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Day 34
Revision Notes

APPSC Group 1
1,000 Topics in 100 Days

Topics 331–336 and 338–340

9 topics available. Topic 337 is pending and is not included.

Topic 331

Delhi Sultanate: Slave dynasty from Aibak to Balban

Concept in one line

From 1206 to 1290 the Delhi Sultanate was ruled by sultans of slave (mamluk) origin and their families, from Qutbuddin Aibak, who took over Muhammad of Ghur's Indian conquests, to Balban, who broke the power of the Forty and stood on guard against the Mongols.

Revision notes

2.1 One dynasty, three names

- **Early Turkish rulers**: The rulers of 1206–1290 are known as the early Turkish rulers.
- "**Slave**" **and** "**Mamluk**": The dynasty is also called the Ghulam or Slave dynasty. Its founder Aibak had been a military slave of Muhammad of Ghur; the rulers were not all members of one family.
- **Meaning of mamluk**: The Arabic word means “owned”; in this context it refers to slaves trained for military service, distinct from domestic servants and artisans.
- **Ilbari**: Three distinct ruling houses are distinguished: Qutbi (1206–1211), first Ilbari or Shamsi (1211–1266), and second Ilbari (1266–1290). The “Slave dynasty” was not a single family.

2.2 The rulers at a glance

Ruler	Reign	How he or she came to power	One key act
Qutbuddin Aibak	1206 to 1210	A Turkish slave of Muhammad of Ghur who rose to high rank; the Indian conquests passed to him on Muhammad's death in 1206	Ruled from Lahore
Aram Shah	Briefly, after 1210	Raised to the throne at Lahore by a few amirs	Defeated by Iltutmish
Shamsuddin Iltutmish	1211 to 1236	A slave who married Aibak's daughter; governor of Badayun, invited by the Turkish chiefs of Delhi	Letter of investiture from the Abbasid Caliph, 1229

Ruler	Reign	How he or she came to power	One key act
Raziya (Raziyya)	1236 to 1240	Nominated by her father Iltutmish; won the throne after her brother Ruknuddin Firoz's brief rule, with the support of the people of Delhi and some military leaders	Appointed the Abyssinian Jamaluddin Yaqut master of the horses (amir-i-akhur)
Bahram Shah; Masud Shah	1240 to 1242; 1242 to 1246	Made and removed by the nobles	Succession dominated by powerful nobles
Nasiruddin Mahmud	1246 to 1266	A member of Iltutmish's family, raised to the throne in 1246 with the support of Ulugh Khan, later Balban	Ruled with Balban as his naib (deputy)
Ghiyasuddin Balban	1266 to 1287	A junior member of the Forty; naib to Nasiruddin Mahmud, then sultan	Insisted on sijda and paibos at court
Kaiqubad; Kaimurs	1287 to 1290	Balban's grandson Kaiqubad was raised by the nobles; Kaimurs replaced him	The line ended with the Khalji coup of 1290

2.3 **Qutbuddin Aibak** (1206 **to** 1210)

- **From general to ruler**: A Turkish military slave, Aibak rose to high rank in Muhammad Ghori's army. Following Ghori's death in 1206, he took power at Lahore over the Indian territories and established the Delhi Sultanate.
- **Capital**: Aibak ruled from Lahore after moving from the Delhi region. Delhi had been his headquarters during the subjugation of the Ganga–Yamuna region. In 1208 he captured Ghazna but was soon driven out.
- **Lakh Baksh**: he was known by this name for his generosity.
- **Quwwat-ul-Islam mosque**: Aibak began the congregational mosque at Delhi in 1192 and completed it in 1198. Iltutmish and later Alauddin Khalji enlarged it.
- **Death**: He died in 1210 after falling from his horse while playing chaugan (polo).
- **Aram Shah**: a few amirs raised him to the throne at Lahore; the Turkish amirs opposed him, and Iltutmish defeated him.

2.4 **Iltutmish** (1211 **to** 1236)

- **Rise**: A former mamluk, Iltutmish became governor of Badayun and married Aibak's daughter. Invited by the Turkish chiefs of Delhi, he defeated Aram Shah and became Sultan in 1211. He used the royal name Shamsuddin and died in 1236.
- **Capital**: he moved the capital to Delhi and made it his permanent capital.
- **Rivals**: In 1215–16, Iltutmish defeated Yaldauz at Tarain and ended his rival claim to supremacy. He drove Qabacha out of Punjab in 1217.
- **The Forty**: Iltutmish organised trusted nobles into the Turkan-i-Chahalgani, also called the Forty or Chihilgan. They were his personal slaves and advisers. Early Delhi Sultans, especially Iltutmish, favoured slaves specially purchased for military service, called bandagan.
- **Investiture**: In 1229 the Abbasid Caliph al-Mustansir of Baghdad recognised Iltutmish's authority through a letter of investiture. The caliph's name appeared on his precious-metal coinage.
- **Coins**: he introduced the silver tanka and the copper jital as the basic coins of the Sultanate.
- **Iqta**, **in a line**: Iltutmish assigned revenue from territories, including areas in the Doab, in place of cash salaries. An iqta was a revenue assignment, not private ownership of the land. Its holder was an iqtadar or muqti.
- **Qutb Minar**: Aibak laid its foundation in 1199 and built the first storey; Iltutmish added three storeys. Firuz Shah Tughluq later replaced the damaged top storey with two, producing the present five-storeyed tower. The adjacent Quwwat-ul-Islam mosque began in 1192. The Qutb complex became a UNESCO World Heritage Site in 1993. The minar is 72.5 m high.

2.5 **Raziya** (1236 **to** 1240)

- **Accession and ability**: Iltutmish nominated his daughter Raziya as successor. After Ruknuddin Firoz's brief reign, she became Sultan in 1236 with support in Delhi.
- **Gender and power**: Chronicler Minhaj-i Siraj acknowledged her ability but objected to a woman ruling. Opposition combined gender prejudice with the powerful Shamsi nobles' resistance to her independent authority.
- **Yaqut**: She sought support beyond the Turkish aristocracy and appointed the Abyssinian Jamaluddin Yaqut as amir-i-akhur (master of the horses). This intensified tensions with the Turkish nobles.
- **Fall**: She was deposed and killed in 1240.
- **Andhra comparison**: Kakatiya queen Rudramadevi used a masculine royal identity in inscriptions. This shows how gendered conventions of kingship shaped women's exercise of sovereign power.

2.6 **Balban**: **deputy under Nasiruddin**; **Sultan**, 1266–1287

- **As naib**: A member of the Forty, Balban became the dominant minister under Nasiruddin Mahmud and married his daughter to the Sultan. His influence was interrupted briefly in 1253–55; it was not an unbroken deputyship throughout 1246–1266.
- **Kingship**: Balban emphasised the exalted position of the Sultan as the 'shadow of God'. His kingship combined autocratic authority with strict court discipline.
- **Court ceremony**: He enforced sijda (prostration) and paibos (kissing the monarch's feet) to raise the prestige of the Sultan. He also observed the Persian festival of Nowruz.
- **The end of the Forty**: He weakened the Chahalgani and strengthened the crown. The death or loss of influence of several members also aided his consolidation.
- **Control**: he reorganised the military department (diwan-i-arz), placed spies in every department and put down revolts in Mewat, the Doab, Awadh and Katihar.
- **Bengal**: Governor Tughril rebelled and assumed the title of Sultan. Balban had him killed and appointed his son Bughra Khan governor.

2.7 **The Mongol threat**

When	What happened
1219	The Mongols under Genghis Khan invaded Transoxiana
1221	Genghis Khan defeated Jalaluddin Mangbarni at the Indus. Iltutmish refused him shelter and so kept the Sultanate out of direct conflict with the Mongols
Bahram Shah's reign (1240 to 1242)	The Mongols invaded the Punjab and sacked Lahore
Balban's years	Delhi maintained a defensive strategy; it fought off several invasions, though the Mongols were entrenched in the Punjab
1285	Prince Muhammad, Balban’s son, was killed fighting the Mongols

2.8 **The end of the dynasty**, 1290

- Balban died in 1287. The nobles raised his grandson Kaiqubad, who was replaced by Kaimurs. In 1290 Firoz murdered Kaimurs and took the throne as Jalaluddin Khalji; This was a dynastic revolution.
- Jalaluddin Firuz Khalji (1290 to 1296) took the throne at about 70; this transition is known as the Khalji revolution.

chronology, 1206 to 1290

Year	Event
1206	Muhammad of Ghur dies; Aibak takes power at Lahore
1208	Aibak takes Ghazna but is soon driven out
1210	Aibak dies in a polo accident; Aram Shah succeeds briefly
1211	Iltutmish becomes Sultan
1215–1216	Iltutmish defeats Yaldauz at Tarain
1217	Iltutmish drives Qabacha out of the Punjab
1219	Mongols under Genghis Khan invade Transoxiana
1221	Battle of the Indus; Iltutmish refuses shelter to Mangbarni
1229	Iltutmish receives the Abbasid Caliph's letter of investiture
1236	Iltutmish dies; Raziya becomes Sultan
1240	Raziya removed from the throne and killed
1240 to 1246	Bahram Shah and Masud Shah; Mongols sack Lahore
1246	Nasiruddin Mahmud becomes Sultan; Balban rises in influence
1266	Balban becomes Sultan
Balban's reign	Tughril's revolt in Bengal is suppressed
1285	Prince Muhammad killed fighting the Mongols
1287	Balban dies; Kaiqubad raised to the throne
1290	Jalaluddin Firuz Khalji takes the throne: the Khalji dynasty begins

How to read the table:

- Balban dominated much of Nasiruddin’s reign before becoming Sultan in 1266; his earlier influence was briefly interrupted in 1253–55.
- The years between strong rulers (1210 to 1211, 1236 to 1246, 1287 to 1290) were years of short reigns and power struggles among the nobles.
- The Mongol danger runs through the whole period, from 1221 to the death of Prince Muhammad in 1285.

Three common exam traps

1. **Succession after Aibak**: Iltutmish became Sultan in 1211. He was Aibak’s son-in-law, not his son. Aram Shah ruled briefly between them.
2. **The Forty belong to two reigns**, **in opposite ways**. The Forty were formed from Iltutmish's own slaves and served him. Balban had been a junior member of the Forty, and it was he who broke their power.
3. **Qutb Minar was not one ruler's work**. Aibak laid its foundation in 1199 and built the first storey; Iltutmish added three. Firuz Shah Tughluq rebuilt the damaged top into two storeys, giving the present total of five.

Topic 332

Election Commission of India: composition, powers and independence

Concept in one line

The Election Commission of India (ECI) is the constitutional body in which Article 324 vests the superintendence, direction and control of the electoral rolls and of elections to Parliament, the State Legislatures and the offices of President and Vice-President; the 2023 appointment Act came into force on 2 January 2024.

Revision notes

2.1 Constitutional position

- The ECI issues the notification for the presidential election.
- As with the CAG, the Chief Election Commissioner is removable only like a Supreme Court Judge.

