



10 BRIEF INFO ON UPSC CIVIL SERVICES EXAM

वैसे इसकी जरूरत नहीं होनी चाहिए, it's available on internet लेकिन कुछ लोग ये भी पूछते रहते हैं so here it is:

10.2.1 Syllabus of Preliminary examination

Paper-1 General Studies (2 hrs)	Paper-II Aptitude (2 hrs)
100 MCQs x 2 marks = 200 marks. They're counted for shortlisting candidates for the Mains exam stage.	80 MCQs x 2.5 marks = 200 marks. Since 2015 exam-reform, you need to score only 33% qualifying marks (i.e. 67 marks), and they're not counted while shortlisting candidates for the Mains exam stage.
<ol style="list-style-type: none"> 1. Current events of national and international importance. 2. History of India, Indian National Movement. 3. Indian and World Geography – Physical, Social, Economic Geo.of India, World. 4. Indian Polity and Governance – Constitution, Political System, Panchayati Raj, Public Policy, Rights Issues, etc. 5. <input checked="" type="checkbox"/> Economic and Social Development Sustainable Development, Poverty, Inclusion, Demographics, Social Sector initiatives, etc. (Covered in this course) 6. General issues on Environmental Ecology, Bio-diversity and Climate Change – that do not require subject specialization. (7) General Science. 	<ol style="list-style-type: none"> 1. Comprehension. 2. Logical reasoning and analytical ability. 3. General mental ability. 4. Basic numeracy (numbers and their relations, orders of magnitude, etc.) (Class X level), Data interpretation (charts, graphs, tables, data sufficiency etc. – Class X level). 5. **Interpersonal skills including communication skills. 6. **Decision-making and problem-solving. ** while they're part of syllabus but not asked since 2015 due to protests by the Hindi-belt aspirants.

10.2.2 Mains & Interview

Paper	Subject Name	Marks
	English language paper & regional language paper (Not counted in Merit)	N/A
Paper-1	Essay	250
Paper-2	General Studies-I (Indian Heritage and Culture, History and Geography of the World and Society)	250
Paper-3	General Studies –II (Governance, Constitution, Polity, Social Justice and International relations)	250
Paper-4	General Studies –III (Technology, Economic Development, Bio-diversity, Environment, Security and Disaster Management)	250
Paper-5	General Studies –IV (Ethics, Integrity and Aptitude)	250
Paper-6	Optional Subject – Paper 1	250
Paper-7	Optional Subject – Paper 2	250
	Sub Total (Written test)	1750
	INTERVIEW/ Personality Test	275
	Grand Total	2025

10.2.3 General Studies Mains Paper 1 to 4: What is covered in your course?

= covered in Mrunal's Economy Course/Handout either fully or briefly. <see next table → → >

Block Sr Title

GS-I: Indian Heritage and Culture, History and Geography of the World and Society.		
<i>History</i>	001	Salient aspects of Art forms, Literature, Architecture (ancient to modern)
	002	History Mid-18th century - Present (significant events, personalities, issues)
	003	Freedom Struggle (various stages, important contributors from different parts of the country)
	004	Post-Independence (consolidation and reorganisation within country)
	005	18th century events (e.g. Industrial Revolution, WWs, redrawn boundaries, colonisation, decolonisation)
	006	Political philosophies (e.g. communism, capitalism, socialism) and their effect on society
<i>Social Science</i>	007	Salient features of Indian Society
	008	Diversity of India
	009	Role of women and women's organisation
	010	Population and associated issues <input checked="" type="checkbox"/> (Pillar6)
	011	Poverty and developmental issues <input checked="" type="checkbox"/> (Pillar6)
	012	Urbanisation (problems and remedies) <input checked="" type="checkbox"/> (Pillar5)
<i>Geography</i>	013	Globalisation (effects on Indian society)
	014	Social Empowerment, Communalism, Regionalism, Secularism
	015	Salient Features of World Physical Geography
	016	Distribution of key Natural Resources (world, S. Asia, Indian subcontinent)
	017	Factors responsible for location of Industries (primary, secondary, tertiary; India, world) REF: https://mrunal.org/tag/gsm1-geo-location
	018	Important Geophysical phenomena (earthquakes, tsunami, volcanoes, cyclones)
<i>Polity & Governance</i>	019	Geographical features and location
	020	Critical geographical features, flora, fauna (changes and effects thereof)
	GS-II: Governance, Constitution, Polity, Social Justice and International Relations	
	021	Constitution: Historical underpinnings & evolution- Features, amendments, significant provisions, basic structure
	022	Comparison of Indian constitutional scheme with other countries'
	023	Functions & responsibilities of the Union and the States; issues and challenges of federal structure
<i>Welfare of Weaker Section</i>	024	Devolution of powers and finances to local levels; challenges therein
	025	Separation of Powers (between different organs, dispute redressal mechanisms, institutions)
	026	Union and State Legislatures (structure, functioning, conduct of business, powers & privileges; issues therein)
	027	Executive, Judiciary (structure, organisation, functioning)
	028	Ministries and Departments (of Union and State govts.)
	029	Pressure Groups & Formal, Informal associations (and their role in the polity)
	030	Salient features of the Representation of People's Act.
	031	Bodies: i) Appointment to various Constitutional posts (ii) Constitutional Bodies (powers, functions and responsibilities) (iii) Statutory, Regulatory and Quasi-judicial bodies <input checked="" type="checkbox"/> (only those related to economy)
	032	Government Policies & Interventions for development of various sectors (issues in their design, implementation) <input checked="" type="checkbox"/>
	033	Development Processes & Development industry (role of NGOs, SHGs, groups & associations, donors, charities, institutional and other stakeholders)
	034	Welfare Schemes (centre, states; performance, mechanisms, laws, institutions and bodies constituted for protection of vulnerable sections) <input checked="" type="checkbox"/>
	035	Social Sector & Social Services (health, education, human resources - issues in development, management) <input checked="" type="checkbox"/>



Governanc e	036	Poverty and hunger issues <input checked="" type="checkbox"/>
	037	Important aspects of governance
	038	Transparency and accountability (institutional and other measures)
	039	E-Governance (applications, models, successes, limitations, potential)
Internation al Relations	040	Citizens Charter <input checked="" type="checkbox"/> (Only Tax Payer Charter)
	041	Role of Civil Services in a democracy.
	042	India and its Neighborhood (relations)
	043	Bilateral, Regional, Global groupings & Agreements (involving and/or affecting India)
	044	Effect of Policies & Politics of Developed and Developing countries on India (India's interests, diaspora)
Economy & Agriculture	045	Important International institutions, agencies, for a (structure, mandate)
	GS-III: Technology, Economic Development, Environment, Security Disaster Management	
	046	Indian Economy (issues re: planning, mobilisation of resources, growth, development, employment) <input checked="" type="checkbox"/>
	047	Inclusive growth and issues therein <input checked="" type="checkbox"/>
	048	Government Budgeting <input checked="" type="checkbox"/>
	049	Major Crops in various parts of country (cropping patterns, types of irrigation, irrigation systems)
	050	Farm subsidies and MSP and issues therein (direct and indirect) <input checked="" type="checkbox"/>
	051	storage, transport & marketing of agro-produce related issues & constraints, <input checked="" type="checkbox"/>
	052	PDS (objectives, functioning, limitations, revamping, issues of buffer stocks & food security) <input checked="" type="checkbox"/>
	053	e-technology to aid farmers, E-Technology missions <input checked="" type="checkbox"/>
	054	Economics of animal-rearing <input checked="" type="checkbox"/> (Pillar4A)
	055	Food processing and related industries in India (scope & significance, location, upstream-downstream requirements, supply chain management) <input checked="" type="checkbox"/> (Pillar4A)
	056	Land Reforms in India) <input checked="" type="checkbox"/> (Pillar4A- Brief overview)
Science Tech	057	Effects of Liberalisation on the economy <input checked="" type="checkbox"/> Pillar#4B
	058	Changes in Industrial policy & their effects on industrial growth <input checked="" type="checkbox"/> Pillar#4B
	059	Infrastructure (energy, ports, roads, airports, railways) <input checked="" type="checkbox"/> (in <input checked="" type="checkbox"/> Pillar#5)
	060	Investment models <input checked="" type="checkbox"/> (in <input checked="" type="checkbox"/> Pillar#5)
	061	(i) S&T developments and everyday applications & effects (ii) Awareness in fields of IT, Space, Computers, Robotics, Nanotech, Biotech, IPR issues
Environme nt & Disasters	062	(i) Achievements of Indians in S&T, (ii) Indigenization of technology & development of new technology
	063	Environmental conservation, pollution and degradation
	064	Environmental Impact Assessment
	065	Disasters & Disaster Management
Internal Security	066	Linkages between Development & spread of Extremism
	067	Role of External State & Non-State actors in creating internal security challenges
	068	Internal security challenges through communication networks
	069	Role of media and social-networking sites in internal security challenges
	070	Basics of Cyber Security
	071	Money laundering & Prevention <input checked="" type="checkbox"/> (in <input checked="" type="checkbox"/> Pillar#2B)
	072	Border Areas (security challenges and management thereof)



073	Linkages of Organised crime and Terrorism
074	Security forces & agencies (mandate)

GS-IV: Ethics, Integrity and Aptitude (* including case studies)

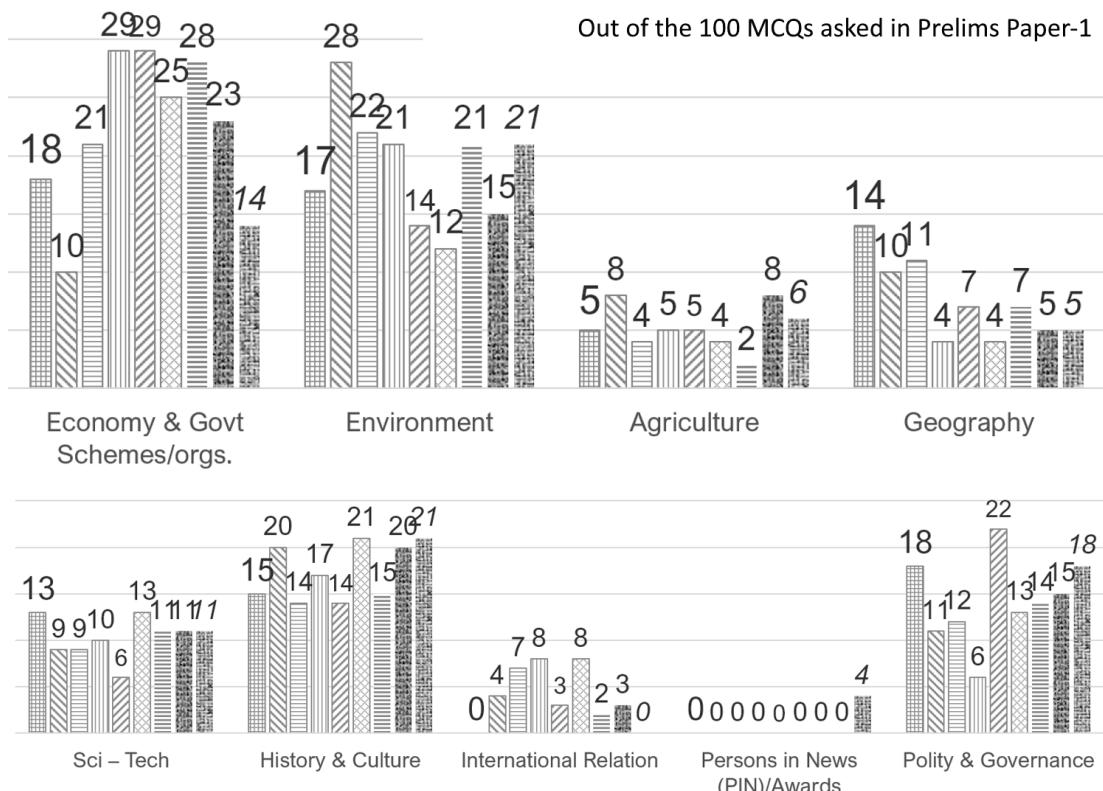
Theory	075	Ethics and Human Interface (essence, determinants, consequences of ethics in human actions)
Society & Behavior	076	Dimensions of ethics
Civil Services	077	Ethics in public & private relationships
Governance	078	Human values (lessons from great leaders, reformers & administrators)
	079	Emotional Intelligence (concepts, utility & application in administration & governance)
	080	Contributions of Moral Thinkers & Philosophers from India and world
	081	Role of family, society, educational institutions in inculcating values
	082	Social Influence and Persuasion
	083	Attitude (content, structure, function, influence & relation with thought & behaviour)
	084	Moral and Political Attitudes
	085	Civil Service aptitude & foundational values (integrity, impartiality, non-partisanship, objectivity, dedication to public service, empathy, tolerance & compassion towards weaker sections)
	086	Public service values & Ethics in Public Administration (status & problems)
	087	Ethical concerns and dilemmas in government & private institutions
	088	Laws, rules, regulations, conscience as sources of ethical Guidance
	089	Accountability & ethical governance
	090	Strengthening of ethical & moral values in governance
	091	Ethical issues in international relations and funding
	092	Corporate Governance <input checked="" type="checkbox"/> (in Pillar#1C2)
	093	Probity in Governance (concept of public service)
	094	Philosophical basis of governance and probity
	095	Information (sharing & transparency in government), RTI
	096	Codes of Ethics, Codes of Conduct
	097	Citizens Charters, Quality of Service Delivery
	098	Work Culture
	099	Utilization of public funds
	100	Challenges of Corruption
	101	Case Studies on Above Subjects



For more: Refer to Topicwise Papers & Trend analysis available: Mrunal.org/Prelims and Mrunal.org/Mains

10.2.4 Breakup of Subjects in Prelims

— 2013 — 2014 — 2015 — 2016 — 2017 — 2018 — 2019 — 2020 — 2021



If you want to get married, Priority#1 should be to find bride/groom. i.e. FINISHING CORE SYLLABUS OF 1) Geography, 2) Environment, 3) Agriculture, 4) Economy, 5) Polity, 6) History-Culture, 7) Science-Tech, 8) IR 9) Ethics & 10) Optional Subject.
⌚ Current Affairs is NOT a separate subject. It should be seen embedded within above 10 Subjects.



⌚ Booking Pre-wedding photographer CANNOT be PRIORITY#1 i.e. #Daily-2-hr-Current-Affairs-Videos #Daily-Mock-Tests #Daily-Mains-Ans-Writing, #RayjasabhaTV & all other 'Pageview' oriented 'Products'

Figure 1: क्योंकि बहोत सारे बच्चे ये सबसे ज़रूरी चीज़ समझते नहीं, और चिकनी-चुपड़ी बाते करनेवाले Baba-लोगों के 'अंधे- भक्त' बनके अपने age/attempt बर्बाद करते हैं।

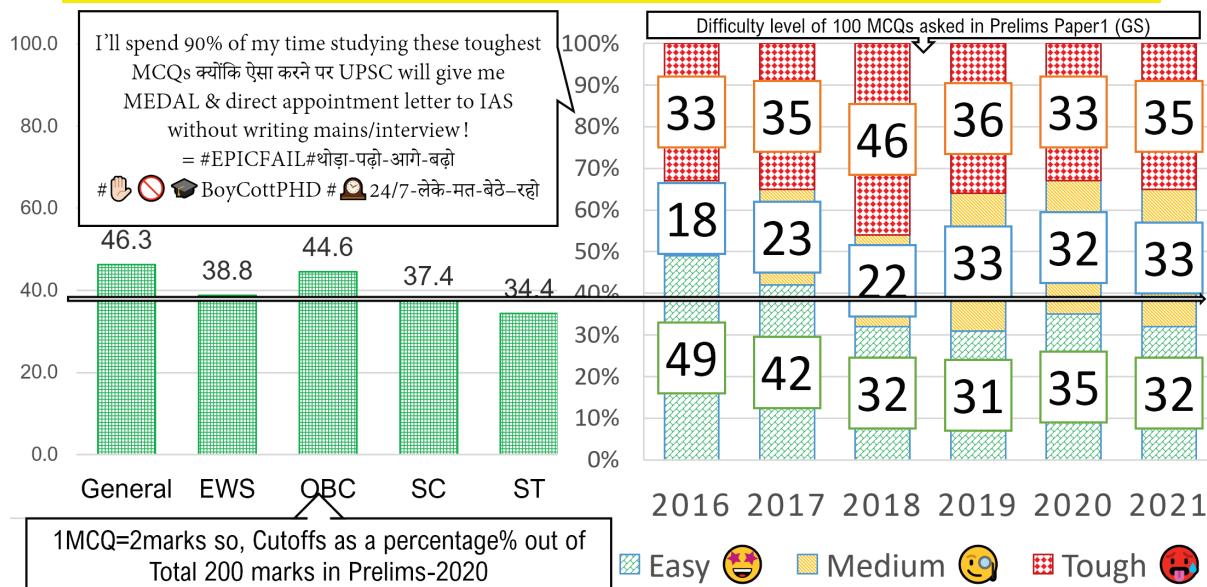


Figure 2: यानि की इधर Economy में हमको B.Com, M.Com, CA, BBA, MBA, PHD करना नहीं है! #थोड़ा-पढ़ो-आगे-बढ़ो #लेके-मत-वेठे-रहो



