challenges
   - Women movements
   - Government policy response and legislation
   - Governmental schemes

5. Problem Of Caste And Social Consolidation
   - Caste practices in India
   - Ambedkar Movement
   - Constitutional provisions
   - Recent government initiatives for emancipation of Scheduled Castes
   - Issues of Manual Scavenging

6. Communalism & Social Consolidation
   - Secularism
   - Causes of Communalism in India
   - Consequences of the communalism and social consolidation

7. Issue Of Linguistic Minorities
   - Operational Inefficiency
   - Government initiatives

8. Overview Of Economic Development Since Independence
   - Planning in India

9. Agriculture
   - Industry
   - Service sector
   - Current challenges facing the Indian economy
   - Agriculture
   - Journey through Five Year Plans
   - Land Reforms
   - Post Green Revolution Agricultural Issues
   - Agrarian Movements
   - Achievements in Agriculture Since Independence
   - Recent Challenges

10. Industry
    - Industrial development since independence
    - Public sector since independence
    - Sectoral Development
    - Private Sector since Independence
    - Industrial Policy since Independence
    - Make in India

11. New Economic Policy
    - Impact of New Economic Policy
1. Beginning of Modern Age

- Disintegration of the Feudal System
- Renaissance
  - Humanism
  - Art and Architecture
  - Literature
  - Science
  - Reformation etc.
- Explorations, Discovery, Trade
- Colonization – Rise of Nation State
- The English Revolution

2. French Revolution

- Causes
- The revolution in France
- France under Napoleon
- Impact of revolution
- Significance of revolution

3. Nationalism in Europe

- Rise of the nation-state system
- Unification of Italy
- Unification of Germany

4. Colonialism and Imperialism

- Colonialism
- The age of Imperialism (1870-1914)
- Imperialism in Asia
- Analysis of Colonialism

5. Emergence of USA

- Foundation of American Colonies
- The Independence of United States of America
- The American Revolutionary War
- What was the impact of

6. World War-I

- Major causes of the war
- Course of the war
- Analysis of major events of the war
- Consequences of World War I
- Aftermath of World War I
- League of Nations

7. Russian Revolution

- Major events in pre-revolution Russia
- Causes
- Course of revolution
- Consequences
- Aftermath of the war
- Post-Lenin Russia

8. Inter-War Years (1919 To 1939)

- The Great Depression
- The Great Depression - an economic perspective
- Rise of Fascism in Italy
- Rise of Nazism in Germany
- Soviet Union (USSR)

9. World War II

- Foundations of the war
- Course of the war
- Aftermath of war
Analysis of the war
Decolonization phase

10. Development In Middle East
- Democratic reforms in Middle East
- Arab nationalism
- Israel

11. Cold War
- Reasons
- Development of Cold War (1945-1953)
- To what extent was there a there thaw after 1953?
- Nuclear Arms Race and the Cuban Missile

12. Post Cold-War World
- Global issues since 1991
- Integration of Europe
- European integration - a timeline
- Rise of global Islamic terrorism
- Rise of China

13. Communism, Socialism and Capitalism
- Capitalism (concept, types and example)
- Communism (concept, types, example)
- Relevance of capitalism in present era

INDIAN CULTURE

1. Visual Art
- Sculptures of Harappan Civilisation
- Sculptures of Mauryan Age
- Post-Mauryan Period
- Jain Sculptures
- Buddhist Sculpture
- Gupta Sculpture
- Medieval School of Sculpture
- Modern Indian Sculpture

2. Architecture in Ancient India
- Harappan Period
- Mauryan Architecture
- Post-Mauryan Period
- Gupta Period
- Temples of Khajuraho
- Temples of Odisha
- Temples of Gwalior
- Temples of Gujarat
- Temples of Rajasthan
- Temples of Bengal
- Temples of Assam
- Temples of Himachal Pradesh
- Temples of Jammu and Kashmir
- Pallava Period
- Chola Period
- Pandya Temples
- Vijayanagar Period
- Nayaka Temples

3. Indo-Islamic Architecture
- Imperial Style (Delhi Sultanat
- Provincial Style
- Mughal Style
- Sikh Style of Architecture
- Rajput Architecture
- Salient features

4. Modern Architecture
- European Influence
- Indo-Saracenic Architecture
- Post-Independence Period

5. Indian Paintings
- Tradition of Mural Paintings in India
- Tradition of Miniature Paintings in India
- Paintings in the Deccan
- Rajput School of Painting
- Pahari School of Painting
- Miniature Painting in South India
- Regional Paintings
- Modern Paintings
- Contemporary Paintings

6. Pottery Tradition in India
7. Music in India
   - Main Pillars of Indian Music
   - Forms of Indian Music
   - Musical Instruments
   - Institutions Related to Music

8. Dances in India
   - Concept of Dance in India
   - Concept of Ashta Nayika
   - Eight Classical Dance Forms in India
   - Folk Dances
   - Modern Dances

9. Martial Arts in India
   - Genesis of Martial Arts
   - Forms of Traditional Martial Arts

10. Indian Theatre
    - Classical Sanskrit Theatre
    - Regional Theatre
    - Modern Theatre
    - Renaissance of Indian Theatre

11. Indian Puppetry
    - String Puppets
    - Shadow Puppets
    - Rod Puppets
    - Glove puppets
    - Modern Puppetry
    - Tribal Puppetry

12. Indian Cinema
    - Cinema in India
    - History of Indian Cinema
    - Classification of Indian Cinema Film
    - Music of India

13. Religions in India
    - Pre-Vedic Religion
    - Hinduism
    - Buddhism
    - Jainism
    - Sikhism
    - Islam
    - Christianity
    - Zoroastrianism
    - Judaism
    - Philosophy in India

14. Bhakti & Sufi Movements
    - Bhakti Movement
    - Vaishnava Achara:ys: Metaphysical Foundation
    - Other Saints of Bhakti Movement
    - Maharashtra Dharma
    - Sufism

15. Languages & Literature in India
    - Sanskrit Literature
    - Pali Literature
    - Prakrit Literature
    - Tamil Literature
    - Telugu Literature
    - Malayalam Literature
    - Kannada Literature
    - Odia Literature
    - Assamese Literature
    - Bengali Literature
    - Gujarati Literature
    - Rajasthani Literature
    - Punjabi Literature
    - Marathi Literature
    - Hindi Literature
    - Persian Literature
    - Urdu Literature

16. Miscellaneous Topics
    - Indian Handicrafts
    - Indian Universities
    - Personalities Related to Culture
    - Places of Cultural Interest
    - Fairs and Festivals in India
    - Cultural Institutions in India
    - Awards and Honours Associated with Culture
    - The Calendar
    - The Eras
    - Science and Technology in Ancient India
    - UNESCO's List of Cultural Heritage in India
    - Legal Provisions Related to the Protection
and Promotion of Indian Culture and Heritage

17. Recent developments

- Schemes for Cleanliness of Tourist Places
  - Swachh Bharat - Swachh Smarak
  - Swachh Bharat - Swachh Pakwan (Hunar Zaika)
  - ‘Swachh Bharat - Swachh Paryatan’
  - Swatchh Smarak Swatchh Bharat’ app
- National Tourism Policy, 2015
- Schemes for Development of Cultural Heritage
  - Sanskriti App
  - Cultural Mapping of India
  - Cultural Heritage Youth Leadership Programme
  - Preservation of Cultural Heritage of Himalayas
  - Nearly 100 Monuments Identified for Portal on “Must-See Monuments
- Schemes for Monument Development
  - HRIDAY
  - SWADESH DARSHAN
  - PRASAD SCHEME
  - Adarsh Smarak Yojana
  - Monuments of National importance
- Schemes for Scheme Monitoring System
- Schemes for promotion of Culture
  - Culture Ministry To Grade Artists, Writers For Selection Process
  - Schemes for Serious Literature and Litterateurs

- National Mission on Monuments and Antiquities
- National Mission on Manuscripts
- National Mission on Libraries
- Gandhi Heritage Sites Mission
- International Initiatives for Cultural Development and Recognition
  - Project Mausam
  - International Buddhist Conclave
  - World’s Heritage
  - UNESCO inscribes Yoga in the representative list of Intangible Cultural Heritage of Humanity
  - UNESCO Creative Cities Network
  - UNESCO Global Geopark
- National Virtual Library of India
- Animal Sports in India
  - Jallikattu
  - Kambala
  - Bulbul Fight
  - Bullock Cart Racing
- GI Tag
  - Definition:
    - GI vs. Trademark
    - Rights under GI
    - Famous Goods
    - Latest addition
- Festivals in News
  - International Yoga Day
  - Rashtriya Ekta Diwas
  - Buddhist Circuit
1. Geomorphology

- The origin of the Earth
  - Early Theories
  - Modern Theories – BBT
  - Star Formation
  - Formation of Planets
  - Solar System

- The Evolution of the Earth
  - Layered Structure (5 layers)
  - Evolution of Lithosphere
  - Evolution of Atmosphere
  - Evolution of Hydrosphere

- Geological History of the Earth

- 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

- Origin of Life

- Geological Time Scale

- Interior of the Earth
  - Sources of Information
    - Direct
    - Indirect - Earth Quake Waves
    - Volcanoes
  - Crust
  - Mantle
  - Core