2.2 Article 324, clause by clause, and Articles 325 to 329

Clause	What it provides (current text)
324(1)	"The superintendence, direction and control of the preparation of the electoral rolls for, and the conduct of," all elections to Parliament and to the Legislature of every State and elections to the offices of President and Vice-President "shall be vested in a Commission (referred to in this Constitution as the Election Commission)"
324(2)	The Commission "shall consist of the Chief Election Commissioner and such number of other Election Commissioners" as the President may fix. The President appoints them, "subject to the provisions of any law made in that behalf by Parliament"
324(3)	When other Election Commissioners are appointed, "the Chief Election Commissioner shall act as the Chairman of the Election Commission"

Clause	What it provides (current text)
324(4)	Before each general election to the House of the People (Lok Sabha) and to the Legislative Assembly of each State, and before the first general election and thereafter before each biennial election to the Legislative Council of each State having one, the President may, after consultation with the Election Commission, appoint Regional Commissioners to assist it
324(5)	Conditions of service and tenure are as the President may by rule determine, subject to a law of Parliament. The Chief Election Commissioner "shall not be removed from his office except in like manner and on the like grounds as a Judge of the Supreme Court", and his conditions of service "shall not be varied to his disadvantage after his appointment". Any other Election Commissioner or a Regional Commissioner shall not be removed "except on the recommendation of the Chief Election Commissioner"
324(6)	When the Commission so requests, the President or the Governor of a State shall "make available to the Election Commission or to a Regional Commissioner such staff as may be necessary"

Article	What it provides
325	"one general electoral roll for every territorial constituency"; no person is excluded from it, or may claim a special roll, on grounds only of religion, race, caste, sex or any of them
326	Elections to the Lok Sabha and the State Legislative Assemblies are on adult suffrage: a citizen not less than 18 years of age on the date fixed by law, unless disqualified (for example for non-residence, unsoundness of mind, crime, or a corrupt or illegal practice)
327	Parliament may by law provide for all matters relating to these elections, including electoral rolls and the delimitation of constituencies

Article	What it provides
328	A State Legislature may make such provision for its own House or Houses, so far as Parliament has not done so
329	(a) A law on delimitation or the allotment of seats made under Article 327 or 328 cannot be questioned in any court. (b) An election to Parliament or a State Legislature can be questioned only by an election petition, in the manner provided by law

- Article 329A was omitted by the 44th Amendment, with effect from 20 June 1979.

2.3 **Composition and appointment**: **before and after** 2023

Point	**Before** 2 **March** 2023	2 **March** 2023 **until the** 2023 **Act**	**Under the** 2023 **Act**
Who chooses	The President appointed on the Government's recommendation; the senior-most Election Commissioner was traditionally made Chief Election Commissioner	A committee of the Prime Minister, the Leader of Opposition in the Lok Sabha (or, if there is none, the leader of the largest opposition party in the Lok Sabha) and the Chief Justice of India (Anoop Baranwal)	A Selection Committee of the Prime Minister (Chairperson), the Leader of Opposition in the Lok Sabha and a Union Cabinet Minister nominated by the Prime Minister (section 7). If no Leader of Opposition is recognised, the leader of the single largest opposition party in the Lok Sabha is deemed to be the Leader of Opposition
Search stage	None laid down	None laid down	A Search Committee headed by the Minister of Law and Justice, with two members not below the rank of Secretary, prepares a panel of five persons (section 6). The Selection Committee may consider persons outside the panel (section 8)

Point	Before 2 March 2023	2 March 2023 until the 2023 Act	Under the 2023 Act
Appointment	By the President (Article 324(2))	By the President	By the President, by warrant under his hand and seal (section 4)
Eligibility	None in the Constitution	None in the Constitution	A person holding or having held a post equivalent to the rank of Secretary to the Government of India, of integrity, with knowledge of and experience in the management and conduct of elections (section 5)
Term	Six years or the age of 65, whichever is earlier, under the 1991 Act	The same	Six years from assuming office or the age of 65, whichever is earlier; no re-appointment; an Election Commissioner who becomes Chief Election Commissioner may not serve more than six years in the two offices together (section 9)
Salary	Equal to a Judge of the Supreme Court, under the 1991 Act	The same	Equal to a Judge of the Supreme Court (section 10)

- **Anoop Baranwal v. Union of India** (2 **March** 2023): a five-judge Constitution Bench (judgment by Justice K.M. Joseph) unanimously directed the committee above, to work only until Parliament made a law. The petitioners had argued that executive control over appointments had weakened the Commission's independence; the Union replied that the matter lay in the executive domain.
- **The** 2023 **Act**: the Chief Election Commissioner and Other Election Commissioners (Appointment, Conditions of Service and Term of Office) Act, 2023 (No. 49 of 2023), received assent and was published on 28 December 2023; it came into force on 2 January 2024. It repealed the Election Commission (Conditions of Service of Election Commissioners and Transaction of Business) Act, 1991.
- **Working of the Commission** (**section** 18): business is transacted unanimously as far as possible; where the members differ, the opinion of the majority prevails.

2.4 Powers and functions

Power or function	Where it comes from	What it covers
Superintendence, direction and control	Article 324(1)	The electoral rolls and all the elections named in Article 324(1)
Opinion on disqualification of a Member of Parliament under Article 102(1)	Article 103	The question is "referred for the decision of the President and his decision shall be final"; before deciding, the President "shall obtain the opinion of the Election Commission" and "shall act according to such opinion"
Opinion on disqualification of a State legislator	Article 192	The Governor decides, according to the opinion of the Election Commission
Recognition of parties and symbols	Election Symbols (Reservation and Allotment) Order, 1968, made by the Commission under Article 324	A recognised party is either a National party or a State party; a reserved symbol is for exclusive allotment to that party's candidates
Model Code of Conduct	The Commission's practice	Origin in the Kerala Assembly elections of 1960; first issued as a "Minimum Code of Conduct" on 26 September 1968; revised since

- **EVMs, in a line**: their first use was in 1982, at 50 polling stations of the Parur Assembly constituency in Kerala.

2.5 Independence

Feature	What protects it	Legal provision
Security of tenure of the Chief Election Commissioner	Removal only in like manner and on the like grounds as a Judge of the Supreme Court	Article 324(5); section 11
Conditions of service of the Chief Election Commissioner	Not to be varied to his disadvantage after his appointment	Article 324(5)
Removal of the other Election Commissioners	Only on the recommendation of the Chief Election Commissioner	Article 324(5); section 11

Feature	What protects it	Legal provision
Fixed term and pay	Six years or 65; no re-appointment; salary of a Supreme Court Judge	Sections 9 and 10
Protection for official acts	No court may entertain a civil or criminal proceeding against a present or former member for acts done in the discharge of official duty	Section 16

Points in debate:

- **The selection committee**. The 2023 Act put a Cabinet Minister in the Chief Justice's place. On 23 September 2026 Justice Dipankar Datta held the Act "is within the constitutional text" and found "considerable, prima facie, merit" in the Union's argument that Parliament was not bound to include the Chief Justice; but he observed, prima facie, that the challengers' point about the Prime Minister's nominee "does appear to have substance". Justice Satish Chandra Sharma called the omission of a neutral selector "an important question arising for the first time before this Court". The Attorney General and the Solicitor General sought a reference to a Bench of at least five Judges.
- **Unequal protection**. In Anoop Baranwal, Justice Ajay Rastogi suggested that the Election Commissioners' grounds of removal should match the Chief Election Commissioner's, subject to his recommendation.
- **No qualification in the Constitution**. Article 324 lays down none; the 2023 Act requires Secretary rank (section 5).
- **No bar on later government office in Article** 324, unlike Article 148(4) for the CAG and Article 319 for the UPSC Chairman. The 2023 Act bars only re-appointment (section 9).

2.6 Challenges to the 2023 Act: the September 2026 referral

- **The petitions**: Dr. Jaya Thakur v. Union of India and connected petitions challenge sections 7 and 8 and other provisions.
- **No stay**: in March 2024 the Court refused an interim stay. It came days after Gyanesh Kumar and Sukhbir Singh Sandhu were appointed Election Commissioners; Adhir Ranjan Chowdhury, the opposition member of the committee, dissented.
- 23 **September** 2026: the Bench of Justices Datta and Sharma was divided on a reference. Justice Datta rejected it; Justice Sharma would send the case to a Constitution Bench of not less than five Judges. By a joint order the papers went to the Chief Justice of India "for considering the desirability of constituting a Constitution Bench".

2.7 **Appointments and institutional milestones**

- **Appointments**: Chief Election Commissioner Gyanesh Kumar, since 19 February 2025; Election Commissioners Dr Sukhbir Singh Sandhu (Gazette notification of 14 March 2024) and Dr Vivek Joshi (notified 17 February 2025; took charge 19 February 2025).
- **National Voters' Day**: observed since 2011 on 25 January, the day the Commission was constituted in 1950.
- **T.N. Seshan**, a former Cabinet Secretary, became Chief Election Commissioner on 12 December 1990 and served until 11 December 1996; he asserted the authority and autonomy of the Election Commission.

a chronology of the Commission

Date	What happened
25 January 1950	The Election Commission is formally constituted, as a one-member body
21 March 1950	The first Chief Election Commissioner, Sukumar Sen, is appointed
16 October 1989	S.S. Dhanoa and V.S. Seigell are appointed Election Commissioners; the Commission becomes a three-member body
1 January 1990	By a Presidential notification the two lose office; the Commission is again a one-member body
12 December 1990	T.N. Seshan is appointed Chief Election Commissioner
1 October 1993	Two Election Commissioners are appointed under the 1991 Act; the Commission has been a three-member body since
25 January 2011	National Voters' Day is first observed, on the Commission's foundation day
2 March 2023	Anoop Baranwal: a committee including the Chief Justice of India until Parliament makes a law
28 December 2023	The 2023 Act receives assent and is published
2 January 2024	The 2023 Act comes into force
March 2024	Gyanesh Kumar and Sukhbir Singh Sandhu are appointed Election Commissioners (Gazette, 14 March); the Supreme Court refuses an interim stay

Date	What happened
19 February 2025	Gyanesh Kumar takes office as Chief Election Commissioner
23 September 2026	A divided Bench places the challenge to the 2023 Act before the Chief Justice of India

Two checks:

- Under Article 324(2) the President fixes the number of other Election Commissioners. That is how the Commission could go from one member to three and back again within the same constitutional text.
- The Anoop Baranwal committee was a stopgap. The 2023 Act replaced it, and the challenge to the Act is about its validity, not about whether the stopgap still applies.

