



General Studies- III Detailed Syllabus
(Technology, Economic Development, Bio-diversity, Environment, Security and
Disaster Management)

ECONOMIC DEVELOPMENT	
Indian Economy & Issues Relating to Planning, Mobilization of Resources, Growth, Development & Employment	
Topics	Focus areas
Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment.	<p><u>Planning</u></p> <ul style="list-style-type: none">• Meaning of Planning• Need for Planning in Economic Development• Imperative Vs. Indicative Vs. Structural Planning• Objectives of Planning• Indian Planning History• Techniques of Indian Planning• Achievements & Failures of Indian Planning• Shortcomings of Planning in India• NITI Aayog Vs. Planning Commission <p><u>Mobilisation of Resources</u></p> <ul style="list-style-type: none">• Types of Resources – Financial, Human, Natural etc.• Need for Resource Mobilisation• Role of Savings & Investment• Government Resources – Tax & Non-Tax (or Fiscal & Monetary Policy)• Banking Sector & NBFCs• Capital Market• External Sources – FDI, ODA etc.• Public Borrowing & Management of Public Debt• Challenges in Mobilising Resources for Development• Steps That Can Be Taken <p><u>Growth & Development</u></p> <ul style="list-style-type: none">• Meaning of Development & Growth• Difference between Development & Growth• Determinants of Growth & Development• Importance & Limitations of Economic Growth• Jobless Growth• Pro-Poor Growth• Balanced & Unbalanced Growth



	<ul style="list-style-type: none">• Dimensions of Development• Measurement & Indicators of Development• <u>Approaches to Development:</u><ul style="list-style-type: none">○ Market-Based Approach○ Role of State and Planned Approach○ Mixed Economy Approach• Challenges to Development & Growth <p><u>Employment</u></p> <ul style="list-style-type: none">• Nature – Rural vs. Urban, Formal Vs. Informal• Terms Related to Employment – Labour Force Participation Rate, Employment Rate, Working Age Population etc.• Sectoral Distribution of Employment• Quality of Employment• Causes of Lack of Employment• Restructuring of Workforce• Government Initiatives for Generating Employment
Inclusive Growth & Issues Arising From It	
Inclusive Growth and issues arising from it.	<ul style="list-style-type: none">▪ What is Inclusive Growth?▪ Elements of Inclusive Growth▪ Need for Inclusive Growth▪ Indicators of Inclusive Growth▪ Challenges in Achieving Inclusive Growth in India▪ 12th FYP & Inclusive Growth
Government Budgeting	
Government Budgeting.	<ul style="list-style-type: none">➤ Need for Government Budgeting➤ Components of the Government Budget➤ Centre-State Relations<ul style="list-style-type: none">▪ Revenue Account – Revenue Receipts & Revenue Expenditure▪ Capital Account – Capital Receipts & Capital Expenditure➤ Changes in Budgetary Process in 2017➤ Measures of Government Deficit<ul style="list-style-type: none">• Revenue Deficit• Fiscal Deficit• Primary Deficit➤ Fiscal Policy➤ Deficit Reduction➤ FRBM Act➤ Other Types of Budgets – Outcome, Zero-Based, etc.