- Volcano
  - Types
    - Shield
    - Composite
    - Caldera
    - Flood Basalt

- Geology
  - Minerals
  - Major Elements of the Earth’s Crust
    - Minerals – Feldspar, Quartz, Pyroxene Amphibole, Mica, Olivine
    - Physical Characteristics-Crystal Form, Cleavage Fracture, Lusture, Color, Streak
    - Transparency, Structure, Hardness, Specific Gravity
    - Metallic minerals – precious Ferrous, Non Ferrous
    - Non-metallic Minerals – Sulphur, Phosphates, Cement
  - Rocks (Aggregate of Minerals)
    - Petrology
    - Rocks & landforms
    - Rocks & Soils
    - 3 Family of Rocks
      - Igneous
      - Sedimentary
      - Metamorphic
    - Rock Cycle

- Earthquakes
  - Waves: P,S, Body, Surface
  - Shadow Zone
  - Types of Earthquakes
  - Effects
  - Frequency
  - Locating an Epicentre
- Mid Ocean Ridge
- Landforms (intrusive)
  - Batholiths
  - Lacoliths
  - Lapoliths
  - Phacoliths
  - Sills
  - Dykes

► Geomorphic Processes
- Earth’s Surface
  - Exogenic Forces
  - Endogenic Forces
  - Gradation, Degradation & Agradation
- Geomorphic Process
  - Endogenic Process
    - Diastrophism
    - Orogenic
    - Epierogenic
    - Earthquakes
    - Plate movements
  - Volcanism
- Exogenic Forces
  - Denudation Processes
    - Weathering
    - Mass movements
    - Erosion Transportation & Deposition

► Distribution of Continents & Oceans
- Theories
  - Continental Drift Theory
    - Alfred Wegener 1912
    - Pangea, Panthalassa
    - Laurasia, Gondwanaland
  - Evidence in support of Continental Drift Theory
    - Jigsaw Fit
    - Rocks of Same age across oceans
    - Tillite
    - Placer Deposits
    - Distribution of Fossils
  - Forces of Drifting
    - Pole Fleeting Force
    - Tidal Force
  - Post Drift Studies
    - Convectional Current Theory
    - Mapping of the Ocean Floor
- Continents – plate tectonics
- Lithospheric Plates
- Major Plate
- Minor Plates
- Plate Boundaries
  - Divergent
  - Convergent
  - Transform
- Rates of Plate Movements
- Force of plate movements
- Indian Plate
  - Movement from 71 mnyrs ago till Today

► Landforms and their Evolution
- Causes
  - Geomorphic Processes
  - Agents
- Geomorphic Agents
  - Erosional or Destructional
  - Depositional or Constructional
- Agents and their Impacts
  - Wind, Running Water, Ground Water, Glaciers, Waves & Currents
- Winds
  - One of the Two dominant agents in Hot deserts
  - Cause – Deflation Abrasion Impact
  - Erosional landforms
    - Pediments and Pedi plains
    - Playas
    - Deflation Hollows and Caves
    - Mushroom, Table & Pedestal Rocks
- Depositional Landforms
  - Barchans
  - Seif
  - Parabolic
  - Transverse
  - Longitudinal
- Running Water
  - Humid Regions
  - 2 Components
    - Overland Flow – Sheet
    - Linear Flow – Strem
- Stages
  - Youth Mature Old
- Erosional Landforms
  - Valleys
    - Riils
    - Gullies
- Valleys – V Shape, Gorge (Hard Rocks), Canyon (Sedimentary)
- Potholes & Plunge pools
- Incised or entrenched meanders
- River Terraces – paired & unpaired
- Depositional Landforms
  - Alluvial Fans
  - Delta
  - Flod Plains, Natural Levees, Point Bars
- Meanders, Slip off bank, Under cut bank
- Oxbow lake
- Braided Channels
- Ground Water (Karst Topography)
  - Permeable Rocks
  - Percolation
  - Bedding Plains
- Limestone and Dolomite Regions
  - Balkans, Adjacent to Adriatic regions
- Erosional Landforms
  - Pools-Swallow Hole, Valley Sinks (Uvalas), Sinkholes, Collapse sinks (Dolines), Lapi, Ridges, Limestone Pavements
  - Caves – Altering bed of Rocks (Shale sandstone quartzite), Caves and Tunnels
- Depositional landforms
  - Stalactites
  - Stalagmites
  - Pillar Columns
- Glaciers
  - Erosional Landforms
    - Cirque of Tarn Lakes
    - Hors and Serrated Regions – Arete
    - Glacial Valleys / Troughs – Fiords
- Depositional Landforms
  - Glacial Tills
  - Moraines
  - Eskers
  - Outwash Planes
  - Drumlins
- Waves and Currents
  - High Rocky Coasts & Low Sedimentary Coasts
  - Erosional Landforms
    - Cliffs
    - Terraces
- Caves
- Stacks
- Depositional Landforms
  - Beaches and Dunes
  - Bars Barriers Spits
- Weathering
  - Weather over Earth Materials
  - Factors
    - Geological
    - Climatic
    - Topographic
    - Vegetative
  - Major Processes
    - Chemical
    - Physical or Mechanical
    - Biological
    - Chemical – Forces Chemical Action
      - Solution
      - Carbonation
      - Hydration
      - Oxidation & Reduction
    - Physical Forces Gravitational, Expansion, Water Pressure
      - Unloading & Expansion
      - Temperature changes and Expansion
      - Freezing, Thawing, & Frost Wedging
      - Salt Weathering
    - Biological Weathering
      - Burrowing
      - Wedging
      - Plant Roots
      - Effects of Weathering
      - Exfoliation (Flaking) – Exfoliation Domes, Tors
    - Significance of Weathering
      - Soil Formation
      - Biomes and Biodiversity
      - Leaching / Enrichment
    - Mass Movements
      - Activating causes
      - Forms of movement – Heave, Flow Slide
      - 3 major Groups – Slow Movement, Rapid Movements, land Slides
- Landforms across the world:
  - Rivers and lakes
  - Mountain and Peaks
2. Climatology

- Plateaus

### Composition
- Gases
- Water Vapour
- Dust Particles

### Structure
- Exosphere
- Thermosphere
- Mesosphere
- Stratosphere
- Troposphere
- Altitude vs Temperature

### Solar Radiation Heat Balance 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.

### Heat Balance
- Heating and cooling of atmosphere
  - Conduction
  - Convection
  - Advection
- Terrestrial Radiation
- Heat Budget of the Planet Earth
- Macro Budget
  - Albedo
  - Shortwave Radiation
  - Long wave Earth Radiation
- Variation in the net Heat Budget at the Earth’s Surface

### Temperature
- Factors controlling T distribution
- Distribution of T Month of January-July
- Range of T Month of January-July
- Inversion of Temperature

### Atmospheric Circulation and Weather Systems
- Atmospheric Pressure
- Vertical variation of pressure
- Horizontal distribution of pressure
- World Distribution of Sea Level Pressure
- 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 – Pattern of Planetary Winds
- Latitudinal Variation of Atmospheric Heating
- Emergence of Pressure Belts
- Migration of Belts Following apparent Path of Sun
- Distribution of continents & Oceans
- Rotation of the Earth

### Circulation
- Simplified Global Circulation – Hadley Cell, Ferrel Cell
- Seasonal Wind
- Local Wind
- Land and Sea Breezes
- Mountain and Valley winds
- AIR MASS – fronts
- Extra Tropical Cyclone
- Thunderstorms
- Tornadoes

### Water in the Atmosphere
- Water Vapour
- Precipitation
- Humidity – Absolute and Relative
- Saturation – Dew Point
- Evaporation and Condensation
  - Dew
  - Frost
  - Fog & Mist
- Clouds
  - Types – Cirrus Cumulus
  - Stratus Nimbus
- High – Cirrus Cirrostratus Cirrocumulus
- Middle – Altostratus Altitocumulus
- Low – Stratocumulus Nimbostratus
- Vertical Development – Cumulus and Cumulonimbus
- Precipitation
  - Rainfall Snowfall Sleet Hail Hailstones
- Types of Rainfall
  - Conventional
  - Orographic
  - Cyclonic
World Climate
- The Hot, Wet Equatorial Climate
- The Tropical Monsoon and Tropical Marine Climates
- The Savanna or Sudan Climate
- The Hot Desert and Mid-Latitude Desert Climates
- The Warm Temperate Western Margin (Mediterranean) Climate
- The Temperate Continental (Steppe) Climate
- The Warm Temperate Eastern Margin (China Type) Climate
- The Cool Temperate Western Margin (British Type) Climate
- The Cool Temperate Continental (Siberian) Climate
- The Cool Temperate Eastern Margin (Lauren-tian) Climate
- The Arctic or Polar Climate

Oceanography

Water on the Surface of the Earth
- Hydrological Cycle
  - Component
  - Processes