Three common exam traps

1. "**The Supreme Court's committee with the Chief Justice still selects the Election Commissioners**." It was meant only until Parliament made a law. Since the 2023 Act, the Selection Committee is the Prime Minister, the Leader of Opposition in the Lok Sabha and a Cabinet Minister nominated by the Prime Minister. The joint order of 23 September 2026 placed the papers before the Chief Justice for considering a Constitution Bench; it did not decide the Act's final validity.
2. "**The ECI conducts every election in India**." Article 324 covers elections to Parliament, to the State Legislatures and to the offices of President and Vice-President. Elections to panchayats and municipalities are held by the State Election Commission.
3. "**The ECI decides election disputes**." It conducts elections; it does not try them. An election to Parliament or a State Legislature can be questioned only by an election petition under the law (Article 329(b)), and disputes about the election of the President or Vice-President go to the Supreme Court (Article 71).

Topic 333

UN specialised agencies: WHO, UNESCO, ILO and FAO, structures and mandates

Concept in one line

Specialised agencies are autonomous international organisations brought into relationship with the United Nations (UN) by agreements under Articles 57 and 63 of the Charter, and the World Health Organization (WHO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Labour Organization (ILO) and the Food and Agriculture Organization (FAO) are four of them.

Revision notes

2.1 Relationship with the United Nations

- ECOSOC is one of the six principal organs of the UN. Specialised agencies are separate autonomous organisations linked to the UN, not principal organs.

2.2 What makes an agency specialised

- **Article** 57(1): the agencies established by intergovernmental agreement and having wide international responsibilities, as defined in their basic instruments, in economic, social, cultural, educational, health, and related fields, shall be brought into relationship with the United Nations in accordance with the provisions of Article 63.
- **Article** 57(2): agencies so linked are hereinafter referred to as specialized agencies.
- **Article** 63(1): ECOSOC may enter into agreements with these agencies, defining the terms of the relationship. Such agreements shall be subject to approval by the General Assembly.
- **Article** 63(2): ECOSOC may co-ordinate the activities of the specialized agencies through consultation and recommendations.
- **Other links in the Charter**: the Organization makes recommendations to co-ordinate their policies (Article 58) and may start negotiations to create new agencies (Article 59); ECOSOC may obtain regular reports from them (Article 64); their representatives may take part, without vote, in ECOSOC's deliberations (Article 70).
- **Autonomy and funding**: autonomous international organizations working with the United Nations, all brought into relationship with the UN through negotiated agreements, and funded by both voluntary and assessed contributions.

- **Specialised agencies**: There are 15 specialised agencies: FAO, ICAO, IFAD, ILO, IMF, IMO, ITU, UNESCO, UNIDO, UN Tourism, UPU, WHO, WIPO, WMO and the World Bank. Two World Bank Group bodies, ICSID and MIGA, are not specialized agencies in accordance with Articles 57 and 63.

2.3 The four compared (membership and leadership as on 12 November 2026)

Point	WHO	UNESCO	ILO	FAO
Founded	1948	1945: Constitution signed in London on 16 November 1945 by 41 States	1919, as part of the Treaty of Versailles	16 October 1945, when 34 countries signed its constitution in Quebec City
Constitution	Adopted on 22 July 1946 by the International Health Conference, New York; in force from 7 April 1948	Adopted in London on 16 November 1945; in force from 4 November 1946, after ratification by 20 signatories	The Declaration of Philadelphia is an annex to the Constitution	Signed at the Château Frontenac, Quebec City, on 16 October 1945
Headquarters	Geneva (Avenue Appia)	Paris	Geneva, seat of the International Labour Office, its secretariat	Rome, since 1951 (first based in Washington DC)
Governing bodies and cycle	World Health Assembly, every year; Executive Board, a main session in January and a short one after the Assembly	General Conference, the highest governing body, every two years; it elects the Executive Board	International Labour Conference, every year; Governing Body, three times a year	Conference, the highest governing body, every two years; Council of 49 Member Nations elected for three years
Head	Director-General Tedros Adhanom Ghebreyesus, in office from 1 July 2017, re-elected on 24 May 2022	Director-General Khaled El-Enany, the 12th, in office from 15 November 2025	Director-General Gilbert F. Houngbo, the 11th, in office from October 2022	Director-General QU Dongyu, the ninth, in office from 1 August 2019, re-elected on 2 July 2023
Membership	194 Member States in 6 regions	194 Member States	187 Member States	194 members: 193 countries and the European Union

Point	WHO	UNESCO	ILO	FAO
India	Hosts the Global Traditional Medicine Centre at Jamnagar	Member since 1946	Founding member	Member since 16 October 1945; on the Council from 1 July 2026

2.4 WHO

- **World Health Assembly**: the decision-making body of WHO, attended by delegations from all Member States and held every year in Geneva (the 79th, 18 to 23 May 2026). It determines WHO's policies, appoints the Director-General, supervises financial policies and approves the programme budget. Its agenda is prepared by the Executive Board.
- **Executive Board**: 34 technically qualified members elected for three-year terms. It meets mainly in January, with a shorter session after the Assembly. Its main function is to carry out the decisions and policies of the Assembly, and it advises the Assembly.
- **Director-General**: Tedros Adhanom Ghebreyesus was elected by the Assembly on 23 May 2017 and took office on 1 July 2017; he was re-elected for a second five-year term on 24 May 2022. He is the first person from WHO’s African Region to head the organisation.
- **Constitution and seat**: the Constitution came into force on 7 April 1948, now marked as World Health Day. The first Health Assembly opened in Geneva, WHO's headquarters, on 24 June 1948.
- **International Health Regulations** (2005), **in a line**: binding on 197 countries, including the 194 Member States; the amendments agreed at the Assembly in 2024 (resolution WHA77.17) entered into force on 19 September 2025; 11 States rejected these amendments and remain governed by the earlier versions applicable to them.
- **WHO Pandemic Agreement**: adopted by the World Health Assembly on 20 May 2025 (resolution WHA78.1). Its annex on a Pathogen Access and Benefit-Sharing (PABS) system is negotiated by an Intergovernmental Working Group (IGWG), whose ninth meeting took place from 2 to 13 November 2026. The Agreement opens for signature only after the Assembly adopts the annex, and enters into force 30 days after 60 countries ratify it. **Status on** 13 **November** 2026: the annex remained under negotiation, with members aiming to finalize it for consideration by the World Health Assembly in May 2027. The Agreement was not yet open for signature.
- **The United States**: the US government says the President announced the plan to leave on 20 January 2025 and that the withdrawal was completed on 22 January 2026 (HHS, 22 January 2026). WHO's notice says the US notification, circulated in 2025, has a stated effective date of 22 January 2026 and is pending consideration by WHO's Governing Bodies. WHO told its Executive Board (January 2026) that the Health Assembly must settle open questions, including unpaid US dues; the 79th Assembly's withdrawal resolution (WHA79.7) concerned only Argentina. WHO continues to list 194 Member States.

- **Traditional medicine**, **in a line**: WHO set up its Global Traditional Medicine Centre in 2022 with foundational support from the Government of India; it is a WHO headquarters department outposted to Jamnagar, Gujarat.

2.5 UNESCO

- **Constitution**: signed by 41 States at the London conference of 1 to 16 November 1945; in force on 4 November 1946.
- **Bodies**: UNESCO is led by three key bodies: the General Conference, the Secretariat and the Executive Board. The General Conference, the highest governing body, meets every two years, sets the programmes and the budget, elects the members of the Executive Board and appoints the Director-General every four years.
- **Director-General**: Khaled El-Enany, nominated by the Executive Board and elected by the 43rd General Conference at Samarkand on 6 November 2025, took office on 15 November 2025. He is the 12th Director-General and the first from an Arab country.
- **World Heritage Convention**, **in a line**: adopted by UNESCO's General Conference on 16 November 1972. India has 45 World Heritage Sites.
- **The United States**: on 22 July 2025 the Director-General regretted the US decision to once again withdraw, which will take effect at the end of December 2026. The US then provided 8% of UNESCO's total budget. **As on** 12 **November** 2026 the withdrawal has not yet taken effect.
- **India**: a member since 1946. Its link body is the Indian National Commission for Cooperation with UNESCO, under the Ministry of Education (Department of Higher Education).

2.6 ILO

- **Origin**: created in 1919, as part of the Treaty of Versailles that ended World War I, on the belief that lasting peace can be accomplished only if it is based on social justice. It moved to Geneva in the summer of 1920 and became a UN specialised agency in 1946.
- **Tripartite structure**: The only tripartite U.N. agency, it brings together governments, employers and workers of 187 Member States; workers and employers together have an equal voice with governments in its deliberations.
- **International Labour Conference**: meets every year in Geneva; it sets international labour standards and the ILO's broad policies.
- **Governing Body**: the executive council; meets three times a year in Geneva and decides policy, programme and budget.
- **Nobel Peace Prize**: won in 1969, on the ILO's 50th anniversary.
- **Director-General**: Gilbert F. Houngbo, chosen by the Governing Body in March 2022 for five years.
- **India**: a founding member, and a permanent member of the Governing Body since 1922. The first ILO office in India opened in 1928.

2.7 FAO

- **Founding**: FAO was born on the afternoon of 16 October 1945 when its constitution was signed in Quebec City, Canada, by 34 countries. It was first based in Washington DC and moved to Rome in 1951.
- **World Food Day**: celebrated every year on 16 October, the day FAO was founded.
- **Conference**: the organization's highest governing body; it meets every two years and votes on the Director-General's programme of work and budget.
- **Council**: set up in 1947 at the third session of the Conference; 49 Member Nations elected for a term of three years by the Conference; the executive arm of the Conference between its sessions. India is a member for 1 July 2026 to the end of the 46th Conference (2029).
- **Director-General**: QU Dongyu, born in China's Hunan Province, took office on 1 August 2019 as the ninth Director-General and was re-elected for a second four-year term on 2 July 2023.
- **Members**: 194 members: 193 Member Nations and one Member Organization, the European Union; there are also two Associate Members.
- **International Year of Millets** 2023, **in a line**: the Government of India sponsored the proposal; the UN General Assembly declared 2023 the Year by resolution A/RES/75/263 of 3 March 2021, adopted without a vote, with FAO as the lead agency.

