FDDI AIST General Awareness

Sample Paper – 3

Duration: 42 Minutes **Maximum Marks: 35**

Instructions

- This paper contains **35** Multiple Choice Questions (Single Correct Answer), modelled on the General Awareness section of **FDDI AIST** entrance examination.
- Each correct answer carries **+1 mark**. There is **no negative marking** for incorrect or unattempted answers.
- Only **one** option is correct per question. Read each question carefully before marking your answer.
- Topics: Current Affairs, Indian History & Culture, Geography, Science & Technology, Sports & Awards, Books & Personalities, Fashion & Design GK, Polity, and World Affairs.
- Use of mobile phones, calculators, or any electronic gadgets is strictly prohibited.

Q1. India's National Green Hydrogen Mission (2023) targets green hydrogen production of how much by 2030?

(A) 1 million metric tonnes (MMT) per year

(B) 3 million metric tonnes (MMT) per year

(C) 5 million metric tonnes (MMT) per year

(D) 10 million metric tonnes (MMT) per year

Q2. The India-UAE Comprehensive Economic Partnership Agreement (CEPA) was signed in which year?

(A) 2019

(B) 2020

(C) 2021

(D) 2022

Q3. INS Vikrant, India's first indigenously built aircraft carrier, was commissioned in which month and year?

(A) September 2022

(B) January 2023

(C) August 2021

(D) December 2022

Q4. India's National Semiconductor Mission primarily aims to:

(A) Increase import of advanced chips from Taiwan and South Korea

(B) Develop domestic chip manufacturing and reduce dependence on semiconductor imports

(C) Provide scholarships for Indian students studying semiconductor engineering abroad

(D) Establish joint ventures with US semiconductor companies for export only

Q5. Under Ayushman Bharat PM-JAY (Pradhan Mantri Jan Arogya Yojana), the annual health insurance coverage per family is:

(A) Rs. 1 lakh

(B) Rs. 2 lakh

(C) Rs. 5 lakh

(D) Rs. 10 lakh

Q6. India improved its Ease of Doing Business ranking to below 100 for the first time in which year?

(A) 2014

(B) 2015

(C) 2016

(D) 2017

Q7. The FAME scheme, which promotes electric vehicles in India, stands for:

(A) Faster Adoption and Manufacturing of Hybrid and Electric Vehicles

(B) Future Automobiles and Mobility for Electric Vehicles

(C) Federal Advancement in Mobility and Electric Vehicles

(D) Fuel-Agnostic Mobility and Environment initiative

Q8. Under PM-KISAN (Pradhan Mantri Kisan Samman Nidhi), eligible farmers receive how much financial support per year?

(A) Rs. 4,000 (in two equal instalments)

(B) Rs. 6,000 (in three equal instalments of Rs. 2,000)

(C) Rs. 8,000 (in four equal instalments)

(D) Rs. 10,000 (in two equal instalments)

Q9. The Delhi Sultanate was founded in 1206 by:

(A) Iltutmish

(B) Muhammad of Ghor

(C) Qutb ud-Din Aibak

(D) Balban

Q10. Chhatrapati Shivaji Maharaj's council of eight ministers was known as:

(A) Navaratan

(B) Pancha Parishad

(C) Mantri Mandal

(D) Ashtapradhan

Q11. The Bhakti poet from Maharashtra famous for composing Abhangas in the 17th century was:

(A) Sant Tukaram

(B) Mirabai

(C) Kabir Das

(D) Surdas

Q12. Humayun's Tomb in Delhi was inscribed as a UNESCO World Heritage Site in:

(A) 1983

(B) 1993

(C) 2003

(D) 2007

Q13. The classical dance form Bharatanatyam originated in which Indian state?

(A) Kerala

(B) Andhra Pradesh

(C) Tamil Nadu

(D) Karnataka

Q14. The Godavari River, the second longest river of India, originates from:

(A) Mahabaleshwar, Maharashtra

(B) Amarkantak, Madhya Pradesh

(C) Brahmagiri Hills, Karnataka

(D) Trimbakeshwar near Nashik, Maharashtra

Q15. The rain shadow region created by the Western Ghats lies on which side of the hills?

(A) Eastern (leeward) side — the Deccan Plateau receives reduced rainfall

(B) Western (windward) side — the Konkan coast receives reduced rainfall

(C) Northern side — the Gujarat plains receive reduced rainfall

(D) Southern side — the Kerala coast receives reduced rainfall

Q16. Which Indian state has the longest coastline?

(A) Andhra Pradesh

(B) Gujarat

(C) Tamil Nadu

(D) Maharashtra

Q17. Chilika Lake, Asia's largest coastal lagoon, is located in:

(A) West Bengal

(B) Andhra Pradesh

(C) Odisha

(D) Kerala

Q18. The COP28 United Nations Climate Change Conference (2023) was held in:

(A) Glasgow, United Kingdom

(B) Sharm el-Sheikh, Egypt

(C) Baku, Azerbaijan

(D) Dubai, United Arab Emirates

Q19. CRISPR-Cas9 technology is primarily used for:

(A) Gene editing (modifying DNA sequences in living organisms)

(B) Producing renewable energy from biomass

(C) Manufacturing semiconductor chips at the nanoscale

(D) Developing vaccines through protein synthesis

Q20. NITI Aayog replaced which body that was dissolved on 1 January 2015?

