

List of Keywords

General Studies Paper 1

Indian Heritage and culture, History and Geography of the world and society

Topic 1: Art & Culture - Salient aspects of Art Forms, Literature and Architecture from ancient to modern times

Key concepts: Architecture - Forts - Palaces - Temple Architecture - Nagara - Vesara - Dravida - Caves - Ajanta - Ellora - Elephanta - Cave Paintings - Mosques - Arches - Domes - Public Buildings - Charles Corbusier - Sculptor - Indus Valley Civilization - Pashupati - Nataraja - Tandava - Ashokan - Buddhist - Pillars & Stupa - Indo-Greek - Mathura - Gandhara - Amravati - Gupta Period Sculptor - Delhi Sultanate - Evolution of Coinage - Gupta numismatic art - Gupta Sculptor in South Indian Temples & Caves - Mahabalipuram - Chola Temples - Paintings - Pre-historic paintings - Petroglyphs - Mesolithic Paintings - Chalcolithic Paintings - Pottery Paintings in Indus Valley Civilization - Vedic Age - Indo Greeks Period - Mural Paintings - Ajanta Ellora - Haathi Gumph - Medieval Period Paintings - Miniature Paintings - Palas - Arabesque - Regional Schools of Painting - Maithili - Manjusha - Kalamkari - Kalighat - Phad - Worli - Batik - Tanjavur - Mysore Paintings - Mughal Paintings - Portrait - Miniature - Narrative Paintings - Rajput School - Pahari School - Indian Renaissance - Company School of Paintings - Bengal Renaissance - Nationalist School of Paintings - Raja Ravi Verma - Qubic Style - M F Hussain - Modern Art - **Performing Arts** - **Dance** - Classical - Folk - Martial Arts - Bharatanatyam, Kathak, Kathakali, Kuchipudi, Odissi, Sattriya, Manipuri, Mohiniyattam - **Music** - Hindustani - Carnatic - Gharana Tradition - Lucknow - Gwalior - Darbhanga - Kirana - Instruments - String Based - Wind Instruments - Drum - Dholak - Mridang - Veena - Tabla - Santoor - Theatre - National School of Drama - Yakshgan - Nautanki - Rasleela - Bhand - Pather - Jatra - Puppetry - Gloves - Rod - String - Shadow Puppetry - Literature - Vedic Literature - Sangam Literature - Bhakti Literature - Early & Later - Buddhist Lit. - Jain Lit. Accounts of Travelers - Chinese - Fa-Hein - Megasthenes - Hein Tsang - Continuity of Indian Culture - Sangam Era - Arab Travelers - Al-Beruni - Ibn Battuta - Minhaz Siraj - Court Historians - Navratnas - Tansen - Amir Khusro - Abul Fazl - Abdul Badayuni - European Travelers - Francis Bernier - Vasco De Gama - Marco Polo - Nicolo Conti - Abdul Razzaq - Barbosa - Father Monserrat - Ralphfich - Captain Hawkins - Schools of Philosophy - Astika - Nastika - Charvaka - Jain - Buddha - Samkhya - Ajivikas - Mimamsa - Vedanta - Nayaya - Yoga - Samkhya - Vaisheshika - Advait - Shankaracharya - Bhakti Philosophy - Medieval Times - Kabir - Guru Nanak - “Vasudhaiv Kutumbakam” - Architecture of Modern Cities - Chandigarh - Le Corbusier - Lessons in Planning from Ancient India.

Topic 2: Modern History: Modern Indian history from about the middle of the eighteenth century until the present- significant events, personalities, issues. The Freedom Struggle – its various stages and important contributors/contributions from different parts of the country.

Modern History: Modern Indian history from about the middle of the eighteenth century until 1905: Advent of Europeans - Portuguese - Contribution - Causes of Failure - French - Carnatic Wars - Why they failed against the British? - Battle of Panipat - British and Native States - Battle of Plassey - Buxar - Anglo - Marathas - Anglo - Punjab - Sindh Conquest - Establishment of British rule in India - British policies and its impact - Land Revenue System - Permanent Settlement - Mahalwari - Ryotwari - Commercialization of Agriculture - Development of Civil Services - Police - Education - Press - Famine Commissions - De-industrialization - Railways - Local Self Government - Constitutional Developments - Regulating Act 1773, 1784 - Charter Acts - Government of India Act 1858, 1909, 1919, 1935 - Indian Councils Act 1861, 1892 - Religious and social reform movements and their impact - Growth of art, literature and modern press in India - Major Social reforms - Indian Renaissance - Raja Ram Mohan Roy - Ishvar Chandra Vidyasagar - Caste movements in south India & Maharashtra - Reforms of Cornwallis, Wellesley, Hasting, William Bentick, Dalhousie - Revolt of 1857 , causes and consequences - Rise of Indian Nationalism - Drain Theory - Early political movements and Indian National Congress - Moderates - Extremists - Role of Lytton, Ripon and Curzon - Rise of extremism - Swadeshi and Boycott movement in India - Split in Congress and rise of revolutionary terrorism - Morley-Minto reforms and formation of Muslim League - **Modern Indian history from 1905 until independence:** Gandhi in South Africa - Role of Gandhi in eradication of Indentured slavery system - Return of Mahatma Gandhi - Gandhian Philosophy - Satyagraha - His ideas on Communalism, Trusteeship, Socialism, Means and Ends - Relevance of Gandhian ideas in present times - Gandhi vs Nehru, Gandhi vs Tagore, Gandhi vs Ambedkar, Gandhi vs Subhash - Role of Women in Gandhian movements - Why Gandhi was successful - Champaran, Ahmedabad and Kheda Movement - Gadhar Movement - Home rule movement and its impact - Role of Foreigners in National Movement - Influence of foreign events on Indian National movement - Non-cooperation movement and Khilafat movement - Gandhi vs Jinnah on Khilafat Issue - Montague Chelmsford reforms 1919 - Swarajists - Rise of Left - Congress Socialist Party - Communists - JLN, Subhash Bose influence - Peasant movements in India - Rise of communalism and its dangerous effects - Simon Commission - Lahore Congress, from Swaraj to complete independence - Civil disobedience movement - Round table conferences - Poona Pact - Constitutional development, Government of India Act 1935 - 28-month congress rule - National movement during world war - Individual Satyagraha - August Offer - Cripps Proposal - Quit India Movement - Wavell Plan - Rajaji's Formula - INA Trials - RIN Mutiny - National upsurge after second world war - Tebhaga Movement - Formation of Interim government - Constituent Assembly - Wavell Breakdown Plan - Mountbatten Plan - Menon Plan - Independence of India Act, 1947 - Partition and Communal Violence.