2.8 India and the four agencies

Agency	India's participation
WHO	Host of the WHO Global Traditional Medicine Centre at Jamnagar (2022); WHO's South-East Asia Regional Office is in New Delhi
UNESCO	Member since 1946; National Commission under the Ministry of Education; 45 World Heritage Sites
ILO	Founding member; permanent seat on the Governing Body since 1922; first ILO office in India in 1928
FAO	Member of the FAO Council from 1 July 2026 to 2029; sponsor of the proposal for the International Year of Millets 2023

chronology of the four agencies

Date	Event
1919	ILO created as part of the Treaty of Versailles

Date	Event
Summer 1920	ILO moves to Geneva
1922	India a permanent member of the ILO Governing Body
1928	First ILO office in India
16 October 1945	FAO founded at Quebec City
16 November 1945	UNESCO Constitution adopted in London
22 July 1946	WHO Constitution adopted at New York
4 November 1946	UNESCO Constitution enters into force
1946	ILO becomes a UN specialised agency; India a member of UNESCO
1947	FAO Council set up
7 April 1948	WHO Constitution enters into force (World Health Day)
24 June 1948	First Health Assembly opens in Geneva
1951	FAO moves to Rome
1969	ILO wins the Nobel Peace Prize
16 November 1972	World Heritage Convention adopted
1 July 2017	Tedros takes office as WHO Director-General
1 August 2019	QU Dongyu takes office at FAO
3 March 2021	UN General Assembly declares 2023 the International Year of Millets (A/RES/75/263)
March 2022	Houngbo chosen as ILO Director-General (in office from October 2022)
2022	WHO Global Traditional Medicine Centre set up, at Jamnagar
24 May 2022	Tedros re-elected
2 July 2023	QU Dongyu re-elected
2024	Amendments to the International Health Regulations (2005) agreed
20 January 2025	US President announces the plan to leave WHO

Date	Event
20 May 2025	World Health Assembly adopts the WHO Pandemic Agreement
22 July 2025	UNESCO's Director-General regrets the second US withdrawal
19 September 2025	Amended International Health Regulations enter into force
6 November 2025	UNESCO's 43rd General Conference, at Samarkand, elects El-Enany
15 November 2025	El-Enany takes office at UNESCO
22 January 2026	US says its WHO withdrawal is complete; WHO's notice: pending before its Governing Bodies
18 to 23 May 2026	79th World Health Assembly; its resolution WHA79.7 (23 May) deals with Argentina's withdrawal, not the US
1 July 2026	India's term on the FAO Council begins
2 to 13 November 2026	Ninth IGWG meeting on the Pandemic Agreement annex
End of December 2026	US withdrawal from UNESCO due to take effect

Three common exam traps

1. **Specialised agencies are parts of the UN**. They are autonomous organisations with their own members, budgets and heads, linked to the UN by negotiated agreements. The IMF and the World Bank are specialised agencies, while ICSID and MIGA, though in the World Bank Group, are not specialised agencies under the Charter.
2. **The United States has left both WHO and UNESCO**. The two cases stand differently. The US government says its WHO withdrawal was completed on 22 January 2026, while WHO's notice says the notification is pending consideration by its Governing Bodies. The UNESCO withdrawal takes effect only at the end of December 2026, so on 12 November 2026 the US is still a UNESCO member.
3. **The Pandemic Agreement is in force**, **like the amended Health Regulations**. The amendments of 2024 to the International Health Regulations entered into force on 19 September 2025. The Pandemic Agreement was adopted on 20 May 2025, but it opens for signature only after the PABS annex is adopted, and enters into force only 30 days after 60 ratifications; on 13 November 2026 the annex remained under negotiation, with May 2027 consideration as the goal.

Topic 334

Schedule XIII promises: Visakhapatnam railway zone, Kadapa steel plant and Dugarajapatnam port

Concept in one line

The Thirteenth Schedule uses distinct obligations for a railway zone, steel-plant feasibility and a new major port. Their later implementation paths must be compared by responsible agency, stage and reference date.

Revision notes

Three promises: read the verb

Andhra Pradesh Reorganisation Act, 2014 Section 93: The Union must take the Thirteenth Schedule measures for the progress and sustainable development of the successor States within ten years from the appointed day. Appointed day: 2 June 2014. PORT — Item 1: Develop a new major port at Duggirajupatnam in Andhra Pradesh, in phases, with Phase I by end-2018. STEEL — Item 3: SAIL must examine, within six months, the feasibility of an integrated steel plant in YSR District of Andhra Pradesh. RAIL — Item 8: Indian Railways must examine, within six months, establishing a new railway zone in Andhra Pradesh and take an expeditious decision. The obligations differ: develop a port; examine steel feasibility; examine a railway zone and decide. Do not replace every verb with “construct”. A study obligation, an announcement, construction and operational service are different stages.

The wider infrastructure schedule

Two steel-plant studies Item 2: SAIL feasibility study in Khammam district, Telangana. Item 3: SAIL feasibility study in YSR District, Andhra Pradesh. Both have a six-month examination period. Other Andhra Pradesh measures IOC or HPCL: examine a greenfield crude-oil refinery and petrochemical complex within six months and decide expeditiously. Examine a Vizag–Chennai industrial corridor along Delhi–Mumbai corridor lines within six months and decide within that period. Examine international-standard expansion of Visakhapatnam, Vijayawada and Tirupati airports within six months and decide expeditiously. Examine metro rail in Visakhapatnam and the Vijayawada–Guntur–Tenali urban region within one year and decide expeditiously. Connectivity and Telangana NTPC: establish a 4,000 MW power facility in Telangana after securing coal linkages. NHAI: improve roads in backward Telangana regions. Railways: examine a Telangana coach factory within six months, improve rail connectivity and decide expeditiously. Centre: rapid rail and road links from Andhra Pradesh’s new capital to Hyderabad and other important Telangana cities.

South Coast Railway: how the plan changed

27 February 2019: South Coast Railway (SCoR) announced, with headquarters at Visakhapatnam. The Cabinet decision is dated 28 February 2019. 2019 design Guntakal, Guntur and Vijayawada divisions would form the new zone. Waltair division would be split: one part would merge with Vijayawada division; the other would become Rayagada division under East Coast Railway. 7 February 2025: Cabinet approved a partial modification. Revised design Retain a truncated Waltair division, approximately 410 km, and rename it Visakhapatnam division under South Coast Railway. The other part, approximately 680 km, becomes Rayagada division under East Coast Railway. These are the approximate lengths stated in the 2025 decision, not a claim about every later jurisdictional measurement. Key distinction: Visakhapatnam is the zone headquarters and also the name of a division. Vijayawada is a division, not the zone headquarters.

Kadapa steel: feasibility is not construction

SAIL submitted its feasibility report on 2 December 2014. Its conclusion: an integrated steel plant in YSR Kadapa was prima facie not financially viable. The finding concerned feasibility under the assessed assumptions; it was not a statement that no steel project could ever be developed. 19 October 2016: a Task Force was constituted to examine feasibility issues and prepare a road map for plants in Andhra Pradesh and Telangana. Participants included the Union and State Governments, SAIL, RINL, NMDC, MECON and MSTC. 27 December 2017: the follow-up process required State Governments to share data with MECON. States and MECON would work out realistic assumptions; MECON would complete the project report after receiving relevant information. Direction matters: State data → MECON assessment → feasibility/project report. Do not reverse who supplies data and who prepares the report. Steel is a de-regulated sector: investment by a private company is distinct from SAIL establishing a Union public-sector project.

JSW Rayalaseema: a distinct private project

3 July 2026: construction work launched for the Rayalaseema steel project in YSR Kadapa district. Developer: JSW Rayalaseema Steel Limited, a wholly owned subsidiary of JSW Steel. This is not a newly commissioned SAIL plant. Planned investment and capacity Phase 1: 1 million tonnes per annum, with investment of ₹4,500 crore. Phase 2: an additional investment of up to ₹11,850 crore, taking total planned capacity to 2 million tonnes per annum. Total planned investment: up to ₹16,350 crore. Do not add phase 2 capacity as another 2 million to obtain 3 million. Process: electric arc furnace using recycled scrap and high-grade direct-reduced iron. Development stages Earlier foundation ceremonies at the Kadapa site do not establish commercial production. The July 2026 construction launch is a development milestone, not measured output. Distinguish carefully: statutory SAIL feasibility study; State-supported project development; private JSW investment; eventual production.

Dugarajapatnam: why viability became central

The original Act names a new major port at Duggirajupatnam, with Phase I by end-2018. Dugarajapatnam is another commonly used spelling. Before the Act, CCEA approved commissioning a techno-economic feasibility report through RITES. The PPP proposal relied on the State meeting land, rehabilitation/resettlement and external-infrastructure costs. The State subsequently expressed inability to meet that commitment. Viability gap funding was proposed. NITI Aayog suggested recasting the project model; AECOM submitted a revised report on 10 June 2016. The revised assessment put total capital cost at about ₹5,962 crore. With its traffic projections and competitive tariff assumptions, the project had low internal rates of return and was commercially not viable. A conditional alternative: a full-fledged concession to a private operator, with 20% Union VGF and an additional 20% State VGF, aimed at a 14% project IRR. These were proposed support conditions, not proof of funding actually disbursed. 30 March 2017: the Union response did not propose a major port at Ramayapatnam.

Dugarajapatnam is not Ramayapatnam

NITI Aayog's assessment identified strong competition from Krishnapatnam, Ennore and Chennai as a reason the proposed Duggirajupatnam major port was not viable. The State subsequently sought support for Ramayapatnam in place of Duggirajupatnam. Ramayapatnam was notified as a non-major port and its development was taken up by the Andhra Pradesh Government. Administrative distinction Major port: Union administration. Non-major port: State Government or State Maritime Board jurisdiction. "Major" and "non-major" are legal-administrative categories, not simply a ranking by cargo volume, berth count or physical size. Ramayapatnam is developed through the Ramayapatnam Port Development Corporation under the Andhra Pradesh Maritime Board. A State non-major port does not automatically satisfy the Act's specifically named new-major-port obligation. A future proposal, construction progress and notified classification must be assessed separately. Environmental and strategic-location concerns raised by MPs are representations; they must not be confused with the stated economic conclusion of the viability assessment.

Port updates: proposals are not completion

Ramayapatnam A Union reply dated 22 July 2025 recorded 67.11% physical progress up to June 2025. This is a historical baseline, not a current completion percentage. On 12 November 2026, Ramayapatnam was among four Andhra Pradesh greenfield port projects described as under construction, alongside Mulapeta, Machilipatnam and Kakinada SEZ. Dugarajapatnam shipbuilding proposal A proposed shipbuilding cluster received in-principle approval under the National Shipbuilding Mission. Envisaged investment: approximately ₹30,000 crore. Planned annual capacity: 1.2 million gross tonnes. A joint special-purpose vehicle involving Andhra Pradesh Maritime Board and Visakhapatnam Port Authority had been formed. Do not merge different developments A proposed shipbuilding cluster is not the same as completion of the

2014 Act’s major-port promise. In-principle approval is not an operational yard, and projected capacity is not achieved output. Always attach a reference date to progress figures and distinguish approved plans from measured achievements.

2026 **railway jurisdiction**: **read the units**

Notification dated 4 May 2026; effective from 1 June 2026. Rayagada division, East Coast Railway: 696 route km. Visakhapatnam division, South Coast Railway: 463 route km. The Palasa–Ichchapuram section, including Ichchapuram, accounts for 53 route km transferred from Khurda Road division to Visakhapatnam division. 2025 versus 2026 The 2025 Cabinet revision described approximately 410 km and 680 km for the two parts of Waltair. The 2026 notification specifies divisional route-kilometre totals after jurisdictional adjustments. Do not interchange approximate planning figures with later notified route-kilometre totals. A numerical difference alone does not establish every reason for a revised total. Administrative hierarchy A zone contains divisions; a division contains rail sections. A division’s headquarters, a zone’s headquarters and the length of a rail section are different kinds of information.