(A) Finance Commission

(B) Planning Commission

(C) National Development Council

(D) Economic Advisory Council

Q21. The primary gas responsible for depletion of the ozone layer is:

(A) Carbon dioxide (CO_2)

(B) Methane (CH_4)

(C) Chlorofluorocarbons (CFCs)

(D) Nitrous oxide (N_2O)

Q22. The ICC World Test Championship Final 2023 was won by:

(A) India

(B) England

(C) New Zealand

(D) Australia

Q23. The Arjuna Award for outstanding performance in sports is conferred by:

(A) Ministry of Youth Affairs and Sports, Government of India

(B) Sports Authority of India (SAI)

(C) Indian Olympic Association (IOA)

(D) National Sports Development Fund

Q24. India's only win in the Men's Hockey World Cup was in:

(A) 1971

(B) 1975

(C) 1982

(D) 1986

Q25. Kalpana Chawla holds the distinction of being the first Indian woman:

(A) To win a Nobel Prize in Science

(B) To become a commercial airline pilot

(C) To travel to space (STS-87 mission, November 1997)

(D) To scale Mount Everest

Q26. The Reserve Bank of India Governor who took charge in December 2024 is:

(A) Urjit Patel

(B) Raghuram Rajan

(C) Shaktikanta Das

(D) Sanjay Malhotra

Q27. Sahitya Akademi, India's premier literary institution, was established in:

(A) 1954

(B) 1961

(C) 1947

(D) 1968

Q28. Khadi and Village Industries Commission (KVIC) is the nodal agency that promotes:

(A) Large-scale textile mills and power looms for mass production

(B) Khadi and rural cottage industries including Pashmina, handlooms, and village enterprises

(C) Export of synthetic fabrics and man-made fibre textiles

(D) Modernisation of Special Economic Zones for garment manufacturing

Q29. India's largest knitwear and hosiery export hub is located in:

(A) Surat, Gujarat

(B) Ludhiana, Punjab

(C) Tiruppur, Tamil Nadu

(D) Panipat, Haryana

Q30. In sustainable fashion, "upcycling" refers to:

(A) Sending old garments to landfills after use

(B) Buying new clothes every season to follow trends

(C) Recycling fabrics by breaking them down into raw fibres

(D) Converting waste or discarded materials into new products of higher quality or value

Q31. The President of India holds office for a term of:

(A) 5 years

(B) 4 years

(C) 6 years

(D) Until the age of 65

Q32. The Chief Justice of India is appointed by:

(A) The Prime Minister of India

(B) The Parliament of India by a resolution

(C) The President of India

(D) The Supreme Court Collegium by direct vote

Q33. Article 21 of the Indian Constitution guarantees the:

(A) Right to Equality before Law

(B) Right to Freedom of Speech and Expression

(C) Right against Exploitation

(D) Right to Life and Personal Liberty

Q34. Which of the following was NOT an original founding member of BRICS?

(A) Russia

(B) Saudi Arabia

(C) India

(D) South Africa

Q35. The International Monetary Fund (IMF) and the World Bank Group are both headquartered in:

(A) Washington D.C., USA

(B) New York, USA

(C) Geneva, Switzerland

(D) Vienna, Austria

Detailed Solutions

Q1.

Solution

Concept — National Green Hydrogen Mission: The National Green Hydrogen Mission was approved by the Union Cabinet in January 2023. It is a flagship initiative to position India as a global hub for the production, utilisation, and export of green hydrogen and its derivatives.

Explanation: The mission sets an ambitious target of producing **5 million metric tonnes (MMT)** of green hydrogen per year by 2030. It also aims to add at least 125 GW of associated renewable energy capacity and create over 6 lakh jobs in the sector.

Why other options are wrong:

- Option A: 1 MMT is far below the stated mission target.
- Option B: 3 MMT is also below the target; not mentioned in mission documents.
- Option D: 10 MMT is an aspirational long-term figure beyond 2030, not the 2030 target.

Final Answer: 5 MMT per year by 2030 $\Rightarrow$ C

Answer: (C) Go Back to Q1

Q2.

Solution

Concept — India-UAE CEPA: The Comprehensive Economic Partnership Agreement (CEPA) between India and the UAE is a landmark free-trade agreement covering goods, services, and investments between the two countries.

Explanation: The CEPA was signed on **18 February 2022** in a virtual ceremony attended by PM Narendra Modi and UAE President Sheikh Mohamed bin Zayed Al Nahyan. It was India's first CEPA in over a decade and came into force on 1 May 2022.

Why other options are wrong:

- Option A: 2019 — negotiations had not yet begun in earnest.
- Option B: 2020 — the COVID-19 pandemic delayed trade negotiations globally.

- Option C: 2021 — formal negotiations were launched in September 2021, but signing occurred in 2022.

Final Answer: Signed in February 2022 $\Rightarrow$ D

Answer: (D) Go Back to Q2

Q3.

Solution

Concept — INS Vikrant: INS Vikrant (IAC-1) is India's first indigenously designed and built aircraft carrier, constructed at Cochin Shipyard Limited (CSL) in Kerala. It represents a major milestone in India's defence manufacturing capability.

