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*C – Chennai; B – Bengaluru; T – Thiruvananthapuram; H - Hyderabad; D – Delhi*
Google wants U.S. Fed to follow India’s UPI example

Planning, design were key: Isakovitz

In a thumbs up to India’s Unified Payments Interface (UPI) scheme, Google has written to the U.S. Federal Reserve Board detailing the successful example of UPI-based digital payments in India in order to build “FedNow” – a new interbank real-time gross settlement service (RTGS) for faster digital payments in the U.S.

In a letter written by Mark Isakovitz, vice president, Government Affairs and Public Policy, U.S. and Canada, Google, the company said it worked closely with the National Payments Corporation of India (NPCI), the payment regulator governed by the Reserve Bank of India (RBI), to build “Google Pay” for the Indian market.

NPCI deployed a real-time payment system UPI in 2016. UPI was thoughtfully planned and critical aspects of its design led to its success, Google said.

“First, UPI is an interbank transfer system (there are now over 140 members banks, after initially launching with 9 participating banks). Second, it is a real-time system. Third, it is open – meaning technology companies can build applications that help users directly manage transfers into and out of their accounts held at banks,” Mr. Isakovitz wrote to Ann Misback, secretary, board of governors of the Federal Reserve System.

10% of GDP

“After just three years, the annual run rate of transactions flowing through UPI is about 10% of India’s GDP, including 800 billion monthly transactions valued at $9 billion,” said the company in the letter dated November 7, which surfaced on Saturday.

Google Pay’s monthly active user-base grew three times to reach 67 million in September this year – up from 22 million in the same month last year.

According to the latest Worldline report titled “India Digital Payments Report – Q3 2019,” the total volume of UPI transactions in Q3 2019 in India touched 2.7 billion, a whopping 185% rise from a year ago. In value, UPI clocked 39.6 trillion, up 185% from Q3 2018.

The number of transactions done on mobile wallets was 1.04 billion, a rise of 5% over the previous year period, while the value of transactions in the July-September period was 461 billion, an increase of 2% over Q3 of the previous year, the report said.

According to a recent Assocham-PwC study, digital payments in India will more than double to $332.2 billion in 2023 from $141.8 billion this year, with a compound annual growth of 20.2%.

Google said after learning its lessons from the India digital payments market, it offered specific suggestions to the Fed Reserve to support real-time low-value and high-value payments, use standardised messaging protocols with extended metadata, and provide clear standards for an Application Programming Interface (API) layer that enables licenced non-financial institution third parties to access and submit requests into this payment system.

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Fund transfer systems in India

1. Immediate Payment Service (IMPS)
2. National Electronics Funds Transfer (NEFT)
3. Real-Time Gross Settlement (RTGS)

<table>
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<tr>
<th>Features*</th>
<th>IMPS</th>
<th>NEFT</th>
<th>RTGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business hours</td>
<td>24 * 7</td>
<td>24 * 7 (from 16th Dec 2019)</td>
<td>Not a 24 * 7 System (timing varies from bank to bank)</td>
</tr>
<tr>
<td>Transaction Limit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>min</td>
<td>₹ 1</td>
<td>₹ 1</td>
<td>₹ 2 Lakh</td>
</tr>
<tr>
<td>max</td>
<td>₹ 2 Lakh</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(Per transaction limit exists)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managed by</td>
<td>NPCI</td>
<td>RBI</td>
<td>RBI</td>
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*as on 15th December 2019
Unified Payments Interface (UPI)

* Developed by NPCI
* Launched in 2016
* Built over IMPS infrastructure
* Payments are instant and 24x7
* Additional features of UPI over IMPS
  - Provides customer convenience by eliminating the use of providing elaborate details
  - Interoperability feature - Sending money from different accounts in different banks and receiving money in different accounts in different banks

- Simpler version for merchant payments than IMPS
- A single mobile app for money transfer
- Complaints can be raised from the UPI mobile app directly.