Timeline and administrative stages

Announcement is not operation A railway-zone sequence 27 February 2019 — South Coast Railway announced. 8 January 2025 — Foundation stone laid for its headquarters at Visakhapatnam. 7 February 2025 — Cabinet retains the truncated Waltair division as Visakhapatnam division. 1 June 2026 — South Coast Railway begins operations from Visakhapatnam. Four divisions: Guntakal, Guntur, Vijayawada and Visakhapatnam. Rayagada belongs to East Coast Railway, not South Coast Railway. Read the stages correctly Announcement establishes a policy decision; a foundation ceremony concerns infrastructure; operational commencement marks the start of the zonal organisation’s functioning. An operational zone does not mean every headquarters building or associated railway project is complete. Exam check: the 2014 Act required examination and an expeditious decision. The 2019 announcement and 2026 operational start are subsequent developments, not the wording of the original provision.

Compare the three paths RAILWAY ZONE Act: examine establishing a new zone and decide expeditiously. Later path: 2019 announcement → 2025 divisional revision → operations from 1 June 2026. STEEL PLANT Act: SAIL examines integrated-plant feasibility in YSR District. Later path: 2014 adverse feasibility finding → Task Force/MECON reassessment → private JSW construction launch in July 2026. PORT Act: develop a new major port at Duggirajupatnam, Phase I by end 2018. Later path: adverse commercial-viability assessment → State-developed Ramayapatnam non-major port; separate 2026 shipbuilding-cluster proposal at Dugarajapatnam.

Three common exam traps

1. Announcement ≠ operational start: 2019 versus 2026 for the zone.
2. Foundation or construction launch ≠ commercial production: do not call a proposed steel capacity actual output.
3. Two steel studies: Khammam belongs to Telangana; YSR Kadapa belongs to Andhra Pradesh. The central comparison is obligation → assessment → implementing agency → dated outcome, not a single blanket “completed/not completed” label.

Topic 335

Sustainable development: concept and the Brundtland Report

Concept in one line

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs, as the Brundtland Report of the World Commission on Environment and Development defined it in 1987.

Revision notes

2.1 The concept

Point	Key facts
Definition	Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs
First key concept: needs	the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given
Second key concept: limitations	the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs
Whose needs	Two groups at once: the poor of today, and the generations still to come
What it is not: an end to growth	A new era of growth should be socially and environmentally sustainable.
What it is not: absolute limits	Limits depend on technology, social organisation, environmental resources and the biosphere’s ability to absorb human impacts. Better technology and organisation can expand possibilities, without eliminating ecological constraints.

Point	Key facts
What it is not: the environment alone	Sustainable development balances economic, social and environmental dimensions.

- **Definition and chronology**: The definition comes from the 1987 report *Our Common Future* (Chapter 2). UNCED emphasised sustainable development at Rio in 1992, five years later.
- Meet everyone’s basic needs and give everyone the opportunity to pursue a better life, while protecting future generations’ opportunities.

2.2 The Brundtland Report

Point	Detail
Commission	World Commission on Environment and Development (WCED)
Chair	Gro Harlem Brundtland (Norway)
Set up	Established in 1983; UN General Assembly resolution 38/161 (19 December 1983) welcomed the special commission.
Report	*Our Common Future*, report of the World Commission on Environment and Development (UN document A/42/427).
Year	1987; UN document dated 4 August 1987; foreword dated 20 March 1987, Oslo.
Key concepts	needs and limitations
Its call for growth of a new kind	Revive growth and change its quality, content and resource intensity.

- **Why growth in poor countries**: Growth must be revived in developing countries because that is where the links between economic growth, the alleviation of poverty, and environmental conditions operate most directly (Chapter 2).
- **The report's critical objectives** for environment and development policies (Chapter 2): reviving growth; changing the quality of growth; meeting essential needs for jobs, food, energy, water and sanitation; ensuring a sustainable level of population; conserving and enhancing the resource base; reorienting technology and managing risk; and merging environment and economics in decision making.
- The report is called the Brundtland Report after the Commission's chair.

2.3 The three pillars

Economic development, social development and environmental protection are interdependent and mutually reinforcing. This three-dimensional approach is central to the Johannesburg Declaration (2002) and the 2030 Agenda (2015).

Pillar	What it stands for	Brundtland objectives that fit it
Economic	Growth and incomes	reviving growth; changing the quality of growth
Social	Meeting people's needs	meeting essential needs for jobs, food, energy, water, and sanitation; ensuring a sustainable level of population
Environmental	Keeping the base of natural resources	conserving and enhancing the resource base

- Two objectives join the pillars: reorienting technology and managing risk and merging environment and economics in decision making.
- The SDGs are integrated and indivisible: economic, social and environmental objectives must be pursued together.

2.4 Weak and strong sustainability

The central distinction is how far human-made capital can substitute for natural capital.

Point	Weak sustainability	Strong sustainability
Core rule	concerned with maintaining the total capital stock intact, without regard to the partitioning of that capital among its kinds	calls for the maintenance of the separate capital stocks
Can human-made capital replace natural capital?	Largely: the kinds of capital are taken as more or less substitutable	Not freely: substitution of manufactured for natural capital is seriously limited, by irreversibility and uncertainty
How the two kinds of capital relate	Substitutes	not perfect substitutes, but complementary
Critical natural capital	Not singled out: only the total matters	Concern with critical components of natural capital which make a unique contribution to welfare

Point	Weak sustainability	Strong sustainability
Names linked with it	The market-based Hartwick-Solow approach	The approach of Daly and others

- So, on the weak view, a loss of natural capital is acceptable if other capital rises enough to keep the total intact. On the strong view, critical natural capital must be conserved.
- The two are ends of a range: very weak sustainability assumes complete substitutability between capital stocks, while very strong sustainability assumes no substitutability.

2.5 Carrying capacity, absorptive capacity and Herman Daly

- **Carrying capacity**: The level of population and economic activity that the environment can sustain over time. Resource use must respect regeneration, and waste generation must remain within the environment's capacity to assimilate it.
- **Absorptive capacity**: The environment's ability to absorb or assimilate waste and degradation without unacceptable damage.

No.	Herman Daly's requirement
(i)	limiting the human population to a level within the carrying capacity of the environment
(ii)	technological progress should be input efficient and not input consuming
(iii)	renewable resources should be extracted on a sustainable basis, that is, rate of extraction should not exceed rate of regeneration
(iv)	for non-renewable resources rate of depletion should not exceed the rate of creation of renewable substitutes
(v)	Inefficiencies arising from pollution should be corrected; waste emissions must remain within natural assimilative capacity.

- Read (iii) and (iv) together. A renewable resource is held to its rate of regeneration; a non-renewable resource, which does not regenerate, is held to the rate at which renewable substitutes are created.
- Strategies for sustainable development: non-conventional sources of energy; LPG and gobar gas in rural areas; CNG in urban areas; wind power; solar power through photovoltaic cells; mini-hydel plants; traditional knowledge and practices; biocomposting; and biopest control.

2.6 India's approach, in brief

- **Article** 48**A** (a Directive Principle of State Policy): The State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country.
- **Article** 51**A**(**g**) (a Fundamental Duty of every citizen): to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures. Both came in through the Constitution (Forty-second Amendment) Act, 1976 (the 42nd Amendment).
- **Mission LiFE**: launched on 20 October 2022 at the Statue of Unity, Ekta Nagar, Kevadia, Gujarat; promotes the P3 model: Pro Planet People.
- 2030 **Agenda**: on 25 September 2015 the UN General Assembly adopted the 2030 Agenda for Sustainable Development (resolution 70/1), with 17 Sustainable Development Goals and 169 targets.

LPG and CNG are fossil fuels, not renewable energy sources; distinguish lower local-pollution transitions from renewable-energy strategies.

chronology from Stockholm to the 2030 Agenda

Date	Event
5 to 16 June 1972	United Nations Conference on the Human Environment, Stockholm: the Stockholm Declaration (26 principles) and the Action Plan for the Human Environment (109 recommendations). One of the major results was the creation of the United Nations Environment Programme (UNEP)
1983	The UN General Assembly sets up the World Commission on Environment and Development; resolution 38/161 of 19 December 1983 welcomes it
1987	*Our Common Future*, the Commission's report (A/42/427, dated 4 August 1987)
3 to 14 June 1992	United Nations Conference on Environment and Development (the Earth Summit), Rio de Janeiro: more than 178 countries adopted Agenda 21; the Rio Declaration and its 27 principles; the forest principles; the UNFCCC and the Convention on Biological Diversity among its achievements; it led to the Commission on Sustainable Development
September 2000	Millennium Summit, New York: the Millennium Declaration and, from it, the eight Millennium Development Goals (MDGs)

Date	Event
2002	World Summit on Sustainable Development, Johannesburg: the Johannesburg Declaration on Sustainable Development and the Plan of Implementation
20 to 22 June 2012	United Nations Conference on Sustainable Development (Rio+20), Rio de Janeiro: the outcome document The Future We Want; it launched the process to develop the SDGs and decided to establish the High-level Political Forum on Sustainable Development
2013	The General Assembly sets up a 30-member Open Working Group to draft the SDGs; the HLPF institutional arrangements are adopted in July 2013
25 September 2015	The 2030 Agenda adopted at the UN Sustainable Development Summit (25 to 27 September 2015)

How to read the table:

- Two Rio conferences, twenty years apart: the Earth Summit of 1992 (Agenda 21) and Rio+20 of 2012 (The Future We Want).
- The Commission (1983 to 1987) sits between Stockholm and Rio: it wrote the definition that Rio and later summits built on.
- The MDGs ran to 2015; the SDGs, launched at Rio+20 and adopted in 2015, run to 2030.

Three common exam traps

1. **Sustainable development means stopping growth**. The Brundtland Report asks for a new era of economic growth. Among its critical objectives are reviving growth and changing the quality of growth. What it rejects is growth that runs down the resource base.
2. **Treating sustainable development as environmental protection alone**. The 2030 Agenda says its Goals balance three dimensions, economic, social and environmental, and calls them integrated and indivisible. A policy that protects nature but ignores incomes and jobs does not meet the idea.
3. **Mixing up Article** 48**A and Article** 51**A**(**g**). Article 48A is a Directive Principle addressed to the State: protect and improve the environment and safeguard forests and wild life. Article 51A(g) is a Fundamental Duty of every citizen, and only it names lakes and rivers and compassion for living creatures. Both were added by the 42nd Amendment, 1976.

Topic 336

Climate of India: seasons and controlling factors

Concept in one line

India has a monsoon type of climate, shaped by latitude, the Himalayas, land–sea distribution, distance from the sea, altitude, relief, pressure and winds. Four seasons structure its annual cycle. Distinguish descriptive seasonal periods from IMD reporting periods.

Revision notes

2.1 India's climate type: unity and diversity

- **Climate type**: India has a hot monsoonal climate, a type prevalent in South and Southeast Asia.
- **Diversity**: on a June day Churu in Rajasthan may record 50°C or more while Tawang in Arunachal Pradesh hardly touches 19°C; on a December night Drass in Ladakh may fall to minus 45°C. Cherrapunji and Mawsynram in the Khasi Hills receive over 1,080 cm of rain in a year; Jaisalmer's mean annual rainfall was 201.6 mm in the 1981–2010 baseline, showing its aridity relative to the Khasi Hills.