10.2.5 🏛️📅 IAS Study Planner / Calendar

Month#1							Month#2							Month#3							Month#4						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
✓ Economy (P+M)							✓ Economy (P+M)							✓ Economy (P+M)							✓ Economy (P+M)						
✓ Polity & Governance (P+M)							✓ Polity & Governance (P+M)							✓ Polity & Governance (P+M)							✓ Polity & Governance (P+M)						
✓ Optional Subject							✓ Optional Subject							✓ Optional Subject							✓ Optional Subject						
✓ Ethics (Mains GS4)							✓ Ethics (Mains GS4)							✓ Ethics (Mains GS4)							✓ Ethics (Mains GS4)						
Month#5							Month#6							Month#7							Month#8						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
✓ International Relation							✓ International Relation							✓ International Relation							✓ International Relation						
✓ Geography & Agriculture							✓ Geography & Agriculture							✓ Geography & Agriculture							✓ Geography & Agriculture						
✓ Environment & Disaster Management (Pre + Mains)							✓ Environment & Disaster Management (Pre + Mains)							✓ Environment & Disaster Management (Pre + Mains)							✓ Environment & Disaster Management (Pre + Mains)						
✓ Opt.Sub (Revision, Supplementary Reading, Ans Writing)							✓ Opt.Sub (Revision, Supplementary Reading, Ans Writing)							✓ Opt.Sub (Revision, Supplementary Reading, Ans Writing)							✓ Opt.Sub (Revision, Supplementary Reading, Ans Writing)						
✓ Mains (GSM1: communal, regionalism, GSM2: E-Governance, GSM3: cyber-security, internal security)							✓ Mains (GSM1: communal, regionalism, GSM2: E-Governance, GSM3: cyber-security, internal security)							✓ Mains (GSM1: communal, regionalism, GSM2: E-Governance, GSM3: cyber-security, internal security)							✓ Mains (GSM1: communal, regionalism, GSM2: E-Governance, GSM3: cyber-security, internal security)						
Month#9							Month#10							Morning							Newspaper						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
✓ Current Affairs							✓ Current Affairs							✓ Current Affairs							✓ Current Affairs						
✓ History, Art, Culture							✓ History, Art, Culture							✓ History, Art, Culture							✓ History, Art, Culture						
✓ Science Tech							✓ Science Tech							✓ Science Tech							✓ Science Tech						
✓ GSM1-2-3: Remaining Topics such as World History, Post Independent India, Land Reforms, Food Processing etc.							✓ GSM1-2-3: Remaining Topics such as World History, Post Independent India, Land Reforms, Food Processing etc.							✓ GSM1-2-3: Remaining Topics such as World History, Post Independent India, Land Reforms, Food Processing etc.							✓ GSM1-2-3: Remaining Topics such as World History, Post Independent India, Land Reforms, Food Processing etc.						
CA-Last 1 Year							CA-2 Yrs & Older							Upto Lunch Hour							Then Till Evening						
13	9	1	7				36	48	46	21				• Big GS Subject#1 (Pre+Mains)							• Big GS Subject#2 (Pre+Mains)						
2018	2019	2020	2021											Evening to Dinner							Optional / Mains' Small GS Topics						
														Post-Dinner to Midnight							Mains' Small GS Topics						

Figure 3: IAS Study Planner. If you've less than 10 months then do more study every day/study some parts after Prelims is over.

10.2.6 📰 Current Affairs (CA) for General Studies

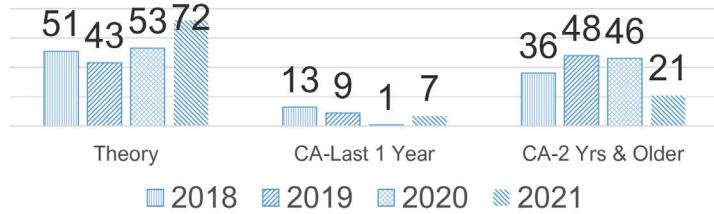


Figure 4: Out of the 100 MCQs asked in Prelims, how many came from Current Affairs?

- Any one newspaper: Daily IndianExpress or theHindu. ✍️ Not both! Use Only one.
- **Make newspaper NOTES ONLY FOR Optional Subject, Cases Quotable for Essay / GSM4, & factoids imp. for UPSC interview i.e. about your home-state, hobbies, graduation & job (if any).**
- 📖 No need to make notes for GS.
- **It's true that not many Qs are coming from PDF/Mag compilation, but if you manually try to make your own current affairs notes from newspaper, you'll never finish other parts of syllabus.**
- Daily CA-Excel file at <https://Mrunal.org/current> [its primary utility is Mains & Ethics content points]
- Use any one FREE PDF/Mag compilation: Unacademy Articulate, VisionIAS, iaspalliament, (#)DrishtiIAS, etc. minimum from 1/1/2020 onwards (if targeting CSE-2022)



10.2.7 🏛 UPSC CSE-2021: Basic Reading List for GS

- ⇒ (#) का मतलब है कि ये किताबें / PDF हिंदी में भी उपलब्ध हैं
- ⇒ 📖 icon means instead of that given book, you may use Unacademy booklet given to you, if you've.
- ⇒ IYB-2021= India (yearbook) 2022 BUT NOT need buy, just refer to free e-summaries on Internet.

<p> Geography</p> <ul style="list-style-type: none"> ⇒ # NCERT: First class 11-12's four textbooks on physical, Indian & human geography. Then NCERT 7-10 Social Science- only those chapters not covered in Class 11-12. ⇒ Geography Lecture in your [+] subscription ⇒ Goh Cheng Leong: All ch EXCEPT 4 to 10. ⇒ # If time, IYB-2022* ch. 1 and 30, else ignore. ⇒ https://mrunal.org/tag/gsm1-geo-location (Selective study only. Upar-upar se dekh lo) <p> Agriculture</p> <ul style="list-style-type: none"> - # NCERT Geography, Science Textbooks, Followed by Current Affairs (CA) related to Biotech - Agri's Economy / Scheme / Budget angles → Mrunal's class & handout Pillar4A <p> Economy</p> <ul style="list-style-type: none"> - <input checked="" type="checkbox"/> Mrunal's lecture series and its handouts for Theory, Contemporary, and Current issues. - No need for NCERT 9-10 or Class 12 Micro/Macroeconomics or Old NCERT or Tamilnadu State Board textbooks. No need for Ramesh Singh, Sanjeev Verma, Nitin Singhania, SriRAMIAS or any other book/material. <p>To improve vocabulary & expression skills for Mains:</p> <ul style="list-style-type: none"> - <input checked="" type="checkbox"/> # NCERT Class 11 Indian Economic Dev. - <input checked="" type="checkbox"/> # After my course is over, read Introductions and conclusions of each chapter of vol 1 of all economic surveys from 2015 onwards from http://indiabudget.gov.in/ - <input checked="" type="checkbox"/> # Chief Editor's Desk (Preface page) of last 2 years' Yojana & Kurukshetra mags from http://yojana.gov.in/Recent_archive_2020.asp (URL mein change year number for previous Archives) 	<p> Environment</p> <ul style="list-style-type: none"> - # NIOS PDF on Environment, # IYB21 Ch. 12 - # NCERT Chemistry Class 11: Ch. on Environ. Chemistry. - # NCERT Biology 11-12: selective study of chapters related to flora-fauna, biotech - Followed by Current Affairs (CA) PDF <p> Polity</p> <ul style="list-style-type: none"> - # Indian Polity by M.Laxmikanth - # Governance in India by M.Kartikeyan for GSM2 - # IYB21: ch. 2, 3, 20, 28. - Current Affairs: Notable judgements, Committees, Appointments. - # PrsIndia.org: Passed Acts - IndianExpress ki Explained Series - # (Selective) NCERT Socio and PolSci 11-12 <p> International Relations (IR)</p> <ul style="list-style-type: none"> - Pavneet Singh's IR Book (selective study). - Followed by CA from Newspaper/PDF/Mags. <p> History-Culture</p> <ul style="list-style-type: none"> - No need for old NCERTs. Poor Cost:Benefit - Refer to Tamilnadu (New Color Edition) Class 11-12, # New NCERT - Freedom Struggle: i) (#) Spectrum for Prelims ii) (#) Plassey to Partition for Mains <p> Science Tech</p> <ul style="list-style-type: none"> - (#) Ravi Agrahari's Science-Tech book. - (then, If time permits) Read all chapters: NCERT 7-10. - (then, If time permits) Read only selective chapters of: NCERT 11-12 related to Environment, Biotech, Spectrum waves etc. <p>Notes:</p> <ul style="list-style-type: none"> - CSAT-Paper2: Use any Paper-II Manual or BOOK by McGraw-Hill, Arihant, Pearson, Disha or ANY PUBLISHER etc. solve few <table border="1" style="display: inline-table;"><tr><td>AB</td><td>CD</td></tr></table> MCQs from each section and/or the classes on Unacademy / Youtube. 	AB	CD
AB	CD		



10.2.8 Instructions for Live Class

1. If audio/video stuck then refresh page by Ctrl+SHIFT+R; If electricity / internet outage, fear not, because recording will be available in your account.
2. Keep following things ready before the class (1) Handout PDF saved in your harddisk. No need to take printouts. You may get them printed after Corona is subdued. (2) Pens (3) Unruled A4 sized pages. Don't staple/spiral the pages or printouts, so you can add more blank pages in future to add your own thoughts/answers.
3. If doubts in lecture itself, notedown in paper/diary → Ask in Google query form after class, which I'll reply in a combined PDF file on weekly basis. (गूगल फॉर्म से मिले आपके प्रश्नों का साप्ताहिक क्रम से जवाब दिया जाएगा, निश्चित रहिए!)
4. To Download Handout: <https://unacademy.com/course/mrunals-economy-course-for-upsc-prelims-mains-2022/PIPB497F> → click on 'updates' button → a sidebar will open → download from there.

10.2.9 What has UPSC asked from Economy in recent years?

Economy: 6 Pillars™	Prelims P1 (GS 100 MCQs)						Mains GSM-1-2-3 (750 Marks)					Remarks
	2016	2017	2018	2019	2020	2021	2016	2017	2018	2019	2020	
1_Money Banking, Finance & Insurance	6	6	7	7	9	6	25	0	0	0	15	
2_Budget, FC, GST, FRBM	3	3	4	1	1	1	12.5	30	25	25	15	
3_Intl_Trade, BoP	11	4	4	7	7	2	25	0	30	0	15	
4_Sectors, GDP, Inflation, Microeconomics	4	8	3	8	5	5	25	60	50	65	55	
5_Infrastructure	2	4	1	3	1	0	37.5	10	15	15	15	
6_HRD	3	4	6	2	0	0	50	40	60	75	85	
Total	29Qs	29Qs	25Qs	28Qs	23Qs	14Qs	175m	140m	180m	180m	200m	

Economy Pillar #1-A1) Money: Barter to BitCoin

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10.5.1	💸 Commodity Money / वस्तु मुद्रा (Intrinsic value: अंतर्भूत मूल्य? Yes)	11
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10.3 ❖ ❖ BARTER SYSTEM & ITS DISADVANTAGES: (वस्तु विनिमय प्रणाली)





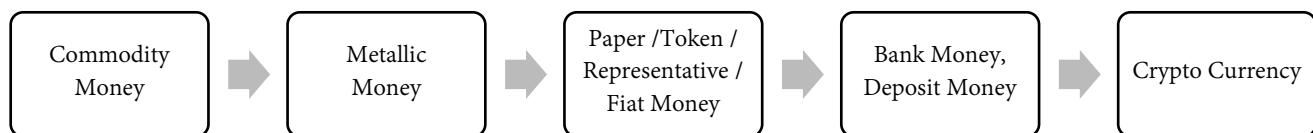
Barter system was introduced by **Mesopotamian** tribes. Barter system has following challenges: (चुनौतिया)

- 📈 Double co-incidence of Wants (आवश्यकताओं का दोहरा संयोग नहीं होगा तो व्यापार असंभव).
- 📈 Search Cost & Transaction cost is high. (सही दाम पर चीज ढूँढ़ने व लेनदेन की लागत बढ़ जाती है)
- 📈 Storage of perishable commodities is difficult, results in loss of value. (नाशवान वस्तुओं का मूल्यहास)
- 📈 Doesn't encourage specialization and division of labour (श्रम विभाजन को प्रोत्साहित नहीं करता).

10.4 🔎 MONEY: FUNCTIONS OF (पैसे के कार्य)

Primary:2 functions[प्राथमिक]	Secondary(S-T-D) 3functions [सहायक कार्य]	Contingent 3functions [प्रासंगिक कार्य]
<ol style="list-style-type: none"> 1. Measure of Value: $gm=wt$, $ml=vol$, $\text{₹}=value$ (मूल्य का मापक). 2. Medium of Exchange: Buy & Sell goods and services using money as the 'medium'. (विनियोग का माध्यम). 	<ol style="list-style-type: none"> 1. Store of Value (मूल्य का संचय) 2. Transfer of Value (मूल्य का स्थानांतरण). Soldier in Kashmir to parents in Kanyakumari 3. Deferred Payments (स्थगित भुगतानों का मानक). E.g. Buy iphone12 @₹3177 only per month x 36 months' Equated Monthly Installments (EMIs) = ₹1,14,372. Actual price is ₹79,900, but ₹34,472 extra Interest. (ब्याज पर किश्तों में खरीदारी संभव) 	<ol style="list-style-type: none"> 1. Basis of credit system, Financial markets (share, bond etc.: More in Pillar#1C-sharemarket) वित्तीय बाजार का आधार है पैसा 2. Employing factor of production i.e. Land, Labour, Capital (More in Pillar#4C) उत्पादन के कारक जुटाने में मदद करता है है पैसा 3. Creation & Redistribution of National Income via taxation. (Pillar#2) अमीरों पे ज्यादा कर वसूल के राष्ट्रीय आय के पुनःवितरण करने में मदद

10.5 💰 MONEY: EVOLUTION & TYPES (मुद्रा की उत्क्रांति व् प्रकार)



10.5.1 💰 Commodity Money / वस्तु मुद्रा (Intrinsic value: अंतर्भूत मूल्य? Yes)



- ⇒ Iron Nails, Bear Pelts, Cocoa Beans, Whale Teeth, Gold Nuggets
- ⇒ **Problems?** Perishable, not uniform, not pure, foreigners may not accept. नाशवान, एकसमान नहीं, शुद्ध नहीं, अस्वीकार भी कर सकते हैं.

10.5.2 💰 Metallic Money / धातु मुद्रा (Intrinsic value? Yes)

- ⇒ Traders & Kings stamped their marks on gold nuggets for uniformity & trust. (सोने पर अपना चिन्ह/छाप लगा देते)
- ⇒ Indo Greek kings & Kushana kings issued gold coins, but Gupta Gold coins most spectacular- king is playing Veena, shooting animals, standing with wife. (इन राजाओंने सोने के सिक्के निकाले थे)
- ⇒ Delhi Sultanate Kings: **Silver Tanka**. Sher Shah Suri Rupiyah silver coin. Akbar: **Muhr**.
- ⇒ Metal has **INTRINSIC VALUE** i.e. Metallic money = Use it as "money", or you can melt the metal → use that metal for making jewellery / weapons because metal itself has its value / usages. उस मुद्रा की धातु पिघला कर कुछ और चीजें भी बना सकते हैं. क्योंकि धातु का अपना : अंतर्भूत मूल्य / उपयोगिता है.
- ⇒ On the other hand, paper-currency note= You can't use currency-note's paper as a notebook or diary. So currency notes have no intrinsic value. उसके कागज का उपयोगिता कुछ नहीं है, क्योंकि उसपे छपाई कर दी है.

Further SELF STUDY: History of Indian coins from Nitin Singhania's book on Indian Art & Culture (2nd Ed.) Ch.23 OR (3rd Ed.) Ch.24. If you don't have the book, then ref: NCERT & TN History Textbooks.



Table 1: Types of Coins



Gupta Coin: ~8 gm GOLD



50 paisa modern coin: ~4 gm steel

₹ Full Bodied Coins	Token Coins (प्रतीककात्मक)
Intrinsic Value (अंतर्भूत मूल्य) is Equal to or MORE than its Face Value (अंकित मूल्य)	LESS. (धातु एकदम सस्ती वाली इस्तेमाल करते हैं या बहुत ही कम वजन की धातु इस्तेमाल करते हैं)
Challenge? ⇒ Debasement: ▼ decreasing the amount of metal in coins. Usually happens when king's rule gets weak/poor e.g. Aurangzeb, Roman Kings. सिक्के में धातु की मात्रा को कम किया जाए तब लोगों का उस राजा के शासन से विश्वास कम होने लगता है	⇒ 1330s: Tughlaq's Token coin experimentation = #EPICFAIL (Why? Prepare in History subject). ⇒ Modern Indian coins are token coins. Cupronickel metal used to discourage melting. Coinage Act 2011 prohibits melting of coins.

10.5.3 ₹ Paper Money / कागजी मुद्रा (Intrinsic Value? No)

Fiat money (वैधानिक मुद्रा): It MUST fulfil two conditions **SIMULTANEOUSLY**: दो शर्तों का एकसाथ पालन होना चाहिए।

1. It MUST BE in the form of Physical Currency Coin / Physical Currency Notes / VirtualCoin/ DigitalCoin/ CryptoCoin which can measure value **AND simultaneously** और साथ ही साथ
2. It MUST BE issued by the order of a King / Queen / Government / Central Bank.

	⇒ Govt issues all coins upto ₹ 1,000, using powers of powers of Coinage Act 2011. ⇒ ₹ 1 Note signed by Finance Secretary (वित्त सचिव) ⇒ ₹ 1 note doesn't contain "I promise to pay bearer...""
	⇒ RBI issues: Currency notes other than ₹ 1 Note using the powers of RBI Act 1934. ⇒ Currency notes have Governor's sign: "I promise to pay bearer...""