Land Reforms in India	
Land Reforms in India.	<ul style="list-style-type: none"> ▪ Rationale for Land Reforms ▪ Components of Land Reforms ▪ Impact of Land Reforms ▪ Problems in Implementaion of Land Reforms ▪ Success of Land Reforms ▪ Recent Initiatives - Land Leasing, Land Acquisition, Rehabilitation & Resettlement Act, etc.
Effects of Liberalization on the Economy	
Effects of Liberalization on the Economy, Changes in Industrial Policy and their Effects on Industrial Growth.	<ul style="list-style-type: none"> ▪ Phase of Liberalisation ▪ Impact on Different Sectors of the Economy
Changes In Industrial Policy & their Effects on Industrial Growth	
Effects of Liberalization on the Economy, Changes in Industrial Policy and their Effects on Industrial Growth.	<ul style="list-style-type: none"> ▪ Industrial Policy Before 1991 ▪ Industrial Policy After 1991 ▪ Phases of Industrial Growth ▪ Linkage Between Economic Reforms and Economic Outcomes ▪ Weaknesses and Failures of Industrial Policies ▪ National Manufacturing Policy ▪ SEZs ▪ Make in India
Infrastructure	
Infrastructure: Energy, Ports, Roads, Airports, Railways etc.	<ul style="list-style-type: none"> ▪ Energy ▪ Ports ▪ Roads ▪ Airports ▪ Railways
Investment Models	
Investment Models.	<ul style="list-style-type: none"> ➤ Need for Investment ➤ Sources of Investment ➤ Types of Investment Models ➤ <u>Domestic Investment Models</u> <ul style="list-style-type: none"> • Public Investment Model • Private Investment Model • Public Private Participation Investment Model ➤ <u>Foreign Investment Models:</u> <ul style="list-style-type: none"> • FDI • FII, etc. ➤ Sector Specific Investment Models ➤ Cluster Based Investment Models ➤ Investment Models Followed by India

AGRICULTURE	
Major Crops Cropping Patterns in Various Parts of the Country	
Topics	Focus areas
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	<ul style="list-style-type: none"> • Importance of Cropping Pattern • Types of Cropping Pattern • Reasons Why Cropping Pattern Differ • Factors Influencing Cropping Pattern • Emerging Trends in Cropping Pattern • Long-Run Effects of Current Trends in Cropping Pattern
Different Types of Irrigation & Irrigation Systems Storage	
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	<ul style="list-style-type: none"> ▪ Modes of Irrigation ▪ Sources of Irrigation ▪ Choosing an Irrigation System ▪ Problems Associated with Irrigation ▪ Progress of Irrigation Under Five Year Plans ▪ Environmental Effects of Irrigation ▪ Need for Systemic Irrigation Reforms ▪ Need for a National Water Policy
Transport & Marketing of Agricultural Produce & Issues & Related Constraints	
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	<ul style="list-style-type: none"> ▪ Process of Agricultural Marketing - Marketing Channels, Functionaries, Costs, etc. ▪ Role of FCI ▪ Regulated Markets ▪ Warehousing ▪ Cooperative Marketing ▪ Shortcomings of Current Agricultural Marketing Process ▪ APMCs ▪ National Agricultural Market (NAM) ▪ Farmer Producer Organisations (FPO) ▪ Contract Farming ▪ Futures Trading in Agricultural Commodities
E-Technology in the Aid of Farmers, Technology Missions	
Issues Related to Direct & Indirect Farm Subsidies & Minimum Support Prices	
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.	<ul style="list-style-type: none"> • Agricultural Pricing Policy • Rationale for Subsidies • Types of Subsidies • Effectiveness, Extent & Problems of Subsidies • Clash with WTO Agreements



Public Distribution System Objectives, Functioning, Limitations, Revamping	
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.	<ul style="list-style-type: none"> • Objectives/Significance • Functioning - Fair Price Shops, FCI, Ration Cards, Aadhar Linking, etc. • Shortcomings or Problems Associated with PDS • Need to Improve the Working of PDS • Measures to Improve the Loopholes & Lacunae Associated with PDS • Steps Taken by Government in this Regard
Issues of Buffer Stocks & Food Security	
Issues related to Direct and Indirect Farm Subsidies and Minimum Support Prices; Public Distribution System - Objectives, Functioning, Limitations, Revamping; <u>Issues of Buffer Stocks and Food Security</u> ; Technology Missions; Economics of Animal-Rearing.	<ul style="list-style-type: none"> • Buffer Stock – Objectives & Norms in India • Impact of Government Procurement & Distribution • Need for Food Security • NFSM And othe Food Security Realted Government Initiatives
Economics of Animal-Rearing	
Food Processing & Related Industries in India	
Food Processing and Related Industries in India- Scope' and Significance, Location, Upstream and Downstream Requirements, Supply Chain Management.	<ul style="list-style-type: none"> • Scope & Potential in India • Significance • Location • Constraints and Challenges • Upstream & Downstream Requirements • Supply Chain Management • Government Policies and Initiatives – SAMPADA, 12th FYP, etc.