2.2 The factors that control India's climate

Climate is controlled by location and relief, together with pressure and surface winds, upper-air circulation, western disturbances and tropical cyclones.

Factor	How it acts	Indian example
Latitude	The Tropic of Cancer passes through the central part of India in an east-west direction. The part to its south is in the tropical zone, with high temperatures throughout the year	The northern part of India lies in the sub-tropical and temperate zone
The Himalayan Mountains	They shield the subcontinent from cold northern winds, which originate near the Arctic circle and blow across central and eastern Asia. They also trap the monsoon winds, forcing them to shed their moisture within the subcontinent	The lofty Himalayas, with their extensions, act as an effective climatic divide

Factor	How it acts	Indian example
Distribution of land and water	The Indian Ocean flanks India on three sides in the south; a high, continuous mountain wall girdles it in the north. Compared with the land, water heats up or cools down slowly, so different air pressure zones form in different seasons in and around the subcontinent. Difference in air pressure causes reversal in the direction of monsoon winds	The seasonal reversal of the monsoon winds
Distance from the sea	Interior areas are far from the moderating influence of the sea. Such areas have extremes of climate	Mumbai and the Konkan coast have comparatively moderate seasonal temperatures; the seasonal contrasts of Delhi, Kanpur and Amritsar affect the entire sphere of life
Altitude	Temperature decreases with height	Agra and Darjiling are at nearly the same latitude; the January temperature is 16°C at Agra and only 4°C at Darjiling
Relief	It affects temperature, air pressure, the direction and speed of wind, and the amount and distribution of rainfall	The windward sides of the Western Ghats and Assam get high rainfall in June to September; the southern plateau stays dry, being leeward of the Western Ghats
Pressure and surface winds	The first of three atmospheric conditions that govern the climate of India	In winter there is a high-pressure area north of the Himalayas
Upper air circulation	The second condition. The westerly jet stream withdraws from over the north Indian plain; only then does the easterly jet stream set in along 15° N, and it is held responsible for the burst of the monsoon	Jet streams

Factor	How it acts	Indian example
Western cyclonic disturbances and tropical cyclones	The third condition: winter rain in the north-west; rain on the east coast after the monsoon (2.4, 2.6)	Cyclonic depressions from the Andaman Sea cross the eastern coast; the deltas of the Godavari, Krishna and Kaveri are their preferred targets

- **Climatic controls in general**: latitude, altitude, pressure and wind system, distance from the sea (continentality), ocean currents and relief features. Ocean currents is one of these six general controls; it is not one of the three atmospheric conditions that govern India's climate.

2.3 The four seasons

The four main seasons are the cold weather season, the hot weather season, the southwest monsoon season and the retreating monsoon season. IMD reporting uses winter (January to February), pre-monsoon (March to May), southwest monsoon (June to September) and post-monsoon (October to December).

Season	Months	Temperature	Pressure and winds	Rain, and where	Special features
Cold weather season; winter	IMD reporting: January–February; descriptive cold season: mid-November–February	December and January coldest in the northern plain; mean daily temperature below 21°C over most of north India	Feeble high pressure over the northern plain; winds blow towards the low pressure over the Indian Ocean; north-east trade winds	Little; western disturbances in the north-west; 25 mm to 50 mm in Arunachal Pradesh and Assam; some on the Tamil Nadu coast	Cold waves with frost and fog; no well-defined cold season in the Peninsula

Season	Months	Temperature	Pressure and winds	Rain, and where	Special features
Hot weather season; pre-monsoon	IMD reporting: March–May; April, May and June are summer months in north India	About 38°C on the Deccan Plateau in March; 38°C to 43°C in Gujarat and Madhya Pradesh in April; around 48°C in the north-west in May; 26°C to 32°C in south India	A low pressure trough from the Thar desert to Patna and the Chotanagpur plateau	Pre-monsoon showers in Kerala and coastal Karnataka; evening thunderstorms in Bengal and Assam	Loo; dust storms in May in northern India
Southwest monsoon season; southwest monsoon	IMD: June to September	—	Low pressure over the northern plains intensifies by early June	Onset is abrupt; normally around 1 June in Kerala, advancing northward subsequently along the western coast	IMD long period average (LPA): 87 cm, on 1971 to 2020
Retreating monsoon season; post-monsoon	IMD: October to December. October and November	Clear skies, rise in temperature	The low pressure trough of the Ganga plain moves southward	Dry in the north; October and November are the rainiest months of the eastern Peninsula	'October heat'; Andaman Sea cyclones

- **Seasonal description and reporting periods**: The descriptive cold-weather season starts in mid-November; IMD winter reporting covers January–February. The retreating-monsoon description focuses on October–November, while IMD post-monsoon reporting includes December. When a question names the IMD, use its months.
- **Traditional seasons**: six two-monthly seasons: Vasanta, Grishma, Varsha, Sharada, Hemanta and Shishira.

2.4 The cold weather season

- Around 21–22 December the sun shines vertically over the Tropic of Capricorn. Around February, the cold winds coming from the Caspian Sea and Turkmenistan bring cold wave along with frost and fog to the north-west.

- **Western disturbances**: Winter winds generally bring little rain while blowing from land to sea, but weak temperate cyclones from the Mediterranean bring rain to Punjab, Haryana, Delhi and western Uttar Pradesh: highly beneficial for rabi crops. These western cyclonic disturbances originate over the Mediterranean Sea and western Asia, come in with the westerly flow, and give winter rain over the plains and snowfall in the mountains; this winter rainfall is locally known as 'mahawat'.
- **Tamil Nadu**: the north-east winds blow from sea to land on the Tamil Nadu coast, so some rain falls there. In October and November the north-east monsoon brings torrential rain to the Tamil Nadu coast, southern Andhra Pradesh, south-east Karnataka and south-east Kerala.

2.5 The hot weather season and its local storms

Temperatures start rising in north India in March, with the apparent northward movement of the sun towards the Tropic of Cancer. Important local storms of the hot-weather season are compared below.

Name	Where	What it does
Mango shower	Kerala and the coastal areas of Karnataka, towards the end of summer	Pre-monsoon showers that help in the early ripening of mangoes
Blossom shower	Kerala and nearby areas	Coffee flowers blossom with it
Nor Westers (Nor'westers)	Bengal and Assam	Dreaded evening thunderstorms; locally 'Kalbaisakhi', a calamity of the month of Baisakh; useful for tea, jute and rice; 'Bardoisila' in Assam; 'Kaal Baisakhi' in West Bengal
Loo	The northern plains from Punjab to Bihar; north and north-western India	Hot, dry and oppressing winds of the afternoon, often continuing well into midnight; direct exposure may prove fatal

2.6 The southwest monsoon and the retreating monsoon

- **Retreating monsoon**: The months of October and November are known for retreating monsoons. The trough of the Ganga plain moves southward with the sun; skies clear and temperatures rise. With high temperature and humidity the weather becomes rather oppressive. This is commonly known as the 'October heat'. It is a transition from the hot rainy season to dry winter conditions.

- **Cyclones**: depressions from the Andaman Sea cross the eastern coast of the southern Peninsula; much of the rainfall of the Coromandel coast is derived from these depressions and cyclones.
- **North-east monsoon rain of coastal Andhra Pradesh and Tamil Nadu** (**IMD**, 30 **September** 2026): South Peninsular India (Tamil Nadu, Puducherry and Karaikal; Coastal Andhra Pradesh and Yanam; Rayalaseema; Kerala and Mahe; South Interior Karnataka) gets about 30% of its annual rainfall from October to December, and Tamil Nadu, Puducherry and Karaikal about 48%. The season's LPA there is about 334.1 mm, on 1971 to 2020.

2.7 Rainfall

- **Rainfall**: A broad descriptive annual estimate is about 125 cm, with great spatial variation. This is not a dated IMD long-period normal.

Extra section: the year month by month, seasonal descriptions and IMD reporting

Months	IMD season	Seasonal description	What happens
January, February	Winter	Cold weather season	December and January are the coldest months in the northern plain; western disturbances bring rain to the plains and snow to the mountains; cold waves with frost and fog in the north-west
March	Pre-monsoon	Hot weather season	About 38°C on the Deccan Plateau
April	Pre-monsoon	Hot weather season	38°C to 43°C in Gujarat and Madhya Pradesh
May	Pre-monsoon	Hot weather season	Around 48°C in the north-west; dust storms in northern India
June	Southwest monsoon	Southwest monsoon season	The monsoon normally reaches Kerala around 1 June and advances northward subsequently along the western coast

Months	IMD season	Seasonal description	What happens
July to September	Southwest monsoon	Southwest monsoon season	High rainfall on the windward sides of the Western Ghats and Assam; the southern plateau stays dry
October, November	Post-monsoon	Retreating monsoon season	'October heat'; the rainiest months of the eastern Peninsula; cyclones from the Andaman Sea
December	Post-monsoon	Cold weather season (from mid-November)	The sun is over the Tropic of Capricorn around 21–22 December

India’s measured rainfall in 2025, as a percentage of the 1971–2020 long-period average (IMD):

- Winter 52%, pre-monsoon 142%, southwest monsoon 108%, post-monsoon 111%. The country's annual rainfall was 110% of its LPA.
- 2025 was the eighth warmest year since nationwide records began in 1901; the all-India annual mean land surface air temperature was 0.28°C above the long-term average of 1991 to 2020.

How to read the table:

- The two systems part ways at the end of the year: from mid-November, and through December, north India is in the cold-weather season, but the IMD still counts these weeks in its post-monsoon season.
- The southwest monsoon season runs from June to September. June can also be a summer month in northern India before monsoon arrival.
- Rain moves across the country through the year: the north-west in winter, Kerala, Karnataka, Bengal and Assam before the monsoon, almost all of India from June to September, and the east coast of the Peninsula in October and November.

Three common exam traps

1. **Misconception**: **the whole country has a cold season**. The Peninsular region does not have any well-defined cold weather season. The cold weather season is a feature of north India, where it sets in by mid-November and December and January are the coldest months.

2. **Do not confuse seasonal descriptions with reporting periods**. April, May and June are summer months in north India; IMD uses March–May for its pre-monsoon reporting. Retreating monsoons are associated with October–November; IMD post-monsoon reporting covers October–December.
3. **Misconception**: **Darjiling is colder than Agra mainly because it lies farther north**. The two are at nearly the same latitude. Darjiling is colder (4°C against 16°C in January) because of altitude: temperature decreases with height.

Topic 338

Problem solving: steps and techniques

Concept in one line

Problem solving is goal-directed thinking that moves from an initial state to a desired goal through mental operations and practical actions.