Explanation: INS Vikrant was formally commissioned by Prime Minister Narendra Modi on **2 September 2022** at Cochin, making India one of the few nations capable of building its own aircraft carrier.

Why other options are wrong:

- Option B: January 2023 — commissioning had already taken place several months earlier.
- Option C: August 2021 — the carrier completed sea trials in that period but was not yet commissioned.
- Option D: December 2022 — incorrect date; commissioning was in September 2022.

Final Answer: Commissioned in September 2022 $\Rightarrow$ A

Answer: (A) Go Back to Q3

Q4.

Solution

Concept — National Semiconductor Mission: India's National Semiconductor Mission (NSM) was launched in December 2021 with an outlay of Rs. 76,000 crore to develop a sustainable semiconductor and display ecosystem in the country.

Explanation: The mission's primary aim is to **develop domestic chip manufacturing** and reduce India's heavy reliance on semiconductor imports, which became critical during the global chip shortage of 2020–2022. It incentivises companies to set up fabrication units (fabs) in India.

Why other options are wrong:

- Option A: The mission discourages import dependence, not promotes it.
- Option C: Scholarships abroad are not the focus; domestic manufacturing is.
- Option D: The mission targets domestic production for the Indian market, not export-only ventures.

Final Answer: Develop domestic chip manufacturing $\Rightarrow$ B

Answer: (B) Go Back to Q4

Q5.

Solution

Concept — Ayushman Bharat PM-JAY: Pradhan Mantri Jan Arogya Yojana (PM-JAY), the health insurance component of Ayushman Bharat, was launched on 23 September 2018. It is the world's largest government-funded health insurance scheme.

Explanation: PM-JAY provides **Rs. 5 lakh** per family per year for secondary and tertiary hospitalisation at empanelled government and private hospitals across India. It covers over 10 crore poor and vulnerable families.

Why other options are wrong:

- Option A: Rs. 1 lakh was the coverage under the earlier RSBY scheme, not PM-JAY.
- Option B: Rs. 2 lakh is a commonly cited figure for other state health schemes but not PM-JAY.
- Option D: Rs. 10 lakh is the enhanced coverage announced for senior citizens (70+) in 2024, not the standard family coverage.

Final Answer: Rs. 5 lakh per family per year $\Rightarrow$ C

Answer: (C) Go Back to Q5

Q6.

Solution

Concept — Ease of Doing Business: The World Bank's Ease of Doing Business (EoDB) index ranks countries on regulatory environment for business operations. India undertook extensive reforms to improve its ranking under the Make in India initiative.

Explanation: India broke into the top 100 for the first time in **2017**, achieving rank 100 out of 190 countries in the World Bank's Doing Business Report 2018 (which uses 2017 data). It had been ranked 142 in 2014 when reforms began.

Why other options are wrong:

- Option A: 2014 — India was at rank 142, not yet in the top 100.
- Option B: 2015 — India improved to 130, still outside top 100.
- Option C: 2016 — rank improved to 130, still not below 100.

Final Answer: First broke into top 100 in 2017 (ranked 100th) $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q6

Q7.

Solution

Concept — FAME Scheme: The FAME (Faster Adoption and Manufacturing of Hybrid and Electric Vehicles) scheme is a Government of India initiative to promote electric mobility and reduce vehicular emissions in the country.

Explanation: FAME stands for **Faster Adoption and Manufacturing of Hybrid and Electric Vehicles**. Launched in 2015 (Phase I) and expanded in 2019 (Phase II), it provides demand incentives to buyers of electric two-wheelers, three-wheelers, and buses.

Why other options are wrong:

- Option B: "Future Automobiles and Mobility" is a fabricated expansion, not the correct full form.
- Option C: "Federal Advancement in Mobility" is incorrect; India does not use the term "Federal" in policy names.
- Option D: "Fuel-Agnostic Mobility" is a made-up phrase not associated with any government scheme.

Final Answer: Faster Adoption and Manufacturing of Hybrid and Electric Vehicles

$\Rightarrow$ A

Answer: (A) Go Back to Q7

Q8.

Solution

Concept — PM-KISAN: Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) is a Central Sector Scheme launched in February 2019 to supplement the financial needs of small and marginal farmers across India.

Explanation: Under PM-KISAN, eligible farmer families receive **Rs. 6,000 per year** as income support, disbursed in three equal instalments of Rs. 2,000 each directly into their bank accounts via Direct Benefit Transfer (DBT).

Why other options are wrong:

- Option A: Rs. 4,000 in two instalments does not match the scheme's design.
- Option C: Rs. 8,000 in four instalments is higher than the actual benefit.
- Option D: Rs. 10,000 is a figure sometimes misquoted; the actual annual support is Rs. 6,000.

Final Answer: Rs. 6,000 per year in three instalments of Rs. 2,000 $\Rightarrow$ B

Answer: (B) Go Back to Q8

Q9.

Solution

Concept — Delhi Sultanate: The Delhi Sultanate was a medieval Islamic sultanate based in Delhi that ruled large parts of the Indian subcontinent for about 320 years (1206–1526). It comprised five successive dynasties: Mamluk, Khilji, Tughlaq, Sayyid, and Lodi.

Explanation: The Delhi Sultanate was founded by **Qutb ud-Din Aibak** in 1206 CE. He was a former slave (Mamluk) of Muhammad of Ghor and established the first dynasty — the Slave or Mamluk dynasty — after his master's death.