Topic 3: Post-Independence: Post-independence consolidation and reorganization within the country.

Post-Independence India: Key words: Challenges before Indian Democracy - Impact and Legacy of Colonial Rule - Integration of Princely States - Linguistic State Formation and Issue of National and Official Language - Integration of Tribal - North Eastern - Challenges - Regionalism and Regional Inequality - Tribal Panchsheel - Land and Agriculture reforms - Zamindari Abolition - Tenancy Reforms (Operation Barga) - Land Ceilings; The Bhoodan Movement & Gramdan Movement - Recent land reforms - Green Revolution & Green Revolution - Foreign Policy, NAM and Relations with countries - International role - Indo China war - Indira Gandhi: Inner party struggle and congress split, Bangladesh Challenge, 1971 and Indo- Pak War - Shimla Agreement, 1972 - Emergency: cause and consequences - Separatist movement: Kashmir, Punjab, North East - Women movements - Environmental movements in Post-Independence - Dalit Politics - Development of Science - New Farmer Movement

Topic 4: World History: History of the world will include events from 18th century such as industrial revolution, world wars, redrawing of national boundaries, colonization, decolonization, political philosophies like communism, capitalism, socialism etc.— their forms and effect on the society.

World History: Events from 18th century till world war I: Keywords: Renaissance - Age of Enlightenment - Industrial Revolution - Causes & Consequences - IR in Britain, Japan, Russia, India - Impact on India - Emergence of new ideologies like capitalism, communism, socialism - American revolution and civil war - American Constitution - British Mercantilism - French revolution - Rise and fall of Napoleon - Vienna Congress - Rise of Nation states - Rise of Socialism - Communism - 1st International - 2nd International - Workers Movement - unification of Germany and Italy - Balkan Wars - Imperialism and colonization- World war- cause and consequence, Treaty of Versailles - League of Nations - Russian revolution, cause and consequence - Lenin's New Economic Policy - Stalin's Economic policies - Great Depression and the New Deal **Events from world war I and onwards: Keywords:** Rise of Nazism and Hitler in Germany - Role of Hitler in WWII - Policy of appeasement - Rise of Fascism in Italy - Japanese imperialism - Chinese revolution - Spanish Revolution - World war II- cause and consequences - Decolonization and achievement of freedom by nations (from 18th century onwards) - West Africa - Indonesia - Apartheid - Malay Peninsula - Cold war and bipolar world - Cuban Missile Crisis - Afro-Asian unity and Non- alignment - Arab Nationalism - Palestine and Israel-Arab conflict - fall of USSR - Gorbachev's policies - Fall of Berlin Wall - Gulf wars - Iranian revolution - Afghan Invasion - European Union - Formation and new challenges.

Topic 5: Indian Society: Salient features of Indian Society, Diversity of India. Role of women and women's organization, population and associated issues, poverty and developmental issues, urbanization, their problems and their remedies. Effects of globalization on Indian society. Social empowerment, communalism, regionalism & secularism.

Key Concepts: Salient Features of Indian Society - Issues related to: Religion, communalism and secularism - Family - Caste system and caste based discrimination - Marriage and divorce - Print, digital and social media - Education - Women and gender based discrimination - Children - Senior citizen - Disabled - Youth - Urban Population and Rural population - Tribal - Impact of globalization on all social groups - Regionalism - Pluralism and Diversity of language, culture, food, institutions etc. - Women empowerment: social reforms, women organizations and SHGs - Population: age structure, literacy, sex ratio - Poverty and poverty line - Inequalities and exclusions - Social cause of poverty - Poverty alleviation initiatives.

Topic 6: Physical Geography: Salient features of world's physical geography.

Topic 8: Geophysical Phenomena: Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc., geographical features and their location-changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.

Geomorphology: Interior of the earth - Continental drift theory - Plate tectonic theory - Landform development in karst regions, arid region, glacial region - Landforms development due to fluvial, Aeolian and glacial action - Endogenic and Exogenic forces - Formation of fold mountains and island arcs - Volcanism and related landforms - Earthquakes and tsunami. Cryosphere.

Oceanography: Temperature and salinity of the oceans - Ocean currents - Waves and tides - Coral reefs and coral bleaching - EL NINO and ENSO - Sea level change - Ocean acidification - Mineral Reserves - Deep Sea Mining - Challenges

Climatology: Composition and structure of atmosphere - Temperature and pressure belts of the world - Atmospheric circulation - Planetary and local winds - Monsoon and jet streams - Air masses and air front - Tropical cyclones - Temperate cyclones - Heat budget - Climate change - Urban climate - Ozone Depletion

Biogeography: Soils: types and locations; Major biomes of the world: tropical rainforest, temperate forests, Savanah grasslands, temperate grasslands, Desert biome, Monsoon and Mediterranean biome - Wetlands - Mangrove vegetation. Contemporary issues.

Topic 7/ Human and Economic Geography: Distribution of key natural resources across the world (including South Asia and the Indian sub-continent); factors responsible for the location of primary, secondary, and tertiary sector industries in various parts of the world (including India).

Human and Economic Geography: Distribution of key natural resources across the world (including South Asia and the Indian sub-continent): Minerals: Iron, Aluminum, Manganese, Lead, Zinc, Copper, Uranium, Rare earth metals - Energy resources: Coal, Oil and natural Gas - non-conventional energy resources: Coal bed methane, Shale gas etc. - Renewable Energy resources: Solar energy, wind energy, geothermal etc.