Revision notes

Problem solving: from a gap to a goal

Problem solving is goal-directed thinking. It connects an initial state to a desired goal through mental operations and practical actions. A problem space contains an initial state, a goal state and permitted moves or operators. Obstacles constrain the route between them. A failure at any stage can block progress. Problem solving asks: How can we reach the goal? Decision making asks: Which available course of action should we choose? Compare costs and benefits, then monitor the choice. Critical thinking asks: What does the evidence support? Examine reasons, judge alternatives and correct your own conclusions. Reasoning gathers and analyses information to reach conclusions. These processes overlap: choosing a remedy is a decision within problem solving; testing its supporting evidence is critical thinking. Illustration: missed waste collection is the initial state; reliable collection is the goal. Routes, staffing and vehicle access are constraints, not excuses to skip diagnosis.

Seven steps: diagnose before acting

Illustrative case: garbage remains uncollected in Ward 12. 1. Identify the problem: recognise the gap between the present state and the goal. Complaints reveal lanes left unserved for days. 2. Represent the problem: organise facts about where, when and how much. Record missed lanes and days alongside vehicle logs. 3. Plan the solution and set sub-goals: break the goal into manageable targets. Plan a fixed route, daily access to every lane and an end-of-round check. 4. Evaluate possible solutions: compare a second tractor, a revised route and changed timings. Assess cost, staff availability, speed and feasibility. Do not choose a remedy merely because it is familiar. Identification and representation come before selection. The sequence is a useful working framework, not a rule that real problems always unfold neatly. New evidence may require revisiting an earlier stage.

Seven steps: implement, check, rethink

Continue the Ward 12 example. 5. Select one solution and execute it: choose the most suitable remedy and put it into action. Start the revised collection route on Monday. 6. Evaluate the outcome: check whether the intended goal was achieved. After two weeks, compare complaints with the vehicle log. 7. Rethink and redefine the problem and solution: if two lanes remain unserved because the tractor cannot enter them, add a push-cart for those lanes. Evaluation before action compares alternatives. Evaluation after action checks results. They are different tasks. Three sequence errors: • Jumping to a solution before identifying and representing the problem. • Acting on a plan before defining what must change. • Selecting a remedy without evaluating feasible alternatives. A completed activity is not automatically a solved problem. The final test is whether the gap between the present state and the goal has narrowed.

IDEAL: a compact problem-solving model

John Bransford and Barry Stein developed the IDEAL model in The IDEAL Problem Solver (1984; second edition 1993). I — Identify the problem: notice a gap or opportunity that deserves attention. D — Define and represent it: state the problem precisely and organise the relevant facts. E — Explore possible strategies: generate and examine alternative approaches. A — Act on a suitable strategy: implement the chosen approach. L — Look back: evaluate the effects and learn from the outcome. Later formulations emphasise anticipating outcomes before acting and learning during the final review. The order remains I–D–E–A–L. Do not confuse the five IDEAL components with the seven-step working sequence. Both require diagnosis before action and review after it. Illustration: identify a backlog → define its size and types → explore sorting or staffing options → implement the selected plan → check clearance and remaining delays.

Algorithm or heuristic: certainty versus speed

Algorithm: a defined step-by-step procedure. For a suitable problem, correct inputs and faithful execution produce the intended result. Its guarantee does not mean that every problem has an applicable algorithm. Illustration: follow the specified steps of a software-installation procedure. Heuristic: a practical shortcut or general strategy. It can save time and effort but does not guarantee a correct or optimal result. People often use heuristics when information is excessive or scarce, time is short, a decision has low stakes, or a familiar shortcut comes to mind. Compare: Algorithm — precise sequence; dependable within its conditions; may require more time or effort. Heuristic — flexible guide; quicker search; can overlook better alternatives. Working backwards and breaking a task into sub-goals are common heuristic approaches. Trial and error tests different possible solutions until one works; it may be useful without a known procedure but is often inefficient. Do not describe a heuristic as guaranteed merely because it worked before.

Means–end analysis and working backwards

Means–end analysis compares the current state with the goal, identifies a difference and chooses a sub-goal or operation that reduces that difference. It was central to Newell and Simon's General Problem Solver. It suits large tasks that can be broken into smaller targets. As a heuristic, it does not guarantee success; a promising local step may not solve the entire problem. Illustration: a tahsildar must complete a village land survey in four weeks. Targets are maps in week 1, field checks by week 3 and final records in week 4. Progress is reviewed against the remaining gap. Working backwards starts from a clearly specified goal and traces the prerequisites needed to reach it. It helps when the destination is clear but the starting move is unclear. Illustration: final record ready ← field checks complete ← maps prepared. A clear goal is essential. Working backwards does not mean the complete solution is already known. Distinction: means–end analysis repeatedly reduces a current gap; backward reasoning traces prerequisites from the destination.

Analogy and trial and error

Analogy transfers useful relationships from a previously solved problem to a new one. Structural similarity matters more than surface resemblance. Illustration: a Mandal Revenue Officer recalls clearing a pension backlog by sorting files by type and considers the same method for pending applications. She must check whether the new backlog has comparable causes and processing requirements. Risk: two problems may look alike but require different remedies. A neighbouring mandal's successful booster pump is not proof that another hamlet has the same water-supply fault. Trial and error tries different possible solutions until one works. It can help when no reliable procedure or shortcut is available, but may waste time and resources. Illustration: an authorised technician tests possible causes of a street-light failure under safe procedures. This is not a recommendation to handle live electrical equipment or repeatedly replace fuses without diagnosis. Analogy suggests a candidate solution; evidence tests whether it fits. Trial and error should be bounded by safety, cost and feedback, not random repetition.

Mental set versus functional fixedness

Mental set is the tendency to persist with familiar mental operations even when a different approach would work better. Abraham Luchins's water-jar studies (1942) showed that practice with a longer method could make people continue using it when a simpler solution became available. Functional fixedness is a related obstacle: seeing an object only in its usual role prevents noticing another useful function. Karl Duncker's candle problem (published in English in 1945) asks how to attach a candle to a wall using matches and a box of thumbtacks. The key is to empty the box, attach it to the wall and use it as a candle platform. The box is not merely a container. Distinction: Mental set — fixed on a familiar method. Functional fixedness

— fixed on a familiar object use. Using a hardbound book as a hammer shows functional fixedness being overcome, not demonstrated. The lesson is to reconsider assumptions, not to abandon every proven method.

Confirmation bias and motivation

Confirmation bias favours information that supports an existing belief while neglecting tests that could challenge it. Peter Wason's 2–4–6 task (1960) asked participants to discover the rule by proposing number triples. The actual rule accepted any three numbers in increasing order, not only consecutive even numbers. If your guess is "even numbers increasing by two", testing 8–10–12 merely fits your guess. Trying 1–3–8 tests a broader possibility and can expose the narrow rule. Example: an officer already suspects a pump operator and reads only complaints blaming him. That is confirmation bias, not an impartial diagnosis. A stronger approach seeks relevant contrary evidence and alternative explanations. Lack of motivation also obstructs problem solving. Skills and knowledge may remain unused if a person gives up after an early failure. Clear sub-goals, feedback and persistence support continued effort, but persistence should not become a rigid mental set. Remember: test your explanation, not just your ability to find agreement.

5 Whys: follow causes, not assumptions

The 5 Whys repeatedly asks why a problem occurs to move from a visible symptom toward underlying causes. It is associated with the Toyota production system. Write a clear problem statement. Ask why, record an evidence-based answer and ask why again. Stop when the causal explanation is useful and supported, not automatically at question five. Illustrative vaccination case: Children miss sessions → caregivers miss the scheduled day → the session clashes with the weekly market → the timetable was fixed without consulting the village. The actionable issue is scheduling, not simply blaming families. Five is a guide, not a compulsory count: fewer or more questions may be needed. Limitations: complex systems rarely have just one cause. A single chain may hide interacting factors or encourage unsupported guesses. Use records, observations and discussion to check each causal link. Combine several chains or a fishbone diagram when the problem is complex. This tool helps identify and represent a problem before a remedy is chosen.

Fishbone: organise possible causes

A fishbone, or cause-and-effect, diagram places a clearly stated problem at its head. Major cause categories form the main branches; possible causes and deeper causes are added beneath them. Illustrative effect: uncollected waste. People: staff shortages or unclear responsibilities. Process: unsuitable routes or missed handovers. Equipment: unavailable vehicles or breakdowns. Environment: narrow lanes or access restrictions. These are hypotheses to investigate, not established facts about a real ward. Ask why each possible

cause exists and check evidence. The diagram organises causal thinking; it does not prove causation by itself. Compared with a single 5 Whys chain, fishbone analysis keeps several cause categories visible and is useful for complex problems. Both tools support early diagnosis and representation, before selecting a solution. Useful sequence: state the effect → group possible causes → investigate → identify supported causes → compare remedies.

Creativity, groupthink and common traps

Creative thinking is often described through four stages: Preparation — gather information and work on the problem. Incubation — set it aside while ideas develop. Illumination — a promising insight emerges. Verification — test and refine the idea. Incubation is not one of the seven named steps in the problem-solving sequence used here. Do not mix the two lists. Groupthink, associated with Irving Janis, occurs when pressure for agreement in a cohesive group weakens realistic evaluation of alternatives. Agreement is not the same as good evidence. Invite alternative views and examine drawbacks before choosing. Three quick traps: 1. 5 Whys need not mean exactly five questions. 2. Incubation belongs to the creative-thinking framework. 3. Finding a new use for a familiar object overcomes functional fixedness. A good process can combine creativity with disciplined evaluation: generate possibilities, compare them and test the selected approach.

Worked public-service examples

Hospital queue

Illustrative case: patients wait about three hours at a district hospital outpatient department. A week of token records shows the main delay at a single registration counter. It opens at 9 a.m.; patients arrive two hours earlier. Staff discussion links the late opening to shift timing. Three remedies are available: a second counter, phone registration or an earlier counter shift. What next? Compare the remedies against cost, staff availability, start-up time and patient reach. Then choose and implement the best-supported option. Why not immediately copy phone registration from a neighbouring district? Analogy suggests an option but does not establish local suitability. Why not only collect more complaints? The gap and bottleneck are already represented. Collect more information only if a material uncertainty remains. After implementation, review waiting times a month later. If delays persist, reconsider the problem and remedy. Learning point: diagnosing a bottleneck is not the same as evaluating solutions. Compare first; execute second; review the outcome afterward.

Identify the technique

1. **A tahsildar** must finish a village's land survey in four weeks. He sets targets: maps in week 1, field checks by week 3, the final record in week 4, and each week he checks how far the record still is from complete. **Technique**: means-end analysis. **Reason**: he compares the current state with the goal and sets subgoals that reduce the difference.