Oceans
- Relief of the Ocean floor
- 4 divisions of the ocean floor
  - Continental Shelf
  - Continental Slope
  - Deep sea plain
  - Oceanic deep and Trenches
- Minor relief features
  - Mid oceanic ridges
  - Seamount
  - Submarine canyons
  - Guy outs
  - Atoll
- Temperature of the Ocean Water
  - Vertical
  - Spatial
  - Factors affecting Temperature distribution
    - Latitude
    - Unequal distribution of land & Water
    - Prevailing wind
    - Ocean Currents

Horizontal & Vertical Distribution
- Thermocline
- 3 layers
- Salinity of the Ocean Water
- Factors affecting salinity
  - Evaporation and precipitation
  - Fresh water flow from rivers
  - Wing
  - Ocean currents
- Horizontals distribution of salinity
- Vertical Distribution of salinity
- Density of Ocean Waters

Movements of ocean Water
- Factors influencing Movement
  - Temperature
  - Salinity
  - Density
  - Sun MOON WINDS
- Motion – Horizontal & Vertical Currents
- Waves
  - Motion of waves and water molecules
  - Characteristics Of WAVE
    - Crest and Trough
    - Height
    - Amplitude
    - Period
    - Length
    - Speed
    - Frequency
    - Tides
- Relation between Gravitational Forces and Tides
  - Tidal currents
  - Types of Tides
    - Based on Frequency – Semi Diurnal, Diurnal, mixed
    - Based on SME position – spring and Neap Tides
- Importance of Tides
- Ocean Currents
  - Influenced by 2 forces
  - Primary Force that initiates the movement
    - Heating of solar energy
    - Wind
    - Gravity
    - Coriolis force
  - Secondary force that influence the currents to flow
1. Demography
   - Concept of human resources
   - Population distribution
   - Factors of population distribution—
     Physical factors
   - Socio-cultural factors
   - Demographic factors
   - World population distribution
     - Ecumene
     - Non-ecumene
   - Continent-wise distribution of population
   - Density of population

2. Water Resource
   - Underground water resource
   - Surface water resources
   - Inland water resources: Utilization
     of inland water resources by man
   - Oceanic water resources: Main features
     of ocean
   - Utilization of oceans by man
   - Water consumption patterns
   - Water pollution
   - Conservation of water resources
   - Techniques of water conservation

3. Biogeography
   - 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
   - Vegetation resources
     - Types of natural vegetation
     - Forests
     - Significance of forests
       - Economic significance,
         Ecological significance
       - Cultural significance
     - Factors of forest development
     - Extent of forest cover
     - Classification of forests
       - Grasslands
       - Desert vegetation
       - Tundra Vegetation
     - Economic utilization of forests
     - Deforestation
       - Deforestation in tropical forests
       - Deforestation in temperate forests
       - Rate and extent of deforestation
       - Causes and factors of deforestation:
         Immediate causes of deforestation
         Indirect deforestation
         Underlying causes of deforestation
     - Conservation of forests
       - Forest conservation strategies
       - Reforestation
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       - Afforestation
     - Types of forestry
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HUMAN GEOGRAPHY

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     - Social forestry
     - Agro-forestry
Theories of population growth
- Malthusian theory
- Marxian theory
- Demographic transition theory

Optimum population
- Over-population
- Under-population

Population problems
- Population problems of developing countries
- Population problems of developed countries
- Population dilemma of Europe

Population Policies: of China, of India
Various types of rural settlements
Relationship between house types with relief, climate and building materials

2. Urbanization

Basic Feature and Pattern’s of India’s Urbanization
Issues of Urbanization in India
- Rural Urban Migration
- Emergence of Slums
- Urban Transport
- Waste Disposal
- Water Supply, Drainage and Sanitation
- Electronic Waste
- Urban Poverty
- Real Estate (Regulation & Development) Bill, 2013

Way Forward to Tackle Issues Related to Urbanization
- Inclusive Cities/Smart cities
- Recent government programmes: AMRUT

3. Census

- Literacy
- Sex ratio
- Family Planning
- Old Age
- Age Structure
- Density
- Population growth
- Census terminology

1. Agriculture

Land resource
- Land-use
- Land capability classification
- Causes of Land Degradation
- Impact of Land Degradation
- Steps taken by GOI
- Sustainable Land Management

Basic terms related to Agriculture
- Performance of the agriculture sector
- Types of farming in India
- Dry zone farming
- Organic farming
- Cropping seasons in India
- Cropping Pattern in India
- Agriculture regionalization
- Infrastructure factors: Seeds; Fertilizers; Irrigation
- Land use pattern in India
Institutional Factors as land reform
Horticulture sector in India
Agricultural revolutions
Agricultural labours
Price Policy for Agriculture
Agricultural marketing
Agricultural Insurance
Agricultural Census
Major schemes in agricultural sector
National Policy for farmers
Impact of climate change on agriculture
Use of IT in agriculture
Agriculture Issues and Challenges

**Productivity of Crops and conditions for growth**

- Wheat
  - Conditions of growth
  - Varieties
  - Types of cultivation
  - Production pattern
  - International trade
- Rice
  - Conditions of growth
  - Varieties
  - Methods of cultivation
  - Production pattern
  - International trade
- Maize (Corn)
  - Conditions of growth
  - Production pattern
  - International trade
- Barley
  - Conditions of growth
  - Production pattern
  - International trade
- Oats
- Rye
- Beverages
  - Tea
    - Condition of growth
    - Production pattern
    - International trade
- Coffee
  - Types of coffee
  - Conditions of growth
  - Production pattern
- Cocoa
  - Conditions of growth
  - Production pattern
  - International trade
- Tobacco
  - Conditions of growth
  - Production pattern
  - International trade
- Fibre Crops
  - Cotton
    - Varieties of cotton
    - Conditions of growth
    - Production pattern
    - International trade
  - Jute
    - Conditions of growth
    - Production pattern
    - International trade
  - Raw Silk
    - Production pattern
    - International trade
  - Natural Rubber
    - Other sources of rubber
    - Plantations in South-east Asia
    - Production pattern
    - International trade
  - Sugarcane
    - Conditions of growth
    - Production pattern
    - International trade
    - Sugarbeet—Conditions of growth
    - Production pattern
    - Sugar industry
    - Sugar consumption
    - International trade
- Mineral resource
  - Types of minerals: Metallic minerals
  - Non-metallic mineral
  - Distribution of minerals and mining regions
  - Distribution, production and international trade of Metallic minerals: Ferrous metals: Iron ore
3. Energy resources

- Classification of energy
- Production of conventional energy
- General trends of energy production and consumption
- 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
  - Producing areas
  - Consumption of petroleum
  - International trade
  - OPEC and its role in oil trade
- Hydro-electricity
  - Advantages of hydro-electricity
  - Ideal conditions for generation of hydro-electricity
- Atomic (nuclear) energy
  - Atomic source minerals: Uranium
  - World distribution of uranium
  - Production of uranium
  - Thorium
  - Production of atomic (nuclear) energy
  - Nuclear energy: the energy of future
- Alternative (non-conventional) sources of energy
  - Solar energy
  - Wind energy
  - Geothermal power
  - Tidal energy
  - Wave energy
  - Biomass energy
- Alternate Energy Sources
  - Hydrogen as a Fuel for Future or Hydrogen as an Alternative Energy Source
  - Microbial Fuel Cell
  - Energy Context with Respect to Indian Scenario
  - Energy Plantation
- Energy crisis

4. Industry

- Industrial development
- Iron And Steel Industry
  - Process of iron and steel production
  - Location of iron and steel industry
  - Early localization
  - Development of iron manufacture
  - Distribution of iron and steel industry
  - Global steel production
  - International trade
  - Growth potential of the steel industry
- Textile Industry
  - Cotton textile industry: Location of the industry
  - Recent trends in localization
  - Distribution and production of cotton textiles
  - Woollen textile industry: Location of the industry
  - Silk textile industry: Raw silk manufacture
  - Silk textile manufacturing
  - Synthetic (artificial) silk industry:
**Distribution of man-made fibre and fabrics.**

- **Engineering Industries**
  - Machine tools and machines: Areas of production
  - Industrial machinery: Textile machinery
  - Other industrial machinery
  - Agricultural machinery
- **Manufacturing of transport equipment**
  - Automobile industry
  - Railway car and locomotive industry
  - Shipbuilding
  - Recent trends
  - Aircrafts industry
- **Chemical Industry**
  - Classes of chemicals: Branches of chemical industry
  - Heavy chemical industry
  - Production of acids and alkalies
  - Rise of chemical industry
  - Fertilizer industry: Nitrogen fertilizers
  - Phosphate fertilizers
  - Potash fertilizers
  - Explosives
  - Glass industry: Production of glass
- **Agro-industries**

**RECENT DEVELOPMENTS**

1. **Recent developments in Transport Sector**

- Long term irrigation fund
- Sports Sector Gets the Infrastructure Status
- Railways India Development Fund
- National Infrastructure Investment Fund
- Defence Innovation Fund
- Merger of Railway Budget with General Budget
- Non-Fare Revenue Policies in Indian Railways
- Rail Safety Fund
- Flexi Fare Method in Railway
- Rail Cadre Management
- TRI-NETRA IN RAILWAYS
- National Rail Plan 2030
- Draft Policy on Suburban Tracks
- India’s First Caterpillar Train
- Mission 41k
- Green corridor concept
- Made in India ‘Medha’ train
- Antyodaya Express
- Station Redevelopment Project
- Smart Railway Station
- Yatri Mitra Seva
- National Highways Interconnectivity
- Vehicle Fleet Modernization Programme
- Transit Oriented Development Policy
- Logistic Efficiency Enhancement Programme
- Indian Bridge Management System
- Road Connectivity Project for Left Wing Extremism (LWE) Affected Areas
- North East Road Network Connectivity Project
- TIR Convention
- National Road Safety Policy
- Sagarmala
- Urja Ganga Gas Line Project
- TARANG