Factors responsible for the location of primary, secondary, and tertiary sector industries in various parts of the world (including India): Iron and steel, Automobile, Cotton, Fertilizer, Pharmaceuticals etc. Indian Agriculture. Population and settlement geography: growth, distribution and demographic attributes - demographic dividend- Urbanization, Migration - problems in urbans and rural areas - Slums - Urban sprawl - Urban Infrastructure-Industrial Corridors.

Geopolitics. Space.

General Studies Paper 2

GOVERNANCE, CONSTITUTION, POLITY, SOCIAL JUSTICE AND INTERNATIONAL RELATIONS.

Topic 1: Indian Constitution—historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

Key concepts: Historical Background - Govt of India Act 1919 - Gol Act 1935 - Constituent Assembly - Criticisms - Making of Constitution - Preamble - Part of Constitution or Not - Amenability - Objective Resolution - Salient Features - Sovereign - Secular Socialist - Democratic - republic - Meaning & Significance - AK Gopalana Case - Golaknath Case - Citizenship - Amendment Act - Fundamental Rights - Right to Life - Directive Principles of State Policy - DPSP vs FR - Fundamental Duties - Emergency Provisions - Political Parties - Federal Feature - Union vs Federation - Fiscal federalism - Parliamentary Features - Parliamentary vs Presidential System - Unitary Features - Unique features - **Amendments to Constitution** - Constitutional Provisions - Amenability of Fundamental Rights - Criticism of Amendment procedure - Significant Amendment to constitution - 1st, 7th, 24th, 25th, 42nd, 44th, 52nd, 61st, 65th, 69th, 73rd, 74th, 77th, 84th, 86th, 87th, 89th, 90th-99- 100th - 101-102 - 103th etc. **Significant Provisions** - Article 370 - repeal, Article 371 and 371A, Special Provision for SC/ST (and now OBCs too) - Administration of UTs - Article 239, 239A, 239AA and 239AB - Basic Structure Doctrine - Keshvananda Bharathi - Doctrine of Constitutional Morality - Uniform Civil Code

Topic 2: Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein.

Key concepts: Union and the States - Functions of Union - Functions of the States - Responsibilities of the Union - Responsibilities of the States - Article 356 - Article - 131 - Article 256 - Article 365 - Schedule 7 Issues - Schedule 5 & 6 Issues - Fiscal Federalism - GST - Finance Commission - American Federalism vs Canadian Federalism - Evolution of Indian Federalism - Features of Indian Federalism, Issues of Centre - State Relations, Doctrine of Harmonious Construction & Federal Supremacy - Issues of Inter State Relations - Inter State River Water Disputes - **Devolution of Power and finances** - Provisions of 73rd and 74th Constitutional Amendment Acts, Devolution of Powers to PRI, Devolution of Finances to PRI, Devolution of Powers to ULB, Devolution of Finances to ULB - Challenges - State Finance Commission

Topic 3: Separation of powers between various organs dispute redressal mechanisms and institutions.

Key concepts: Evolution of Doctrine of separation of Power - Different Approaches Separation of Power vs Division of Power - -Constitutional provisions - Union List - Concurrent List - Judicial Pronouncement - Article 131- Judicial Activism - Dispute redressal Mechanism - Administrative Tribunals- fast track Courts - Lok Adalats - 5th Schedule - Tribal Administration Related Provisions

Topic 4: Comparison of the Indian constitutional scheme with that of other countries.

Key concepts: Provision of Constitution & Its Sources - Is it an original document - Comparison of Indian Constitution with other countries - American - British - Canada - Parliamentary vs Prime Ministerial System - Executive presidency System of Sri Lanka - New Constitution of Nepal - Challenges of presidential “type” elections in Parliamentary System

Topic 5: Parliament and State legislatures—structure, functioning - conduct of business - powers & privileges and issues arising out of these.

Key concepts: Parliament - Organization - Role of Speaker - Question of Neutrality - Parliamentary Disruption Index - Devices of parliamentary proceedings - Budget in Parliament - Joint sitting of two houses - Committees of Parliament - Public Accounts Committee - Ethics Committee - Parliamentary Privileges - Anti Defection Law - Issue of Disqualification - Office of Profit - Anti Defection - Politicization of Governor - State vs UT - UT with Legislative Assembly - LG vs CM’s role in UTs - Relevance of Rajya Sabha, State Legislative Council - Article 1-4 .

Topic 6: Structure, organization and functioning of the Executive and the Judiciary— Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.

Key concepts: Cabinet Committee System - NJAC - Removal of Judges - Challenges - Judicial Accountability - Judicial Independence - “From noisy journalists and independent judges to noisy judges and independent journalists” - Judicial Pendency - Reforms - Virtual Courts - Gram Nyayalaya - Judicial Review - Judicial Activism - Judicial Appointments - Collegium System - Judicial Accountability - e-courts - Regional Benches - National Court of Appeal - Constitutional Courts - Political Parties - Pressure Groups - Khap Panchayats - Farmer Organizations - Role of FICCI - CII etc.

Topic 7: Salient features of the Representation of People's Act.

Key concepts: Representation of People's Act 1950 and 1951 - Disqualification - Lily Thomas Case - Jan Chowkidar Case - Association for Democratic Reforms (ADR) Case - State Funding of Elections - Simultaneous Elections - Political Funding - Electoral Bonds - Criminalization of Politics - EVM - Electoral Reforms by Election Commission - First Past the Post vs Proportional Representation System.

Topic 8: Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies.

Key concepts: Constitutional Bodies - Election Commission - Disqualification of MP / MLAs - UPSC, SPSC, CAG - Article 149 - Criticisms - Political Fallouts of Audit Reports - Finance Commission - Article 280 - Mandate - Issues arising out of it - National Commission for Schedule Castes/ Schedule Tribe / Backward Classes.

Topic 9: Statutory, regulatory and various quasi-judicial bodies.