✳️ FAQ: why is it like this!!!!!! WHY CAN'T RBI ISSUE BOTH coins & currency notes!!?

Ans. Send your suggestion to PM, to merge above two laws. Until it's implemented, remember table for passing exam. प्रधानमंत्री को कागज लिखो दोनों कानूनों का एकीकरण करने के लिए. जब तक वह नहीं होता तो इस handout में दिया है उतना परीक्षा के लिए #✳️ थोड़ा-पढ़ो-आगे-बढ़ो

10.5.4 ₹ Legal Tender (वैधानिक निविदा)

To become a 'legal tender', a given coin/currency MUST fulfil two conditions **SIMULTANEOUSLY**: एक साथ दो शर्तों को पूरा करना होगा.

1. It must be a FIAT MONEY (जो हमने ऊपर के सेक्षण में पढ़ा). **AND SIMULTANEOUSLY**
2. It must be legally valid for all debts & transactions throughout the country. Other party can't refuse to accept. (लेनदार उसको अस्वीकार नहीं कर सकता)

Table 2: fiat money and legal tender in India

ITEM	A) Is it in form of a physical coin OR physical Note OR Digital Coin	B) Is it issued by Central Bank / Govt / King / Queen	C) Result: Is it Fiat money? (YES If Both Cell A+B give ✓ + ✓)	D) At present, is it legally valid for transaction in India as per Coinage Act or RBI Act?	E) Is it LEGAL Tender in India (Yes, IF C+D give ✓ + ✓)
₹ Indian Rupee:	✓	✓	✓	✓	✓



ITEM	A) Is it in form of a physical coin OR physical Note OR Digital Coin	B) Is it issued by Central Bank / Govt / King / Queen	C) Result: Is it Fiat money? (YES If Both Cell A+B give ✓ + ✓)	D) At present, is it legally valid for transaction in India as per Coinage Act or RBI Act?	E) Is it LEGAL Tender in India (Yes, IF C+D give ✓ + ✓)
Coins & Notes					
Demonetized (विमुद्रीकृत) ₹500, ₹1000	✓	✓	✓	✋	✋
Dollar\$, Yuan, Yen, Euro etc	✓	✓	✓	✋	✋
G-Sec, T-Bill (what is this-Ans. explained in video)	✋	✓	✋	✋	✋
Shares, Bonds, DD, Cheque, ATM, Cards, Kirana coin, Casino coin, Filmstar-Notes	✋	✋	✋	✋	✋
Marshall Island: SOV Venezuela: Petro coin	✓	✓	✓	✋	✋
Bitcoins	✓	✋	✋	✋ ^{##}	✋

⇒ ##Bitcoin is not a Fiat money, yet it is legal tender in El-Salvador nation. But it is an exception. (बिट-कोइन का अल-साल्वाडोर देश में वैधानिक निविदा होना केवल एक अपवाद है, जो पूरी दूनिया के लिए नियम/व्याख्या नहीं है।)

⇒ ❓ FAQ: I did not understand this thing and/or I want to engage in intellectual debate why “X” thing is legal tender? Ans. Please watch lecture’s recorded video again, more peacefully.

⇒ Commemorative Coins (सूतीचिन्ह रूप सिक्के) = Fiat money yes but not legal tender unless notified to be used as legal tenders.

Table 3: Fiat Money: Two types of legal tenders

A) ⚡ Limited legal tenders (सीमित वैधानिक निविदा)	B) ∞ Unlimited legal tenders: (असीमित वैधानिक निविदा)
Recipient can refuse accepting payment beyond a limit (एक हृद से ज्यादा छूटटे पेसे स्वीकारने से सामने वाला मना कर सकता है)	No such restriction.
<ul style="list-style-type: none"> ⇒ Coinage Act 2011 ⇒ Rs. 1 / above → upto Rs.1000 ⇒ 50 paisa x 20 coins → upto Rs.10 ⇒ Below 50 paisa coins are withdrawn (in 2011) So, 10 paisa, 25 paisa are ✋ not legal tenders. (10 पैसा और 25 पैसा वैधानिक निविदा नहीं है। 50 पैसा वैधानिक निविदा है।) 	<ul style="list-style-type: none"> ⇒ RBI Act 1934 - Section 26: Every bank note is legal tender in India. ⇒ They can be used for settling any amount of debt in India**, lender can't refuse to accept it.

**Although in real life, Finance Act 2017: “Cash transactions for less than Rs.2 lakh only. Beyond that use Cheque, DD, NEFT etc. else penalty= entire amount.” This rule is to discourage tax-evasion / black money. For



more Ref: Pillar#2. But for MCQs, simply accept that bank notes = unlimited legal tenders. हालांकि वास्तविक जीवन में काले धन / करचोरी को रोकने के लिए नगदी लेनदेन पर कुछ सीमा के बाद रोक है, किन्तु MCQ के लिए स्वीकार लो की

FAQ# my shopkeeper doesn't accept 50 paisa. Then how it is legal tender? मेरा दुकानदार नहीं लेता 50 पैसा का सिक्का। तो आप कैसे कह सकते हैं वो वैधानिक नियिदा है?

Ans. as per RBI notification, 50 paisa is legal tender. So, accept it for MCQ & move to next topic. Further, feel free to file police case against shopkeeper, if you have plenty of free time/outrage for it. (तो भी परीक्षा के लिए रटो)

MCQ: Which one of the following correctly describes the meaning of legal tender money? (Pre-2018)

- (a) The money which is tendered in courts of law to defray the fee of legal cases
- (b) The money which a creditor is under compulsion to accept in settlement of his claims
- (c) The bank money in the form of cheques, drafts, bills of exchange, etc.
- (d) The metallic money in circulation in a country

MCQ: Consider the following statements (Asked in UPSC-CDS-2011-II)

1. In India the minimum denomination coin acceptable for transaction is 50 paise.
2. Coins below 50 paise is not a legal tender for payment.

Which of the statements given above is/are correct?

- (a) Only 1
- (b) Only 2
- (c) Both 1 and 2
- (d) Neither 1 nor 2

10.5.5 (New) Visually Handicapped (VH) friendly Coins, 2019-March

- ✓ Govt launched new series of VH-friendly coins of ₹ 1, 2, 5, 10, 20. Ascending order of size & weight.
National Institute of Design (NID) helped to design.
- ✓ ₹ 20 coin: 12-sided Polygon (Dodecagon आकार: बारह बाजुओं वाला चतुष्कोण है)
- ✓ Remaining coins are round shaped. (बाकी के सिक्के गोलाकार हैं)

10.5.6 RBI's App to help the blind identify currency notes

80 lakh people in India are blind (नेत्रहीन). To help them identify currency notes:

- ⇒ Old series of Gandhi notes have square (50), triangle (100), circle (500) diamond (1000)
- ⇒ New series of Gandhi notes have bleed lines, raised printing of Gandhi etc.
- ⇒ But, so many varieties of notes, difficult for VH persons to remember size & shapes so,
- ⇒ IIT Ropar developed Roshni App.

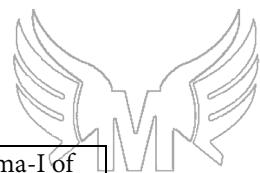
Separately, 2020-Jan: RBI launched 'Mobile Aided Note Identifier (=MANI)' App.

- ⇒ Mobile camera scan & identifies the note (Even if it's half folded), gives audio notification in Hindi/English, also works offline
- ⇒ But can't validate whether note is genuine or fake (Counterfeit जाली नोट नहीं पकड़ सकता यह ऐप),
- ⇒ If a user is both blind and deaf, the app will identify note by giving vibrations. (नेत्रहीन बधिर को मोबाइल कंपन)
- ⇒ Daffodil Software company developed this App for RBI. (ये कंपनी ने बनाया है ऐप)

10.5.7 (NEW) Mahatma Series Currency Notes in India

Table 4: Less important for UPSC-exams, more IMP for Non-UPSC Exams

Note	What image is given in this currency note? (इस नोट में कौन सा चित्र होता है?)
₹ 10	Sun Temple, Konark, Odisha. 13 th Century Narsimhadev-I
₹ 20	Greenish Yellow, Ellora Caves in reverse.
₹ 50	Humpi Chariot from Vittala Temple, Karnataka



₹ 100	Lavender color. Rani ki Vav on Saraswati river, Patan. Rani Udaymati for King Bhima-I of Chalukya / Solanki dynasty in 11 th century, UNESCO Heritage site
₹ 200	Sanchi Stupa, Madhya Pradesh.
₹ 500	Red Fort, Delhi by Shah Jahan.
₹ 1000	(update when/if released)
₹ 2000	Mangal Yaan / Mars Orbiter Mission
New rupee symbol	₹: selected through a competition by Dept of Economic Affairs in 2010. Designed by D.Udaya Kumar, a Professor @IIT Guwahati.
Nation Symbol	- Lion Emblem: Sarnath Pillar, Uttar Pradesh से लिया गया है - “Satyamev Jayate”: slogan from Mundaka Upanishad से लिया गया है
Languages	While Constitution's 8 th Schedule has 22 languages, but currency note has only 17. (15 on Reverse + Hindi & English on frontside (obverse) = 17)
Museum	Budget-2020: a museum on numismatics and trade (सिक्काशास्त्र और व्यापार का संग्रहालय) will be built at the historic 'Old Mint Building' in Kolkata .

You can read more about currency notes' features at <https://paisabolthai.rbi.org.in>. Although notIMP for IAS.

10.5.8 "I promise to pay the bearer...": Meaning of this promise?

Currency note is zero interest, anonymous bearer bond / Promissory Note.

	Colonial era: Promised to convert into full bodied gold or silver bars / coins worth the equal value in weight. E.g. 1 US Dollar = ~14 grams of gold. 1 British pound = ~73 grams of gold. (in my handout ‘~’ means ‘approximate’)
	Modern era: Conversion into other Bank notes and “token coins” of equal face value. $\text{₹ } 2000 = 500 \times 4 \text{ Nos.} = 100 \times 20 \text{ Nos etc.}$ Not inflation adjusted value. Not linked with weight of gold or silver.

10.5.8.1 Demonetization of Fiat Money (विमुद्रीकरण: Previously 1946, 1978)

Definition? Demonetization is the wholesale withdrawal of currency notes from circulation. (मुद्राचलन में से कुछ खास किस्म की नोटों को सरकार द्वारा हटा देने की क्रिया को विमुद्रीकरण या नोटबंदी कहते हैं)

- ⇒ 8/Nov/2016: FinMin → Dept of Economic Affairs gazette notification to ban the “Specified Bank Notes” (SBN) of Mahatma Gandhi series ₹ 500 and 1000.
- ⇒ Specified Bank Notes (Cessation of Liabilities) Act 2017= RBI not required to honor “I promise to pay...”. Old notes can't be kept except for research or numismatics or museum- and that too in limited amount! More in pillar#2: taxation → black money.

10.6 REDENOMINATION: DROP ZEROS, CHANGE NAME



Figure 5: expression when you need 2.5 lakh riyal for a box of eggs

- ⇒ Inflation is the rise in the general level of prices of goods and services in an economy over a period of time. [More in Pillar4C lecture] (मुद्रास्फूर्ति/मंहगाई=चीजों के सामान्य दामों में वृद्धि)

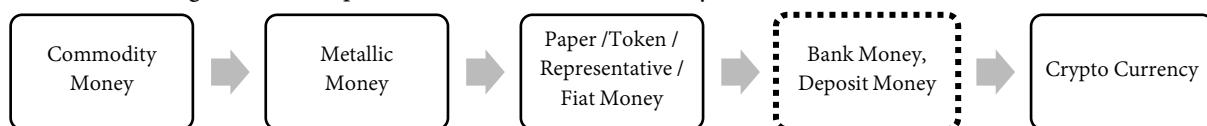


- ⇒ **REDENOMINATION** involves removing zeros from currency's face value, to facilitate transactions during high inflation. (मुद्रा नॉट के कुछ शून्यों को हटा दिया जाए)
- ⇒ Here, the old currency is not instantly declared illegal / withdrawn from circulation immediately. Old currency is allowed to continue side by side with new currency. People are given the option to switch to the new currency. Thus redenomination is considered to be different than demonetization. (नोटबंदी से यह थोड़ा अलग है क्योंकि अचानक से सारे पुराने नोटों को बंद नहीं किया जा रहा)
- ⇒ **REDENOMINATION** doesn't fix inflation problem in reality because (इससे महंगाई कम नहीं होती)
 - 1) not increasing the supply of goods (बाजार में वस्तुओं की आपूर्ति को नहीं बढ़ा रहा)
 - 2) your purchasing power remains the same as before (आंकड़ों की ऐसी लीपापेती से आपकी खरीदशक्ति बढ़ेगी नहीं). Further PHD useless. More on inflation Pillar#4C lecture.

10.6.1 Iran = Toman to replace Iranian Rial (2020)

Iran suffering from

- ⇒ 1) High levels of inflation. 1 box of eggs cost ~250,000 Iranian rials. (महंगाई बहुत ज्यादा है उधर)
- ⇒ 2) Weak exchange rate (कमज़ोर विनिमय दर). \$1 costs ~42,000 Iranian rials. [More in Pillar3A lecture]
- ⇒ So, very inconvenient to carry/count such a large quantity of paper currency.
- ⇒ 2020-May: Iranian Parliament approved a new paper currency "Toman" to replace its existing paper currency "Iranian Rial" at the rate of **1 TOMAN = 10,000 Rial**.
- ⇒ Although it's not an 'instant demonetization' of Iranian Rial. It will be replaced with TOMAN gradually in the next 2-5 years. **Benefit?** Ease of carrying currency and making transactions. (थेला भरके नगदी नहीं ले जानी होगी तो खरीदारी/ लेनदेन में सुगमता)
- ⇒ Similar thing was done in past in Zimbabwe (2006) but very old GK NOT.IMP.# थोड़ा-पढ़ो-आगे-बढ़ो

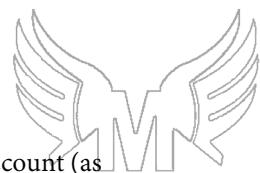


10.7 BANK MONEY / DEPOSIT MONEY



10.7.1 Paper orders: Cheque, Demand Draft (DD)

- Viceroy Ripon's Negotiable Instruments Act, 1881: Primary Objective? Cheque dishonor & forgery (परक्राम्य लिखत अधिनियम: बैंक खाते से अप्राप्त रकम के चलते चेक अस्वीकार होना/जालसाजी).
- 2017: Law was amended for faster justice to victim. (त्वरित न्याय के लिए कानून में सुधार)
- **THREE parties in a cheque:** 1) Drawer (Sender), 2) Drawee (Bank), 3) Payee (Recipient)
- **Types of cheques:** 1) **Stale:** Not withdrawn in 3 months (3 महीनों में नहीं डाला तो बासी/अस्वीकार्य होगा), 2) **Post-dated:** After a specific date, 3) **Ante-Dated:** notimp for IAS exam.
- **Open / bearer cheque:** No 'crossing'. Anyone can encash.
- **IFSC code:** Indian Financial System Code- 11 alphanumeric numbers to identify the bank branch, just like PINCODE identifies an area. (कौन सी बैंक ब्रांच है उसे चिह्नित करता है, जैसे पिन कोड किसी इलाके को चिह्नित करता है)
- **MICR code:** Magnetic Ink Character Recognition. 9 digits code written in Iron Oxide ink for automated clearance.
- **Demand Draft (DD):** can't be dishonored (अस्वीकृत नहीं होगा) because sender has to pay amount beforehand to Bank before the Bank issued DD to him → then sender gives DD for paying university fees etc.



- **Overdraft:** When person has insufficient bank balance, still he may withdraw money from his account (as a loan). Such facility is called **Overdraft**. Pradhan Mantri Jan-Dhan account has *Overdraft* upto Rs 10,000/- with certain conditions. (*More in Pillar1D: Financial Inclusion*).
 - o **Overdraft** is mainly for short-term operating expenses. (अस्थाई रूप से लघु अवधि के लिए कर्ज में पैसा उठाना)
 - o **Loans** is mainly for longer term higher value expenses. (दीर्घ अवधि के लिए मोटी रकम का कर्ज लेना)

10.7.2 🐷 💳 Cheque → NPCi's Cheque Truncation System (CTS-2010)

- CTS= canned image of cheque electronically sent to the drawee branch for faster clearance without theft or tempering. MICR readers NOT required.

10.7.3 🐷 💳 📱 Cheque → Positive Pay Mechanism for Cheques

Suppose Roman (Axis Bank, Bengaluru) sends ₹50,000 cheque to Mrunal (SBI, A'bad)

	Cheque clearance B4 2021	🕒 Positive Pay Mechanism (Extra-steps)
Sender (Roman)	Roman writes check, gives to recipient Mrunal	Roman (issuer) clicks a photo of cheque (📸 IMAGE#A) & uploads on Axis Bank's App / Bank's Webportal or send details via SMS2Axis ke "I've given this cheque number-X with Amount-Y to Mrunal on Date-Z"
Recipient (Mrunal)	Deposits cheque in SBI, A'bad	Same
Recipient's Bank (SBI)	SBI staff sends scans cheque → sends (📠 IMAGE#B) to Axis via NPCi's CTS	Same
Sender's Bank (Axis)	Receives msg via CTS, → verifies (📠 IMAGE#B) → releases ₹₹	Axis crosschecks whether 📠 IMAGE#B = 📸 IMAGE#A ? If no mismatch/discrepancy → releases ₹₹
Benefit?	Почем What if Mrunal (reciepient) manipulated/tempered cheque to encash more amount?	🕒 Positive Pay Mechanism prevents such tempering / fraud. मृणाल चेक में लिखी रकम में छेड़खानी करके रोमन के बैंक खाते से पैसा गबन नहीं कर सकता

⇒ 2016: ICICI Bank introduced Positive Pay for its customers.