Civils Café IAS Study Circle

SCIENCE & TECHNOLOGY	
Developments & their Applications & Effects in Everyday Life	
Topics	Focus areas
Science and Technology- Developments and their Applications and Effects in Everyday Life.	<ul style="list-style-type: none"> ➤ Chemicals in Food <ul style="list-style-type: none"> • Artificial Sweetening Agents • Food Preservatives ➤ Drugs <ul style="list-style-type: none"> • Antacid • Antihistamines • <u>Neurologically Active Drugs</u> <ul style="list-style-type: none"> • Tranquilizers • Analgesics • <u>Antimicrobials</u> <ul style="list-style-type: none"> • Antibiotics • Antiseptic and Disinfectant • Anti-Fertility Drugs, etc.



	<ul style="list-style-type: none"> ➤ Cleansing Agents <ul style="list-style-type: none"> • Soaps • Synthetic detergents ➤ Glass ➤ Water Softener ➤ Water Purification/Disinfection ➤ Microwave Oven, etc.
Achievements of Indians in Science & Technology	
Achievements of Indians in Science & Technology; Indigenization of Technology and Developing New Technology.	<ul style="list-style-type: none"> ▪ Chandrasekhara Venkata Raman ▪ Acharya Jagadish Chandra Bose ▪ Satyendra Nath Bose ▪ Meghnad Saha ▪ Homi Jehangir Bhabha ▪ Subrahmanyam Chandrasekhar ▪ A.P.J. Abdul Kalam ▪ Vikram Sarabhai ▪ Mokshagundam Visvesvaraya ▪ Har Gobind Khorana ▪ Tessy Thomas ▪ C.N.R. Rao
Indigenization of Technology & Developing New Technology	
Achievements of Indians in Science & Technology; Indigenization of Technology and Developing New Technology.	<ul style="list-style-type: none"> ▪ IT & Computers ▪ Space ▪ Nanotechnology ▪ Biotechnology ▪ Robotics ▪ Defence ▪ Nuclear
Awareness in Different Fields	
Awareness in the fields of IT, Space, Computers, Robotics, Nano-technology, Bio-technology and issues relating to Intellectual Property Rights	<ul style="list-style-type: none"> ▪ IT & Computers ▪ Space ▪ Nanotechnology ▪ Biotechnology ▪ Robotics ▪ Defence ▪ Nuclear
Issues Relating to Intellectual Property Rights	
Awareness in the fields of IT, Space, Computers, Robotics, Nano-technology, Bio-technology and issues relating to Intellectual Property Rights	<ul style="list-style-type: none"> ▪ Need for Intellectual Property Rights ▪ Types of IPR ▪ IPR Regime in India ▪ International Agreements Related to IPRs ▪ Geographical Indicators ▪ Recent Issues - Evergreening, Compulsory Licensing, Prominent Cases etc.