Key concepts: Statutory Bodies - National Human Rights Commission - Analysis - Criticisms - Criteria of Appointment of Chairman - Retirement Home for Pliable Judges - State Human Rights Commission, Central Information Commission - Amendments to RTI Act - State Information Commission, Central Vigilance Officer - Need for Constitutional Status - Lokpal and Lokayuktas - Issues and Challenges - National Commission for Minorities, National Commission for Women, National Commission for protection of Children Rights - Political Bias & Neutrality Issue - Weapon against opposition ruled states - IRDA - SEBI - Competition Commission of India - Challenges in Working - Article 323-A / 323 B - need for separation of regulatory function and participation - National Green Tribunal - Criticisms - Tribunalisation of Justice - Issue of Competition Appellate Tribunal, CAT - Issues in functioning - Airport Authority Appellate Tribunal, - Telecom Dispute Settlement and Appellate Tribunal - Consumer Protection Act

Topic 10: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Key concepts: - Development of critical Infrastructure - rural roads, sanitation - availability of safe drinking water - skill development - Social security - Urban Infrastructure - People's participation in Governance - Reasons for failure - Neo Liberal Paradigm of Development - Multilevel Development Planning - Jal Shakti Abhiyan - WASH - Water Sanitation and Hygiene.

Topic 11: Development processes and the development industry –the role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders.

Key concepts: Stakeholders in Development process - Role of NGOs, Civil Society, Self Help Groups - Microfinance - Role in Development & Skill Development - Kudumbashree model - NGO Funding - FCRA & NGOs - DAV College Trust Case - NGO under RTI Ambit - Charitable Organizations - Need for cooperation among various service sectors.

Topic 12: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

Key concepts: Critical Performance of Govt schemes - Design & Implementation - Commissions for Vulnerable Sections - Protection of interest of vulnerable sections through - constitutional provisions, legislation, executive and Judiciary
Welfare schemes for vulnerable sections - children, Women, Old Age, Divyang people, Schedule Caste, Scheduled Tribe, Poor migrants, tribals - Transgender - Surrogacy - Refugees - Constitutional provisions for the same

Topic 13: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

Key concepts: Issues related with Health - Public Health - Public vs Private Healthcare - Ayushman Bharat - PMJAY - Privatization of healthcare - Insurance based Healthcare - Out of pocket expenditure - Amartya Sen on Health & Education - Doctor Population ratio - Use of digital technology in providing health services - Education - Primary, Secondary, Higher Education - National Education Policy - National Medical Commission - Foreign Investment in Education - Food Budget Squeezing - Issues related in learning outcomes, Mid-Day Meal Scheme, Elementary Education, Samagra Shiksha Abhiyan - SSA - Skill Development - Challenges - Education and employability - Demographic Dividend vs Demographic Disaster

Topic 14: Issues relating to poverty and hunger.

Key concepts: Poverty - Causes - Political - Social - Economic - Geographical - Cultural - International - Role of Neo Liberal Policies - Marxist Perspective - Poverty Alleviation - Employment generation - Access to education and Health Services - Evolution of Poverty Line Measurement, Relation between Poverty, Hunger, Malnutrition - Government Measures for Eradication of Poverty

and Hunger, Issues in them, Possible Solutions - Food Nutrition - Nutrition Security - M S Swaminathan's Views.

Topic 15: Important aspects of governance, transparency and accountability, e-governance applications, models, successes, limitations, and potential; citizen charters, transparency & accountability and institutional and other measures.

Key concepts: Governance - Concept-Evolution in India, Important aspects -Transparency - Accountability - Current Scenario -Measures by Central and State Government - Good Governance - E-governance - Steps taken by Government for e-governance penetration - limitation of e-governance-Direct Benefit Transfer - Lokpal - Ease of Doing Business - Corruption perception - Citizen Charter - Social Audit - Corporate Governance - Whistleblower Protection Act - Media - Independence - Corporate Ownership of Media - Paid News - Yellow Journalism - Fake News - Challenge to Good Governance - Prevention of Corruption in Civil Service

Topic 16: Role of civil services in a democracy.

Key concepts: Civil Service - Historical Background - Colonial Hangover - Role in Development - Failure at Poverty Alleviation - Committed Bureaucracy - Reforms - Corruption in Civil Service - Article 311

Topic 17: India and its neighborhood- relations.

Key concepts: Prevention of Corruption in Civil Service - Nehru's Foreign policy - Non Aligned Movement - Panchsheel - Idealism - Indira Gandhi [1966 - 1984] - Era of Realism - India's Monroe Doctrine - Policy of Coalition Era[1985-2003] - Gujaral Doctrine - Neighbourhood first policy, Look East to Act East policy, Connect Central Asia policy - Look West Policy - SAGAR - India's Relationship with its neighboring countries - Pakistan, Afghanistan, Bhutan, Nepal, China, Sri-Lanka, Maldives, Myanmar, Bangladesh - Afghan Peace Process - Increasing Role of Foreign Policy in Domestic Politics - India's Soft and Hard Power - India West Asia Relations - Indian Ocean Region - Challenges and Opportunities

Topic 18: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Key concepts: SAARC vs BIMSTEC, BRICS, Afro-India Relations, SCO, ASEAN, Resurgence of Non-Aligned Movement - Connectivity Initiatives - Ashgabat Agreement - Chabahar - Peace Pipeline - Arctic Council - Non Proliferation Policy - Wassenaar Agreement, Australian Group, MTCR, NSG, NPT - FIPIC Countries - CMLV Countries and India - Arctic Council

Topic 19: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

Key concepts - USA - China Trade War, RCEP - FTA negotiations, Impact of Free Trade - Indian diaspora - old diaspora - new diaspora - oil diaspora - Contribution & Challenges - String of Pearls - South China Sea - Energy Diplomacy - South East Asian Diaspora - Belt and Road Initiative - CPEC - Indo Pacific Region - Quad - USA India Relations - Defense - Trade - Diplomatic Relations - Brexit and India - India - Japan - Hikaku San Gensoku Policy - South -South Cooperation - Global South

Topic 20: Important International institutions, agencies and fora- their structure, mandate

Key concepts - UN - UNSC Reforms - International Aid & Funding Agencies - Bretton Woods Institutions and India - WTO - Role & Relevance - World bank - Criticisms - IMF, AIIB, Indian Ocean Rim Association -- UNESCO - WTO - Challenges, Role - Funding Issues.