- ⇒ 2020: RBI has ordered all banks to implement it from 1/1/2021 onwards. (⌚ Exact DATE NOT IMP)
- o (Optionally available to customers) for amounts above ₹50,000/- (⌚ Exact AMT NOT IMP)
 - o (Compulsory required) IF amount = ₹5 lakh and above. (⌚ Exact AMT NOT IMP)

10.8 🐷 💳 💻 ELECTRONIC ORDERS / DIGITAL PAYMENT



Payment & Settlement System Act 2007 empowers RBI to regulate card payment, e-payment related products and services. (भुगतान और निपटान प्रणाली अधिनियम 2007)



10.8.1 CBS (full form: Core Banking Solution / हिन्दी अनावश्यक)

It is a banking software with web-platform for centralized data management & branch-less banking. E.g.

Finacle software; BanCS software; E-Kuber (used in RBI)

10.8.2 Next Generation Treasury Application (NGTA), 2020-Oct

⇒ RBI planning this web based application / software for management of

- Money Market Securities (Ref: HDT-Pillar#1C)
- Gold Reserves, Foreign exchange, Multi currency transactions (Ref: HDT-Pillar#3A)

⇒ Will this replace E-Kuber? How will it work? Ans. Topic still under development. Further operational aspects not important for the scope of IAS exam. # थोड़ा-पढ़ो-आगे-बढ़ो

MCQ: The term ‘Core Banking Solutions’ correct term? (Asked in UPSC Prelims-2016)

1. It is a networking of a bank’s branches which enables customers to operate their accounts regardless of where they open their accounts.
 2. It is an effort to increase RBI’s control over commercial banks through computerization.
 3. It is a detailed procedure by which a bank with huge non-performing assets is taken over by another bank.
- Answer Codes:** (a) 1 only (b) 2 and 3 only (c) 1 and 3 only (d) 1, 2 and 3

Table 5: Digital Payment Systems- transaction limits may differ, depending on banks

	RBI's centralised payment systems (CPS)		NPCI's IMPS
Type	RBI's RTGS: Real Time Gross Settlement	RBI's NEFT: National Electronic Funds Transfer	Immediate Payment Service
Transfer Amount	Min ₹2 lakh to ₹2000 crores (SBI).	upto ₹10 lakhs (SBI).	₹ 1 to maximum ₹2 lakhs (SBI)
Target customers	Bizmen wanting high value transactions instantly	Ordinary retail customers (आम जनता के छोटे भुगतानों के लिए है)	
Settlement mechanism	Instant settlement (झटपट/तुरंत निपटारा)	- Settles net amount between banks at interval of 30 min.	Instant settlement
Timing	BEFORE: Only working days 8AM to 5:30PM(SBI) From 2020-Dec: 24/7	- BEFORE: from 8 am to 7 pm on working days. - From 2019-Dec: NEFT operates on 24/7 basis.	24/7 on all days (दिन रात अविरल रूप से)
Fees	fee + GST**		fee + GST#
Who can provide this facility?	<ul style="list-style-type: none"> - BEFORE-2021: Only Banks can provide this facility - 2021: RBI announces that non-bank entities can also become members of centralized payment systems (CPS = NEFT & RTGS). So, in future, Amazonpay, PhonePe etc could also directly allow this 		Banks + (PPI) / mobile-wallet cos like Phonepe, MobiKwik

⇒ ** from 1/1/2020 **no fees** if doing online transactions. (but if NEFT/RTGS done by filling paper-form at bank branch then fees may be levied. (आपके पास कंप्यूटर या मोबाइल नहीं है फिर भी आप ऑनलाइन पैसा भेजना चाहते हैं तो आपने बैंक ब्रांच में जाकर NEFT/RTGS करवाने वास्ते कागजी फॉर्म भरना पड़ता है उस वक्त थोड़ी बहुत फ्रीस शायद लग भी सकती है)

⇒ # Although some banks don't charge IMPS fees for transactions upto ₹ "X"/- (EXACT Fig NOTIMP)

Mrunal comments before next section: In the digital wallet apps → companies introduce new features & RBI introduces new technical norms on daily basis. We are not here to write a MBA research paper on their business-

model & RBI regulations. Q. "sir u said x thing can't be done in phonepe App but now it can be done...as per my experience !! Ans. I've given simple illustration to explain thing. They keep adding new features in the App. UPSC asking only general broad MCQs from this. If they ask technical, then goto page1, Fig#2. # 📲 थोड़ा-पढ़ो-आगे-बढ़ो

10.8.3 📲 💳 💸 💵 Interoperability Problem (इंटरऑपरेबिलिटी)



Figure 6: can't connect Apple Watch to Android Phone 📲

- ⇒ (Definition) Interoperability is the ability of customers to transact across commercially and technically independent payment platforms. व्यावसायिक और तकनीकी रूप से स्वतंत्र भुगतान प्लेटफार्मों के बीच लेन-देन करने की सुविधा
- ⇒ Legal complications under Payment & Settlement System Act 2007, so, we don't have full interoperability; We can't transfer money between one wallet to another wallet, can't use wallet to pay all type of taxes, fees, insurance premiums etc. कानूनी बाधाओं के चलते संपूर्णता इंटरऑपरेबिलिटी नहीं थी
- ⇒ This is an obstacle to 'cashless-economy'. So, in 2018 and in 2021: RBI issued technical guidelines for interoperability. इस सुविधा को लागू करने के लिए तकनीकी दिशानिर्देश दिए हैं रिजर्व बैंक ने।

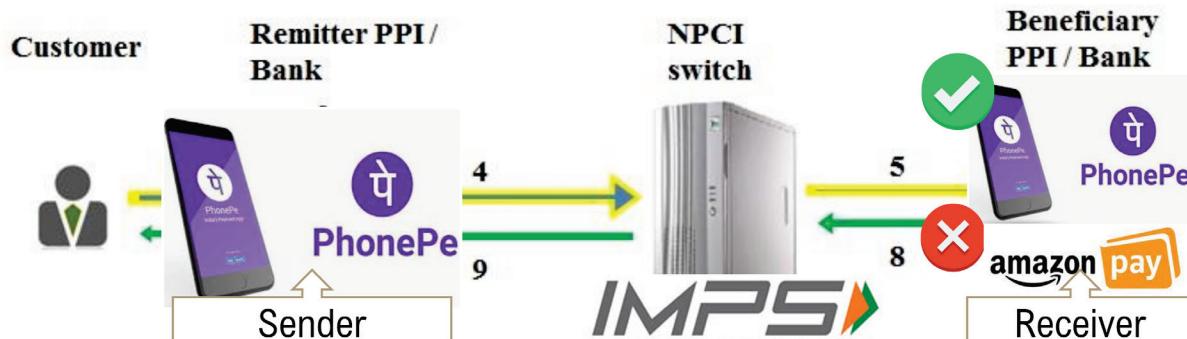


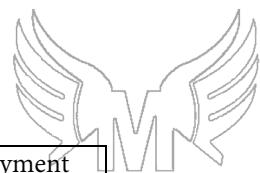
Figure 7: in above diagram, interoperability is absent. Phonepay money can't be transferred to Amazonpay directly.

10.9 📲 NATIONAL PAYMENT CORPORATION OF INDIA(NPCl)

- ⇒ 2008: NPCl is registered under Company Act as a "Not for Profit Company". (मुनाफा रहित कंपनी)
- ⇒ Originally it was founded by 10 banks with ₹ 100cr capital. 2020-Dec: Paytm, PhonePe, Amazon Pay etc also became shareholders of NPCl (ये सब शेयर धारकों ने पूँजी डालकर इस कंपनी को बनाया है)
- ⇒ Objective? Provide cost-effective payment solutions / technology for Banks. (रियायती लागत पर बैंकिंग टेक्नोलॉजी)
- ⇒ Its UPI-BHIM app & other mechanisms also help in financial inclusion of villagers & poors by expanding the reach of banking network. (गरीबों / गाँववालों के वित्तीय समोवेशन में मदद के लिए अलग अलग तकनीकी आविष्कार किए हैं)
- ⇒ More abt financial inclusion more in 📃 Pillar# 1D.

Table 6: NPCl has built following mechanisms / platforms / systems / apps:

BBPS	Bharat Bill Payment system for automated monthly payments of utility bills (gas, electricity etc.)
NACH	National Automated Clearing House for bulk monthly payments of utility bills, dividends, salaries, pension / insurance premiums etc.
NFS	National Financial switch. This technology runs the ATM network
CTS	Cheque Truncation System (2010) learned in previous section



  UPI 1.0 (2016)	<p>Full Form: Unified Payment Interface=It's a technology for building digital payment apps based on IMPS with following features:</p> <ul style="list-style-type: none"> ⇒ QR Scan & Pay to merchants. ⇒ You can link bank account for direct transfer of money without storing money in 'wallet' first. (unlike AmazonPay / Mobikwick etc) ⇒ Such app can have Push transaction (e.g. Remittance to family), Pull Transaction (e.g. monthly bill deduction by Electricity Co.) or even Bill sharing among friends. ⇒ Examples of UPI based app: SBI's SBIBuddy/Yono, Axis Bank's AxisPay and NPCI's own BHIM. ⇒ UPI 2.0 (2018): Upgraded version of UPI. What are its new features ? How is it different than UPI 1.0 ? Ans. not important for our exam. #  थोड़ा-पढ़ो-आगे-बढ़ो
  BHIM (2016)	<p>Full form: Bharat Interface for Money (remember this Fullform for exam!)</p> <ul style="list-style-type: none"> ⇒ It works on Android, iOS/Apple mobiles as an APP, ⇒ Works even on non-smart (=basic feature) phones using *99# USSD-Unstructured Supplementary Service Data. ⇒ Bank to bank / peer to peer transaction using mobile phone (xyz@upi). No need to install multiple apps for each bank account (SBIBuddy, AxisPay etc) just one BHIM app to use all such bank accounts. App has 3 factor authentication system. ⇒ Your money stays in bank account and earns interest. It's not stored in 'wallet outside your bank account' as it happens in Mobikwick, PhonePe etc. (PS: in later stage, PhonePe etc private apps also included UPI type mechanism so storing money in 'wallet' became optional but we need not engage in Hairsplittery/PHD.) ⇒ No cards involved so no MDR or such hidden charges.
 RuPay (2012)	<ul style="list-style-type: none"> ⇒ Rupee + Payment = RuPay card is world's 7th payment gateway similar to Mastercard, Visacard, China's Union Pay- but, at less service charges. ⇒ Works in 3 channels: 1) ATM, 2) Point of Sale Device (PoS/card reader machine), 3) Online portals. ⇒ Used by banks, railway and even Dairies (to pay ₹₹ to milk depositor farmers). ⇒ Rupay debit card given free with PMJDY (Jan Dhan) Bank account (Ref Pill1D). ⇒ Rupay has signed collaboration agreements with some digital payments companies in Singapore, Japan etc. So, it may be used in those countries. But presently Rupay is not having the widest reach across all the countries unlike MasterCard and Visa.
AEPS	<ul style="list-style-type: none"> ⇒ Useful for Direct Benefit Transfer (DBT: प्रत्यक्ष हस्तांतरित लाभ) into beneficiary's account for MNREGA wages, LPG subsidy, scholarship etc.  More in Pill#6 ⇒ It's also required for Bankmitra-MicroATM system.
NETC	<ul style="list-style-type: none"> ⇒ National Electronic Toll Collection provides technology support to the FASTag toll collection. (राजमार्ग पर पथकर वसूलने के लिए)
PAI chatbot	Artificial Intelligence (AI) based chatbot to reply to people's online queries about NPCI's products like FASTag, RuPay, UPI, AePS etc.
DakPay (2020)	Payment App by Department of Post and its India Post Payments Bank (IPPB)
BharatQR(2016)	Given in next section of this handout. Scroll down
E-Rupi (2021)	Given in next section of this handout. Scroll down



10.10 ₹ 📱 ☁ DBT → E-RUPI BY NPCI (2021)



- (Origin) E-rupi is an SMS /QR Code based Prepaid Cashless Electronic Voucher created by National Payment Corporation of India (NPCI) using its UPI Platform. [क्यूआर कोड आधारित प्रीपेड नगदीरहित इलेक्ट्रॉनिक रसीद जिसे भारतीय राष्ट्रीय भुगतान निगम (एनपीसीआई) ने अपने यूपीआई प्लेटफॉर्म का उपयोग कर बनाया]
- It is also supported by finance ministries Department of Financial Services and Health ministry's National Health Authority (NHA) [वित्त मंत्रालय के वित्तीय सेवा विभाग और स्वास्थ्य मंत्रालय के राष्ट्रीय स्वास्थ्य प्राधिकरण ने भी इसकी मदद की है]

10.10.1 ₹ 📱 ☁ E-Rupi: Challenges in Physical Procurement/DBT

Suppose the government wants to give Rs.500 worth shoes to schoolchild of a poor family. Following are the ways to accomplish it. [मान लीजिए सरकार स्कूल के गरीब बच्चों को ₹500 के जूते देना चाहती है]

Method तरीका	How?	Problem समस्या
Physical procurement [सरकार भौतिक स्वरूप में जूतों की खरीद करें और गरीब बच्चों दे,]	Government (Minister/IAS) buys shoes from Bata/Lakhani/XYZ company → send to school principal → Delivered to Child [लेकिन यहाँ मंत्री, अफसर, विद्यालय के हेडमास्टर पैसे या जूतों का गबन करें ऐसा डर]	<ul style="list-style-type: none"> ⇒ 🚫 Minister/IAS demand bribe from Bata/Lakhani/XYZ to Approve the government purchase tender. [सरकारी ठेका पारित करवाने के लिए रिश्ता] ⇒ 🚫 Substandard quality of shoes may be purchased from crony company who paid bribes. ⇒ 🚫 District education Officer (DEO), School principal may siphon/selloff shoes to the retail stores instead of giving to poor children [जूतों का गबन. हेड मास्टर गरीब जूतों के बच्चे जूते की दुकान को बेच दे] ⇒ 🚫 Shoe Size mismatch → Child may get the “sarkari” shoes but may not wear it= waste of taxpayer's money. [जूते बच्चे के पैर के नाप के बराबर ना हो]
Direct benefit transfer (DBT: प्रत्यक्ष लाभ अंतरण)	Govt transfers ₹500 to father's account	🚫 Father may use DBT money on Vimal, liquor and gambling instead of buying shoes for the child
	Govt transfers ₹500 to child's account	🚫 Child may use DBT money to buy Chocolates or Video Games instead of shoes.

10.10.2 ₹ 📱 ☁ E-Rupi: How does it fix Problems in Physical Procurement/DBT?

- ⇒ Govt (e.g. Education department) deposits money in a bank account (e.g. SBI) → NPCI generates E-rupi code. [Thus it is “pre-paid” by Government for beneficiary]
- ⇒ Government sends this E-Rupi QR Code/SMS Code to father → ke “Use this Rs.500 to buy shoes for child” [सरकार लाभार्थी के मोबाइल फ़ोन पर इ-रुपी नामक कोड भेजेगा, केवल जूता खरीदने के लिए इस्तेमाल हो सके]
- ⇒ Father takes child to the shoe store, buys the shoes Pays via E-rupi digital code. Shoestore then sends E-rupi code to banker (e.g. SBI) to redeem money (which was deposited by Govt).
- ⇒ Suppose Child prefers Bata (₹800 ka more comfortable leather shoe) over Lakhani (₹500 ka less comfortable rubber shoe) → Father pays E-Rupi QR(₹500)+Father's own cash (300)= buy Bata. Thus E-rupi gives more freedom to the beneficiary to purchase the goods as per their requirement/preference.