BIODIVERSITY & ENVIRONMENT	
Conservation	
Topics	Focus areas
Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment.	<ul style="list-style-type: none"> ➤ <u>What is Biodiversity?</u> ➤ <u>Types of Biodiversity – Genetic, Species, Ecosystem, etc.</u> ➤ <u>Importance of Biodiversity – Ecosystem Services, Bio Resources of Economic Importance, Social Benefits etc.</u> ➤ <u>Reasons for Loss of Biodiversity</u> ➤ <u>Conservation</u> <ul style="list-style-type: none"> ▪ In-situ & Ex-Situ ▪ Eco-Sensitive Areas ▪ Ecological Hotspots ▪ National Guidelines, Legislations & Other Programmes. ▪ International Agreements & Groupings
Environmental Pollution & Degradation	
Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment.	<ul style="list-style-type: none"> ➤ <u>Types of Pollution & Pollutants</u> ➤ <u>Impact of Pollution & Degradation</u> <ul style="list-style-type: none"> ▪ Ozone Layer Depletion and Ozone Hole ▪ Greenhouse Gas Effect & Global Warming ▪ Eutrophication ▪ Desertification ▪ Acid Rain ▪ Hazardous Waste, etc. ➤ <u>Causes/Sources of Pollution & Degradation</u> ➤ <u>Prevention & Control of Pollution & Degradation</u> ➤ <u>National Environment Agencies, Legislations and Policies</u> ➤ <u>International Environment Agencies & Agreements</u>
Environmental Impact Assessment (EIA)	
Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment.	<ul style="list-style-type: none"> ▪ What is EIA? ▪ Indian Guidelines & Legislations ▪ EIA Process ▪ Need & Benefits of EIA ▪ Shortcomings of EIA in India ▪ Measures to Make EIA Effective



Disaster Management	
Disaster and Disaster Management.	<ul style="list-style-type: none"> ▪ Types of Disasters ▪ Management of Disasters ▪ Community Level Disaster Management ▪ Government Initiatives on Disaster Management
SECURITY	
Linkages Between Development & Spread of Extremism	
Topics	Focus areas
Linkages between Development and Spread of Extremism.	<ul style="list-style-type: none"> ➤ Factors Responsible for Spread of Extremism ➤ Steps that State can Taken to Reduce the Spread of Extremism due to Underdevelopment ➤ Naxalism
Role of External State & Non-State Actors in Creating Challenges to Internal Security	
Role of External State and Non-state Actors in creating challenges to Internal Security.	<ul style="list-style-type: none"> ➤ Threats from Non-State Actors <ul style="list-style-type: none"> ▪ J&K Separatism ▪ Left Wing Extremism ▪ North East Insurgency ▪ Terrorism in Hinterland & Border Areas ▪ Right Wing Terrorism ➤ Reasons for Spread of Terrorism ➤ State Sponsored Terrorism ➤ Institutional Framework to Tackle Challenge of Internal Security <ul style="list-style-type: none"> ▪ NIA ▪ NATGRID ▪ MAC ▪ UAPA ▪ TADA ▪ POTA ▪ NCTC
Challenges to Internal Security Through Communication Networks	
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.	<ul style="list-style-type: none"> ▪ Role of Media & Social Networking Sites in Internal Security Challenges ▪ Challenges in Managing Social Media ▪ Steps That can be Taken



Basics of Cyber Security	
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.	<ul style="list-style-type: none">▪ Cyber Security▪ Threats to Indian Cyber Security▪ Steps taken by India▪ International Cooperation on Cyber Security▪ Cyber Warfare▪ Terms Associated with Cyber Security
Money-Laundering & its Prevention	
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.	<ul style="list-style-type: none">▪ Process of Money Laundering▪ Impact of Money Laundering▪ Challenges to Tackle Money Laundering▪ Steps to Counter Money Laundering▪ Terms Related To Money Laundering
Security Challenges & their Management in Border Areas	
Security Challenges and their Management in Border Areas - Linkages of Organized Crime with Terrorism.	<ul style="list-style-type: none">▪ Challenges in Managing Border Security – Coastal & Terrestrial▪ Land Boundary Disputes with Neighbours▪ India's Policy in Border Area Security Management
Linkages of Organized Crime with Terrorism	
Security Challenges and their Management in Border Areas - Linkages of Organized Crime with Terrorism.	<ul style="list-style-type: none">▪ Types of Organised Crime▪ Challenges in Controlling Organised Crime▪ Indian Context – Link between Organised Crime & Terrorism
Various Security Forces & Agencies & Their Mandate	
Various Security Forces and Agencies and their Mandate.	<ul style="list-style-type: none">▪ Central Armed Police Forces▪ Central Paramilitary Forces▪ Security & Intelligence Agencies – IB, R&WA, etc.