- Synthetic rubber industry
- Pulp and paper industry: Essential conditions for pulp production
- Production of paper and paper board
- Newsprint
- International trade
- Salient features of pulp and paper industry
- Cement industry
- Distribution of cement industry
- Recent trends: Main global competitors
- Petroleum refining industry: Localization
  - Site selection of petroleum refineries
  - History of oil refineries
  - World pattern of oil refining
  - Petroleum products
- Industrial Regions
  - Characteristics of industrial regions
  - Delimitation of an industrial region
  - Principal industrial regions of the world
  - Industrial regions of Anglo America—USA, Canada, Western Europe and Central Britain, Germany, Belgium, Netherlands, France, Italy, Eastern Europe, Poland, Former USSR
  - Eastern Asia—Japan, China, the ‘Dragons’, India, High tech patterns.
2. Recent developments in Industrial Sector

- Delhi-Mumbai Industrial Corridor
- Amritsar-Kolkata corridor
- Chennai-Bangalore Industrial Corridor
- Bengaluru-Mumbai Economic Corridor
- Visakhapatnam-Chennai Industrial Corridor
- East Coast Economic Corridor
- Apex Corridor Developmental Authority
- Star Rating of Mines
- TAMRA PORTAL
- Mining Surveillance System
- COAL MITRA
- M-SIPS for Electronic Sector
- Real Estate (Regulation and Development) Act or RERA
- Indian Enterprise Development Service
- Trade Receivables Discounting System
- SME Business Environment Index
- Medipark
- ZED Scheme
- Startup Mentorship Circle
- FAME

3. Recent developments in agriculture field

- AADHAR Based Biometric Authentication in PDS: Pros and Cons
- Volatility in Pulse Prices
  - Arvind Subramanian Committee on Pulse Crises
  - Government Raises Buffer Stock of Pulses
  - PUSA Arhar 16 to Bridge the Demand-Supply Gap
- Agro Irradiation Centers
- Options Trading in Agricultural Produce
- Agricultural Marketing and Farm Friendly Reforms Index
- National Food Security Act

4. Places in news

- Majuli Island
- Ashalim Project
- Loktak Lake
- Barren Island
- Rio de Janeiro
- Gotthard Base Tunnel
- Panama Canal
- Akodara
- Genetic Garden of Halophytes
- Maharashtra
- Morocco
- Sankhuwasabha
- Andhra Pradesh
- Hambantota Port
Remarks
**1. Salient features of Indian society**
- Features of Indian society
- Changes within Indian society and their repercussions
- Causes of changes
- Indian society today

**2. Diversity of India**
- What is diversity?
- Types of diversities in India
- Can diversity be equated with difference?
- The unity in diversity - a reality or a chimera
- Some examples
- Manner of reconciliation

**3. Role of women’s organizations**
- Women’s organizations in Indian history
- Types of women’s organizations
- Level of penetration
- Women’s organization - a ray of hope few case studies
- Problems faced by women’s organizations
- Is a larger vocal role possible and ways to achieve the same
- Role of SHGs, Micro finance Institutions

**4. Poverty and development issues**
- Poverty
- Concept of development
- Sen vs Bhagwati model
- Crisis of development
- Certain case studies

**5. Effects of globalization on Indian society**
- What is the meaning of globalization
- Kinds of impact of globalization - economic, political, developmental and socio-cultural
- Is the impact solely positive or negative

**6. Social empowerment**
- Meaning and concept of social empowerment
- Why do we need social empowerment?
- Specific sections for whom social empowerment is the life blood
- Social empowerment through the five year plans
- Government’s initiatives for empowerment
- Empowerment in reality and India’s experience
- Other approaches / players / tools for social empowerment and some case studies on the same

**7. Communalism**
- Meaning and concept of communalism
- Historicity of communalism
- Recent incidents
- Role of third parties in inciting / perpetrating communalism
- Communalism under the law
- Can communalism eradicated from the Indian society completely
8. Secularism
   - Meaning and concept of secularism
   - Secularism through the vantage point of Indian Constitution
   - Comparisons of models Indian & Western
   - Gandhi ji on religion
   - Indian philosophy on secularism
   - Threats on the secular spirit
   - Is the Indian democracy mature enough to handle the gravity of secularism

9. Regionalism
   - Meaning and concept of regionalism
   - Theories on regionalism
   - Regionalism in its various manifestations
   - Role of various players
   - Recent incidents causing a wave of flurry
   - Possible ways to tackle the same

SOCIAL JUSTICE

1. Welfare schemes for vulnerable sections of the population by the Centre and States
   - Constitutional arrangement
   - Women welfare
   - Child welfare
   - SC/ST welfare
   - OBC welfare
   - Minorities welfare
   - Old age welfare
   - Legislations
   - Issues
   - Reforms needed

2. Services relating to Health, Education, Human Resources
   - Education structure in India
   - Primary, secondary and higher education
   - Initiatives taken by GOI in education
   - Issues
   - Reforms needed
   - Recommendations of committees
   - Future prospects in education sector
   - Skill development
   - Health indicators
   - Health structure in India
   - Private and Public health structure
   - Issues
   - Reforms needed
   - NITI Aayog Report
   - Economic development and human development

3. Issues relating to poverty and hunger
   - Poverty definition by different committees
   - Poverty data in India
   - Causes of poverty
   - Poverty and unemployment
   - Poverty and social conflict
   - Impact of LPG on poverty
   - Linkage between poverty and development
   - Rural poverty
   - Urban poverty
   - Feminization of poverty
   - Poverty alleviation measures
   - Problems in implementation of Poverty alleviation programmes
   - Poverty and Hunger
   - Food security programmes and issues
   - Hunger and health
   - Impact of hunger and poverty on economic development of the nation
   - Controversy related to poverty data estimation

4. The Scheduled And Tribal Areas
   - 5th Schedule Areas
   - 6th Schedule Areas
   - Composition of autonomous councils
   - Role and functions of councils
   - Role of Governor with respect to tribal areas
   - Tribal sub plan
## Welfare Schemes

### 1. Start-up and Skill Development
- Start Up India Scheme
- Stand up India Scheme
- National Student Startup Policy
- National Skill Development Mission
- Pradhan Mantri Kaushal Vikas Yojana
- Deen Dayal Antyodaya Yojana
- Deen Dayal Upadhyaya Grameen Kaushalya Yojana
- Skill Development Initiative Scheme
- Self-Employment & Talent Utilisation (SETU)
- Atal Innovation Mission
- Mission Indradhanush
- NFHS-4 survey

### 2. Vulnerable Sector
- Social Security
- Atal Pension Yojana
- Pradhan Mantri Jeevan Jyoti Bima Yojana
- Pradhan Mantri Suraksha Bima Yojana
- Minorities
- Nai Roshni Scheme
- USTAAD Scheme (Upgrading the Skills and Training in Traditional Arts/Crafts for Development)
- Nai Manzil Scheme
- Women and Child Development
- Beti Bachao Beti Padhao
- Sukanya Samriddhi Yojana
- Digital Gudda Guddi Board
- Sabla
- Ujjawala Scheme
- Janani Suraksha Yojana
- Janani Shishu Suraksha Karyakram
- SC/ST
- Vanbandhu Kalyan Yojana
- Pradhan Mantri Adarsh Gram Yojana
- Disability
- Accessible India Campaign (Sugamya Bharat Abhiyan)

### 3. Health
- National Health Mission
- National Ayush Mission
- Swasthya Rakshan Program
- Jan Aushadhi Scheme
- Mission Indradhanush
- NFHS-4 survey

### 4. Education
- Padhe Bharat Badhe Bharat
- Mid Day Meal Scheme
- Ishan Uday
- GIAN (Global Initiative of Academic Networks)
- Rashtriya Avishkar Abhiyan
- SWAYAM (Study Webs of Active - Learning for Young Aspiring Minds)

### 5. Rural & Urban Development
- Sansad Adarsh Gram Yojana
- Gram Uday Se Bharat Uday Abhiyan
- Shyama Prasad Mukharjee Rurban Mission
- Deendayal Upadhyaya Gram Jyoti Yojana
- Pradhan Mantri Gram Sadak Yojana
- Swachh Bharat Abhiyan
- Pradhan Mantri Awas Yojana- Gramin
- Pradhan Mantri Awas Yojana - Urban
- Housing for all by 2022
- Smart Cities Mission
- Hriday - National Heritage City Development and Augmentation Yojana
- Amrut (Atal Mission for Rejuvenation and Urban Transformation)