[लाभार्थी को अपनी पसंद और ज़रूरत के हिसाब से सामान खरीदने का अवसर/ स्वतंत्रता मिले]

- ⇒ IF Footware store “X”’s staff very arrogant then father may goto Footware Store “Y” = **Dignity & Power to customer.** Unlike PDS stores where beneficiary has to stand in long queues and often get humiliated by the shopkeeper for asking questions abt quality of rice/wheat/sugar/edible oil. [सरकारी राशन की दुकान पर अगर गरीब लाभार्थी अनाज की गुणवत्ता या खाद्य तेल में मिलावट की कोई शिकायत करे तो उसे दुकानदार ज़लील करता था . लेकिन E-rupi के चलते ग्राहक को स्वतंत्रता मिलती है कि यदि कोई दुकानदार बतमीजी करता है तो ग्राहक दूसरी दुकान चला जाएगा.]
- ⇒ Money will ultimately go to the best quality shoe maker (e.g. Bata). Less scope for corruption/ purchase of substandard quality shoes by taking bribes by the Minister/IAS = crony capitalism will decrease.
[लाभार्थी वो सामान खरीदेगा जो उच्च गुणवत्ता का है. इससे पहले कंपनियां मंत्री अफसरों को रिश्वत खिलाकर, लाभार्थीओं को घटिया किस्म का सामान दे दी थी= वो पक्षपाती पूँजीवाद कम होगा]
- ⇒ Father will not be able to use this QR code At Gutkha Parlor, Liquor Shop or Gambling Den. [लक्षित वस्तुओं के अलावा किसी अन्य चीज़ की खरीद में ही इ-रुपी कोड इस्तेमाल नहीं हो पाएगा]
- ⇒ District education Officer (DEO) or School principal cannot siphon shoes to blackmarket.
- ⇒ Footwear store accepted the E-rupi payment → money transfer takes place through banks = less scope for evading GST, Income Tax, Corporation Tax. [unlike cash transactions] [डिजिटल तरीके से बैंक खाते में पैसों का लेन देन होगा तो करचोरी और कालेधन के अवसर भी व्यापारी के लिए कम होंगे]
- ⇒ E-Rupi issued on mobile phone. = **Less touchpoints between the beneficiary and government officials.** Beneficiary **need not stay in queue to get the physical vouchers** from govt office = less scope for bribery and harassment [कोड सिधे लाभार्थी के मोबाइल फोन में आ जाएगा। गरीब आदमी ने सरकारी दफ्तर के थके नहीं खाने होंगे, सरकारी बाबू को रिश्वत नहीं देनी होगी]

10.10.3 E-Rupi: potential applications in Future [भविष्य में उपयोग]

- Food for mother, child and poor families under various schemes. Medicines for TB, Corona etc. Fertilizer subsidies for farmers [खाद्य दवाइयां उर्वरक की सब्सिडी दी जा सकेगी]
- Even private sector companies can issue it for 1] employees e.g. Gym membership, golf club membership, hotel tourism travel. 2] use it for corporate social responsibility (CSR) programs. [निजी कंपनियां भी कर्मचारियों को विविध चीजों के लिए दे सकती हैं. कारपोरेट सामाजिक दायित्व अदायगी में भी इसका इस्तेमाल हो सकता है]

Conclusion: Appreciable step by government to deliver the entitlements to the poor families in targeted and leakproof manner. This will help in a long way in increasing the accountability, transparency and efficacy of Direct benefit transfer (DBT) programs. [सरकार का प्रशंसनीय कदम. गरीब परिवारों को लक्षित रूप से और रिसावमुक्त तरीके से सरकारी योजनाओं का लाभ मिले, जिससे प्रत्यक्ष लाभ अंतरण योजनाओं की जवाबदेही, पारदर्शिता और प्रभावकारिता बढ़ेगी।]

10.11 QR CODES: COMPULSORY TO IMPLEMENT UPI/BHARAT QR FROM 2022

- 1990s: 2 dimensional (2D) Quick Response (QR) Code system developed in Japan.
- Indian E-payment systems function on 3 types of QR Codes, namely,

Table 7: Difference between UPI QR vs Bharat QR? NOT.IMP.4.EXAM थोड़ा-पढ़ो-आगे-बढ़ो

Proprietary QR code	⇒ e.g. Paytm or PhonePe ke exclusive QR codes. Problem? Other companies' app may not be able to scan and pay it. ⇒ So, RBI has prohibited companies from launching any new proprietary QR code.
UPI QR code	Generated by UPI app of NPCi. It can be scanned by all Apps which are developed using UPI technology.
Bharat QR code	Developed by NPCi with help of Visa and Mastercard. It can be scanned by all Apps which are developed using UPI technology.



- ⇒ RBI has ordered all the Payment System Operators (PSOs e.g. Paytm, PhonePe, MobiKwik, Google Pay etc) to shift to UPI QR or Bharat QR by March 31, 2022.
- ⇒ 😊 Benefit? All Payment apps will be able to scan these QR codes → 'interoperability'.

10.12 📜 31 PAYMENT SYSTEM OPERATORS?

Payment and Settlement Systems Act, 2007: RBI gives license to Payment System Operators (PSOs).

Type of PSO	Examples
Umbrella Entity For Retail Payments	NPCI (learned in previous section)
Card Payment Gateway Operator	MasterCard, Visa, Rupay
Crossborder / International Remittance	Western Union, MoneyGram
Prepaid Payment Instrument (PPI)	AmazonPay, Mobikwik, PhonePe, PayU, PayTM Wallet etc
ATM Operators	SBI etc's own ATMs White label ATMs by Tata, Muthoot, SREI etc
Financial Market Infrastructure Provider	Clearing Corporation of India (CCI): provides digital infrastructure for share/bond/foreign currency deals etc. (📄 Ref: HDT-Pillar#1C)

10.12.1 📜 New Umbrella Entity (NUE) for Retail Payments System (2019)

- ⇒ Presently, Paytm has rival companies like Mobikwick, PhonePe; Mastercard vs Visa; SBI vs Axis Bank;
- ⇒ But there is no rival company against NPCi. वर्तमान समय में NPCi का प्रतिस्पर्धी कोई नहीं है
- ⇒ NPCi is an umbrella entity for retail payments system - it operates in card payment (RuPay), Money transfer (IMPS), Mobile Apps (UPI, BHIM), ATM Network (NFS) etc.
- ⇒ 2020: RBI issued a proposal, "if any Indian company interested to compete in this (NPCi-like) retail payment segment, we'll license them as new umbrella entity (NUE: खुदगा भुगतान के लिए नई छतरी इकाइ). Subject to these technical "XYZ" technical eligibility requirements" [What are those eligibility conditions e.g. Minimum Capital, Shareholding Pattern etc ? NOTIMP4EXAM, no matter how many private mock test walla ASK it in their Faaltu Tests #😊 थोड़ा पढ़ो आगे बढ़ो]
- ⇒ 😊 Benefits? More companies like NPCi → more competition → more innovation and cheaper services for users. (स्पर्धा बढ़ेगी तो नए तकनीकी आविष्कार होंगे, डिजिटल भुगतान सेवाएं पहले से भी ज्यादा सस्ती / किफायती, ग्राहक का फायदा)

एवं ? MCQ. Find Correct Statement(s) [asked in UPSC- Prelims-2017]

1. NPCI helps in promoting the financial inclusion in the country.
2. NPCI has launched RuPay, a card payment scheme.

Answer codes: (a) 1 only (b) 2 only (c) Both 1 and 2 (d) Neither 1 nor 2

एवं ? MCQ. Find Correct Statement(s) [asked in UPSC- Prelims-2018]

1. BHIM app allows the user to transfer money to anyone with a UPI-enabled bank account.
2. While a chip-pin debit card has four factors of authentication, BHIM app has only two factors of authentication.

Answer codes: (a) 1 only (b) 2 only (c) Both 1 and 2 (d) Neither 1 nor 2



10.12.2 Third Party Application Providers (TPAPs): Google Pay, WhatsApp Pay

- WhatsApp Pay is a feature that allows users to send/receive money via WhatsApp to their contact list using UPI technology. UPI technology is developed by (NPCI).
- ⇒ Google Pay (GPay, formerly called 'Tez') is an App by Google for online payments.
- ⇒ As per rules, Payment Service Operators need to register with RBI under Payment and Settlement Systems Act, 2007. But Google functioned without authorization. बिना आरबीआई के पंजीकरण के चला रहा है
- ⇒ 2019-April: Delhi HC inquired. Google clarified: "Google Pay operates as a technology service provider to its partner banks, using UPI infrastructure. We are not part of payment processing or settlement. Payment is directly done from one bank account to another. So, we require no license / authorization / registration required from RBI." Beyond that जिसको आंदोलनकारी बनना है → वो झंडा लेकर जंतर-मंतर पर धरना प्रदर्शन करे, जिसको IAS/IPS बनना है वह आगे का Next topic पढ़े....

10.13 CREDIT & DEBIT CARDS (ALSO CALLED 'PLASTIC MONEY')



Table 8: Card Types based on Payment modality

1) Credit Card (कर्ज पे शॉपिंग)	2) Debit Card (अपने बैंक बचत का पैसा इस्तेमाल करो)
<ul style="list-style-type: none"> ⇒ It allows holder to make purchase on credit (=loan), even if he may / may not have sufficient balance in his bank account at the time of purchase. एक तरह से कर्जे पर खरीदारी की सेवा ⇒ Customer does shopping using credit card → bank transfers ₹ ₹ to merchant from bank's own funds and later bank recovers ₹ ₹ from customer. ⇒ Customer can pay entire due amount at once or convert it into Equated Monthly Installments (EMI). बकाया रकम किश्तों में भुगतान कर सकता है ⇒ Interest rate may be charged depending on billing cycle, grace period and other terms and conditions PhD करने की हमको जरूरत नहीं है. 	<ul style="list-style-type: none"> - It allows holder to make purchases upto the extent of the amount lying in own his bank balance. अपने बैंक खाते में जितना पैसा है उतना ही इस्तेमाल - Customer does shopping using debit card → bank transfer ₹ ₹ from customer's own bank account to merchant. So, if he has insufficient balance, he may not be able to make purchase. Although nowadays e-commerce sites allow debit-card based EMIs but that much PhD/Hairsplittery unnecessary for IAS For MCQ. Simply remember: Debit card= shopping ONLYIF you have ₹ in bank balance, Credit card= shopping without ₹ in bank balance.
If Credit card used for withdrawing money from ATM, then it's a type of 'borrowing', so, bank levies interest rate.	Debit card can be used to withdraw ₹ ₹ from ATM from your existing bank balance. So, it's not 'borrowing'.
<u>Credit card vs Overdraft?</u>	<u>Debit card vs Overdraft?</u>
<ol style="list-style-type: none"> 1. Credit cards = for shopping. You carry card in your pocket. Bank may give u some reward-points/gifts if you spend "₹.X" per year 2. - for overdraft= you have to manually visit the bank branch, fillup form. It's not in the form of a 'card'. Doesn't give u points/gifts. Further difference not.imp.not.here.for.IBPS-exam 	You should be intelligent enough to self-understand that much. शिक्षक हर चीज की स्थून फिडिंग करेगा/चम्मच से खिलाएं वह विद्यार्थी के मानसिक विकास के लिए अच्छी बात नहीं



- ⇒ 3) **Hybrid Card / Duo Card:** Single card containing two chips for 1) credit card and 2) debit card. So, you don't have to carry two separate cards. E.g. Indusbank Hybrid card. एक ही कार्ड में दोनों का मजा 😊
- ⇒ 4) **Pre-paid card:** It's a subtype of debit card. Debit card is linked to a given bank account. But Pre-paid card can be bought even without having account in the given bank e.g. IRCTC's UBI Prepaid Card which can be used for buying rail tickets, meals etc. Backend support provided by Union Bank of India (UBI) and NPCi's Rupay gateway. (इस कार्ड को पैसा देके खरीदना पड़ता है। बैंक खाता होना जरूरी नहीं।)

10.13.1 **Card Types based on Security Features:** (सुरक्षा प्रणाली के हिसाब से कार्ड के प्रकार)

1. **Magnetic Card:** 1960s technology. Data on magnetic strip. But, such data can be duplicated, cloned, skimmed while swiping the card = fraud. So, RBI stopped such cards from 1/1/2019 using powers under Payment & Settlement Act. चुंबकीय कार्ड में जालसाजी का खतरा 🛡️ → इसलिए आरबीआई ने ⚙️ प्रतिबंधित किया
2. **EMV card:** Full form: Europay+Mastercard+Visa chip infrastructure with encryption. RBI had ordered migration in 2013- finally effective from 1/1/2019. Two sub-types
 - o (A) **EMV-Contact:** cards must remain in Point of Sale (PoS) Terminal during transaction.
 - o (B) **EMV-Contactless cards:** simply tap the card on terminal using RFID (radio-frequency identification) technology. (बस छूकर निकल जाओ. कार्ड को मशीन में घुसेड़ने की जरूरत नहीं)

HomeWork: Read about RFID & NFC from Sci-Tech book/internet.

10.13.2 **Card Tokenization (2019)**



Figure 8: थप्पड़ से डर नहीं लगता, Identity theft se lagtaa hai!

- ⇒ During the purchase customer may have to enter following data about his credit/debit card: Account Holder's Name, 16-Digit Account Number, Expiry Date, Security Code (CVV/PIN).
- ⇒ Often merchant site (e.g. Amazon) offers to store this data in their server so next time customer does not have to retype it and he can do "one click purchase". 🛡️ Challenge? Data may be hacked/leaked/misused.
- ⇒ Tokenisation = creates a set of numbers called 'token' to replace/hide the sensitive card data such as the 16-digit account number, expiry date and security code. (हैंकिंग से बचने वास्ते असली कार्ड नंबर की जगह टोकन/काल्पनिक-नंबर बनाकर दे दो ऐसी बात है। ताकि विक्रेता का आपके कार्ड की गुप्त जानकारी मिले नहीं)
- ⇒ This ensures your card information is not disclosed to merchant website.
- ⇒ Card owner can generate Tokenization through visiting card-issuer's/banker's website/App through laptops, desktops, tablet, wearables (smartwatch) etc.
- ⇒ From 1/1/2022, Merchant / Seller can't store card details. He'll have to delete previous card data. Only source banks and card issuers (such as Rupay, Visa, and Mastercard) can store card details.

10.13.3 **National Common Mobility Card (NCMC, 2019)**



Figure 9: NCMC card unboxing ka video bhi youtube & Instagram पे डालते हैं

'One Nation One Card Model' by **Ministry of Housing & Urban Affairs (MoHUA)** with the help of NPCi, Bharat Electronics Limited (BEL Company), and some banks. It has 3 components: (तीन घटक हैं इसके)



- ⇒ 1) NCMC Card: To be issued by banks. Nature can be Debit/Credit/Prepaid. Can be used for metro, bus, suburban railways, toll, parking, retail shopping etc.
- ⇒ 2) SWEEKAR: Automatic Fare Collection System. (यात्री किराया वसूलने की स्वचालित प्रणाली)
- ⇒ 3) SWAGAT: Swachalit / Automated Gate at railway/bus station. (अपने आप खुलने-बंद होने वाले दरवाजे)

10.13.4 🚗 FASTag for paying toll fees at highways (2017)

FASTags are prepaid rechargeable tags that allow for automatic toll collection at electronic toll collection gates Radio-frequency Identification (RFID) technology.

- ⇒ 2013 onwards Govt required automobile companies to install RFID tags on windscreens of cars.
- ⇒ 2017: National Highways Authority of India (NHAI, a statutory body under Highway ministry) launched 2 mobile apps MyFASTag and FASTag Partner to facilitate Electronic Toll Collection (इलेक्ट्रॉनिक माध्यम से पथकर/टोल वसूली के लिए राष्ट्रीय राजमार्ग प्राधिकरण द्वारा अलग अलग एप बनवाए गए हैं).
- ⇒ NPCi's has developed National Electronic Toll Collection (NETC) technology to aid this.
- ⇒ Persons loads up ₹ ₹ in his mobile app → activates RFID tag in his car → when it passes through highway toll-booth, the money is automatically deducted. (गाड़ी टोल नाके से गुजरेगी अपने आप पैसा कट जाएगा)
- ⇒ 😊 Benefit? faster traffic movement. (तेज यातायात मैं मदद क्योंकि गाड़ी रोककर हाथ से भुगतान नहीं करना)
- ⇒ FASTag has validity of 5 years. It is vehicle specific and once it is affixed to a vehicle, it cannot be transferred to another vehicle = helps in tracking of vehicle theft, criminal's movement etc (एक बार वाहन को चिपकाया तो दूसरे वाहन में उस टेग/स्टिकर को स्थानांतरित नहीं कर सकते इसके जरिए चुराए वाहनों को ढूँढना पुलिस के लिए आसान)
- ⇒ From Mid-Feb-2021, it became mandatory for all vehicles passing through tolls to have FASTags. Vehicles without FASTags will have pay up more fees/toll at the gates. (ये लगाना अनिवार्य हुआ अन्यथा ज्यादा फीस)

10.13.5 📲 Card Entities in Negative News: MasterCard, HDFC Bank

- **HDFC Bank:** 2020-Dec: RBI suspended it from issuing new card due to security /server problems. 2021-Sept: Ban lifted. (रिजर्व बैंक ने सुरक्षा कारणों से अस्थायी रूप से रोक लगाई थी कि तुम नए ग्राहकों को कार्ड नहीं दे सकते)
- **MasterCard** is a payment gateway operator running card network in India for various banks. But despite RBI directive it was not storing Indian customer data in Indian servers. So 2021: RBI has prohibited MasterCard from onboarding (=issuing new cards) to Indians. (भारतीय ग्राहकों का डेटा केवल भारतीय सर्वर में ही संग्रहित करना है ऐसे रिजर्व बैंक के नियम को ये मान नहीं रहा था तो रिजर्व बैंक ने इसे ग्राहकों को नए कार्ड जारी करने से मनाई की)

10.13.6 🏧 ATM and its Types



- ⇒ Automated Teller Machine (ATM) allow bank customer to withdraw money or check balance without visiting any branch of a bank. (स्वचालित रूप से नकदी मुद्रा देने वाला यांत्रिक डिब्बा)
- ⇒ ATM network works on NPCi's NFS (National Financial Switch) technology.

Bank label	Bank itself owns and operates the ATM network.
Brown label	Bank owns but operations outsourced (cash refilling truck, guard) ⇒ <i>Note: Some books offer different definition, but I've taken above definition from Economic Times Article 2015.</i> (कुछ किताबों में व्याख्या अलग है मैंने इधर से ली है)
White label	Non-Bank owns and operates. E.g. Muthoot Finance, Tata Communication, Prism ⇒ In 2012: RBI invited application, 4 companies given license. ⇒ From 2013-19 no new applications invited.



	⇒ 2019-Aug: RBI announced 'on-tap' licensing system for white label ATM i.e. a company can apply to RBI as and when it wants (just like applying for driving license). company need not wait for notification (unlike IAS exam notification).
Micro-ATM	Bankmitra manually makes entries of deposit and withdrawal for customer. He uses handheld device for using card & Aadhar biometrics. NPCi's AEPS technology gives backend technological support.

2019-June: RBI setup V-G Kannan Committee on ATM charges by banks such BankingGK #notIMP4IAS.