Why other options are wrong:

- Option A: Iltutmish was Aibak's successor and son-in-law, not the founder.
- Option B: Muhammad of Ghor was Aibak's master; he conquered Delhi but did not establish the Sultanate as its ruler.

- Option D: Balban was the ninth sultan of the Mamluk dynasty (reigned 1266–1287), not the founder.

Final Answer: Qutb ud-Din Aibak founded the Delhi Sultanate in 1206 $\Rightarrow$ C

Answer: (C) Go Back to Q9

Q10.

Solution

Concept — Shivaji's Administration: Chhatrapati Shivaji Maharaj (1630–1680) established the Maratha Empire and created one of the most efficient administrative systems in medieval India, modelled on the principle of decentralised governance.

Explanation: Shivaji's council of eight ministers was called the **Ashtapradhan** (meaning "eight counsellors"). The Peshwa (Prime Minister) was the most prominent among them. The council managed different aspects of state administration including revenue, justice, and military affairs.

Why other options are wrong:

- Option A: Navaratan ("nine gems") was the title given to Akbar's famous nine courtiers, not Shivaji's council.
- Option B: Pancha Parishad is not a historical term associated with Shivaji's administration.
- Option C: Mantri Mandal is a general term for a council of ministers, not specific to Shivaji's system.

Final Answer: Shivaji's council of eight ministers was the Ashtapradhan $\Rightarrow$ D

Answer: (D) Go Back to Q10

Q11.

Solution

Concept — Maharashtra Bhakti Tradition: The Bhakti movement in Maharashtra produced a line of saint-poets known as the Varkari saints, who composed devotional poetry (Abhangas) in Marathi dedicated to the deity Vitthal (Vithoba) of Pandharpur.

Explanation: Sant Tukaram (1608–1650) was a 17th-century Bhakti poet from Dehu, Maharashtra. His Abhangas are considered among the greatest works of

Marathi literature. He was a devotee of Vithoba and is revered as one of the greatest saints of the Varkari tradition.

Why other options are wrong:

- Option B: Mirabai was a 16th-century Rajput Bhakti poet, not from Maharashtra, and she composed in Rajasthani/Braj Bhasha.
- Option C: Kabir Das was a 15th-century saint-poet from Varanasi (Uttar Pradesh), composing in Hindi/Awadhi.
- Option D: Surdas was a 15th–16th-century blind saint-poet who composed Bhajans in Braj Bhasha about Lord Krishna.

Final Answer: Sant Tukaram composed Abhangas in 17th-century Maharashtra $\Rightarrow$ A

Answer: (A) Go Back to Q11

Q12.

Solution

Concept — UNESCO World Heritage Sites in India: UNESCO inscribes sites of Outstanding Universal Value on its World Heritage List. India currently has 42 such sites (as of 2024). Mughal-era architecture in Delhi has attracted UNESCO recognition.

Explanation: Humayun's Tomb was inscribed as a UNESCO World Heritage Site in **1993**. Built in 1570 CE, it was the first garden-tomb on the Indian subcontinent and a forerunner of the Taj Mahal.

Why other options are wrong:

- Option A: 1983 was the year Agra Fort and Taj Mahal were inscribed, not Humayun's Tomb.
- Option C: 2003 — Humayun's Tomb was already inscribed a decade earlier in 1993.
- Option D: 2007 — Red Fort Complex was added to the list in 2007, not Humayun's Tomb.

Final Answer: Humayun's Tomb inscribed as UNESCO World Heritage Site in 1993 $\Rightarrow$ B

Answer: (B) Go Back to Q12

Q13.

Solution

Concept — Classical Dance Forms of India: India has eight classical dance forms recognised by the Sangeet Natak Akademi, each associated with a specific region and rooted in the Natya Shastra.

Explanation: Bharatanatyam originated in **Tamil Nadu**, evolved from the temple dance tradition of Devadasis and the Natyam of the Nattuvanar community. It was codified and revived in the 20th century by Rukmini Devi Arundale. The dance is characterised by expressive gestures (mudras), rhythmic footwork, and devotional themes.

Why other options are wrong:

- Option A: Kerala is home to Kathakali, Mohiniyattam, and Kuchipudi (partially), not Bharatanatyam.
- Option B: Andhra Pradesh gave birth to Kuchipudi classical dance, not Bharatanatyam.
- Option D: Karnataka is associated with Yakshagana and Dollu Kunitha folk forms, not Bharatanatyam.

Final Answer: Bharatanatyam originated in Tamil Nadu $\Rightarrow$ C

Answer: (C) Go Back to Q13

Q14.

Solution

Concept — Indian Rivers: The Godavari River, often called "Dakshin Ganga" (Ganga of the South), is the second longest river in India after the Ganga. It flows about 1,465 km from its source to the Bay of Bengal.

Explanation: The Godavari originates from **Trimbakeshwar near Nashik, Maharashtra**, at an altitude of about 1,065 m above sea level. Trimbakeshwar is also home to one of the 12 Jyotirlingas and the Kumbh Mela is held here (Nashik-Trimbakeshwar Kumbh).