General Studies Paper 3

TECHNOLOGY, ECONOMIC DEVELOPMENT, BIODIVERSITY, ENVIRONMENT, SECURITY AND DISASTER MANAGEMENT

Topic 1: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

Key concepts: Planning - Evolution of planning in India - Objectives of Economic Planning in India - National Planning Commission/ National Planning Committee/Bombay plan/ People's Plan/ Gandhian Plan / Sarvodaya Plan/ Planning Commission and NDC - Achievement / Failures of Planning Commission - NITI Aayog (1 Jan, 2015) - How it is different from Planning Commission - Cooperative Federalism - Competitive Federalism - NITI Aayog Action Agenda and Annual Reports - unemployment - jobless growth - investment & savings rate. **Mobilisation of Resources** - Mobilisation of natural resource/Human resource/Financial resource - Plan Vs Non Plan Expenditure - GST, GAAR, Tax Administrative reform Commission - Federal Issues in Resource Mobilisation - Southern States Concerns with 15th FC - Resource mobilisation of urban local bodies - **Growth and Development** - Economic Growth Meaning - Slowdown - Inflation - Phillip's Curve - Laffer Curve - Indicators of economic growth - Significance of economic growth - jobless growth - challenges to economic growth - Difference between economic growth and development - GDP - GNH - HDI - Externalities of Development - Growth Recession - **Employment** - Employment Scenario - Key Facts - PLFS - 2017 -18, NSSO - Employment Unemployment Survey - Labour Bureau Quarterly Employment Survey - Employment and Formalisation - Employment and Productivity - Employability - Labour laws - Female Labour Force Participation - Gender Wage Gap, Artificial Intelligence and 4th Industrial Revolution - Labour Market Disruption - **Covid 19** - and impact on growth - mobilisation of resources - employment - changing nature of economy - Cashless economy - digital economy - formalisation of informal sector - Blue Economy - Gig Economy - Platform Economy.

Topic 2: Inclusive growth and issues arising from it.

Key concepts: Inclusive Growth - Livelihood - Access to basic amenities - Social Security - Skill Development - Poverty elimination - Balanced regional Development - Reducing Inequalities - Empowerment - Employment - Financial Inclusion - Good Governance - Collaboration of Govt, civil Society and Industry - Universal basic Income - Minimum Wages - Transformation of Aspirational Districts - World Inequality Report & Index - Financial Inclusion - JAM Trinity - Covid19 & Inclusive Growth. - Failure of trickle down approach - Misery Index - Expanding Middle Approach to inclusive growth - Middle Income Trap

Topic 3: Government Budgeting.

Key concepts: Budget - Meaning and Importance - Different types of Budget - Line Item Budget - Performance Budgeting - Zero based Budgeting - Outcome Budgeting - Gender Budgeting - Various Component of Budget - Revenue and Capital Account - Deficits - Budget Deficit - Revenue Deficit - Fiscal Deficit - Stages of enactment of Budget - Recent Changes - Scrapping of railway Budget and merging it with General Budget - Scrapping of Plan and Non Plan expenditure - Advancement in the Presentation of Budget - March Rush - Budget 2020-21 - Issues in Budgets in India and 2nd ARC recommendations - Fiscal Responsibility & Budget Management Act - Covid-19 Impact - Direct Tax Code - GST - Taxation Reforms - MAT - Dividend Distribution Tax - Long Term Capital Gains - Tax Avoidance - Tax Evasion - Tax Heaven - Tax Buoyancy - Base Erosion & Profit Shifting - GAFA Tax - Reduction in Corporate Tax - Tax to GDP Ratio - Debt to GDP Ratio - Sovereign Bond - Ease of Living - Aspirational India - Economic Development - Caring Society

Topic 4: Major crops-cropping patterns in various parts of the country, - different types of irrigation and irrigation systems storage, transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers.

Key concepts: Major crops of India - Food crops and Non-food Crops - Rice/Wheat/Millets/Pulses/tea/coffee/Sugarcane/Cotton/Jute/ -

Cropping Pattern - Rabi - Kharif - Zaid - Issues related with water guzzling crops - “Virtual Water Export” - Agriculture distress- Rainfed Agriculture Atlas - Zero Budget Natural farming - Sustainable Agriculture - Integrated Farming - Shifting Cultivation - Monoculture - Diversification of crops - Climate Smart Agriculture - integrated Farming System - PM Fasal Bima Yojana

Irrigation System - Key facts regarding Irrigation in India- Need for Irrigation- Different types of Irrigation in India - Major/Medium/Minor Irrigation Projects - Positive and Negative Effects of Irrigation - Effect of Irrigation on Environment - Habitat Destruction- Displacement of population - Salinity - Water logging - Drip Irrigation -Schemes related to Irrigation - Pradhan Mantri Krishi Sinchayi Yojana - Micro Irrigation Fund - Long term Irrigation fund - Irrigation in dryland areas - Watershed development in India - From Land Productivity to Water Productivity. - Contribution of Visvesvaraya - PM KUSUM.

Agricultural Marketing - What is Agricultural Marketing -Objectives of Agricultural Marketing- Present State of Agricultural Marketing in India - effects of Agricultural Marketing in India - Steps taken by Government for improvement of Agricultural Marketing in India - Integrated Scheme for Agricultural Marketing- e- NAM - Model Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act, 2017 - Draft Model Contract Farming Act 2018 - Agricultural Export Policy, 2018 - Issues in Food Grain Management in India - Restructuring FCI [Shanta Kumar Committee recommendations]- Farmer Producer Companies [FPO] - Operation Greens [Curbing Price Volatility in horticultural produce] - Post Covid - Agriculture Market Supply Chain - Contract Farming - e-Negotiable Warehouse Receipt

E-Technology in Aid of Farmer - ICT and Agriculture - Agritech - Hydroponics - Vertical Farming - GM Crops & Issues therein - technology fatigue in Indian Agriculture - Contribution of M S Swaminathan

Topic 5: Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System- objectives, functioning, limitations, revamping; issues of buffer stocks and food security; Technology missions; economics of animal-rearing.

