

Syllabus: GENERAL STUDIES – III

Technology, Economic Development, Bio-diversity, Environment, Security and Disaster Management)

- Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment.
- Inclusive Growth and issues arising from it.
- Government Budgeting.
- 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.
- 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.
- Food Processing and Related Industries in India- Scope' and Significance, Location, Upstream and Downstream Requirements, Supply Chain Management.
- Land Reforms in India.
- Effects of Liberalization on the Economy, Changes in Industrial Policy and their Effects on Industrial Growth.
- Infrastructure: Energy, Ports, Roads, Airports, Railways etc.
- Investment Models.
- Science and Technology- Developments and their Applications and Effects in Everyday Life.
- Achievements of Indians in Science & Technology; Indigenization of Technology and Developing New Technology.
- Awareness in the fields of IT, Space, Computers, Robotics, Nano-technology, Bio-technology and issues relating to Intellectual Property Rights.
- Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment.
- Disaster and Disaster Management.
- Linkages between Development and Spread of Extremism.
- Role of External State and Non-state Actors in creating challenges to Internal 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.
- Security Challenges and their Management in Border Areas - Linkages of Organized Crime with Terrorism.
- Various Security Forces and Agencies and their Mandate.

Indian Economy & Issues Relating to Planning, Mobilization of Resources, Growth, Development & Employment

Planning

- 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

Mobilisation of Resources

- 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

Growth & Development

- 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
- Dimensions of Development
- Measurement & Indicators of Development
- Approaches to Development:
 - Market-Based Approach
 - Role of State and Planned Approach
 - Mixed Economy Approach
- Challenges to Development & Growth

Employment

- 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

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| <ul style="list-style-type: none"> ▪ What is Inclusive Growth? ▪ Elements of Inclusive Growth ▪ Need for Inclusive Growth | <ul style="list-style-type: none"> ▪ Indicators of Inclusive Growth ▪ Challenges in Achieving Inclusive Growth in India ▪ 12th FYP & Inclusive Growth |
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Government Budgeting

Need for Government Budgeting

Components of the Government Budget

- Revenue Account – Revenue Receipts & Revenue Expenditure
- Capital Account – Capital Receipts & Capital Expenditure

Changes in Budgetary Process in 2017

Measures of Government Deficit

- Revenue Deficit

- Fiscal Deficit
- Primary Deficit

Fiscal Policy

Deficit Reduction

FRBM Act

Other Types of Budgets – Outcome, Zero-Based, etc.

Land Reforms in India

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| <ul style="list-style-type: none"> ▪ Rationale for Land Reforms ▪ Components of Land Reforms ▪ Impact of Land Reforms ▪ Problems in Implementation of Land Reforms | <ul style="list-style-type: none"> ▪ Success of Land Reforms ▪ Recent Initiatives - Land Leasing, Land Acquisition, Rehabilitation & Resettlement Act, etc. |
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Effects of Liberalization on the Economy

Phase of Liberalisation	<ul style="list-style-type: none"> Impact on Different Sectors of the Economy
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Changes In Industrial Policy & 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 	<ul style="list-style-type: none"> Weaknesses and Failures of Industrial Policies National Manufacturing Policy SEZs Make in India
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Infrastructure

<ul style="list-style-type: none"> Energy Ports Roads 	<ul style="list-style-type: none"> Airports Railways
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Investment Models

<p>Need for Investment</p> <p>Sources of Investment</p> <p>Types of Investment Models</p> <ul style="list-style-type: none"> Domestic Investment Models <ul style="list-style-type: none"> Public Investment Model Private Investment Model Public Private Participation Investment Model 	<ul style="list-style-type: none"> Foreign Investment Models: <ul style="list-style-type: none"> FDI FII, etc. Sector Specific Investment Models Cluster Based Investment Models <p style="text-align: center;">Investment Models Followed by India</p>
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AGRICULTURE

Major Crops Cropping Patterns in Various Parts of the Country

<ul style="list-style-type: none"> Importance of Cropping Pattern Types of Cropping Pattern 	<ul style="list-style-type: none"> Factors Influencing Cropping Pattern Emerging Trends in
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<ul style="list-style-type: none"> Reasons Why Cropping Pattern Differ 	<p>Cropping Pattern</p> <ul style="list-style-type: none"> Long-Run Effects of Current Trends in Cropping Pattern
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Different Types of Irrigation & Irrigation Systems Storage

<ul style="list-style-type: none"> Modes of Irrigation Sources of Irrigation Choosing an Irrigation System Problems Associated with Irrigation 	<ul style="list-style-type: none"> Progress of Irrigation Under Five Year Plans Environmental Effects of Irrigation Need for Systemic Irrigation Reforms Need for a National Water Policy
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Transport & Marketing of Agricultural Produce & Issues & Related Constraints

<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 	<ul style="list-style-type: none"> APMCs National Agricultural Market (NAM) Farmer Producer Organisations (FPO) Contract Farming Futures Trading in Agricultural Commodities
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E-Technology in the Aid of Farmers, Technology Missions

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Issues Related to Direct & Indirect Farm Subsidies & Minimum Support Prices

<ul style="list-style-type: none"> Agricultural Pricing Policy Rationale for Subsidies Types of Subsidies 	<ul style="list-style-type: none"> Effectiveness, Extent & Problems of Subsidies Clash with WTO Agreements
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Public Distribution System Objectives, Functioning, Limitations, Revamping

<ul style="list-style-type: none"> ▪ Objectives/Significance ▪ Functioning - Fair Price Shops, FCI, Ration Cards, Aadhar Linking, etc. ▪ Shortcomings or Problems Associated with PDS 	<ul style="list-style-type: none"> ▪ Need to Improve the Working of PDS ▪ Measures to Improve the Loopholes & Lacunae Associated with PDS ▪ Steps Taken by Government in this Regard
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Issues of Buffer Stocks & Food Security