Why other options are wrong:

- Option A: Mahabaleshwar is the source of the Krishna River, not the Godavari.
- Option B: Amarkantak in Madhya Pradesh is the source of the Narmada and Son rivers.

- Option C: Brahmagiri Hills in Karnataka/Kerala is the source of the Kaveri River.

Final Answer: Godavari originates from Trimbakeshwar near Nashik, Maharashtra $\Rightarrow$ D

Answer: (D) Go Back to Q14

Q15.

Solution

Concept — Rain Shadow Effect: A rain shadow is a dry region on the leeward side of a mountain range where moisture-laden winds have already deposited their rainfall on the windward side, leaving little precipitation for the other side.

Explanation: Southwest monsoon winds blow from the Arabian Sea and hit the Western Ghats. The **western (windward) side** receives very heavy rainfall (Konkan coast, 2,000–4,000 mm). After crossing the Ghats, the air descends and warms on the **eastern (leeward) side** — the Deccan Plateau — which thus receives significantly reduced rainfall (the rain shadow region).

Why other options are wrong:

- Option B: The western side is the windward side that receives abundant rainfall, not the rain shadow.
- Option C: The Gujarat plains lie north of the Western Ghats, not in its direct rain shadow zone.
- Option D: The Kerala coast is on the windward/western side and receives very heavy rainfall, not reduced rainfall.

Final Answer: Rain shadow lies on the eastern (leeward) side — the Deccan Plateau $\Rightarrow$ A

Answer: (A) Go Back to Q15

Q16.

Solution

Concept — Indian Coastline: India has a total coastline of approximately 7,516 km (including island territories). The mainland coastline is about 6,100 km, touching the Bay of Bengal, the Arabian Sea, and the Indian Ocean.

Explanation: **Gujarat** has the longest coastline among Indian states, approximately **1,600 km** (some sources cite up to 1,663 km including the indented coastline). This includes the Kathiawar Peninsula and the Gulf of Kutch, which contribute significantly to its extended coast.

Why other options are wrong:

- Option A: Andhra Pradesh has a coastline of about 974 km — significant but not the longest.
- Option C: Tamil Nadu has a coastline of about 1,076 km — the second longest after Gujarat.
- Option D: Maharashtra has a coastline of approximately 720 km — shorter than both Gujarat and Tamil Nadu.

Final Answer: Gujarat has the longest coastline (approximately 1,600 km) $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q16

Q17.

Solution

Concept — Chilika Lake: Chilika Lake is a brackish water lagoon formed by the Mahanadi River system. It is a Ramsar site (designated in 1981) and a globally significant wetland hosting migratory birds and the endangered Irrawaddy dolphin.

Explanation: Chilika Lake is located in **Odisha**, spanning the districts of Puri, Khurda, and Ganjam. With an area of about 1,100 sq km (in winter) to 1,165 sq km (in summer), it is Asia's largest coastal lagoon.

Why other options are wrong:

- Option A: West Bengal has the Sundarbans mangrove delta but not Chilika Lake.
- Option B: Andhra Pradesh has Kolleru Lake (a freshwater lake), not Chilika.
- Option D: Kerala is home to the backwater network of Vembanad Lake (Asia's longest lake), not Chilika.

Final Answer: Chilika Lake is located in Odisha ⇒ C

Answer: (C) Go Back to Q17

Q18.

Solution

Concept — UNFCCC COP28: The Conference of the Parties (COP) is the annual UN climate summit. COP28 was particularly significant as it produced the first global stock-take under the Paris Agreement, assessing progress toward climate goals.

Explanation: COP28 was held from 30 November to 12 December 2023 in **Dubai, United Arab Emirates**. It resulted in the "UAE Consensus," calling for a transition away from fossil fuels. It was hosted at Expo City Dubai.

Why other options are wrong:

- Option A: Glasgow, UK hosted COP26 in November 2021.
- Option B: Sharm el-Sheikh, Egypt hosted COP27 in November 2022.
- Option C: Baku, Azerbaijan hosted COP29 in November 2024, not COP28.

Final Answer: COP28 (2023) was held in Dubai, UAE ⇒ D

Answer: (D) Go Back to Q18

Q19.

Solution

Concept — CRISPR-Cas9: CRISPR-Cas9 (Clustered Regularly Interspaced Short Palindromic Repeats and CRISPR-associated protein 9) is a revolutionary molecular biology tool developed by Jennifer Doudna and Emmanuelle Charpentier, who won the Nobel Prize in Chemistry 2020 for this discovery.

Explanation: CRISPR-Cas9 is primarily used for **gene editing**, i.e., precisely cutting and modifying specific DNA sequences in the genomes of living organisms. It has applications in medicine (treating genetic diseases), agriculture (disease-resistant crops), and biotechnology research.

Why other options are wrong:

- Option B: Biomass energy production involves combustion or fermentation of biological material, unrelated to CRISPR.

- Option C: Semiconductor chip manufacturing is a physical/chemical engineering process, not molecular biology.
- Option D: While CRISPR can be used to produce proteins, vaccine development per se uses different biotechnology platforms (mRNA, viral vector, etc.).

Final Answer: CRISPR-Cas9 is used for gene editing $\Rightarrow$ A

Answer: (A) Go Back to Q19

Q20.