10.14 MDR: FULL FORM: MERCHANT DISCOUNT RATE (व्यापारिक छूट दर)

- ⇒ MDR is the fees that a merchant must pay to his (acquirer) bank for every credit / debit card transaction.
- ⇒ MDR fees is **shared** among 3 parties 1) customer's card issuing bank 2) merchant's acquiring bank 3) payment gateway provider. (तीन पक्षों में इस फीस को बांटा जाता है)
- ⇒ MDR hurts merchants' profit margin, discourages them from adopting Point of Sale (PoS) terminals (=card swiping machine) → obstacle to digital economy. (व्यापारी के मुनाफे पर असर होता है इसलिए वह कार्ड मशीन अपनाने में उदासीनता दिखाते हैं।)

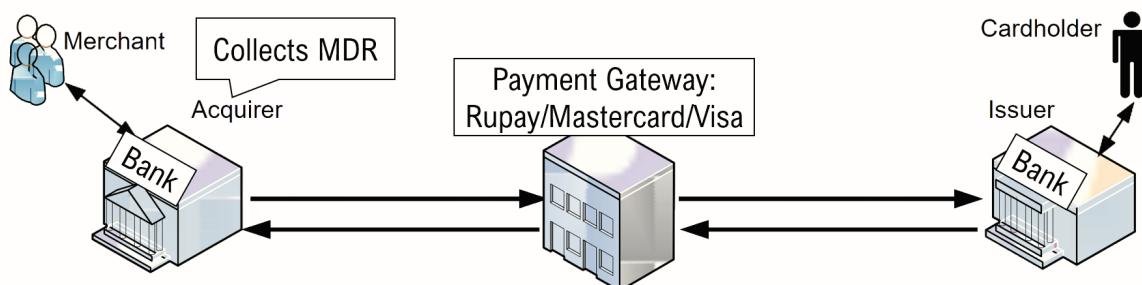


Table 9: Steps taken to address MDR issue

RBI	⇒ 2017: Imposed ceilings on MDR fees i.e. MDR can't be more than "x%" of the transaction amount. (रिजर्व बैंक द्वारा तय सीमा से ज्यादा फीस नहीं मांग सकते)
MEITY	<ul style="list-style-type: none"> ⇒ WEF 1/1/18: Ministry of Electronics & Information Technology (MEITY) started MDR-subsidy to acquirer bank on bills upto ₹ 2,000, if payment made via Debit Card ⇒ Scheme valid for 2 years. ⇒ Direct benefit: Encourage digital payments ecosystem. ⇒ Indirect Hidden benefit: Datamining of tax evading merchants
Budget	⇒ Nirmala S's Budget-2019: If biz.firm turnover > ₹ 50 crore is accepting payment via Rupay debit card then NO MDR on such transaction. RBI and Banks will absorb this 'MDR Fees burden'. (₹ 50 cr से ज्यादा का कारोबार करने वाली कंपनी यदि रुपये डेबिट कार्ड से भुगतान स्वीकार करती है तो उस पर एमडीआर फीस नहीं लगे- वो सारी एमडीआर फीस का बोझ रिजर्व बैंक और बैंकों ने स्वयं ढोना होगा)

^ऐसी सब तकनीकी चीजों का हिंदी तैयार करने की कोई जरूरत नहीं. Mains में आसान भाषा में एक वाक्य में लिख दो, “डिजिटल भुगतान को प्रोत्साहन देने के लिए सरकार ने एमडीआर फीस का बोज कम करने के लिए सब्सिडी तथा अन्य कदम उठाए हैं।”

10.15 MEASURES TO PROMOTE LESS-CASH ECONOMY

- ⇒ During 2016-17 in the aftermath of Demonetization (नोटबंधी/विमुद्रीकरण के बाद)
 - ✓ Ratan Watal Committee to Finance Ministry for medium term recommendations to strengthen digital payment ecosystem. (डिजिटल भुगतान परिस्थितिकी तंत्र को मजबूत करना)
 - ✓ Chandrababu Naidu chief ministers' Committee to PM to promote digital payment.
 - ✓ HRD ministry's **Vittiya Saksharta Abhiyan** wherein college students explain people about digital transactions. (डिजिटल भुगतान कैसे करें उसकी जागृति फैलाना)



- ✓ NITI+NPCi launched lottery / cashback schemes for customers (**Lucky Grahak**) and merchants (**Digi Dhan Vyapar**). Government itself launched further cashback schemes for using UPI-BHIM.
- ⇒ **Budget-2017:** imposed ceilings on cash transactions, gave tax incentives to companies for using digital transactions, **↓** custom duties on ATM devices. (नगदी व्यवहारों पर रोकथाम, डिजिटल भुगतान अपनाने पर करों में रियायत)
- ⇒ **Budget-2018:** promised to explore blockchain technology [of cryptocurrencies] for promoting digital economy.
- ⇒ **Budget-2019 by Nirmala.S:** imposed TDS on withdrawal of ₹1 cr/> cash from a single user account.
<More in **█ Pillar2: Taxation → Black Money** (अपने बैंक खाते से मोटी नगदी रकम उठाने पर टीडीएस करेगा)
- ⇒ **Digidhan Mission (2017) Digital Payment Abhiyan (2019)** = Ministry of Electronics and Information Technology (MeitY)'s camapgin to **▲**digital payment. But, outdated topics. We'll not waste time learning exact features. **⌚ DONOT lose Sleep**

10.15.1 **█ RBI's Nandan Nilekani Panel (2019: Jan to May)**



Nilekani (Ex-chairman of UIDAI, also associated with Infosys) gave total 70+ suggestions. Notable are:

Suggested Reforms @Government (नीलेकणि ने सरकार को ये सुझाव दिए)

- ⇒ Government transfers welfare schemes' money directly into bank accounts of poor people under Direct Benefit Transfer (DBT) mechanism. But poor people withdraw cash from bank account entirely because local merchants not accepting digital payments. So, raise awareness about BHIM-UPI and its adoption.(सरकार गरीबों के बैंक खाते में विविध योजनाओं का पैसा जमा तो करती है, किन्तु गांव के व्यापारी डिजिटल भुगतान स्वीकार नहीं करते इसलिए गरीब आदमी हमेशा बैंक से नकदी रकम निकालनी पड़ती है और नकदी में भुगतान करना पड़ता है)
- ⇒ Give companies tax incentives for using digital payments. (कर प्रोत्साहन /करों में छूट दी जाए)
- ⇒ **↓** reduce taxes on the devices required for digital payments. (डिजिटल भुगतान की मशीनों पर करों में कटौती)
- ⇒ Govt orgs should not charge **convenience fees** (सुविधा शुल्क) from citizens while accepting digital payments.
- ⇒ **National Common Mobility Card (NCMC):** Allow its usage in all transport routes and PoS.
- ⇒ Setup Computer Emergency Response Team for finance (FIN- CERT: आपातकालीन प्रतिक्रिया टीम).

█ Nilekani's Suggested Reforms @RBI (नीलेकणि ने रिजर्व बैंक को ये सुझाव दिए)

- ⇒ RBI should prepare area wise 'Digital Financial Inclusion Index' (डिजिटल वित्तीय समावेशन सूचकांक) to monitor progress & take remedial steps. Ensure no user is more than 5 kms away from a banking access point.
- ⇒ Setup a **Fund** to develop digital payment infrastructure in poorly served areas e.g. subsidy on PoS devices. RBI and Banks should co-contribute ₹ ₹ in this fund. (रिजर्व बैंक और अन्य बैंक द्वारा एक निधि बनाई जाए. जिसके पैसों से पिछड़े इलाकों में डिजिटल भुगतान मशीन खरीद/इस्तेमाल के लिए व्यापारियों को सहिती दी जाएगी)
- ⇒ **↓**Reduce the MDR / card payment fees. Allow customer to do "x" no. of digital payment transactions per month with zero charges. (कार्ड भुगतान पर लगने वाले विविध फीस में कटौती की जाए)
- ⇒ RBI should make NEFT available 24/7 and remove its fees. (Done in 2019-20: RBI removed charges on both NEFT and RTGS.)

█ Nilekani's Suggested Reforms @NPCi

- ✓ NPCI shd offer RuPay and BHIM UPI in other countries to facilitate remittance to India.
- ✓ Encourage local language apps/ software for digital payments. (स्थानीय भाषाओं में सॉफ्टवेयर बनवाओ)



Nilekani also suggested many other technical reforms but not imp4exam

MCQ Who among the following was the Chairman of the Committee on Deepening Digital Payments appointed by the RBI ? (Asked in UPSC-CDS2019-II-Q116)

- (a) H.R.Khan (b) Nandan Nilekani (c) N.R.Narayana Murthy (d) Sanjay Jain

10.15.2 Payments Infrastructure Development Fund (PIDF) 2020-Jun

- ⇒ ₹250cr from RBI + ₹250 cr from (Banks and Card Gateway Operators) → ₹500 cr fund setup.
- ⇒ **Objective?** Provide funding/ subsidy to encourage merchants in the small towns, villages and North Eastern states to adopt point-of-sale (PoS) card swiping machines.

भुगतान इंफ्रास्ट्रक्चर के लिए निधि/कोष: गांव, छोटे शहरों और उत्तर-पूर्वी इलाकों में व्यापारियों को कार्ड मशीन अपनाने के लिए मदद

10.15.3 Scheme of Offline Retail Payments Using Cards and Mobile Devices

- ⇒ While mobile phones, cards, e-wallets, etc. but, internet connectivity issues especially in remote areas= obstacle to digital economy
- ⇒ So, 2020-Aug: RBI announced trials /pilot-testing for Off-line payments through cards, wallets and mobile devices for small value transactions. (इंटरनेट बंद हो तब भी छोटी रकम के भुगतान डिजिटली किए जा सके, इस प्रकार के परीक्षण आरबीआई करवा रहा है.)
- ⇒ How this thing really works is not important for the scope of the exam. # ⊖

10.15.4 Payment and Settlement Systems in India: Vision 2019 – 2021

RBI published this document in 2019-May. it repeated most of the points that Nilekani report said. As such not much IMP unless preparing for RBI exams (रिज़र्व बैंक के दस्तावेज प्रकाशित करता है हालांकि मोटी मोटी बाते हमने पढ़ ली)

10.15.5 RBI Digital Payments Index (DPI: डिजिटल भुगतान सूचकांक)

- ⇒ With 5 component: (i) Payment Enablers (weight: भारांक 25%), (ii) Payment Infrastructure – Demand-side factors (10%), (iii) Payment Infrastructure – Supply-side factors (15%), (iv) Payment Performance (45%) and (v) Consumer Centricity (5%). (WEIGHT NOT IMP4IAS but for RBIOfficerEXAM)
- ⇒ Report will be published 4-4 months. (हर चार महीने पर प्रकाशित होगा ये रिपोर्ट)
- ⇒ Base Year 2018, then annual growth measured in Digitisation of payments then → backward areas will be found → RBI will give more attention to those areas. (आधार वर्ष 2018 की तुलना में डिजिटल भुगतान के विभिन्न मानकों में कितनी बढ़ोतरी हुई, उस हिसाब से विविध इलाकों का पिछ़ापन तय होगा और रिज़र्व बैंक वहाँ सुधार के लिए ज्यादा ध्यान देगी)

10.16 DIGITAL PAYMENT REGULATORY BODIES (नियंत्रण संस्थाएँ)

10.16.1 Digital Transactions Ombudsman (DTO-2019)

- ⇒ RBI designates senior RBI officials at 21 places across India as DTO. They hear customer complaints upto ₹ 20 lakh against prepaid payment instruments, Mobile wallets, Apps, NEFT/RTGS and other digital transactions. ((डिजिटल लेनदेन शिकायत निवारण अधिकारी/लोकप्रहरी).
- ⇒ They can order the company / bank to fix problem and pay upto additional ₹ 1 lakh for mental agony of customer (मानसिक उत्पीड़न के लिए जुर्माना/मुआवजा). → Higher Appeal to Dy.Gov of RBI.
- ⇒ If matter > ₹ 20 lakh, then matter outside his jurisdiction. Victim has to approach court. (20 लाख से अधिक रकम का मामला होगा, तो पीड़ित ने न्याय/इंसाफ के लिए अदालत/कोर्ट में जाना होगा)



10.16.2 📈 (Proposed) Payment Regulatory Board (PRB)

- ⇒ **1998:** Narsimham-II Committee on Banking Reforms suggested regulatory framework for e-banking, card payment etc.
- ⇒ **2007:** Payment & Settlement Systems Act (भुगतान और निपटान प्रणाली अधिनियम) → RBI → (Statutory) Board for Regulation and Supervision of Payment and Settlement Systems (BPSS: भुगतान और निपटान प्रणाली के विनियमन और पर्यवेक्षण के लिए बोर्ड).
- ⇒ All types of payment system providers have to register with RBI's BPSS- whether bank, non-bank, wallet/Prepaid Payment Instrument (PPI) etc. (सभी भुगतान संस्थाओं ने इस वैधानिक संस्था में पंजीकरण करवाना अनिवार्य)
- ⇒ **2016:** Ratan Watal Committee suggested replacing above BPSS with a Payments Regulatory Board (PRB: भुगतान नियामक बोर्ड) in RBI. This PRB to look after Interoperability, Consumer protection, Innovation, R&D in digital payments. (उक्त BPSS संस्थान को बदलकर एक नया PRB संस्थान बनाने का सुझाव दिया गया)
- ⇒ **2018:** draft Payment and Settlement System Bill to implement PRB. (इसके लिए विधेयक का मसौदा भी बनाया गया)
- ⇒ But, RBI vs Government difference of opinion about who should be chairman, how many members from Government side etc. रिजर्व बैंक और सरकार के बीच मतभेद के चलते ये नई प्रस्तावित PRB संस्था अभी तक बनी नहीं है।

10.17 ⚒ CRYPTO-CURRENCY & BLOCKCHAIN TECHNOLOGY



- ⇒ [Definition] **Cryptocurrency:** is a digital / virtual currency created & stored using blockchain technology. क्रिप्टोमुद्रा एक डिजिटल मुद्रा है जिसे ब्लॉकचेन तकनीक का उपयोग करके बनाया और संग्रहीत किया जाता है।
- ⇒ [Definition] **Blockchain:** A secured decentralized database that maintains a continuously growing list of records / transactions. Old entries can't be deleted, new entries will be visible to all. Mainly used for running cryptocurrency network. But it can also store any type of data. (ब्लॉकचेन एक डेटाबेस है जो रिकॉर्ड की निरंतर बढ़ती सूची को विकेन्ट्रीकृत रूप से बनाए रखता है।)
- ⇒ [Origin] Anarchist groups lost faith in FIAT MONEY because USA's Subprime Crisis (2007) eroded the purchasing power of US Dollar. They also dislike Banks & Card Companies because of transaction charges on e-banking, card payments, MDR, interoperability issues. (अशासनवादी समूहों को सरकार द्वारा जारी की मुद्रा नापसंद। इन अशासनवादी समूहों को बैंक और कार्ड कंपनियों से भी नफरत है।)
- ⇒ **2009:** An anonymous user (अनाम/अज्ञात) **Satoshi Nakomoto** launched a cryptocurrency 'Bitcoin'.
- ⇒ total 21 million Bitcoins, wherein 1 Bitcoin (BTC) = 10^8 Satoshi (the smallest unit).
- ⇒ Other examples: Ethereum, Litecoin, Digicoin, Laxmicoin, Ripple, Dogecoin etc..

10.17.1 💳 Hot Wallet vs Cold Wallet

- ⇒ Just like you store money in Paytm DIGITAL Wallet. You can store Bitcoin and other cryptocurrency in Crypto Digital Wallets. Such wallet could be hot wallet or cold wallet.
- ⇒ Hot wallets are connected to the internet, (e.g. an online app)
- ⇒ While cold wallets are not connected to internet (e.g. a USB pendrive).

3 ways to obtain Cryptocurrency	⌚ Negative Points / Challenges (क्रिप्टो मुद्रा हासिल करने के तीन तरीके, और वे खराब क्यों हैं?)
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1) Mining of the blockchains using powerful computers शक्तिशाली कंप्यूटर द्वारा डिजिटल-खनन	- Graphics cards demand & price hike: 2x-4x times due to bitcoin mania. E-waste generation. (ग्राफिक्स कार्ड अप्रत्याशित रूप से महंगे हो गए हैं) - Thermal Electricity wastage worth 20 megaton CO ₂ per year (बिजली की बर्बादी) - Iran: People deploying large number of computers for Bitcoin mining → Electricity outage in normal houses → Diesel generator → ↑ Pollution /smog. So 2021-Iran banned bitcoins. (डीजल जनरेटर से वायु प्रदूषण)
2) Selling goods and services to a miner / owner of cryptocurrency जिसके पास क्रिएटो मुद्रा है उसे कोई वस्तु या सेवा बेचो	⇒ Bitcoin wallets have “public address” (like an email) & private key (like a password). Unlike Paytm wallet, possible to create a Bitcoin wallet without any phone number or email id. So, difficult to trace by law enforcement agencies. Misuse in Narcotics, Illegal trade, Terror finance.* * ⇒ Selling goods/services in exchange of Bitcoins= Govt deprived of GST, Custom duty, Income tax. सरकार को कर नहीं मिलेगा, क्योंकि आय/बिक्री छिपाना आसान ⇒ If Scam: can't get justice under Consumer Protection Act. ग्राहक सुरक्षा कानून में न्याय नहीं मिलेगा। क्योंकि खरीद बिक्री वैधानिक निविदा से नहीं हुई।
3) Exchanging legal tender to buy cryptocurrency. वैधानिक मुद्रा की मदद से क्रिएटो मुद्रा को खरीदो	⇒ For traditional Rupee to Dollar exchange, Forex dealers have to register with RBI under FEMA Act. (Foreign Exchange Management Act, █ Pillar#3) ⇒ But, if ₹ or \$ exchanged with Bitcoin = terror finance, sending black money to tax havens. (आतंकी वित्तपोषण, काले धन को विदेशभेजना) █ More in Pillar2: ⇒ Bitcoin exchange rate: speculation, volatility, Government deprived of Capital Gains Tax (CGT: पूँजीगत अभिलाभ कर को छिपाना, █ Pillar#2) ⇒ Ponzi investment frauds- so, Government came up with ‘Banning of Unregulated Deposit Schemes Ordinance/bill, 2019’. (More in █ Pillar1D: Financial Inclusion.)