<ul style="list-style-type: none"> ▪ Buffer Stock – Objectives & Norms in India ▪ Impact of Government Procurement & Distribution 	<ul style="list-style-type: none"> ▪ Need for Food Security ▪ NFSM And other Food Security Related Government Initiatives
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Economics of Animal-Rearing



Food Processing & Related Industries in India

<ul style="list-style-type: none"> ▪ Scope & Potential in India ▪ Significance ▪ Location ▪ Constraints and Challenges 	<ul style="list-style-type: none"> ▪ Upstream & Downstream Requirements ▪ Supply Chain Management ▪ Government Policies and Initiatives – SAMPADA, 12th FYP, etc.
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SCIENCE & TECHNOLOGY

Developments & their Applications & Effects in Everyday Life

<p>Chemicals in Food</p> <ul style="list-style-type: none"> ▪ Artificial Sweetening Agents ▪ Food Preservatives <p>Drugs</p> <ul style="list-style-type: none"> ▪ Antacid 	<ul style="list-style-type: none"> ▪ Anti-Fertility Drugs, etc. <p>Cleansing Agents</p> <ul style="list-style-type: none"> ▪ Soaps ▪ Synthetic detergents <p>Glass</p>
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- Antihistamines
- Neurologically Active Drugs
 - Tranquilizers
 - Analgesics
- Antimicrobials
 - Antibiotics
 - Antiseptic and Disinfectant

Water Softener

Water Purification/Disinfection

Microwave Oven, etc.

Achievements of Indians in Science & Technology

- Chandrasekhara Venkata Raman
- Acharya Jagadish Chandra Bose
- Satyendra Nath Bose
- Meghnad Saha
- Homi Jehangir Bhabha
- Subrahmanyan 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

- IT & Computers
- Space
- Nanotechnology
- Biotechnology

- Robotics
- Defence
- Nuclear

Awareness in Different Fields

- IT & Computers
- Space
- Nanotechnology
- Biotechnology

- Robotics
- Defence
- Nuclear

Issues Relating to Intellectual Property Rights

- Need for Intellectual Property Rights
- Types of IPR

- International Agreements Related to IPRs

- IPR Regime in India

- Geographical Indicators
- Recent Issues - Evergreening, Compulsory Licensing, Prominent Cases etc.

BIODIVERSITY & ENVIRONMENT

Conservation

What is Biodiversity?

Types of Biodiversity - Genetic, Species, Ecosystem, etc.

Importance of Biodiversity - Ecosystem Services, Bio Resources of Economic Importance, Social Benefits etc.

Reasons for Loss of Biodiversity

Conservation

- In-situ & Ex-Situ
- Eco-Sensitive Areas
- Ecological Hotspots
- National Guidelines, Legislations & Other Programmes.
- International Agreements & Groupings

Environmental Pollution & Degradation

Types of Pollution & Pollutants

Impact of Pollution & Degradation

- Ozone Layer Depletion and Ozone Hole
- Greenhouse Gas Effect & Global Warming
- Eutrophication
- Desertification
- Acid Rain
- Hazardous Waste, etc.

Causes/Sources of Pollution & Degradation

Prevention & Control of Pollution & Degradation

National Environment Agencies, Legislations and Policies

International Environment Agencies & Agreements

Environmental Impact Assessment (EIA)

- What is EIA?
- Indian Guidelines & Legislations
- EIA Process

- Need & Benefits of EIA
- Shortcomings of EIA in India
- Measures to Make EIA Effective

Disaster Management

- Types of Disasters
- Management of Disasters

- Community Level Disaster Management
- Government Initiatives on Disaster Management

SECURITY

Linkages Between Development & Spread of Extremism

- 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

Threats from Non-State Actors

- 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

- NIA
- NATGRID
- MAC
- UAPA
- TADA
- POTA
- NCTC

Challenges to Internal Security Through Communication Networks

- Role of Media & Social Networking Sites in Internal Security Challenges
- Challenges in Managing Social Media

- Steps That can be Taken

Basics of Cyber Security

<ul style="list-style-type: none"> ▪ Cyber Security ▪ Threats to Indian Cyber Security ▪ Steps taken by India 	<ul style="list-style-type: none"> ▪ International Cooperation on Cyber Security ▪ Cyber Warfare ▪ Terms Associated with Cyber Security
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Money-Laundering & its Prevention

<ul style="list-style-type: none"> ▪ Process of Money Laundering ▪ Impact of Money Laundering ▪ Challenges to Tackle Money Laundering 	<ul style="list-style-type: none"> ▪ Steps to Counter Money Laundering ▪ Terms Related To Money Laundering
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Security Challenges & their Management in Border Areas

<ul style="list-style-type: none"> ▪ Challenges in Managing Border Security – Coastal & Terrestrial ▪ Land Boundary Disputes with Neighbours 	<ul style="list-style-type: none"> ▪ India's Policy in Border Area Security Management
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Linkages of Organized Crime with Terrorism

<ul style="list-style-type: none"> ▪ Types of Organised Crime ▪ Challenges in Controlling Organised Crime 	<ul style="list-style-type: none"> ▪ Indian Context – Link between Organised Crime & Terrorism
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Various Security Forces & Agencies & Their Mandate

<ul style="list-style-type: none"> ▪ Central Armed Police Forces ▪ Central Paramilitary Forces 	<ul style="list-style-type: none"> ▪ Security & Intelligence Agencies – IB, R&WA, etc.
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