### 6. Miscellaneous Schemes
- Jeevan Praman
- Digilocker
- Bharatnet Project (National Optical Fibre Network)
- INSPIRE (Innovation in Science Pursuit for Inspired Research)
- SAKAAR
- Digital India
- Namami Gange Project (Integrated Ganga Conservation Mission Project)
- Ganga Gram Yojana
- Jal Kranti Abhiyan
- Khelo India
- One Rank One Pension Scheme
- PRAGATI (Pro-Active Governance and Timely Implementation)
- Indian Community Welfare Fund (ICWF)
### 7. Inclusive growth
- Measurement criteria
- Government initiatives for inclusive growth
- Basic Amenities: Housing/Drinking Waters/ Sanitations
- Sustainable Development

### 8. Rural Development
- Rural development and poverty alleviation
- Review of the Existing Programmes
- Development Administration
- Panchayati Raj
- Agriculture and Rural Development

### 9. Social Sector Bills
- The Juvenile Justice (Care and Protection of Children) Act
- ‘Surrogacy (Regulation) Bill, 2016’
- ‘Child Labor (Prohibition and Amendment) Bill, 2016’
- Maternity Benefit Bill, 2016
- Pre-Conception & Pre-Natal Diagnostic Techniques (PNDT) Act
- Mental Health Care Bill, 2013
- Protection of Children from Sexual Offenses (POCSO)
- Anti Trafficking Bill with Stringent Penalty
- HIV and AIDS (Prevention and Control) Bill-2014 - Amendments
- Domestic Violence Act, 2005 - SC Widens Ambit
- Rights of Persons with Disabilities Bill, 2014 with more Benefits
- Transgender Persons (Protection of Rights) Bill 2016
- The Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Amendment Act

### SOCIAL ISSUES IN NEWS

#### 1. Secularism, Regionalism & Communalism
- Secularism and Anti-Conversion
- Regionalism: Demand for smaller states
- Repercussions of making Hindi compulsory
- Socio-Economic Caste Census, 2011

#### 2. Issues related to Women
- Maternity benefit Amendment Bill
- Altruistic surrogacy in India
- Status of widows
- Acid Attacks
- SC banned Women Sterilization in India
- Issue of Sex ratio
- Issue of Triple Talaq
- Female Foeticide and Infanticide
- Reservation for Women in Legislature
- Women in Combat Duties
- Women in panchayats
- Women participation in Economy
- Challenges faced by Working Women
- Draft National Policy for Women, 2016

#### 3. Issues related to Children
- Protection of Children from Sexual Offenses
- Issue of malnutrition in India
- Amendments proposed in Child Labour Act
- Plight of street children
- Adoption Regulations, 2017
- National Child Policy
- Out of school children: Issues and Steps needed
- Cradle Baby Scheme
- Juvenile Justice System
- Child Marriages In India
- Draft bill on child abduction

#### 4. Social issues
- Social stigma attached with HIV
- Issues related to Transgender and Transgender Persons Bill, 2015
- Euthanasia Issue: An Analysis
- Right to Privacy and Aadhaar
- Mental Health Care Bill
- Anti-Trafficking Bill, 2016
- Challenge of ageing with dignity
- Rights of Persons with Disabilities Act
5. Health & Education

- Issue of poor infrastructure in schools
- No Detention Policy
- New Policy on Education
- Lancent Report on Healthcare spending

6. Government initiatives in social sector

- Progress Panchayat initiative
- National Sex Offender Registry
- Slum Re-development
- Issue of farmer suicide in India
- Anthropological Survey of India
- National Commission for Socially and Educationally Backward Classes
- T.V.S.N. Prasad Report On Pellet Guns
- Uniform Civil Code
- Concept of Open Prison

Remarks
# Polity & Governance

## POLITY

### 1. Historical Evolution & Features
- Importance of Constitution
- Historical evolution of the Constitution
- Constituent Assembly
- Objectives of the Constitution
- Salient features of Indian Constitution
- Unitary features
- Federal features
- Parliamentary form of government
- Presidential form of government
- Parliamentary vs. Presidential system of government
- Concept of dual citizenship
- Citizenship provisions in J&K
- Special privileges enjoyed by citizens in India

### 2. Preamble
- Preamble
  - Basic features
  - Value premises of constitution
  - Terminologies as:
    - Democratic
    - Sovereign
    - Socialist
    - Secular
    - Republic
    - Justice
    - Equality
    - Liberty
    - Fraternity
    - Integrity

### 3. Citizenship
- Basic constitutional features
- Methodology of getting citizenship
- Modes of Losing the Citizenship of India

### 4. Fundamental Rights
- Significance of Fundamental Rights
- Right to Equality
- Right to Freedom
- Right against Exploitation
- Right to Freedom of Religion
- Cultural and Educational Rights
- Right to Constitutional Remedies
- Difference between procedure established by law and due process of law
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  - Strategies Adopted in Budget
  - New foreign and domestic investment
  - Sector-specific government policies
1. Industrial policy and industrial development: Main Issues

- Mahalanobis strategy and India’s industrial policy-Discussing Industrial policy resolution 1948 and 1956 critically
- New Economic Policy and Industrial policy under the policy of liberalization, privatization and globalization
- Phases of Industrial development

2. Main features of Industrial development in India

- Roles of private sector and public sector, Investment in the industrial sector, employment, productivity, profit etc.
- Strategies for disinvestment and privatization
- Role of Small, Medium and Micro enterprises, Government Policy,

TRANSPORT

- Transport costs and specialization
- Transport and trade in the modern era
- Transport costs and scale economies
- Falling transport costs increase trade between neighbours
- Falling transport costs lead to concentration within countries
- Negative externalities of transport
- Important issues
  - Ownership and financing
  - Pricing of Public utilities
  - Infrastructure as avenues for investment
  - Project delays-reasons and measures to overcome
  - Public Private Partnership and related issues
  - Operation and Maintenance of roads, railways, irrigation and power projects-Main problems and solutions
  - Impact of Infrastructure-Economic Impacts, impact on social development, Environmental impacts
## RECENT DEVELOPMENTS

### 1. Finance
- Changes in Budget process in India
- Public Debt Management Cell
- IBBI and INSOLVENCY RULES
- Demonetization and its impact
- Goods and Services Tax
- Digital Payments scenario
- Task Force Releases draft Bill to establish a Financial Data Management Centre
- Task Force report on Financial Redress Agency Released
- Law Commission submits report on Income Tax related to Minors
- Consumer get free hand on paying service charge
- Monetary Policy Committee Review
- Report of Working Group on development of Corporate Bond Market in India
- Concept of municipal bonds
- Lower taxes, higher compliance: implication on economy
- Initiatives to support MSME sector
- Model Shop and Establishment Bill, 2016
- National Capital Goods Policy
- H1B visa rules and IT sector
- Ease of doing business initiatives in Realty sector
- Coal linkage policy
- Ministry releases Draft Labor Code on Social Security
- Analysis of Competition Commission of India

### 2. Banking
- Bank Consolidation: Pros and Cons
- Concept of willful defaulter
- Concept of bad bank
- Shadow banking
- Non Performing Assets
- Debate on RBI autonomy
- INDRADHANUSH Analysis
- MCLR regime
- Unified Payment Interface
- India’s Post payment bank
- Issue of Balance Sheet Syndrome
- Differentiated Bank Licenses
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- Issue of Balance Sheet Syndrome
- Differentiated Bank Licenses
- Sagarmala project
- Inland waterways in India
- Safety issues in Railways
- Draft policy for providing New Suburban Rail Systems released
- NITI Aayog releases report on the impact of social service obligations by Railways
- Indian Railway Tourism Policy
- Aviation Sector and Regional Connectivity Scheme
- Air Service Agreement
- HELP
- Ministry of Power releases guidelines on cross-border trading of electricity
- Supreme Court bans sale of vehicles not compliant with BS IV standards
- Multi-Modal Transport System
- Model Bilateral investment treaty
- Phasing out of FIPB
- FDI status and issues
- Permanent residency status to foreign investors
- Dispute Settlement Mechanism in WTO

### 3. Industry
- Standing Committee submits report on Industrial Policy
- Draft National Food Processing Policy Released
- Initiatives for Fund for start-ups
- Companies need to look beyond CSR
- Merger of telecoms
- National Company Law Tribunal
- NITI Aayog report on Agriculture
- Agricultural Index by NITI Aayog
- Defects in Procurement Policy
- Reforming trade in agriculture products
- Report on incentivising production of pulses released by Ministry of Finance
- Draft Model APMC Act, 2016 released
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### 4. Agriculture
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- Permanent residency status to foreign investors
- Dispute Settlement Mechanism in WTO

### 6. External sector
- Model Bilateral investment treaty
- Phasing out of FIPB
- FDI status and issues
- Permanent residency status to foreign investors
- Dispute Settlement Mechanism in WTO
### 7. Committees

- Increase in International Trade Dispute
- FTP 2015-20
- Reforms in IMF quota
- FSLRC - Financial Sector Legislative Reforms Commission: Analysis
- Nachiket Mor Committee Report
- P.J Nayak Committee
- Vijay Kelkar Committee on PPP
- Parthasarathi Shome committee on GAAR
- Urjit Patel Committee Report on Monetary Policy
- Mahapatra Committee (NBFC Loan Restructuring)
- Usha Thorat Committee
- Debroy Committee on Railways
- N.K. Sing Panel Report on FRBM
- Shanta Kumar Committee
- Ratan Watal Committee on Digital Payments