News

* Google has written to US Federal Reserve
  - Highlighting UPI-based digital payments in India as a successful model
  - Thoughtful planning & critical aspects of its design – led to the success
Inter bank transfer system

- UPI
  - real time system
  - ‘open’ system

‘Measurable’ success

- within 3 years, annual run rate of transactions through UPI → 10% of India’s GDP

Digital Payments in India - to more than double

- from $64.8 billion in 2019 to
  - $135.2 billion in 2023
‘IORA nations should build a common vision for Indo-Pacific’

‘Countries west of India lack architecture to build on idea’

SPECIAL CORRESPONDENT
NEW DELHI

External Affairs Minister S. Jaishankar said on Saturday, that one of the problems in building partnerships in the Indo-Pacific maritime region was the lack of consensus on what such a concept meant or “even its geographic extent”.

Indian Ocean Region (IORA) countries should, therefore, build on a common vision, he said. They all had the guiding principle of ensuring that the region remained “open and free for inclusive partnerships with all, within the parameters of sovereignty, equality, and a rules-based system.”

The challenge, however, was that countries to the west of India had fewer mechanisms than those to the east to pursue such ties.

“There is much less architecture that covers the Indo-Pacific region west of India, IORA notwithstanding, and certainly no architecture currently that spans the entire region from end to end,” Mr. Jaishankar said at the Ministry of External Affairs’ ‘Delhi Dialogue’ on partnerships in the Indo-Pacific, comparing the ASEAN-led mechanisms such as the East Asia Summit and the ASEAN Regional Forum.

While countries like the U.S. define the Indo-Pacific as reaching the Indian subcontinent, India and partners like Japan extend the idea to Africa.

Scientific initiatives
Mr. Jaishankar said connectivity was a major challenge for building better Indo-Pacific partnerships, and suggested initiatives to enhance delivery of development projects.

“Our scientific departments offered a number of new initiatives, including a Grand Challenges scheme for the IORA; a fellowship scheme for up to 100 post-doctoral scholars; place for partners on our oceanic research vessels; co-branded IORA research facilities; and sharing of the existing technologies in India for low-cost, low-energy consuming desalination facilities, which may be useful especially for island nations,” he said.

Another major challenge was maritime security, he said, without specifying any nation or group seen as a threat in the Indo-Pacific.

Significantly, although the ‘Delhi Dialogue’ conference had participants from India’s Quadrilateral (Quad) partners, the U.S., Australia and Japan, Mr. Jaishankar made no mention of the Quad in his address, in line with the government’s objective of keeping the Indo-Pacific strategy separate from the Quad alignment.

In October, U.S. Secretary of State Michael Pompeo said the Quad would “prove very important in the efforts ahead, ensuring that China retains only its proper place in the world,” comments that New Delhi did not endorse.

“While we all need to work together to share maritime domain data to ensure that every link of the maritime security chain is equally strong, there are also challenges to human security that need to be addressed,” said Mr. Jaishankar, addressing delegates from 30 countries, including Indonesian Foreign Minister Retno Lestari Priansari Marsudi, who delivered the keynote address.

Part A—Preliminary Examination
Paper I - (200 marks)

- Current events of national and international importance.

Part B—Main Examination
PAPER-III

General Studies- II: Governance, Constitution, Policy, Social Justice and International relations.

- India and its neighborhood- relations.
- Bilateral, regional and global groupings and agreements involving India and/or affecting India’s interests.
- Important International institutions, agencies and fora- their structure, mandate.
News

IORA nations should build a common vision for Indo-Pacific

Indian Ocean Rim Association (IORA)

* A dynamic inter-governmental organisation
* Aimed at strengthening regional cooperation and sustainable development within the Indian Ocean Region
* 22 members and 9 dialogue partners
* Secretariat: Cyber City of Ebene, Mauritius
* Pakistan is not a member of IORA

Members: 22 members

- Australia
- Kenya
- Oman
- Tanzania
- Bangladesh
- Madagascar
- Seychelles
- Thailand
- Comoros
- Malaysia
- Singapore
- UAE
- India
- Maldives
- Somalia
- Yemen
- Indonesia
- Mauritius
- South Africa
- Iran
- Mozambique
- Sri Lanka
Eligibility

* All sovereign states of the Indian Ocean Rim are eligible for membership of the Association
* States must adhere to the principles and objectives enshrined in the charter of the Association


* Flagship initiative of the Indian Ocean Rim Association (IORA)
* It is a premier 1.5 track forum for dialogue between academicians and officials on strategic issues of the association