Solution

Concept — NITI Aayog: NITI Aayog (National Institution for Transforming India) was established as a policy think-tank of the Government of India. Unlike its predecessor, it has no power to allocate funds to states or ministries.

Explanation: NITI Aayog replaced the **Planning Commission**, which was dissolved on **1 January 2015**. The Planning Commission, established in 1950, had been responsible for formulating Five-Year Plans and allocating resources. PM Modi dissolved it to move towards a more cooperative federalism model.

Why other options are wrong:

- Option A: The Finance Commission is a constitutional body that continues to exist independently; it was not replaced by NITI Aayog.
- Option C: The National Development Council still exists (though rarely convened); it was not dissolved to create NITI Aayog.
- Option D: The Economic Advisory Council to the PM is a separate advisory body and was not replaced by NITI Aayog.

Final Answer: NITI Aayog replaced the Planning Commission $\Rightarrow$ B

Answer: (B) Go Back to Q20

Q21.

Solution

Concept — Ozone Layer Depletion: The stratospheric ozone layer (15–35 km above Earth) absorbs ultraviolet (UV-B and UV-C) radiation from the sun, protecting life on Earth. Its depletion leads to higher UV exposure, increased skin cancer rates, and ecosystem damage.

Explanation: Chlorofluorocarbons (CFCs) are the primary agents responsible for ozone layer depletion. When CFCs reach the stratosphere, UV radiation breaks them down to release chlorine atoms, which then catalytically destroy ozone molecules (one Cl atom can destroy 100,000 ozone molecules). The Montreal Protocol (1987) phased out CFCs globally.

Why other options are wrong:

- Option A: CO_2 is a greenhouse gas causing global warming, but does not significantly deplete the ozone layer.
- Option B: Methane (CH_4) is also a greenhouse gas; it has minimal direct impact on stratospheric ozone.
- Option D: Nitrous oxide (N_2O) does have some ozone-depleting potential but is a far less significant contributor than CFCs.

Final Answer: Chlorofluorocarbons (CFCs) are the primary cause of ozone depletion $\Rightarrow$ C

Answer: (C) Go Back to Q21

Q22.

Solution

Concept — ICC World Test Championship: The ICC World Test Championship (WTC) is a biennial competition in Test cricket. The final is played between the top two teams in the WTC standings after each two-year cycle.

Explanation: The WTC Final 2023 (second edition) was played at The Oval, London, from 7–11 June 2023. **Australia** defeated India by 209 runs to win their first WTC title. Pat Cummins captained the winning Australian side.

Why other options are wrong:

- Option A: India was the runner-up in WTC 2023, not the winner.
- Option B: England did not reach the WTC 2023 final.
- Option C: New Zealand won the inaugural WTC Final 2021 (defeating India

at Southampton), not the 2023 edition.

Final Answer: Australia won the ICC WTC Final 2023 ⇒ D

Answer: (D) Go Back to Q22

Q23.

Solution

Concept — Arjuna Award: The Arjuna Award is one of India's highest sports honours. It was instituted in 1961 by the Government of India to recognise outstanding achievement in national sports.

Explanation: The Arjuna Award is conferred by the **Ministry of Youth Affairs and Sports, Government of India**. The award carries a cash prize, a bronze statuette of Arjuna, a scroll of honour, and a ceremonial dress. It is presented on National Sports Day (29 August) by the President of India.

Why other options are wrong:

- Option B: The Sports Authority of India (SAI) manages sports infrastructure and training but does not confer the Arjuna Award.
- Option C: The Indian Olympic Association governs Olympic participation; the Arjuna Award is a government honour, not an IOA award.
- Option D: The National Sports Development Fund finances sports activities but does not award the Arjuna Award.

Final Answer: Arjuna Award is conferred by the Ministry of Youth Affairs and Sports ⇒ A

Answer: (A) Go Back to Q23

Q24.

Solution

Concept — Men's Hockey World Cup: The FIH Men's Hockey World Cup is the premier international field hockey tournament. India is one of the most successful nations in field hockey, having won multiple Olympic gold medals.

Explanation: India's only Men's Hockey World Cup victory came in **1975**, held in Kuala Lumpur, Malaysia. India defeated Pakistan in the final. Prior to 1975, India had won bronze (1971 and 1973). Since 1975, India has not won the World Cup despite multiple appearances.

Why other options are wrong:

- Option A: 1971 — India won the inaugural World Cup in 1971? Actually, India won bronze in 1971. The winner was Pakistan.
- Option C: 1982 — Pakistan won the 1982 World Cup, not India.
- Option D: 1986 — Australia won the 1986 World Cup, not India.

Final Answer: India's only Men's Hockey World Cup win was in 1975 at Kuala Lumpur $\Rightarrow$ B

Answer: (B) Go Back to Q24

Q25.

Solution

Concept — Kalpana Chawla: Kalpana Chawla (1962–2003) was an Indian-American astronaut and aerospace engineer who became an inspirational figure for generations of Indians interested in science and space exploration.

Explanation: Kalpana Chawla was the **first woman of Indian origin to travel to space**, flying on the Space Shuttle Columbia's STS-87 mission in **November 1997**. She later flew on STS-107 in January 2003, but tragically perished when Columbia disintegrated during re-entry on 1 February 2003.