Key concepts: Farm Subsidies - Need/rationale for Subsidies - Types of Subsidies - Merits/Demerits of Subsidies - Various Issues in farm Subsidies - Distortive/Regressive etc. - India and WTO: on Farm Subsidies - Green Box/ Amber Box/ Blue Box, Negotiations and their outcomes, Public Stockholding in India and WTO - 10% subsidy cap - Peace Clause, Possible Permanent Solution, - Export Subsidy & WTO - **Minimum Support Price (MSP)** - Need/Rationale for MSP, MSP Calculation, crops covered, Swaminathan Committee Report, Issues in the MSP - Alternatives Suggested to MSP - NITI Aayog three models of procurement - Market Assurance Scheme, Price Deficiency Payment, employing private players to procure on behalf of the government for a concession - PM-AASHA, **Public Distribution System (PDS)** - Evolution, objective, Functioning, Limitations of PDS - Recent Reforms undertaken - Shanta Kumar Committee, Digitisation of Ration Card, Linking Ration Card with Aadhaar Card, PDS Vs DBT, Food Coupons, Colour Coding - Alternatives to PDS - Cash Transfer/ Food Coupons/ Universal Basic Income - One Nation - One Ration Card, etc. **Buffer Stocks** - Need for Buffer Stock, What is Buffer Stock, Limitation of Buffer stock, Laws supplementing buffer stock- ECA, Trading restrictions- issues, implications, FCI reforms - **Food Security** - Need, Component of food security, Govt Initiatives, National Food Security Act, - Nutrition Security - Hidden Hunger . **Technology Missions** - National Mission on Oil seeds and oil palm, Technology Mission on Oilseeds, Pulses & Maize, Technology Mission on Coconut, National Saffron Mission, National Mission on Agricultural Extension & Technology, etc. - **Economics of Animal Rearing** - Role of Livestock in farmers economy, Mixed Farming and livestock, Climate change and Livestock, Issues- quality, breed system- indigenous/foreign, research, diseases - Government Schemes - National Livestock Mission, Rashtriya Gokul Mission, National Kamdhenu Breeding Centre, e-pashuhaat, etc.

Topic 6: Food processing and related industries in India- scope' and significance, location, upstream and downstream requirements, supply chain management.

Key concepts: Food Processing - Scope/Significance/Potential/Issues and Concerns in the Food Processing Sector - Government Schemes - Nivesh Bandhu's Portal - Mega Food Parks - Pradhan Mantri Kisan Sampada Yojana - 100% FDI permitted in Food Processing - Dairy Processing and development Fund- Fisheries and aquaculture development fund - Animal Husbandry Infrastructure Development Fund - Setting up/Modernisation of Abattoirs - Village Storage Scheme - Dhanalakshmi - National Cold Supply Chain.

Topic 7: Land reforms in India.

Key concepts: Brief History - Need and Objectives of Land reform, Components of land reforms, Phases of Land reform, Overall appraisal of land reforms, Regional Variation in land Reforms - Post liberalisation Land Reforms - Modernisation of Land Record (Now - Digital India Land Record Modernisation Program) - Facilitation of Land Leasing (NITI Aayog Model Agriculture Land Leasing Act 2016) - Right to fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, etc. - Model Tenancy Acts - Issues arising out of Land to Population Ratio.

Topic 8: Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.

Key concepts: Liberalisation of Economy - Impact of Liberalisation on different sectors of economy - Agriculture and Allied Sectors, Manufacturing/Industries, Service Sectors, MSME, Export improvement, Healthcare/Education etc. - Global Value Chain - Economy of Network Products - Marxist Perspective - COVID-19 & Globalisation - Trade War - Protectionism - **Industrial Policy** - Need for Industrial Policy, Evolution of Industrial Policy, New Industrial Policy - 1991- Its Achievement and Failures, Why India needs New Industrial policy, -Missing Middle - problem of Dwarfism - Premature Deindustrialisation of India - FIRE Economy

Topic 9: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

Key concepts: - **Energy** - Key Facts - Conventional and Non-Conventional sources of Energy - Power Sector - Thermal/Hydro/Nuclear/Renewables - Issues and Challenges in Power Sector and their remedies - Various Initiatives by Government - Renewable Energy - Solar Power/Wind Energy - Issues and challenges in renewable energy power - National Infrastructure Pipeline.

Ports/Shipping Industry - Major and Minor ports, Inland Water Navigation, SAGARMALA - Ro-Ro Service & Its Impact - Major Ports Act -

Roads - Road network in India - Importance of Roads - Issues/Challenges in road Sector - Various schemes - Bharatmala- Roads Accident - Steps taken to prevent road Accident - Road Construction - PPP - EPC- BOT- HAM - TOT - Swiss Challenge.

Railways - Rail network in India - Importance of railways - Various Issues- recommendation of Various Committees - Bibek Debroy Committee- Sam Pitroda Committee - Anil Kakodar Committee - Merger of railway Budget with General Budget - Privatisation of Railways - Restructuring of Railways - Rail Development Authority - Rail Safety - High Operating Ratios - Cross Subsidisation Policy

Airports/Civil Aviation - Importance of Aviation Sector, Issues in aviation sector - Airport Development - Models - Initiatives by Govt. - UDAN - Disinvestment of Air India - Covid 19 & Aviation Sector.

Topic 10: Investment models.

Key concepts: Different Investment Models - PPP - Evolution of PPP in India/ Why We need PPP, Challenges/Issues in the PPP model, Kelkar Committee Recommendations - Different PPP models - BOT, BOO, BOOT, BOLT, LDO, DBFO - EPC model - TOT, Hybrid Annuity Model, Swiss Challenge etc - FDI vs FII - Greenfield - Brownfield - Debate

Topic 11 : Science and Technology- developments and their applications and effects in everyday life.