Theme: “Indo-Pacific: Re-imagining the Indian Ocean through an Expanded Geography”

* hosted by MoEA with the assistance of the Indian Council for World Affairs

Delhi Dialogue (XI edition)

* premier annual track 1.5 event
* to discuss politico-security, economic and socio-cultural engagement between India & ASEAN members

Theme: “Advancing Partnership in Indo-Pacific”

* hosted by MoEA with the assistance of the Research and Information System (RIS) for developing countries
Key Points (Indian Ocean Dialogue)

* Countries west of India lack critical architecture to build infrastructure on a common vision.

* "Open and free for inclusive partnerships with all, within the parameters of sovereignty, equality and a rule-based system in the Indian Ocean Region."
Modi chairs first meeting of Ganga council

Chief Ministers of Uttar Pradesh and Uttarakhand and several Union Ministers attend

JACOB ROHRY
NEW DELHI

Prime Minister Narendra Modi chaired the first meeting of the National Ganga Council in Kanpur on Saturday. The council was constituted in 2016 to oversee the cleaning of the Ganga and is supposed to meet at least once a year with the Prime Minister chairing the session.

"Somewhere this couldn’t be done so far," an official told The Hindu, "but one of the parties taken up was about having this meeting more regularly."

The meeting was also attended by Uttar Pradesh Chief Minister Yogi Adityanath, Uttarakhand Chief Minister Trivendra Singh Rawat; Union Ministers Prakash Javadekar, Gajendra Singh Shekhawat; Harsh Vardhan, R.K. Singh, Pralhad Joshi, Manoj Sinha, Hardeep Singh Puri. Several officials from Bihar, Uttar Pradesh, Uttarakhand and West Bengal – all Ganga basin states – were also present.

The full quorum of the Council – with the Prime Minister in attendance – is largely ceremonial. The work of coordinating, supervising and deliberating on funding Namami Gange projects is carried out by an executive committee of the National Mission for Clean Ganga that meets every month. The latest meeting was on December 3. Mr. Modi also took a boat ride from Atal Ghat to Sisimau drain outlet point. The Sisimau drain was one of Asia largest drains that emptied nearly 140 million litres of untreated sewage into the Ganga and was a symbol of pollution in the river. It no longer empties sewage into the Ganga but the river continues to be unfit for bathing or use as a drinking water source, The Hindu reported in July.

On his return, Mr. Modi stumbled and fell on the steps of the Atal Ghat. The official said earlier said he was in the vicinity and the Prime Minister appeared unhurt. One of the steps was uneven and probably may have caused Mr. Modi to stumble, the official said.

Part B—Main Examination
PAPER-II

General Studies-I: Indian Heritage and Culture, History and Geography of the World and Society.

- Salient features of world’s physical geography.
- Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc., geographical features and their location-changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.

PAPER-III

General Studies-II: Governance, Constitution, Politics, Social Justice and International relations.

- Statutory, regulatory and various quasi-judicial bodies.
- Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

PAPER-IV

General Studies-III: Technology, Economic Development, Biodiversity, Environment, Security and Disaster Management

- Conservation, environmental pollution and degradation, environmental impact assessment.

Civilspedia Team - Powered by Shankar IAS Academy
First meeting of National Ganga Council, Kanpur
* Chaired by Prime Minister
* NGC - Responsible for prevention of pollution and rejuvenation of Ganga basin

**River Ganga**
* Origin → Gangotri glacier as Bhagirathi
  * Alaknanda + Bhagirathi → Devprayag → Ganga

* Largest river basin in India
  * 26% of land mass
  * Supports 43% of population

* National Mission for Clean Ganga (NMCG) is focussed on 5 major states
  - Uttarakhand
  - Jharkhand
  - West Bengal
  - Uttar Pradesh
  - Bihar
**National Mission for Clean Ganga (NMCG)**

- Registered as a society in 2011
- Implementing arm of NGRBA - Constituted under EPA - 1986
- River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016
- Created National Council for River Ganga / National Ganga Council (NGC)
  - under Chairmanship of P.M.
  - NGC replaced NGRBA