Why other options are wrong:

- Option A: No Indian woman has won a Nobel Prize in Science; this is factually incorrect.
- Option B: Being the first female commercial airline pilot in India is a separate achievement unrelated to Kalpana Chawla.
- Option D: Bachendri Pal became the first Indian woman to summit Mount Everest in 1984, not Kalpana Chawla.

Final Answer: Kalpana Chawla was the first Indian woman to travel to space (STS-87, 1997) $\Rightarrow$ C

Answer: (C) Go Back to Q25

Q26.

Solution

Concept — Reserve Bank of India Governorship: The RBI Governor is appointed by the Central Government for a term of three years, extendable for a maximum of two terms. The Governor heads India's central bank and is responsible for monetary policy, banking regulation, and currency management.

Explanation: **Sanjay Malhotra** took charge as the 26th Governor of the Reserve Bank of India on **11 December 2024**, succeeding Shaktikanta Das whose extended term ended. Malhotra was previously the Revenue Secretary in the Ministry of Finance.

Why other options are wrong:

- Option A: Urjit Patel served as RBI Governor from 2016 to December 2018.
- Option B: Raghuram Rajan served as RBI Governor from 2013 to 2016.
- Option C: Shaktikanta Das served as RBI Governor from December 2018 to December 2024, immediately before Sanjay Malhotra.

Final Answer: Sanjay Malhotra became RBI Governor in December 2024 $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q26

Q27.

Solution

Concept — Sahitya Akademi: Sahitya Akademi (National Academy of Letters) is India's central institution for literary activities, set up by the Government of India. It promotes Indian literature through publications, translations, seminars, and literary awards in 24 languages.

Explanation: Sahitya Akademi was established in **1954** and held its inaugural meeting on 12 March 1954. It was inaugurated by Prime Minister Jawaharlal Nehru. Its counterparts are the Sangeet Natak Akademi (performing arts, 1952) and Lalit Kala Akademi (visual arts, 1954).

Why other options are wrong:

- Option B: 1961 is not associated with Sahitya Akademi's founding; it was a decade after independence.
- Option C: 1947 was the year of independence; most cultural institutions were set up in the early 1950s.
- Option D: 1968 is when the Sahitya Akademi first presented its Translation

Prize, not when it was established.

Final Answer: Sahitya Akademi was established in 1954 $\Rightarrow$ A

Answer: (A) Go Back to Q27

Q28.

Solution

Concept — KVIC: The Khadi and Village Industries Commission (KVIC) is a statutory body established under the Khadi and Village Industries Commission Act 1956. It operates under the Ministry of Micro, Small and Medium Enterprises (MSME).

Explanation: KVIC is the nodal agency responsible for promoting **Khadi and rural cottage industries** across India, including Pashmina wool products, handlooms, bee-keeping (honey and wax), pottery, leather, and forest-based industries. It supports rural artisans and weavers through training, marketing, and financial assistance.

Why other options are wrong:

- Option A: Large-scale textile mills are promoted by the Textile Ministry and TUFS (Technology Upgradation Fund Scheme), not KVIC.
- Option C: Export of synthetic fabrics is handled by the Apparel Export Promotion Council (AEPC) and the Synthetic & Rayon Textiles Export Promotion Council (SRTEPC).
- Option D: SEZ modernisation for garments falls under the Commerce Ministry and AEPC, not KVIC.

Final Answer: KVIC promotes Khadi and rural cottage industries $\Rightarrow$ B

Answer: (B) Go Back to Q28

Q29.

Solution

Concept — Indian Textile Hubs: India is one of the world's largest textile and apparel producers and exporters. Different cities specialize in different textile segments — Surat (synthetics, diamonds), Ludhiana (woollens), Panipat (blankets/recycled textiles), and Tiruppur (knitwear).

Explanation: Tiruppur, Tamil Nadu is India's largest knitwear and hosiery export hub, often called the "Knitwear Capital of India" or "Dollar City." It contributes over 90% of India's cotton hosiery exports and about 50% of total knitwear production. Major markets include Europe, USA, and Middle East.

Why other options are wrong:

- Option A: Surat, Gujarat is famous for synthetic textiles, diamond processing, and embroidery, not knitwear.
- Option B: Ludhiana, Punjab is known as the "Manchester of India" for woollen and cotton hosiery, but Tiruppur surpasses it in knitwear exports.
- Option D: Panipat, Haryana is known as the "City of Weavers" and a centre for recycled textiles and blankets.

Final Answer: Tiruppur, Tamil Nadu is India's largest knitwear export hub $\Rightarrow$ C

Answer: (C) Go Back to Q29

Q30.

Solution

Concept — Sustainable Fashion Terminology: As the fashion industry faces scrutiny for its environmental impact, terms like upcycling, recycling, slow fashion, and circular economy have become central to sustainability discourse in fashion design and textiles.

Explanation: In sustainable fashion, **upcycling** refers to **converting waste or discarded materials into new products of higher quality or value** — for example, turning old denim jeans into tote bags or using fabric scraps to create patchwork garments. Unlike recycling (which breaks materials down), upcycling maintains or elevates the material's original form.

Why other options are wrong:

- Option A: Sending garments to landfills is the opposite of sustainable practice; it is the problem upcycling seeks to solve.