### 8. Miscellaneous

- Unemployment survey
- India’s first International Arbitration Centre inaugurated.
- Ponzi scheme and Issues
- Fat tax: concept analysis
- National Student Start Up Policy

### Remarks
# Science & Technology

## BIOLOGY

### 1. Chemical Building Blocks of Life

### 2. History and Origin of Life

### 3. Cells
- Cell Structure
- Membranes
- Cell-Cell Interactions
- Energy and Metabolism
- Respiration
- Photosynthesis
- How Cells Divide
- Sexual Reproduction

### 4. Genetics
- Inheritance
- DNA, The Genetic Material
- Gene Expression
- Gene Regulation
- Mutation
- Recombinant DNA Technology

### 5. Classification of Living Things
- Classification and Domains of Life
- General Biology/Classification of Living Things/Viruses
- Prokaryotes
- Eukaryotes
- Prokaryotes
- Plants
- Fungi
- Animals

### 6. Evolution
- Evolution of Life
- Animal Evolution
- Human Evolution

### 7. Tissues
- Epithelial tissue
- Connective tissue
- Muscle tissue

### 8. Economic Zoology
- Beneficial animals: Corals - Earthworm - Vermiculture - Beneficial insects
  - Prawns - Lobsters - Crabs - Pearl oysters - Fishes - Guano - Aquarium - Vivarium.
- Harmful animals: Disease causing organisms
  - Vectors - Poisonous organisms - Fouling organisms - Pests.

### 9. Endocrine System
- Hypothalamus
- Pineal body (epiphysis)
- Pituitary gland (hypophysis)
- Thyroid
- Adrenal glands
- Reproductive glands

### 10. Respiration
- External and Internal Respiration
- Respiratory system in Plants
- Respiratory System in Insects
- Respiratory System in Humans and Animals
11. The Transport System in Organisms
- Transport system in a Cell
- Transport System in Plants
- Transport System in Animals
- Blood Vascular System
- The Lymphatic System

12. Skeletal and Muscular Systems
- Bone and Skeleton System (Osteology)
- Ligaments (Syndesmology)
- Muscular System (Myology)
- Vertebrates

13. Reproduction
- Asexual Reproduction in Plants
- Asexual Reproduction in Animals
- Sexual Reproduction in Plants

14. Excretion, Osmoregulation and Thermoregulation
- Excretory products
- Excretion in plants
- Excretion in Animals
- Osmoregulation, ADH and formation of Urine in Animals
- Physiological and Behavioural Adjustments

15. Nutrition
- Classification by Source of Energy and Carbon
- Plant Nutrition
- Animal Nutrition
- Human Diet
- The Digestive System

INSTITUTIONS & POLICY
- India’s policy in the field of the science and technology
- The S&T policy resolution in 1958
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- Institutional structure
- Department of Science & Technology
- CSIR
- Survey of India
- Science and Engineering Research Council
- Technology Development Board
- National Accreditation Board For Testing And Calibration Laboratories
- Science and technology as a source of Human Resource Development
- Awards related to Science
- New Initiatives Aligned with the National Agenda
- India and World collaboration in science projects
- Technology Vision Document 2035
- National Biotechnology Development Strategy 2015-2020
- National Intellectual Property Rights Policy
- Organ donation rules in India
- Policy on Synthetic Biology

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1. Genetics and biotechnology
- Industrial genetics
- Protoplast and cell fusion technologies
- Genetic engineering
- DNA sequencing
- Nucleic acid probes
- Genomics and proteomics
- Antisense and RNA interface
- Potential laboratory biohazards of genetic engineering
- Bioprocess/fermentation technology

2. Biological fuel generation
- Global warming and the significance of fossils fuels
- Photosynthesis: the ultimate energy source
- Biofuels from biomass
3. Environmental Biotechnology

- Microbial Ecology Environmental Biotechnology
- Waste water and sewage treatment
- Landfilling technologies
- Composting
- Bioremediation
- Detect and monitoring of pollutants
- Microbes and the geological environment
- Environmental sustainability and clean technology

4. Plant and Forest Biotechnology

- Plant biotechnology
- Forest biotechnology

5. Animal and Insect Biotechnology

- Genetic manipulation and transgenic animals
- Genetically engineered hormone and vaccines
- Animal organs for human patients
- Genetically modified insects

6. Food and beverage biotechnology

- Food and beverage fermentations
- Microorganisms as food
- Enzymes and food processing
- Amino acids, vitamins and sweeteners
- Organic acids and polysaccharides
- Public acceptance and safety of new biotechnology foods

7. Protection of biotechnological inventions

- Patent protection Trade secrets
- Plant breeders’ rights

8. Recent initiatives in Health & Biotechnology

- Recent initiatives in Health & Biotechnology
- Diseases in News
- India Declared Maternal and Neonatal Tetanus, H5N1 and Yaws Free
- IPV Injection
- Mission Indradhanush
- New TB Drug Regimen
- E-Cigarettes
- Digital Biopiracy
- Kendrapara Sheep
- DNA Tagging of Convicts
- U.K. Grants Gene Editing Licence
- Genetically Modified Mosquito
- Designer Babies’ OR Three Parents Babies
- U.K. Grants Gene Editing Licence
- National Biotechnology Development Strategy 2015-2020

SPACE

- Types of orbits
- Launch Vehicle
- Satellite communication in India
- INSAT Satellite application
- Remote sensing applications
- Cryogenic rockets
- Global Positioning System
- Galileo
- GLONASS
- IRNSS
- GAGAN
- Chandrayaan – I & II
- Mars Orbiter Mission
- Space Organisations
- Space race/Space junk
- Recent updates
### South Asia Satellite: Significance

- Neutrino Observatory
- Solar Mission- ADITYA
- Gravitational Waves
- FAST (Five-hundred-meter Aperture Spherical radio Telescope)
- Spitzer Space Telescope
- Giant Metrewave Radio Telescope
- Chandra X-ray Observatory
- James Webb Space Telescope
- ARIES/Devasthal Telescope
- Multi Application Solar Telescope
- Thirty Metre Telescope

### Missile system and classification
- On the basis of type
- On the basis of launch vehicle
- On the basis of Range
- On the basis of propulsion system
- India’s Missile System
  - Agni
  - Prithvi
  - Trishul
  - Nag

### Impact of Radiation

### Issue of Radioactive Waste

### Institutions involved in Nuclear energy Development, AERB

### Safety standards in Nuclear Power plants

### Nuclear & Radiological Disasters

### Types of nuclear reactions

- Nuclear Power Reactor
- N-Power Policy of India
- Advantages of Nuclear Energy
- Disadvantages of Nuclear Energy
- Non-energy applications of Nuclear energy

### DEFENCE

- Missile system and classification
  - On the basis of type
  - On the basis of launch vehicle
  - On the basis of Range
  - On the basis of propulsion system
  - India’s Missile System
    - Agni
    - Prithvi
    - Trishul
    - Nag
  - Dhanush
  - Astra
  - Prahaar
  - BrahMos Missile System
  - Indian Submarines and Naval Ships
  - Light Combat Aircraft
  - Unmanned Aerial Vehicle
  - Stealth technology
  - Chemical Weapon
  - Biological Weapon

### NUCLEAR ENERGY

- Cathode ray
- LCD
- LED
- Plasma Monitors
- OLED
- Telecommunications
- Mobile generations
- Smartphone
- Important concepts

### Computers

- Generation of computers
- Computer terminologies
- Supercomputer and its applications
- Information technology
- Components of IT
- IT enabled services
- Application of IT
- Display technologies

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### RECENT DEVELOPMENTS IN IT & TELECOM

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### NANO-SCIENCE & NANO TECHNOLOGIES

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   - Ecological Hierarchy
   - Scope of Ecology
   - Habitat & Ecological Niche
   - Deep vs Shallow Ecology
   - Ecological Principles
   - Ecological Community
     - Structure and Characteristics of a Community
     - Stratification
     - Ecotones
     - Ecological Dominance
     - Seasonal and Diurnal Fluctuation
     - Periodicity
     - Turnover
     - Interdependence
   - Ecological Succession
     - Types and Process of Succession
     - Climax Community
   - Range of Tolerance, Maximum Range
   - Difference between Ecology, Environment and Ecosystem

2. Ecosystem and its dynamics
   - Ecosystem Definitions
   - Functions and Properties of Ecosystem
   - The Structure/Components of Ecosystem
     - Abiotic Components
     - Biotic Components
   - Ecosystem Dynamics
     - Flow of Energy in Ecosystem
     - Trophic Levels

3. Biogeochemical Cycles
   - Parts of a Bio Geochemical Cycle
   - Types of Biogeochemical Cycle
     - Carbon Cycle
     - Nitrogen Cycle
     - Phosphorus Cycle
     - Sulphur Cycle

4. Biomes: Forest, Grassland, Mountain, and Desert Ecosystems
   - Biome
   - Grasslands
   - Tundra
   - Deserts
   - Thar desert
   - Mountain biome

