



Drishti IAS Coaching in Delhi, Online IAS Test Series & Study Material

 drishtiias.com/printpdf/general-studies-III

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.
-

ECONOMIC DEVELOPMENT

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

Inclusive Growth & Issues Arising From It

- What is Inclusive Growth?
- Elements of Inclusive Growth
- Need for Inclusive 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

- Indicators of Inclusive Growth
- Challenges in Achieving Inclusive Growth in India
- 12th FYP & Inclusive Growth

Government Budgeting

Need for Government Budgeting

- Fiscal Deficit
- Primary Deficit

Components of the Government Budget

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

Fiscal Policy

Deficit Reduction

FRBM Act

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

Changes in Budgetary Process in 2017

Measures of Government Deficit

Revenue Deficit

Land Reforms in India

- Rationale for Land Reforms
- Components of Land Reforms
- Impact of Land Reforms
- Problems in Implementation of Land Reforms
- Success of Land Reforms
- Recent Initiatives - Land Leasing, Land Acquisition, Rehabilitation & Resettlement Act, etc.

Effects of Liberalization on the Economy

Phase of Liberalisation

Impact on Different Sectors of the Economy

Changes In Industrial Policy & their Effects on Industrial Growth

-
- 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

- Energy
- Ports
- Roads
- Airports
- Railways

Investment Models

Need for Investment

Sources of Investment

Types of Investment Models

- Domestic Investment Models
 - Public Investment Model
 - Private Investment Model
 - Public Private Participation Investment Model

- Foreign Investment Models:
 - 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

- 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

- 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

- 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

- 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

-
- 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

- Buffer Stock – Objectives & Norms in India
- Impact of Government Procurement & Distribution

- Need for Food Security
- NFPM And other Food Security Related Government Initiatives

Economics of Animal-Rearing

Food Processing & Related Industries in India

- Scope & Potential in India
- Significance
- Location
- Constraints and Challenges

- Upstream & Downstream Requirements
- Supply Chain Management
- Government Policies and Initiatives – SAMPADA, 12th FYP, etc.

SCIENCE & TECHNOLOGY

Developments & their Applications & Effects in Everyday Life

Chemicals in Food

- Artificial Sweetening Agents
- Food Preservatives

Drugs

- Antacid
- Antihistamines
- Neurologically Active Drugs
 - Tranquilizers
 - Analgesics
- Antimicrobials
 - Antibiotics
 - Antiseptic and Disinfectant

Anti-Fertility Drugs,
etc.

Cleansing Agents

- Soaps
- Synthetic detergents

Glass

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
- 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

- IT & Computers
- Space
- Nanotechnology
- Biotechnology

- Robotics
- Defence
- Nuclear

Awareness in Different Fields

- | | |
|---|--|
| <ul style="list-style-type: none">• IT & Computers• Space• Nanotechnology• Biotechnology | <ul style="list-style-type: none">• Robotics• Defence• Nuclear |
|---|--|

Issues Relating to Intellectual Property Rights

- 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

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

- 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

- 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

- 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

- Types of Organised Crime
- Challenges in Controlling Organised Crime

Indian Context – Link between Organised Crime & Terrorism

Various Security Forces & Agencies & Their Mandate

- Central Armed Police Forces
- Central Paramilitary Forces

Security & Intelligence Agencies – IB, R&WA, etc.