⇒ **⌚** 2021: Car with a Bomb parked outside Mukesh Ambani’s home with a letter demanding ransom in Bitcoins. Which proves criminals prefer the anonymity of Bitcoins. मुकेश अंबानी के घर के सामने बम वाली गाड़ी रखके से क्रिएटोमुद्रा में फिरौती माँगी गई। जो सावित करती है कि अपराधियों को भी बिटकॉइन की गोपनीयता पसंद है।

** **⌚** **FAQ:** How is Bitcoin not traceable, we can trace it using XYZ technology? **✓** Ans. we are not here for B.Tech (Computer Science) Semester exam/James Bond recruitment. We just have to memorize 3-4 negative points for Mains-Answer-writing-ki-pipudiso #**⌚** **⌚** #**⌚** थोड़ा-पढ़ो-आगे-बढ़ो

⌚ **⌚** MCQ. Find correct statement(s) about Bitcoin? [UPSC-CDS-2017-I]

1. It is a decentralized virtual currency.
2. It is generated through complex computer software systems.
3. The Reserve Bank of India recognized it as a legal tender in January 2016.

Answer Codes: (a) 1 only (b) 1 and 2 only (c) 2 and 3 only (d) 1, 2 and 3

⌚ **⌚** MCQ. Find correct statement(s) about “Blockchain Technology” [UPSC-Prelims-2020, SetB-Q20]

1. It is a public ledger that everyone can inspect, but which no single user controls.
2. The structure and design of blockchain is such that all the data in it are about cryptocurrency only.
3. Applications that depend on basic features of blockchain can be developed without anybody’s permission.

Answer Codes: (a) 1 only (b) 1 and 2 only (c) 2 only [d] 1 and 3 only



10.18 📈 ⚙️ 💸 CRYPTOCURRENCY LEGAL STATUS IN INDIA → RBI BAN/SC UNBAN

- ⇒ RBI's Institute for Development and Research in Banking Technology (IDRBT)- studying how to use blockchain technology for promoting digital economy. ब्लॉकचेन टेक्नोलॉजी की मदद से डिजिटल भुगतान को कैसे प्रोत्साहन दें इस पर रिजर्व बैंक की संस्था संशोधन कर रही है
- ⇒ However, RBI's attitude towards cryptocurrencies has been skeptical/negative <Refer to Next Section> (क्रिप्टो मुद्राएं के बारे में रिजर्व बैंक का रवैया/दृष्टिकोण संशयशील/ नकारात्मक है)
- ⇒ Since 2013: RBI had been warning Indians not to get involved in cryptocurrency due to frauds, tax evasion and terror finance. (रिजर्व बैंक चेतावनी देता है इसमें निवेश न करें क्योंकि धांधली, करचोरी, आतंक वित्तपोषण का खतरा)
- ⇒ 2018: RBI directed all banks to stop relations with any Cryptocurrency company. (रिजर्व बैंक ने बैंकों को आदेश दिया कि क्रिप्टोमुद्रा कंपनियों के साथ लेनदेन/व्यवहार बंद करें)

Then some cryptocurrency exchange companies like CoinDCX etc went to Supreme Court alleging that:

- ⇒ Parliament has not made any law declaring this activity as illegal (unlike possession cocaine / narcotics.)
- ⇒ Even Japan, USA, Singapore etc has not completely banned investment in cryptocurrency but imposed regulations to control its misuse/fraud. (इन देशों ने संपूर्णता प्रतिबंधित नहीं किया बस निगरानी के लिए सख्त कानून बनाए हैं)
- ⇒ Anekantavada philosophy of Jainism: 4 blind men try to describe an elephant but end up describing only one physical feature of the elephant. (आरबीआई और सरकार को पता ही नहीं है कि क्रिप्टोमुद्रा क्या चीज़ है)
- ⇒ Similarly, without fully studying the nature/impact of cryptocurrency, a blanket ban was placed, which has killed their business since no bank is opening their bank accounts. (हमारे व्यवसाय के हक को छीन लिया है)

⌚ 2020-March: SC revoked the RBI ban because (सुप्रीम कोर्ट ने रिजर्व बैंक के प्रतिबंध को हटा दिया क्योंकि):

- ⇒ Article: 19(1)(g): All citizens have the right to practise any profession including those companies dealing with cryptocurrency. (व्यवसाय का हक/मौलिक अधिकार सभी को है)
- ⇒ Same objective (financial fraud protection) could be achieved by imposing a less drastic ban.
- ⇒ So, RBI ban did not pass the **test of proportionality**.
 - Proportionality test is a legal method used by courts in matters where State's decision (for public safety/welfare e.g. Aadhar card or Bitcoin ban) interferes with fundamental rights of people (right to privacy, right to business)
 - अनुपातिकता की परीक्षा: सरकार जो जनहित में निर्णय ले रही है, वह मूलभूत अधिकारों का किस अनुपात में हनन कर रहा है?

What next? 🎩 RBI may release a calibrated regulation on cryptocurrency e.g. PAN card required, can't invest more than ₹"x" lakh per month etc. topic is still developing. 🎩 💾 🎓 🖐️

10.19 📈 ⚙️ 💸 CRYPTOCURRENCY LEGAL STATUS IN INDIA → GOVT'S ATTITUDE

- ⇒ 2017-18: Dinesh Sharma Committee to FinMin & Subhash Chandra Garg committee to FinMin suggested Government to ban it. (विविध सरकारी समितियों ने इस पर प्रतिबंध की सिफारिश की है)
- ⇒ 2018: Budget says Crypto-currencies are not legal tenders. We'll eliminate use of these crypto-currencies in financing illegitimate activities or as part of the payment systems. (बजट में वित्त मंत्री ने कहा कि अवैध/गैर कानूनी वित्तीय गतिविधियों में क्रिप्टो मुद्रा का उपयोग बंद करवाएंगे)
- ⇒ 2019: Ministry of Finance→ Department of Economic Affairs has proposed a draft bill called the 'Banning of Cryptocurrency & Regulation of Official Digital Currency Bill, 2019' (क्रिप्टोक्यूरेंसी पर प्रतिबंध और आधिकारिक डिजिटल मुद्रा का विनियमन विधेयक, 2019- वित्त मंत्रालय के आर्थिक मामलों के विभाग द्वारा बनाया गया है).
- ⇒ It aims to ban the use of all types of cryptocurrencies issued by private operators. Non-bailable offense, jail upto 10 years. (निजी निर्माताओं द्वारा बनाई गई डिजिटल मुद्रा रखना गैर-जमानती अपराध बनाने का प्रस्ताव है),
- ⇒ However, (if and when) RBI launches a blockchain-based digital currency, it'll be permitted. (हालांकि यदि रिजर्व बैंक खुद की डिजिटल मुद्रा बनाएगा तो वो गैरकानूनी नहीं होगा। उसके लिए गवर्नर शक्तिकांता दास को जेल में फिट नहीं करेंगे)

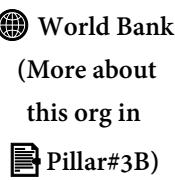
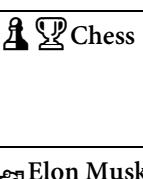


⇒ 2021: Ministry of electronics and IT (MEITY) published draft framework to use blockchain technology in database management of health record, property ownership, electricity distribution, supply chain management etc. Challenge? Lack of skilled man-power, Cybersecurity/Hacking. स्वास्थ्य रिकॉर्ड, संपत्ति का स्वामित्व, बिजली वितरण, आपूर्ति शृंखला प्रबंधन आदि में ब्लॉकचेन प्रौद्योगिकी का उपयोग करने के लिए इलेक्ट्रॉनिक्स मंत्रालय ने एक का मसौदा प्रकाशित किया हालाँकि भारत में ब्लॉकचैन उपयोग के लिए प्रशिक्षित मानवबल की कमी, हेंकिंग का खतरा

10.20 🎖️ ⚙️ 💫 🔒 CRYPTOCURRENCY BANNED IN OTHER NATIONS?

- ⇒ Nepal, Algeria, Egypt, Morocco, Turkey etc: holding Bitcoin is illegal. (कुछ देशों में क्रिएटी मुद्रा रखना गैरकानूनी है)
- ⇒ Iran banned Bitcoins for causing electricity outages & pollution (due to diesel generator use in mining)
- ⇒ Chinese prohibited the financial institutions (= Banks and Non-Banking Financial Companies/NBFCs) from providing buying/selling/investment services for bitcoin etc cryptocurrencies. After this crackdown, Bitcoin prices ↓ ↓ by 30% [चीनी प्रशासन ने देश की सभी वित्तीय संस्था को आदेश दिया है कि बिटकॉइन जैसी क्रिएटी मुद्रा की खरीद/बिक्री/निवेश से जुड़े हुए कोई भी काम भी ना करें। इसके बाद विश्व बाजार में बिटकॉइन का दाम पहले से करीब करीब 30% गिर गया.]

10.21 ⚙️ 💫 : 😊 CRYPTOCURRENCY PERMITTED IN OTHER NATIONS

	<ul style="list-style-type: none"> ⇒ United Nations International Children's Emergency Fund (UNICEF, HQ- New York, USA; 1946, later renamed to UN Children's Fund) ⇒ 2019-Oct: UNICEF setup a Cryptocurrency Fund to accept donations in cryptocurrencies. It has become the first UN organization to accept cryptocurrency. (यूनिसेफ संस्था दान में क्रिएटी मुद्रा का भी स्वीकार करती है)
	<ul style="list-style-type: none"> ⇒ 2018-Aug: World Bank launched World's first blockchain bond called "Bond-i" in Australia, denomination: Australian Dollars → public invests, gets ~2% interest after 2 years. ⇒ Blockchain bond requires less cost in server / database /paperwork maintenance unlike traditional bonds.  <i>More in Pillar#1C: SEBI/Sharemarket</i> ⇒ World Bank's report "Remittance Prices Worldwide 2020" says it costs an average 6-7%, to transfer money from one country to another, blockchain based money transfer technologies can help ↓ ब्लॉकचेन तकनीक द्वारा पैसा भेजने पर लागत खर्च में कमी
	<ul style="list-style-type: none"> ⇒ World Economic Forum (WEF) is a non-government organization in Cologny-Geneva, Switzerland. (विश्व आर्थिक मंच, गैर सरकारी संगठन) ⇒ 2020-May: Published a document, 'Blockchain Bill of Rights'. Document talks about rights to accountability, transparency, data privacy, data protection etc. (ब्लॉकचेन अधिकार पत्र/विधेयक: जवाबदेही, पारदर्शिता, डेटा गोपनीयता, डेटा सुरक्षा आदि के अधिकार) ⇒ Aims to set global standards for web-developers, corporates and governments who're building/using blockchain technology. (वैश्विक मानदंड बनाएगा) <p>But, WEF is not as big body as United Nation, and this report is not as great as the United Nations' Universal Declaration of Human Rights. So,  DON'T LOSE SLEEP.</p>
	2021: FTX Crypto Chess Cup: Online tournament. Prize \$320,000 will be paid in cryptocurrency to ↑ popularity and acceptance of Cryptocurrency. (क्रिएटी मुद्रा की लोकप्रियता व स्वीकृति बढ़ाने के लिए, ऑनलाइन शतरंज प्रतियोगिता जहां इनाम की रकम क्रिएटी मुद्रा के स्वरूप में)
	⇒ Tesla Electric car company owner. Regularly tweets about Bitcoins, Dogecoins. → investors become crazy/panicked → cryptocurrency prices ↑ / ↓ .



	<p>⇒ Thus, price of cryptocurrency = very volatile / unstable / sensitive to social media news/rumors/influencers. If common man invests, his lifetime savings may be ruined. Therefore, Government regulation necessary. (एलोन मस्क के ट्रीट से क्रिएमुद्राओं के द्वारा मैसा निवेश करें, तो ज़िंदगी भर की कमाई भी बर्बाद हो जाने का डर. इसलिए सरकारी नियंत्रण ज़रूरी है।)</p>
Bitcoin Mining Council (2021)	<p>Voluntary Global Forum of bitcoin miners, to promote sustainability of Bitcoin system. E.g. using Solar cells instead of diesel generators for electricity for digital mining. (बिटकॉइन का डिजिटल खनन करने वालों का वैश्विक स्वैच्छिक मंच. सौर बिजली से डिजिटल खनन करें इत्यादि)</p>
 Venezuela	<ul style="list-style-type: none"> - Bolivar currency = little value in Venezuela country due to hyperinflation, and failed economy. (अत्यधिक महंगाई के चलते बोलिवर मुद्रा का मूल्य/खरीद-शक्ति न के बराबर है) - So, 2018: President Nicholas Maduro launched “Petro” - a cryptocurrency whose price is linked with market price of 1 oil barrel. Their Supreme Court recognized it as “Fiat money – Legal Tender”. - Can be bought using Dollar, Euro, even other cryptocurrencies.
Marshall Islands	<p>Capital: Majuro, Sovereign state having free association with USA (for defense, social security, budget). Legal Tender was US\$D. But,</p> <p>⇒ 2018-Feb: became first country to launch sovereign cryptocurrency named “Sovereign” [SOV]. So, now two legal tenders: US Dollars and SOV.</p> <p>⇒ No anonymity unlike Bitcoins. (गुमनामी की सुविधा नहीं.)</p>

10.21.1 ⚙️ 💳 ⚡ El-Salvador: Bitcoin becomes a legal tender (2021)

- ⇒ El-Salvador: Two Legal tenders [1] US Dollars (from 2001). [2] Bitcoin (from 2021).
- ⇒ Thus, El-Salvador became 1st nation in the world to allow Bitcoin as legal tender. अल-साल्वाडोर देश में दो वैधानिक निविदा: अमेरिकी डॉलर, बिटकॉइन। बिटकॉइन को ऐसी अनुमति देने वाला यह दुनिया का पहला देश है।
- ⇒ Shopping, Salaries, tax payment may be done using Bitcoins or US Dollars. (खरीदारी, वेतन भुगतान, कर भुगतान में दोनों ही मुद्राओं का इस्तेमाल कर सकते हैं)
- ⇒ Exchange rate between Bitcoin and US dollar (e.g. 1BTC=50,000 US Dollars) will be decided by market forces of supply and demand. बिटकॉइन तथा अमेरिकी डॉलर के बीच मुद्रा विनिमय दर बाज़ार शक्तियाँ तय करेगी।
- ⇒ If foreign investors bringing bitcoins to El-Salvador, then they will be given certain tax benefits. (विदेशी निवेशक यदि बीटकॉइन के स्वरूप में अल-साल्वाडोर में मैसा निवेश करेंगे तो सरकार उन्हें करों में कुछ रियायतें/छूट/माफ़ी देगी।)

FAQ: Why El-Salvador allowed Bitcoin? Ans. ⚡ not important after looking at previous prelims and mains papers. We're not preparing for El-Salvador-ELAS exam

10.21.2 ⚙️ 💳 🎓 Cryptocurrency → Stable-coins



- ⇒ Stablecoin is a type of cryptocurrency whose price is backed by a reserve asset like gold / dollar / fiat currency e.g. Facebook's proposed 'Libra', Tether, Basecoin, and TrueUSD.
- ⇒ ⚽ But, stablecoins challenges: 1) money laundering (धनशोधन / काले धन को वैध बनाना) 2) terror financing (आतंकी वित्तपोषण) 3) lack of consumer protection (उपभोक्ता संरक्षण की कमी) 4) financial frauds (वित्तीय घोखाधड़ी)।
- ⇒ **2019: European Union** announced, “No stable coins shall be allowed in EU until we frame law.”
- ⇒ **2019: G20 summit at Osaka, Japan.** The leaders expressed similar apprehension. (आशंका/डर जताया)



10.21.3 ⚡️ 💎 💶 Cryptocurrency → Stable-coins → Facebook's Libra #Epicfail

- ⇒ 'Libra' is a blockchain based cryptocurrency by Facebook's subsidiary company 'Calibra', using programming language 'Move'.
- ⇒ Unlike Bitcoin, this Libra coin's exchange rate will be stable because Libra's value backed with Financial fiat currencies. (e.g. suppose Mark Zukerburg kept 500 million\$ in a locker & promised to exchange it @1LIBRA=\$20 or something)
- ⇒ You can buy Libra with Fiat Money → stored in Calibra wallet. Libra can be re-converted to fiat money.
- ⇒ Usage: Money transfer through Whatsapp, Online shopping.
- ⇒ All this may happen ONLY IF regulators permit. But France says, "we'll not allow it in Europe."
- ⇒ Visa, Uber, Paypal, PayU etc. companies had also invested in project. But later some of these partners left. इसका संपूर्ण हिंदी अनुवाद नहीं करेंगे. कुल मिलाकर बात यह है कि फेसबुक जैसी निजी कंपनियां भी अपनी मुद्रा निकालना चाहती हैं किंतु फ्रांस जैसे देशों की सरकार उसकी अनुमति देने के लिए राजी नहीं।