5. Aquatic Life Zones: Ocean, Rivers, Lakes, and Wetlands
   - Aquatic ecosystems
   - Basic facts about the ocean
   - Importance of the ocean
   - Zones of the ocean
6. Biodiversity Basics

- Biodiversity
- Important kinds of biodiversity
- Degree of diversity in an ecosystem
  - Endemic species
- Keystone species
- Indicator species
- Invasive species
- Allopatric and sympatric speciation
- Bioinformatics
  - Biodiversity distribution
- Megadivers Countries
- Uses and values of biodiversity
- State of global biodiversity
- Threats to biodiversity
- Biodiversity Hotspots
- Eco-regions
- Role of traditional knowledge in biodiversity
- Biopiracy
- Extinction of species
- Mass extinction
- IUCN’s classification scheme
- IUCN Red-List of Threatened Species
- Level of biodiversity in India
- Biogeographic classification of India

7. Biodiversity Conservation

- Ex-situ aid in-situ conservation
- Seed banks
- Zoos in biodiversity conservation
- Botanical gardens
- Protected areas
- State of protected areas in the world
- UNESCO Man and the Biosphere Program (MAB)
- Characteristics of biosphere reserves
  - International agreements for biodiversity conservation
- Convention on Biological Diversity
- Cartagena Protocol
- Nagoya Protocol
- Aichi Biodiversity Targets
  - Important Coastal and Marine Biodiversity Areas of India
- Important Bird Areas (IBAs) of India
- Global Tiger Initiative
- Project Tiger
- Project Elephant
- Indian Rhino Vision
- Recovery Programme for Critically Endangered Species
  - Use of indigenous knowledge for conserving biodiversity
  - Seed village

8. Effect of Human Activities on Environment

- Effect of Modern Agriculture on Environment
- Effect of Housing on Environment
- Effect of Power Generation on Environment
- Effect of River Valley Projects (Water Resource Projects) on Environment
- Effect of Mining on Environment
- Effect of Transportation Activities on Environment
- Effect of Tourism on Environment

9. Water Resource degradation

- Water Cycle (Hydrological Cycle)
- Availability and Quality Aspects (groundwater depletion)
- Water-borne and Water-induced Diseases
- Fluoride Problem in Drinking Water
- Arsenic Problem in Drinking Water

10. Minerals & Environmental Degradation

- Mining and Environment
- Sensitivity of Select Ecosystems to Mining
Impact of Mining
Indirect Impact of Mining
International Laws on Mining
Main Act or Statue to regulate the impact of Indian Mining Sector
Sustainable Mining

11. Deforestation
- Causes of Deforestation
- Implications of Deforestation for Climate Change
- Consequences of Deforestation on the Wildlife of India
- Impact of Deforestation on Indian Monsoon
- Impact of Deforestation on People
- Deforestation Leads to Water and Soil Resources Loss and Flooding
- Economical Impacts
- Strategies for Reducing Deforestation
- Government Programmes for Conservation of Forests
- Legislations for Conservation of Forests using People Participation
- Steps for Improving People Participation in Forest Resource Management
- Use of Local Traditional Methods

12. Waste Management
- Solid Waste
- Hazardous Waste
- E-Waste
- Bio Medical Waste
- Plastic Waste
- Methods for Waste Management
- Effects of Poor Waste Disposal
- Landfill

13. Sustainable Development
- Principles of sustainability
- Measurement of Sustainability or Sustainable Ethics or Equitable Utilisation of Natural Resource
- Sustainable Lifestyle (Role of an individual in sustainable, development)
- Challenges to Sustainable Development
- International Efforts to Achieve Sustainability

14. Environmental Pollution
- Air Pollution

15. Solid Waste Management
- Sources of Solid Waste
- Effect of Solid Waste
- Control Measures of Solid Waste
- Solid Waste Management Rules
- Hazardous Waste Management (HWM)

16. Coastal Ecosystem Management
- Mangroves
- Salient features of Mangroves
- Importance of Mangroves
- Mangroves in India
- Mangroves under threats
- Legal and Regulatory Approaches for Protection
- Estuaries
- Importance of estuaries
- Threats to estuaries
17. Recent developments

- Coral Reefs
- Geographical Conditions Required
- Uses of coral reefs
- Conservation of coral reef
- Steps for Coastal Ecosystem Management

18. Environmental Impact Assessment

- Government Body which Executes EIA
- Environmental Effects Analysed under EIA
- Process of EIA
- EIA Ruling 1984

19. Environmental Laws

- Environmental Laws: Provisions in the Indian Constitution towards Environmental Protection
- Salient Features of Air (Prevention and Control of Pollution) Act, 1981
- Salient Features of Water (Prevention and Control of Pollution) Act, 1974

20. Environment related Institutions and Organizations

- Pollution Control Boards
- National Green Tribunal
- Forest Survey of India
- National Board for Wildlife

21. Schemes

- Ecomark Scheme
- National Afforestation Program
- National River Conservation Plan
- National Mission for Clean Ganga
- National Air Quality Index (AQI)
- National Action Programme to Combat Desertification
- UJALA Scheme
- Bharat Stage Norms

22. International Environmental Governance

- UNEP
- UNDP
- Centre for Biological Diversity
- WWF for Nature
- IUCN - Red List
- Birdlife International
- International Conventions / Protocols & their Objectives

23. Basics of Climate change

- Green House Effect and Global Warming
- Global Climate Change: International Efforts to Control Global Warming or Global Climate Change
- Ozone Layer Depletion or Ozone Hole
- Acid Rain
- El Nino
- La Nina
### 24. Urbanization and climate
- Pollution in metros and climate change
- Real estate boom and environment degradation
- Urban Heat Island
- Polythene bags and pollution
- Methane generation from waste

### 25. Impact of agriculture on climate
- Agriculture increases Carbon Dioxide Emissions
- Monoculture practice impacts biodiversity
- Pollution due to use of chemical fertilizers
- Soil-related effects
- Fertilizer’s Effect on the Environment
- Impact of livestock on environment
- Impact of use of Pesticides on environment
- Impact of GM crop on environment
- Emission of Methane from agricultural practices
- Sustainable Agriculture Techniques

### 26. Global Warming & Health
- Health impacts of global warming
- Mosquito-borne diseases
- Ozone depletion and human health

### 27. Recent developments
- Carbon Neutrality Concept
- Climate Change Indicators: WMO report
- IPCC 5th Assessment Report
- Paris Agreement
- Marrakech Climate Change Conference
- International Solar Alliance (ISA)
- Kyoto Protocol (2nd Commitment 2013-20)
- Kigali Agreement
- Climate Change Performance Index

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#### 1. Wildlife
- Man-Animal Conflicts in India
- Poaching activities in India
- Controlling wildlife crimes using sniffer dogs
- Draft on animal cruelty
- Formation of Tiger Reserves: Critical Analysis
- International treaties for wildlife conservation
- Use of drones for wildlife conservation

#### 2. Combating Pollution
- Indoor Air Pollution and its impact
- Impact of Particulate Matter
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- Plastic Pollution
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- Solid Waste Management
- E-waste Management Rules 2016
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- Bharat Stage Norm
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- Marrakech Climate Change Conference
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- International Solar Alliance
- Programmes and Policies Initiated for Mitigating Climate Change
- International Collaboration for Mitigating Climate Change
- Carbon Neutrality Concept
- Concept of Green Bond
- Green Climate Fund
- Carbon Tax Feasibility in India
- Concept of Green Building
- Climate Change and Cities
- Ethical issue involved in climate change
- Climate change and its impact on Health

#### 4. Renewable Energy
- National Solar Mission
- Status of Hydro Power energy in India
5. Initiatives for Environmental Conservation

- Status of Wind Energy in India
- Green Transportation
- Ganga River Pollution
- Compensatory Afforestation Fund Act
- Draft National Wildlife Action Plan
- Draft Wetland Management Rules
- Initiatives to enhance green cover
- Policy on Promotion of City Compost
- Living status to Rivers
- National Hydrology Project

6. Environmental Institutions

- Pollution Control Board: Analysis
- National Green Tribunal: Analysis
- Forest Survey of India
- Genetic Engineering Appraisal Committee
- Traditional Knowledge Digital Library
- T S R Subramanian Panel Report

7. Miscellaneous Issues

- Algal bloom Issue
- Melting of Antarctica and its impact
- River linking project and its impact
- Public participation for environmental conservation

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1. Internal Security Challenges
   - Social Diversity as Issues of Security Threat
   - Challenges from within
   - Neighbours as Issue of Security Threat
   - Non-State Actors as Issue of Security Threat
   - Global Indices and Measurement of Vulnerability of a State Towards such Non-State Actors
   - Law and Order vs. Internal Security

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   - Changing face of Terrorism
   - Terror Threats Faced by India
   - Broader Framework to Deal with Terrorism
   - Drawbacks in Intelligence Infrastructure

3. Organized Crime
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   - Problems in controlling organized crimes
   - Combating organized crimes
   - Linkage of Terrorism and Organized Crime in India

4. Linkage between Development and Spread of Extremism
   - Stated Purpose of the Naxal Movement
   - Why naxalism got huge support from common man?
   - Why naxalism is biggest threat to internal security?