Key concepts: Science technology and innovation policy - Defence technology - Space technology - Information technology - Bio Technology - Nano technology - General science concepts of chemistry, physics and Biology, - Commercialisation of Space - Mission Shakti - Technical Textile Mission & PPEs - Vaccine Development - Covid -19 - Integrated Disease Surveillance Program - 4th Industrial Revolution - Quantum Computing - Virtual Currency - BigData - Internet of Things - e-Vehicles - Li-ON - eNDS.

Topic 12: Achievements of Indians in science & technology; indigenization of technology and developing new technology.

Key concepts: Famous Indian scientists from ancient to the modern age - Notable scientists of India - CV Raman, M Visvesaraya, J C Bose, Homi Bhabha, Vikram Sarabhai, APJ Abdul kalam - The extent of indigenization in sectors of Indian economy: Agriculture, Automobile, Information and Communication Technology, Healthcare and biotechnology, Space- Defence Indigenisation

Topic 13: Awareness in the fields of IT, Space, Computers, robotics, Nano-technology, biotechnology and issues relating to intellectual property rights.

Key concepts: Bio-Technology - GM Crops (Bt Cotton, Bt Brinjal, Bt Mustard Golden Rice), Gene Therapy, Gene editing, Gene Silencing, Three Parent baby, Human Genome Project, Genome Project India, MAANAV- Human Atlas, DNA Technology Regulation Bill, Stem Cells, Embryo Transfer Technology - Neglected Tropical Diseases - Zoonotic Diseases

Space Technology - Earth Observation Satellite, Communication Satellite, Global Positioning system, Gaganyaan, Chandryaan, NaVIC, Aditya L1, AstroSat, Vyommitra, - Contribution of ISRO - PSLV -

GSLV - Cryogenics - Mars Mission -

IT and Computer - 4G and 5G, 4D printing, Li-Fi, Cryptocurrencies, Blockchain technology, Quantum Computing, Data Localisation, Dark Web, etc.

Intellectual Property Rights - Different Categories of IPR, Traditional knowledge Digital Library, Patent Prosecution Highway Programme, - National IPR Policy - Branded vs Generic Drugs - Issue of APIs - Patent Act & TRIPS - WIPO - Developed vs Developing World Debate on IP Rights - Evergreening - Compulsory Licensing.

Topic 14: Conservation, environmental pollution and degradation, environmental impact assessment.

Key concepts: Environmental Pollution, Deforestation, Eutrophication, Coral Bleaching -Climate change - Impact of Climate Change, Mitigation Strategies, Initiatives by India - ISA - Global Climate Fund - UNFCCC, etc - Air Pollution - Issue of SPM 10 - Stubble Burning & Issues Arising out of it - Vehicular Pollution - River Pollution - Land Degradation - Desertification - Illegal Wildlife Trade - Mangroves - Water Crisis - Pesticide Management - Western Ghats Conservation : Kasturirangan vs Madhav Gadgil - Carrying Capacity of Environment.

Environmental Impact Assessment - Need of it, Various Issues in EIA - Draft EIA 2020

Topic 15: Disaster and disaster management.

Key concepts: Concepts in Disaster management - Disaster Preparedness - Importance of Disaster management - Various mitigation methods - Natural and man-made disasters - Disaster management act 2005, National Disaster Management Authority - Vizag Gas Leak - Sendai Framework - Coalition for Disaster Resilient Infrastructure - Flood - Landslide - Wildfires - Pandemic as a Disaster - Epidemics Act - Dam Protection Bill.

Topic 16: Linkages between development and spread of extremism.

Key concepts: Deficit of development and its regional variations - loss of trust in government efforts -Land acquisition - issues around compensation and commercial acquisitions - Tribal discontent - development induced displacement - Indoctrination- role of non-state actors in promoting extremist ideas (Left Wing Extremism etc) - Naxalbari Movement - Saranda Action Plan - Urban Naxals

Topic 17: Role of external state and non-state actors in creating challenges to internal security.

Key concepts: Threats from external state actors - Pakistan & China - Cross-border terrorism - state sponsored terrorism - Threats from non-state actors to internal security - Terrorist Organisations, Drug cartels - Golden Triangle - Golden Crescent - Fake currency rackets, cross border ethnic group - illegal immigrants - Rohingya Crisis - Overground Workers of Terror Organisations - Operation Sunrise - Maritime Piracy -

Topic 18: Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention.

Key concepts: Propaganda and indoctrination - recruitments via social media sites - Personal messaging platforms as a vehicle of protest and false ideas - Challenges to monitor social media content - Organized crime and its networks using dark web - Fake news - Impact on democracy - Mob Lynching - Cyber Security - Paid Media - Corporatisation of Media - Data protection - Data Localisation - Data Sovereignty

Cyber Security - Different kinds of cyber security vulnerabilities - malwares, Trojan horses etc, Cyber security of critical infrastructure - Nuclear power plant - financial institutions etc - Steps by Government to thwart cyber - attack - CERT - IN, etc - Crypto jacking - National CyberSecurity Policy -

Money Laundering - Methods and stages of Money laundering - Black Money - Tax Havens - Round Tripping - Impact of Money laundering on India, Government steps to combat money laundering - Legislative Provisions, Institutional mechanism, Global mechanism, FATF - Prevention of Money Laundering Act - Benami Transactions Act - BEPS.

Topic 19: Security challenges and their management in border areas - linkages of organized crime with terrorism.

Key concepts: Border Management - India - China - LAC, Aksai Chin, Arunachal Pradesh, Stapled visas, Tibet Issue, CPEC, Doklam Issue - India - Pakistan - Sir creek Issue, Siachen, Border river Dispute , Indus Water Treaty 1960, Dispute on various hydro-electric project built by India, State sponsored terrorism, fake currency etc - India - Nepal - Kalapani, Susta, Mechi, Tanakpur - India - Bangladesh - 100th Constitutional amendment act, Illegal migrants, drug trafficking fake currency, Teesta River Water Dispute - India - Srilanka - Katchatheevu Island, Fishermen Issue - India - Myanmar - Drug Trafficking, Illegal migrants, Insurgency, etc - Operation Sunrise - CPEC - Human Trafficking -

Linkages of Organised crime with Terrorism NIA, UAPA (Amendment) Act - Communal Violence - Insurgency in North Eastern States and in Jammu and Kashmir - Illegal Wildlife Trade.