<table>
<thead>
<tr>
<th>(a)</th>
<th>Prime Minister</th>
<th>Chairperson, ex-officio;</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)</td>
<td>Union Minister for Jal Shakti</td>
<td>-Vice-Chairperson, ex-officio;</td>
</tr>
<tr>
<td>(c)</td>
<td>Union Minister for Environment, Forests and Climate Change</td>
<td>-Member, ex-officio;</td>
</tr>
<tr>
<td>(d)</td>
<td>Union Minister for Finance</td>
<td>-Member, ex-officio;</td>
</tr>
<tr>
<td>(e)</td>
<td>Union Minister for Housing and Urban Affairs</td>
<td>-Member, ex-officio;</td>
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<tr>
<td>(f)</td>
<td>Union Minister for Power</td>
<td>-Member, ex-officio;</td>
</tr>
<tr>
<td>(g)</td>
<td>Union Minister for Science and Technology</td>
<td>-Member, ex-officio;</td>
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<tr>
<td>(h)</td>
<td>Union Minister for Rural Development</td>
<td>-Member, ex-officio;</td>
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<tr>
<td>(i)</td>
<td>Union Minister for Shipping</td>
<td>-Member, ex-officio;</td>
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<tr>
<td>(j)</td>
<td>Union Minister of State for Tourism</td>
<td>-Member, ex-officio;</td>
</tr>
<tr>
<td>(k)</td>
<td>Vice Chairman, NITI Aayog</td>
<td>-Member, ex-officio;</td>
</tr>
<tr>
<td>(l)</td>
<td>Chief Minister, Bihar</td>
<td>-Member, ex-officio;</td>
</tr>
<tr>
<td>(m)</td>
<td>Chief Minister, Jharkhand</td>
<td>-Member, ex-officio;</td>
</tr>
<tr>
<td>(n)</td>
<td>Chief Minister, Uttarakhand</td>
<td>-Member, ex-officio;</td>
</tr>
<tr>
<td>(o)</td>
<td>Chief Minister, Uttar Pradesh</td>
<td>-Member, ex-officio;</td>
</tr>
<tr>
<td>(p)</td>
<td>Chief Minister, West Bengal</td>
<td>-Member, ex-officio;</td>
</tr>
<tr>
<td>(q)</td>
<td>Secretary, Department of Water Resources, River Development and Ganga Rejuvenation</td>
<td>-Member ,ex-officio;</td>
</tr>
<tr>
<td>(r)</td>
<td>Secretary, Department of Drinking Water &amp; Sanitation</td>
<td>-Member, ex-officio;</td>
</tr>
<tr>
<td>(s)</td>
<td>Secretary, Ministry of Housing and Urban Affairs</td>
<td>-Member,ex-officio;</td>
</tr>
<tr>
<td>(t)</td>
<td>Secretary, Department of Agriculture and Farmers’ Welfare</td>
<td>-Member,ex-officio;</td>
</tr>
<tr>
<td>(u)</td>
<td>Director General, National Mission for Clean Ganga</td>
<td>-Member Secretary, ex-officio.”.</td>
</tr>
</tbody>
</table>
* Now NMCG is an Authority to implement decisions of NGC

* 2-tier Management Structure
  - Governing Council
  - Executive Committee

   5-tier Structure

1. National Ganga Council → PM
2. Empowered Task Force → Minister of Jal Shakti
4. State Ganga Committees
5. District Ganga Committees

**Namami Gange Programme**

* Approved by Union Govt. in 2014

* Objectives → Abatement of pollution + conservation and rejuvenation of Ganga

* Main Pillars

1. Sewage Treatment Infrastructure
2. River surface cleaning
3. Afforestation
4. Industrial Effluent Monitoring
5. River Front Development
6. Biodiversity
7. Public Awareness
8. Ganga Gram
Samples from Bennu
OSIRIS Rex mission will be NASA’s first to collect samples from an asteroid and return to Earth. It has been orbiting asteroid Bennu since last December. It will touch down on one of two selected sites, give out a puff of nitrogen and gather the dirt sample that is raked up, according to a report in Nature. The target area, known as the Nightingale site, is just 16 metres across and sits inside a large crater, 140-metre wide, in Bennu’s northern hemisphere.
Asteroids