5. Insurgency in North-East
   - Issues & Conflicts
   - Assam Insurgency

6. Security Challenges in Border Areas
   - Challenges to Border Management
   - Issues Faced in Border Management
   - Community Participation for Border Management

7. Basics of Cyber Security
   - Types of Cyber Crimes
   - Impact and Steps needed
   - Recent Incident: Ransomware
   - The National Cyber Security Policy of India 2013

8. Cyber Warfare
   - Factors Contributing/Aggravating Rise of Cyber Attack
   - Recent Initiatives for Tackling Cyber Warfare

9. Social Media and Internal Security Threat
   - Regulation of Social Media in India for Internal Security
   - Challenges in Monitoring Social Media
   - Steps Needed

10. Money Laundering
    - Meaning of Money Laundering
    - Harmful Effects of Money Laundering
    - Steps taken by the Government

11. Black Money in India
    - Parallel Economy in India
    - What are the various measures taken by Government to curb Black Money?
    - Impact of demonetisation on black money
    - Criticisms
### 12. Police Reforms in India
- The Organisational Structure
- Duties and Responsibilities of the Police
- Centre’s Role in Policing
- Traditional Security Challenges
- Non-Traditional Security Challenges (NTS)
- Recommendations for Police Reforms
- Police we Want in 21st Century

### 13. Various Security Forces and their Mandate
- Assam Rifles
- Border Security Force (BSF)
- Indo-Tibetan Border Police
- Central Industrial Security Force (CISF)
- Central Reserve Police Force
- National Security Guard
- Issues with Paramilitary Forces

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**Remarks**
# Ethics, Integrity & Aptitude

## 1. Ethics Basic Introduction
- Dimensions of Ethics
- Essence of Ethics
- Approaches of Ethical Study as Indian Perspective and Western Perspective
- Basic concept of ethics morality and value
- Ethics in public life
- Ethics in Economic Life
- Freedom and Discipline
- Duties and Rights
- Virtue Ethics
- Consequences of Ethics in Human Actions
- Values and Ethics in Government: Legislature, Executive and judiciary
- Contribution of Family in Value Education
- Contribution of Society in Inculcating Values
- Role of Educational Institutions in Inculcating Values

## 2. Human Values
- Human value & Socialization
- Individual Personality and Value
- Values and Skill
- Fundamental and Instrumental Values
- Democratic values
- Role of ethical value in governance and society
- Significance of value in civil services
- Aesthetic values
- Values in work life and professional ethics

## 3. Aptitude and foundational values of civil services
- Essential Aptitude for civil servants
- Foundational Values of Civil Services
- Neutrality
- Anonymity
- Civil Services Accountability
- Integrity
- Humility
- Adaptability
- Magnanimity
- Perseverance
- Impartiality and Non-Partisanship
- Tolerance and compassion for the weaker section
- Contribution to society

## 4. India & World Thinkers
- **Indian Thinkers**
  - Mahatama Gandhi
  - Dr. S. Radhakrishnan
  - Rabindranath Tagore
  - Swami Dayanand Saraswati
  - Mahadeva Govinda Ranade
  - Sri Aurobindo
  - Swami Vivekananda
  - Sardar Patel
  - Buddha Bhim Rao Ambedkar
  - Raja Ram Mohan Roy
  - Chhatrapati Shahu Maharaj
  - Mother Teresa
  - Amitabha Chowdhury
  - Aruna Roy
  - T. N. Seshan
  - E. Sreedharan
- **Administrative Thinkers**
World Thinkers
- Plato
- Aristotle
- Socrates
- Jeremy Bentham
- JS Mill
- Thomas Hobbes
- John Locke
- Jean Jacques Rousseau
- John Rawls
- Immanuel Kant
- Carol Gilligan
- Jean Paul Sartre
- Georg Wilhelm Friedrich Hegel
- Confucius
- René Descartes
- Karl Marx
- Adam Smith
- Thomas Aquinas
- David Hume
- Democritus
- Galileo
- Friedrich Nietzsche
- Montesquieu
- Voltaire
- Thomas Jefferson

Indian & World Leaders
- Benjamin Franklin
- Martin Luther King
- Dalai Lama
- Nelson Mandela
- Mahatma Gandhi
- Siddhartha Gautama
- Aung San Suu Kyi
- Swami Vivekanand
- Albert Einstein
- Abraham Lincoln
- Mother Teresa
- J L Nehru
- Lee Kuan Yew
- Henry Ford
- Abdul Kalam
- Muhammad Yunus
- Wangari Maathai
- Kofi Annan
- Lech Walesa
- Desmond Tutu
- Issac Newton
- Elie Wiesel
- King Ashoka
- Sun Yat Sen

5. Attitude
- Components of Attitude
  - Affective component
  - Cognitive component
  - Behavioral component
- Functions of Attitude
  - Adjustive Function
  - Ego-Defensive Function
  - Value-Expressive Function
  - Knowledge Function
  - Attitude Formation Model
- Impact of Beliefs and Values
  - Group Influences
  - Social Influence
  - Persuasion Tactics
  - Tools of Persuasion
- Moral Attitude formation
- Political Attitude formation

6. Emotional Intelligence
- Theories Associated with Emotional Intelligence
- Can Emotional Intelligence be Developed?
- Components of Emotional Competencies
  - The Self-Awareness Cluster: Understanding Feelings and Accurate Self-Assessment
  - The Self-Management Cluster: Managing Internal States, Impulses, and Resources
  - The Social Awareness Cluster: Reading People and Groups Accurately
  - The Relationship Management Cluster: Inducing Desirable Responses in Others
- Importance of Emotional Intelligence at Workplace
- Importance of Emotional Intelligence in Civil Services
7. Values & Ethics in Public Administration

- Ethical Concerns in Public Institution
- Ethical Concerns in Private Institutions
- Ethical Dilemmas in Public and Private Institutions
- Laws, Rules and Regulations as Source of Ethical Guidance
- Accountability and Ethical Governance
- Strengthening of Ethical and Moral Values in Governance
- Moral Judgments in International Relations
- Ethical Relation in Funding
- International Relations and concept of Moral Responsibility
- Ethics in working of international organizations
- What is Corporate Governance?
- Models of Corporate Social Responsibility
- Steps taken by World Bank for Good Corporate Governance
- Norms for Corporate Government in India
- Concept of business ethics

8. Probity in Governance

- Concept of Public Service
- Philosophical basis of Governance and Probity
- Information Sharing, Transparency

APPLIED ETHICS

1. Euthanasia Issue

- Social and ethical angle
- Different arguments related to Euthanasia
- Conclusion

2. Surrogacy

- Case study
- Issues
- Ethical Issues
- Concept of ethical surrogacy
- Conclusion

3. Ethics & Sports

- Importance of sports

4. Media Ethics

- Role of Media
- Ethical Issues faced by Reporters
- Trial by Media
- Media Prejudice
- Ethical Dilemma faced by Photo Journalists
- Digital Media Ethics
- Paid News
### 5. Business Ethics
- Principles of Business Ethics
- Dimensions related to Business Ethics in Organisation
- Business Ethics and Corporate Governance
- Journey from Philanthropy to Corporate Social Responsibility
- Issues related to Corporate Social Responsibility
- Issues in implementation of Business Ethics

### 6. Ethics Related to Economic Sanctions
- Why Economic Sanctions placed?
- Ethics in Economic Sanctions
- Conclusion

### 7. Refugees & Ethics
- Why Migration occurs?
- Case study of Syria
- Dilemmas related to Refugee crisis
- Steps needed

### 8. Ethical Dilemmas of Globalization
- What is Globalisation
- Free trade in Globalised world
- Issues with Newly developed trade patterns
- Criticism against global regime
- Way forward

### 9. Ethics of War
- Ethics and War theories
- Evils of war

### 10. Environmental Ethics
- Linkage between Ethics and Environment
- Theories related to Environmental ethics
- Role of individual

### 11. Ethical Issues in Biotechnology
- Issues related to Stem Cell
- Issues related to cloning
- Issues related to designer babies

### 12. Animal Ethics
- Introduction
- Issues of conducting research on animals
- Issue of keeping animals as pets
- Issue of Cruelty against animals
- Conclusion

### 13. Food Adulteration and Ethics
- Ethical dimension
- Ethical issue related to food additive

### 14. Abortion: Ethical or Unethical
- Law of abortion in India
- Recent Supreme Court verdict
- Ethical Issue: Health of Women vs. fetus
- Justification for abortion
- Argument against abortion
- Abortion and women rights
- Abortion and father rights

### 15. Honour Killing
- Honour killing is unethical
- Role of khap pachayat

### 16. Marital Rape
- Why Marital Rape should not be criminalized?
- Why Marital Rape should be criminalized?
- What are the hurdles?

### 17. Ethical Issue Involved in Child Labour
- Rights of children
- Child labour and company
- Solution
- Role of consumer

### 18. Ethical Issue Involved in Treating Juvenile as Adult
- Juvenile justice system
- Negative implications

### 19. Ethics and Old Age
- Ethical issues
- Issues faced
- Importance of autonomy
20. Ethics in Public and Private Relationships

- Ethical values in Private relationships
- Ethical principles in Public relationships
- Linkage between Private relationships and Public relationships

Remarks