Topic 20: Various Security forces and agencies and their mandate

Key concepts: Various security forces - Coastal Security - Indian Coast Guard - Central Armed Police Force - BSF, CISF, CRPF, ITBP, SSB, NSG, AR -their mandate - NIA Amendment Act - AFPSA - Need for a Cyber command - Chief of Defence Staff

General Studies paper IV

Ethics, Integrity and Aptitude

Topic 1: Ethics and Human Interface: Essence, determinants and consequences of Ethics in human actions; dimensions of ethics; ethics - in private and public relationships. Human Values - lessons from the lives and teachings of great leaders, reformers and administrators; role of family society and educational institutions in inculcating values.

Key concepts: What are values, ethics, morals - Moral relativism/ subjectivism: Variability of ethics and values across time and space - Moral objectivism - Constitutional morality - Determinants of ethicality: end result, intention, circumstances and other factors - Consequences of ethics for individual and society - Supernaturalism, Divine command theory and God based ethics - Subjectivism - Emotivism - Virtue ethics - Deontology - Consequentialism - Intuitionism - Theoretical Dimensions: Normative/ Prescriptive Ethics, Descriptive Ethics, Meta Ethics, Applied ethics - Ethics for different types of relationship - Human Values: kindness, mercy, justice, love, empathy etc - Lessons from great leaders - Lessons from reformers - Lessons from administrators - Importance of value inculcation - Process of value inculcation - Source of values - Role of family - How family imparts values?: Strength and Problems - Role of educational institute - How education imparts values?: strengths and problems - Role of Society - How society imparts values?: strengths and weakness - Doctrine of double effect - Slippery slope doctrine - Environmental ethics - Bio-ethics - Media ethics.

Topic 2: Attitude: content, structure, function; its influence and relation with thought and behaviour; moral and political attitudes; social influence and persuasion.

Key concepts: Belief, opinion and attitude, Attitude Content: CAB Model - Structure of attitude: one-dimensional perspective and two-dimensional perspective - Functions of attitude: ego defensive, value expression, knowledge, need satisfaction - Attitude guiding and influencing behaviour - Behaviour guiding and influencing behaviour - Moral attitude - Political attitudes: Factors determining political attitude, types of political attitude - Cognitive dissonance - Social influence - Persuasion - Manipulation - Propaganda - Bureaucratic attitude - Democratic attitude - Attitude towards women, caste, religions - Stereotypes and prejudices.

Topic 3: Aptitude and foundational values for Civil Service, integrity, impartiality and non-partisanship, objectivity, dedication to public service, empathy, tolerance and compassion towards the weaker-sections.

Key concepts: Aptitude - Aptitude vs. attitude - Foundational values - Integrity - Impartiality and Non-Partisanship - Neutrality - Objectivity - Dedication and commitment- Tolerance - Sympathy, Empathy and compassion - Trustworthiness - Perseverance - Honesty - Significance of foundational values for civil servant - Nolan Principles of Public life: Selflessness, Accountability, Integrity, Honesty,

Objectivity, Openness, leadership.

Topic 4: Emotional intelligence-concepts, and their utilities and application in administration and governance.

Key concepts: Concepts: emotions, mood, feeling - Emotional intelligence: self-awareness, self-regulation, motivation, empathy, relationship management - Mayer and Salovey - Daniel Goleman - Models of Emotional Intelligence - Utilities and application in administration and governance - Improving Emotional Intelligence.

Topic 5: Contributions of moral thinkers and philosophers from India and world

Key concepts: Western Thinkers and Philosophers: Socrates - Plato - Aristotle - Deontology: Immanuel Kant and his categorical imperatives - Utilitarianism: Jeremy Bentham and JS Mill - Social Contract - John Rawls: Justice as Fairness; Indian Thinkers and Philosophers: Mahatma Gandhi - Jawahar Lal Nehru - Raja Ram Mohan Roy - Ishwar Chandra Vidya Sagar - Swami Vivekanand - Amartya Sen - Saint Teresa

Topic 6: Public/Civil service values and Ethics in Public administration: Status and problems; ethical concerns and dilemmas in government and private institutions; laws, rules, regulations and conscience as sources of ethical guidance; accountability and ethical governance; strengthening of ethical and moral values in governance; ethical issues in international relations and funding; corporate governance.

Key concepts: Administrative Ethics: status and problem - Draft Public Service Bill - Professional and ethical competence - Importance of Administrative ethics - Administrative ethics in India - Suggestions for creating strong ethical framework for administration - Ethical concerns and dilemmas in government and private institutions - Resolving ethical concerns and dilemmas - Laws, rules, regulations and conscience as sources of ethical guidance - Difference between laws, rules and regulations - Law and ethics: relation - Limitation of law as source of ethical guidance - Voice of conscience and crisis of conscience - Accountability and Responsibility - Ethical issues in international relations and funding - Just war theory - Corporate governance - Compassionate capitalism - Corporate Governance in India - Companies Act 2013 - Mandatory Corporate Social Responsibility - Clause 49 - Ethical management and management of ethics.

Topic 7: Probity in Governance: Concept of public service; Philosophical basis of governance and probity; Information sharing and transparency in government, Right to Information, Codes of Ethics, Codes of Conduct, Citizen's Charters, Work culture, Quality of service delivery, Utilization of public funds, challenges of corruption.

Key concepts: Concept of public service and public interest - Spirit of service - Governance and public administration - governance, good governance and ethical governance - Philosophical basis of governance and probity - Courage of conviction - Politicization of bureaucracy - Code of conduct and

code of ethics - Information sharing and transparency in government - Right to Information: importance, issues and suggestions - Citizen's charter: Citizen's charter movement, importance, issues and suggestion - Sevottam mode - Work culture: in private and public institutions - Quality of service delivery Utilization of public fund - Corruption - e-governance.

Topic 8: Case study on above issues.