* Small, rocky objects that orbit the Sun
* Smaller when compared to planets
* Most of the asteroids live in the asteroid belt
* Asteroid Belt → Region between Mars & Jupiter

* Some asteroids are found in the orbital path of planets
* Features
  ➔ All asteroids are not round like planets; some are irregularly shaped
  ➔ Vary in size
  ➔ Made of different kinds of rocks
* Reasons to study on Asteroids
  ➔ Formed at the same line as other objects in our solar system
**News**

- **OSIRIS-REx Mission** to collect sample from an asteroid called **Bennu**
- **2016** - NASA launched **OSIRIS-REx Spacecraft**
- **2018** - Went into orbit around **Bennu**
- Spacecraft will collect samples from the asteroid **Nightingale Site**

- **Why Bennu?**
  - Bennu’s orbit is close to Earth
  - Might contain clues to the origin of life

**Meteoroids** → small pieces of asteroids

Source: NASA

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Meteors

**Meteoroids**

- Enter Earth's Atmosphere
- Vaporises
- Meteor

Source: NASA

Meteorites

- Sometimes meteoroids don’t vapourise completely in the atmosphere
- Some land on the earth’s surface
  - Meteorites

- Useful to scientists to learn about asteroids, planets & other parts of solar system

Comets

- Orbit the sun, like asteroids
- Made of ice & dust; not rock → so, different from an asteroid
PRACTICE QUESTIONS
DISCUSSION
Q. Consider the following statements.

1. National Payment Corporation of India (NPCI) helps in promoting the financial inclusion in the country.
2. NPCI has launched RuPay, a card payment scheme.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2 (correct)
(d) Neither 1 nor 2

Q. Which of the following is a most likely consequence of implementing the ‘Unified Payments Interface (UPI)?

(a) Mobile wallets will not be necessary for online payments. (correct)
(b) Digital currency will totally replace the physical currency in about two decades.
(c) FDI inflows will drastically increase.
(d) Direct transfer of subsidies to poor people will become very effective.
Practice Question – Prelims

Q1. Consider the following statements.

1. Unified Payments Interface (UPI) is an instant payment system developed by Reserve Bank of India.
2. UPI is built over the IMPS infrastructure and allows you to instantly transfer money between any two parties' bank accounts.
3. The National Electronic Funds Transfer System is primarily meant for large value transactions.
4. The Real Time Gross Settlement payment system is not a 24 * 7 system.

Which of the above statement(s) is/are correct?

a) 1 only
b) 1 and 3
c) 2 and 4
d) 1, 2, 3, 4
Q2. Consider the following statements with reference to Indian Ocean Rim Association (IORA).

1. It is a dynamic inter-governmental organisation and aims at strengthening regional cooperation and sustainable development within the Indo-Pacific region.

2. All sovereign States of the Indian Ocean Rim are eligible for membership of the Association and States must adhere to the principles and objectives enshrined in the Charter of the Association.

3. Indian Ocean Dialogue (IOD) is a flagship initiative of the India-ASEAN nations.

Select the **incorrect** statements using the codes given below.

(a) 1 only
(b) 1 and 2
(c) 1 and 3
(d) 1, 2 and 3
Practice Question – Prelims

Q3. Consider the following statements regarding the National Ganga Council (NGC).

1. It has the overall responsibility for superintendence of pollution prevention and rejuvenation of river Ganga Basin.

2. The Chairperson of NGC is the Prime Minister.

3. The Chief Ministers of Delhi, Himachal Pradesh, and Madhya Pradesh are ex-officio members of NGC.

Which of the statements given above is/are correct?

a) 1 only  
b) 1 and 2 only  
c) 2 and 3 only  
d) 1 and 3 only
Practice Question – Prelims

Q4. Consider the following statements.

1. Asteroids are made of rocks whereas comets are made of ice and dust.
2. Broken pieces of asteroids which land on the Earth’s surface is called as meteoroids.

Which of the above statement/s is/are incorrect?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Practice Question – Prelims

Answers

Q1. Option ‘c’ – 2 and 4
Q2. Option ‘c’ – 1 and 3
Q3. Option ‘b’ – 1 and 2 only
Q4. Option ‘b’ - 2 only