- Option B: Buying new clothes every season is "fast fashion" behaviour, antithetical to sustainable fashion.
- Option C: Breaking down fabrics into raw fibres describes **recycling**, not upcycling.

Final Answer: Upcycling converts waste into products of higher quality or value $\Rightarrow$ D

Answer: (D) Go Back to Q30

Q31.

Solution

Concept — President of India (Constitutional Provisions): The President of India is the constitutional head of the Republic of India. Articles 52–78 of the Indian Constitution deal with the Union Executive, including the President.

Explanation: Under **Article 56** of the Indian Constitution, the President of India holds office for a term of **5 years** from the date of entering upon office. The President is eligible for re-election. The President can also be removed before the end of the term through impeachment under Article 61.

Why other options are wrong:

- Option B: 4 years is the term of the US President, not the Indian President.
- Option C: 6 years is the term of Rajya Sabha members, not the President.
- Option D: There is no age limit of 65 for the presidential term; Article 58 states a candidate must be at least 35 years of age to be eligible.

Final Answer: The President of India holds office for 5 years $\Rightarrow$ A

Answer: (A) Go Back to Q31

Q32.

Solution

Concept — Appointment of Chief Justice of India: The Supreme Court of India is the apex court of the judicial system. The appointment of the Chief Justice involves a process that has evolved through constitutional provisions and judicial conventions.

Explanation: Under **Article 124(2)** of the Indian Constitution, the Chief Justice of India is appointed by **the President of India** after consultation with such judges

of the Supreme Court and High Courts as the President may deem necessary. By convention, the outgoing CJI recommends the senior-most judge as successor.

Why other options are wrong:

- Option A: The Prime Minister advises the President on many appointments, but for judicial appointments, the President acts on the collegium's recommendation, not solely the PM.
- Option B: Parliament does not elect judges; judicial appointments are executive, not legislative acts.
- Option D: The collegium recommends names, but formal appointment power vests in the President.

Final Answer: The Chief Justice of India is appointed by the President of India $\Rightarrow$ C

Answer: (C) Go Back to Q32

Q33.

Solution

Concept — Fundamental Rights (Part III): Part III of the Indian Constitution (Articles 12–35) guarantees Fundamental Rights to all citizens. These rights are justiciable and enforceable by the Supreme Court and High Courts.

Explanation: Article 21 of the Indian Constitution guarantees: "No person shall be deprived of his life or personal liberty except according to procedure established by law." This is the **Right to Life and Personal Liberty**. It has been given an expansive interpretation by the Supreme Court to include the right to dignity, privacy, livelihood, health, and more.

Why other options are wrong:

- Option A: Right to Equality before Law is guaranteed under **Article 14**.
- Option B: Freedom of Speech and Expression is guaranteed under **Article 19(1)(a)**.
- Option C: Right against Exploitation (prohibition of traffic in human beings and forced labour) is guaranteed under **Articles 23–24**.

Final Answer: Article 21 guarantees the Right to Life and Personal Liberty $\Rightarrow$ D

Answer: (D) Go Back to Q33

Q34.

Solution

Concept — BRICS Expansion: BRICS is a grouping of major emerging economies. It was originally formed as BRIC in 2006 (Brazil, Russia, India, China) and expanded to BRICS with South Africa joining in 2010. In 2024, BRICS underwent its first major expansion.

Explanation: The original five BRICS members were **Brazil, Russia, India, China, and South Africa**. **Saudi Arabia** was among the countries invited to join BRICS at the Johannesburg summit (August 2023) and became a full member in **January 2024**. It was therefore NOT an original founding member.

Why other options are wrong:

- Option A: Russia was a founding member of the original BRIC grouping in 2006.
- Option C: India was a founding member of BRIC/BRICS from 2006/2009 onwards.
- Option D: South Africa joined in 2010 as the fifth member, making it part of the original BRICS five.

Final Answer: Saudi Arabia was NOT an original BRICS member (joined January 2024) $\Rightarrow$ B

Answer: (B) Go Back to Q34

Q35.

Solution

Concept — International Financial Institutions: The IMF and the World Bank Group are the two cornerstone multilateral institutions of the post-World War II Bretton Woods system, established in 1944 to promote international monetary stability and economic development.

Explanation: Both the **International Monetary Fund (IMF)** and the **World Bank Group** are headquartered in **Washington D.C., USA**. They were created at the Bretton Woods Conference (July 1944) in New Hampshire. The IMF focuses on monetary stability and balance-of-payments support, while the World Bank provides development loans and grants.

Why other options are wrong:

- Option B: New York is the headquarters of the United Nations (UN), not the

IMF or World Bank.

- Option C: Geneva, Switzerland hosts many UN agencies (WHO, ILO, WTO) but not the IMF or World Bank.
- Option D: Vienna, Austria hosts the OPEC and IAEA headquarters, not the IMF or World Bank.

Final Answer: Both IMF and World Bank are headquartered in Washington D.C., USA $\Rightarrow$ A

Answer: (A) Go Back to Q35

Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	C	2	D	3	A	4	B	5	C
6	D	7	A	8	B	9	C	10	D
11	A	12	B	13	C	14	D	15	A
16	B	17	C	18	D	19	A	20	B
21	C	22	D	23	A	24	B	25	C
26	D	27	A	28	B	29	C	30	D
31	A	32	C	33	D	34	B	35	A