10.22 🐾 ⚡️ 💎 CENTRAL BANK DIGITAL CURRENCY (CBDC)



केंद्रीय बैंक डिजिटल मुद्रा / संप्रभु डिजिटल मुद्रा

2020-May: People's Bank of China (PBC) started trials to issue its paper fiat money Yuan/Renminbi in digital format. (कागजी रूप में मुद्रा छापने की जगह, डिजिटल रूप में जारी करना → और उसे लाभार्थी को ई-बैंकिंग के जरिए मुहैया/ उपलब्ध कराना)

- ⇒ PBC will use supercomputer to create its fiat currency 'Yuan' (also known as 'Renminbi') in digital format → transfer it to the recipient via e-banking e.g. loan to govt, salary to employee etc.
- ⇒ European Central Bank (ECB) and RBI have also setup internal committees to study the feasibility of CBDC. (भारत और यूरोप में केंद्रीय बैंक डिजिटल मुद्रा की व्यवहार्यता के लिए समितियां बनाई गई हैं)
- ⇒ 2021: Britain govt planning to launch official digital currency called "Britcoin"
- ⇒ 2020: USA's stand: " we don't want to be the 1st to launch the digital currency, rather, we want to do it error-free. Because there are many risks associated" ("इसमें जोखिम बहुत है इसलिए हमें जल्दबाजी में अन्य देशों से पहले इसे शुरू नहीं करना है!" - ऐसा अमेरिका का रवैया है)

10.22.1 🐾 ⚡️ 💎 =₹ Benefits of CBDC (केंद्रीय बैंक डिजिटल मुद्रा के फायदे)

CBDC/ Sovereign Digital Fiat Money / Digital Base Money will provide following benefit

1. Cost printing and transporting physical currency. लागत और परिवहन खर्च में कमी
2. Scope for counterfeiting. जाली नोट बनाना मुश्किल
3. Traceability, Anonymity: ढूँढना आसान, गुमनाम/अज्ञात रहेना मुश्किल
 - a. Whether money is reaching the intended beneficiary or not? (लाभार्थी को योजना का पैसा मिला कि नहीं)
 - b. From where did the businessman accumulate this money, did he pay an appropriate amount of tax or not? Else auto-alert to the Income tax department for tax evasion. (करचोरी पर निगरानी आसान)
4. Mass hysteria of Bitcoin & other Cryptocurrencies, which are issued by private actors & pose danger of Terror Finance, Narcotics etc. (निजी क्षेत्र द्वारा जारी क्रिएटिव मुद्रा के प्रति लोगों का आकर्षण/ सामूहिक पागलपन कम होगा.)
5. Homogeneity and promptness of disbursal: (त्वरित और एक रूप तरीके से पेसा हर जगह/ हर व्यक्ति को भेजना)



- a. With the click of a button, Money could be sent to beneficiaries' account whether he is located in Kashmir or Kanyakumari. Irrespective of Curfew/Lockdown/Floods/Bank Hartals- Students will receive scholarship, farmers will receive subsidy, and senior citizens will receive pension.
- 6. Can be evolved into a **Programmable Digital Currency** to control the allocation of new money for development of various sectors. (अलग-अलग क्षेत्रों के विकास के लिए पैसे को "प्रोग्राम" करके भेजना)
 - a. E.g. if RBI issues Programmable-Digital-Rupee → SBI → Student Loan → its Interest rate will be automatically “X%”, (यदि डिजिटल मुद्रा विद्यार्थी को शिक्षा लोन के लिए दी जा रही है तो अपनेआप कम ब्याज दर लगे)
 - b. but if SBI manager tries to circulate this money as loan-4-buying-luxury-iphone then A) either computer system will reject it or B) increase interest rate to Y%
 - c. [How will that work? Ans. ⚡️🎓 #Boycott-PHD #थोड़ा-पढ़ो-आगे-बढ़ो.]

7. 📈⚠️ Spread of virus/bacteria through physical currency notes. [Mains Logical Structure: this type of low level benefits should be written at the bottom part of the answer.] (रोग विषाणु के प्रसार में कमी)

10.22.2 🐾⌚✿=🚫₹ Challenges of CBDC (चुनौतियां)

1. Digital Divide, Financial Literacy, Access Points: (डिजिटल उपकरणों की उपलब्धता की खाई, वित्तीय साक्षरता का भाव, डिजिटल भुगतान इस्तेमाल करने के पहुंच बिंदुओं की कमी)
 - a. Not everyone has electronic gadgets or internet connectivity,
 - b. Not everyone knows how to operate bank account digitally,
 - c. Not every village shopkeeper accepts payments in the digital form.
2. Cyber Terrorism/Nuclear Attack/Natural Disaster. If electronic equipment stops functioning → economy will stop functioning. (साइबर आतंकवाद / परमाणु हमला / प्राकृतिक आपदा: विद्युत उपकरण बंद तो अर्थव्यवस्था बंद)

10.22.3 🐾⌚✿🚫 CBDC: Conclusion (निष्कर्ष)

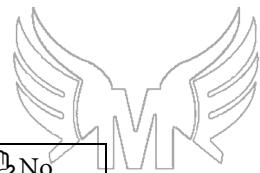
- ⇒ Considering above charms and challenges, CBDC
- ⇒ can 'supplement' physical currency BUT cannot substitute/replace it completely, for India. (डिजिटल मुद्रा, कागजी मुद्रा की 'पूरक' तो हो सकती है, लेकिन 'सम्पूर्ण विकल्प/एवज' नहीं)

10.23 🎫 ≠ ✨ NON-FUNGIBLE TOKEN (NFT: गैर-फंजीबल टोकन)



10.23.1 (◻=◻+◻+◻+◻) Fungibility: Meaning?

Item	Can it be subdivided in smaller units?	Is mutual substitution possible in terms of value?	Is it fungible?
₹2,000 Note	Yes ₹500 x 4 Notes=2000	Yes ₹500 x 4 Notes can buy same quantity of goods as a single ₹2000 Note	<input checked="" type="checkbox"/> Yes
1kg gold bar	Yes 100gm x 10 biscuits=1kg gold bar	Yes 100gm x 10 biscuits can buy same quantity of goods as a single 1kg gold bar	<input checked="" type="checkbox"/> Yes
1Bitcoin	1BTC=10 ⁸ Satoshi coins	Yes 1BTC's value = 10 ⁸ Satoshi coins. So, theoretically, they buy same quantity of goods	
100 gm single Diamond	Bigger single piece diamond considered to be more precious/valuable than small-small pieces diamond. So, 100gm Single_Big_Diamond =NOT equal 1gm x 100 small_Diamonds, in terms of value		<input checked="" type="checkbox"/> No



Shares, Bonds	NOT possible (How Ref: Pillar#1C: SEBI sharemarket)	No
NFT	NOT possible. Explained below.	No

10.23.2 Non-fungible token (NFT: गैर-फंजीबल टोकन)

- ⇒ (Definition) NFT is a Digital file photo file (JPEG), Animated image (GIF), music file (MP3) etc Stored using blockchain Technology. ब्लॉकचेन प्रैयोगिकी द्वारा संग्रहित की गई एक फ़ोटो, संगीत इत्यादि फ़िल्म की डिजिटल फाइल है।
- ⇒ They cannot be subdivided. Their individual sub-units exchanged with one another. Because their values are different based on buyer's preference. So NFTs are non-fungible. अलग अलग चित्र/संगीत कृतियों का मूल्य, ग्राहक की पसंद से हिसाब से अलग हो सकता है इसलिए उन्हे छोटे टुकड़ों में विभाजित करना / आपस में उनकी अदला-बदली नहीं हो सकती।
- ⇒ Mass Hysteria going on to purchase such digital assets from new-age artists using (mostly) Ethereum cryptocurrency. नए जमाने के डिजिटल चित्र/धुन बनाने वाले कलाकारों से नीलामी में एनएफटी खरीदने का सामूहिक पागलपन चल रहा है।
- ⇒ e.g. American digital artist Beeple's Non-fungible token JPEG File (Title "Everydays: the First 5000 Days")→ auctioned for \$70 million in Ether Cryptocurrency.
- ⇒ Robot Sophia created a digital painting/art "Sophia Instantiation" (NFT)→ Auctioned for more than 6 lakh dollar\$.
- ⇒ Many sportsmen, filmstars also creating NFT out of their posters/autographs but we'll not waste preparing all that General Knowledge (GK). (मशहूर खिलाड़ी और फ़िल्म अभिनेता भी इसे जारी कर रहे हैं)

10.23.3 NFT-Charms? (आकर्षण)

- ⇒ 1) Multimedia Creators: Easier to trade digital assets (डिजिटल चित्रकार, डिजिटल धुनकार इत्यादि के लिए अपनी कृतियों की बिक्री करना आसान।)
- ⇒ 2) Easier to verify ownership records. Prevent plagiarism. (डिजिटल कृतियों के स्वामित्व की जाँच करना आसान। नकलचियों के लिए जालसाजी करना मुश्किल।)
- ⇒ 3) Cinema / Sports tournament / Travel tickets etc can be stored with ownership records. Helps in Paperless administration. (सिनेमा / खेल / परिवहन की टिकट की बिक्री डिजिटल स्वरूप से करना आसान, कागज मुक्त प्रशासन।)

10.23.4 NFT-Challenges: (चुनौतियां)

- ⇒ 1) Started in 2017→ steep price rise in 2021. Single GIF /meme file selling for millions dollar\$ worth of cryptocurrencies. This mass-hysteria / investment-bubble will collapse. Investors will lose money. ये सामूहिक पागलपन /निवेश का गुब्बारा फट जाएगा तब निवेशकों का पैसा ढूब जाएगा।
- ⇒ 2) Money laundering & terror Finance. धनशोधन और आतंकी वित्तपोषण में दुरुपयोग सम्भव
- ⇒ 3) Maintaining such computer blockchain record → Electricity consumption → CO₂ Emission. (इस डेटाबेस का संचालन/वहन करने में बहुत ज्यादा बिजली खपत होती है, जिससे कार्बन डाइऑक्साइड उत्सर्जन में बढ़ोतारी।)

10.24 ESSAY: CASHLESS ECONOMY- CHARMS AND CHALLENGES

नगदी-रहित अर्थतंत्र के आकर्षण और चुनौतियां

- (Origin) In ancient times, people used to trade with each other using barter system. But its limitations __ __ <give evolution story>. उद्धव: प्राचीन काल में, लोग वस्तु विनिमय प्रणाली का उपयोग करके एक दूसरे के साथ व्यापार करते थे। लेकिन इसकी मर्यादा और वैसों को जन्म दिया..... बोल के शब्दमर्यादा के हिसाब से थोड़ा-बहोत इतिहास छाप दो।
- (Definition) A cashless economy is an economy where financial transactions are not conducted with money in the form of physical banknotes or coins, but rather through electronic methods such as __ __ <insert examples>. व्याख्या: नगदी-रहित अर्थतंत्र का मतलब है की वित्तीय लेनदेन को भौतिक/नगदी स्वरूप के सिक्कों या बैंकनोट में नहीं किया जाता है, बल्कि इलेक्ट्रॉनिक तरीकों से वित्तीय लेनदेन किए जाते हैं।



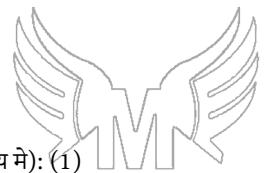
Stakeholder	⊕: Charms आकर्षण	⊖: Challenges चुनौतियां
	<ul style="list-style-type: none"> ⇒ Saves cost of printing new currency (Rs.27 billion a year) – environment, (मुद्रा छपाई का खर्च) ⇒ Better efficacy of monetary policy updates, NPA/fraud surveillance.(More in Pill1A2) 	<ul style="list-style-type: none"> - MDR, Interoperability, Financial Scams. - Know your customer (KYC): Aadhar vs privacy debate (Ref: Polity, SC Judgement) डिजिटल भुगतान में वित्तीय धांधलीया रुकवाने के लिए रिजर्व बैंक यदि कहे कि हर चीज में आधार कार्ड अनिवार्य होगा तो और सुप्रीम कोर्ट/नागरिक की निजता का संघर्ष
	<ul style="list-style-type: none"> - Better tax surveillance, checks on fake counterfeit currency terror finance (कर चोरी, जाली नॉट) - targeted delivery of agri-loans and subsidies/ Direct Benefit Transfer (DBT): Annually ₹ 1 lakh crore can be saved in corruption/leakage. (प्रत्यक्ष लाभ अंतरण, भ्रष्टाचार में कटौती) - Can save farmers from moneylenders, and poor families from Ponzi schemes. (More in Pill1D) 	<ul style="list-style-type: none"> - Power, telecom infra not available everywhere. बिजली, संचार सुविधा की कमी - Government itself must become a role model first in handling tax, tender, tolls, procurements through digital payment. सरकारी विभाग खुद नगदी में काम पसंद करते हैं - To encourage digital payment if subsidy, tax breaks, lotteries given for perpetual time → fiscal deficit. लॉटरी देकर लोगों को लुभाते रहे तो सरकार का वित्तीय घाटा बढ़ जाएगा - Post-Demonetization, digital transactions ↑ but then again ↓ so, punitive measures = :- (सजा देने से लोग सुधरते नहीं)
	<ul style="list-style-type: none"> Secure, difficult to steal, time, convenience, financial inclusion. सुरक्षित, चोरी करना मुश्किल, समय, सुविधा, वित्तीय समावेशन 	<ul style="list-style-type: none"> - Digital divide, Low financial literacy-notion of security with holding physical currency. सब के पास डिजिटल उपकरण और डिजिटल भुगतान की जागृति/साक्षरता नहीं है - Cyberfrauds, Card cloning, service fees on card payments. जालसाजी/धोखाधड़ी
	<i>Homework</i>	<i>homework</i>

10.24.1 Conclusion: Cashless Economy (निष्कर्ष)

- Digital payment is not a panacea, nor is cash all bad. For a developing country like India, “Less cash” economy better than “Cashless” economy. डिजिटल भुगतान को राम-बाण / सर्वरोगहर औरधि मानना गलत. नगदी रूपया हमेशा ही खराब चीज है, ऐसा सोचना भी गलत। भारत जैसे विकासशील देश के लिए 'नगदी-रहित' बनना उपयुक्त नहीं। किंतु, नगदी का प्रयोग 'कम' करने की जरूरत अवश्य है।)

10.24.2 Mock question for Mains/ESSAY

- 1) (GSM3) Examine critically, the charms and challenges of Central Bank Digital Currency (CBDC) initiatives for Indian monetary system. भारतीय मौद्रिक प्रणाली के लिए, 'केंद्रीय बैंक डिजिटल मुद्रा' की पहल के आकर्षण और चुनौतियों की समीक्षा कीजिए (250 words)
- 2) (GSM3) "While regulatory clearance to cryptocurrencies can open Pandora's box, the underlying blockchain technology holds panacea for various areas of governance and economy". Explain in context of India. क्रिप्टो मुद्रा को अनुमति देने से विनाश की परिस्थिति का निर्माण, किन्तु अंतनिहित ब्लॉकचेन टेक्नोलॉजी प्रशासन और अर्थतंत्र के लिए रामबाण इलाज बन सकती है। (250 words)



- 3) (GSM3) Explain these two terms with respect to 'less cash economy' ('कम नगदी वाले अर्थतंत्र' के परिपेक्ष्य में): (1) MDR (2) Interoperability. (150 words)
- 4) (GSM3) "E-rupi increases the efficacy of Direct-Benefit Transfer by making the entitlement more targeted and leak-proof." Substantiate/Elucidate. (ई-रुपी पालता को अधिक लक्षित और रिसाव-मुक्त बनाकर प्रत्यक्ष-लाभ अंतरण की प्रभावकारिता को बढ़ाता है। उदाहरण द्वारा साबित कीजिए)
- 5) (GSM3: Science-Tech) Write Short Notes on 1) Non-Fungible Tokens 2) Fastag (150 words)
- 6) (GSM4: Ethics) Educational institutions play an important role in inculcating values in students. Examine the ways in which 'E-Learning' amplifies and diminishes that role. विधार्थीओंमे मूल्यों का सिंचन करने की शैक्षणिक संस्थानों की भूमिका को ई-शिक्षा कितना मजबूत और कमजोर करती है? समीक्षा कीजिए। (250 words)
- 7) (GSM4: CASE Study) Phulmati Devi visited Ujjwal Bank to withdraw money from her mother Lajmati Devi's bank account. She claimed, "*my mother is 100 years old, and unable to come in person, due to severe illness. So, she has sent me on her behalf.*" But, Cashier refused to give money. He insisted for physical verification that mother Lajmati Devi is indeed alive & wishes to withdraw money. Next day, Daughter Phulmati placed her mother on a cot and dragged cot to the bank (बूढ़ी माँ को चारपाई पे लिटाकर, बेटी चारपाई घसीटते हुए बैंक तक आई). A bystander shot the video, which became viral on social media, drawing much criticism of the public against the bank's apathy towards poor people. (गरीबों के प्रति उदासीनता). As the chairman of Ujjwal Bank, how will you tackle this crisis and prevent its recurrence in future? (इस बैंक के चेयरमेन की भूमिका मे आप इस संकट से कैसे निपटेंगे और भविष्य में इसकी पुनरावृत्ति को कैसे रोकेंगे?) (250 words)



Next Handout: Pillar1A2: Monetary Policy: CRR, SLR, Repo etc.