2. **A new Mandal Revenue Officer** faces a heap of pending applications. She recalls how, as a deputy, she cleared a pension backlog by sorting files by type, and uses the same method. **Technique**: analogy. **Reason**: she draws on the memory of an earlier problem-solving situation. She should still check that the new backlog is like the old one.
3. **An authorised technician** tests possible causes of a street-light failure under safe procedures. **Technique**: trial and error. **Reason**: alternative solutions are tested until the fault is resolved. This is an illustration, not an instruction to handle live equipment or repeatedly replace fuses without diagnosis.
4. **A health officer** asks why children miss vaccination: their mothers miss the session day; why? It clashes with the weekly market; why? The session days were fixed years ago without asking the village. **Technique**: the 5 Whys. **Reason**: repeated "why?" questions lead from the symptom to a root cause, the way session days are fixed.

Three common exam traps

1. **Five is not compulsory**: the 5 Whys may require fewer or more questions; investigate until the causal explanation is supported.
2. **Do not mix frameworks**: incubation belongs to creative thinking, not the seven-step problem-solving sequence used here.
3. **Object versus method**: using a hardbound book as a hammer overcomes functional fixedness. Mental set is persistence with an old method.

Topic 339

Pipes and cisterns

Concept in one line

A pipes and cisterns sum is a time and work sum in which the work is filling a tank: a pipe that fills does positive work, and a pipe or a leak that empties does negative work, so rates are added or subtracted, never the times. The exam asks how long a set of pipes takes to fill or empty a tank, often with an outlet, a leak, or a pipe opened or closed partway.

Revision notes

2.1 Pipes and cisterns as time and work

- **The words**. A cistern is a tank. An inlet fills it; an outlet drains it. A leak is an unintended outlet and is treated as negative work.
- **The link**. Pipes and cisterns problems are "Same as Time & Work!": a filling pipe does positive work and an emptying pipe does negative work. Filling the whole tank is the whole work.
- **The rate**. Each pipe runs at a steady rate, alone or with others. The rate is the part of the tank a pipe fills in one hour (or one minute, if the times are in minutes). An inlet that fills the tank in a hours fills $1/a$ of it in an hour; an outlet that empties it in b hours does $-1/b$ in an hour, with a minus sign.
- **The net rate**. Net rate = the inlet rates added together, minus the outlet and leak rates . If the net rate is positive, an empty tank fills. If it is zero, the level does not change. If it is negative, an empty tank never fills and a full tank empties.
- **Inverse proportion**: for identical pipes filling a fixed tank, number of pipes × filling time = constant ($xy = k$). Fewer identical pipes take more time; more identical pipes take less time. This is the same relation as workers and time for a fixed job.
- **Efficiency and capacity**: efficiency is the quantity filled per unit time. The total work is the tank capacity, expressed in units.

2.2 The two methods side by side

Example: inlet A fills an empty tank in 9 hours, and outlet B empties the full tank in 15 hours. Both are opened together on the empty tank.

Step	Rate method (fraction method)	LCM (capacity) method
Total work	The whole tank = 1	Capacity = the LCM of 9 and 15 = 45 units
Inlet A	+1/9 of the tank an hour	45 ÷ 9 = +5 units an hour
Outlet B	-1/15 of the tank an hour (minus: it empties)	-(45 ÷ 15) = -3 units an hour
Net rate	1/9 - 1/15 = 5/45 - 3/45 = 2/45	5 - 3 = 2 units an hour
Time to fill	1 ÷ 2/45 = 45/2 = 22 1/2 hours	45 ÷ 2 = 22 1/2 hours

- The two columns are the same arithmetic: 45 is the common denominator the rate method needs, and the LCM method takes it at the start. The answer is 22 hours 30 minutes.
- The LCM method is the standard aptitude method. The steps are: find the LCM of the given times, take it as the total work in units, and take efficiency = total work ÷ time. For a tank, the only change is the sign of an outlet.
- **Sense check**. With an outlet open, the tank takes longer than the inlet alone (9 hours). The answer must also come out positive; if it does not, the outlet is the faster pipe.

2.3 Formulas, each with its reason

Situation	Result	Why, in one line
Two inlets, a hours and b hours	Together: ab/(a + b) hours	Rates add: 1/a + 1/b = (a + b)/ab, and the time is 1 divided by the rate
Inlet a hours, outlet b hours, b greater than a, tank empty	Fills in ab/(b - a) hours	Rates subtract: 1/a - 1/b = (b - a)/ ab
Inlet a hours, outlet b hours, b less than a	An empty tank never fills; a full tank empties in ab/(a - b) hours	The outlet is faster, so the net rate 1/b - 1/a is emptying
A pipe fills in a hours alone, but takes t hours longer because of a leak	The leak alone empties the full tank in a(a + t)/t hours	Leak's rate = 1/a - 1/(a + t) = t/[a(a + t)]
Two inlets (a and b hours) and an outlet (c hours)	1/(1/a + 1/b - 1/c) hours, when the net filling rate is positive	Add the inlets, subtract the outlet

- Two inlets of 14 hours and 35 hours fill the tank together in 14 × 35 ÷ 49 = 10 hours.
- The inlet and outlet of 2.2: 9 × 15 ÷ 6 = 22 1/2 hours, as before.

- A pipe fills a tank in 4 hours, but a leak makes it take 1 hour longer: the leak alone empties the full tank in 4 × 5 ÷ 1 = 20 hours. Check: 1/4 - 1/5 = 1/20.
- A full tank has an outlet that empties it in 6 hours and an inlet that fills it in 10 hours. With both open it empties in 6 × 10 ÷ 4 = 15 hours.
- If b is the time taken with the leak, then b = a + t, so the same result can also be written ab/(b - a).
- For three or more pipes, the LCM method is quicker and safer than any formula.

2.4 The types of question, with a worked example each

Type	Example	Working (LCM method)	Answer
Inlets together	Three inlets fill a tank in 7, 14 and 28 hours	Capacity 28 units; rates 4 + 2 + 1 = 7 units an hour	28 ÷ 7 = 4 hours
Inlet and outlet	An inlet fills in 20 minutes and an outlet empties in 36 minutes; both are opened on the empty tank	Capacity 180 units; net 9 - 5 = 4 units a minute	180 ÷ 4 = 45 minutes
Leak	A pipe fills a tank in 6 hours; with a leak it takes 7 1/2 hours. How long does the leak alone take to empty the full tank?	Capacity 30 units; the pipe does 5 units an hour, but with the leak only 30 ÷ 7 1/2 = 4; so the leak takes away 1 unit an hour	30 hours
A pipe closed after some time	An inlet fills in 6 hours and an outlet empties in 9 hours; both are opened on the empty tank, and the outlet is closed after 9 hours	Capacity 18 units; net 3 - 2 = 1 unit an hour, so 9 units in 9 hours; the other 9 units at 3 units an hour take 3 hours	Full 9 + 3 = 12 hours from the start
Alternate hours	An inlet fills in 5 hours and an outlet empties in 10 hours; they are opened by turns for one hour each, the inlet first	Capacity 10 units; +2 then -1, so 1 unit in each 2-hour round; after 8 rounds (16 hours) the tank holds 8 units, and the next inlet hour adds 2	Full at 17 hours, not 20

Type	Example	Working (LCM method)	Answer
Pipes of different efficiencies	Pipe A fills twice as fast as pipe B; together they fill the tank in 10 hours	Rates 2 and 1, so 3 units an hour; capacity 3 × 10 = 30 units	A alone 15 hours; B alone 30 hours

- **Pipes opened or closed partway**. Use the rule: the work of each pipe = its rate × the time it was open. Find what is already in the tank, then divide only what is left by the rate of the pipes still open. Then read the question to the end: "how many more hours" and "how many hours from the start" are different answers.
- **Alternate hours**. Use the LCM method with the time intervals. Count whole rounds only while the level stays below the point from which the next filling hour can finish the job, and work out the last hour on its own.
- **Efficiencies given as a ratio**. Take the numbers of the ratio as units an hour and find the capacity from a time that is given.

2.5 Common traps

Trap	What it looks like	The right way
Times added in place of rates	Inlets of 14 hours and 35 hours "take 49 hours"	Rates add: 10 hours
Outlet counted as filling	Inlet 9 hours, outlet 15 hours: 5 + 3 = 8 units an hour	5 - 3 = 2 units an hour
The net rate given as the answer	"2 units an hour", written as 2 hours	Time = capacity ÷ net rate = 45 ÷ 2
Work already done forgotten	After a pipe is closed, the whole capacity divided by the new rate	Divide only what is left
Whole rounds counted to the end	Alternate hours: 10 rounds of 2 hours = 20 hours	The tank is full in the 17th hour
The extra time read as the leak's time	A leak that adds 1 1/2 hours "empties the tank in 1 1/2 hours"	The leak takes 30 hours

Remember the negative sign for every outlet.

Extra section: a drill of eight questions with full working

1. **Two inlets**. Two pipes fill a tank in 18 minutes and 36 minutes. How long do they take together? Capacity 36 units; rates 2 and 1, so 3 units a minute; 36 ÷ 3 = 12 minutes. Formula: 18 × 36 ÷ 54 = 12 minutes.

2. **One pipe from the pair**. Two inlets together fill a tank in 14 hours, and the first alone in 18 hours. How long does the second take alone? The LCM of 14 and 18 is 126 units. Together 9 units an hour, the first 7, so the second 9 - 7 = 2 units an hour: 126 ÷ 2 = 63 hours. Formula: 18 × 14 ÷ (18 - 14) = 63 hours.
3. **Inlet and outlet**. An inlet fills a tank in 15 minutes and an outlet empties it in 25 minutes. Both are opened on the empty tank. Capacity 75 units; net 5 - 3 = 2 units a minute; 75 ÷ 2 = 37 1/2 minutes, that is, 37 minutes 30 seconds. Formula: 15 × 25 ÷ 10 = 37 1/2 minutes.
4. **Emptying with the inlet on**. A full tank has an outlet that empties it in 8 hours and an inlet that fills it in 24 hours. Both are opened. Capacity 24 units; net 3 - 1 = 2 units an hour going out; 24 ÷ 2 = 12 hours to empty.
5. **A leak**. A pipe fills a tank in 9 hours, but because of a leak it takes 1 hour longer. How long does the leak alone take to empty the full tank? Capacity 90 units (the LCM of 9 and 10). The pipe does 10 units an hour; with the leak only 9; so the leak takes away 1 unit an hour: 90 hours. Formula: 9 × 10 ÷ 1 = 90 hours.
6. **Capacity in litres**. A leak can empty a full tank in 6 hours. An inlet that lets in 4 litres a minute is opened, and the full tank now empties in 10 hours. What is the capacity? The inlet adds 4 × 60 = 240 litres an hour. If the capacity is C litres, the leak takes out C/6 an hour, and C/6 - 240 = C/10. So C/15 = 240 and C = 3,600 litres. Check: the leak takes out 600 litres an hour; 600 - 240 = 360; 3,600 ÷ 360 = 10 hours.
7. **A pipe opened later**. Pipe A fills a tank in 16 minutes and pipe B in 28 minutes. A is opened alone; B is opened 5 minutes later. When is the tank full? Capacity 112 units; A does 7 and B 4 units a minute. In the first 5 minutes A fills 35 units. The other 77 units at 11 units a minute take 7 minutes. Full 5 + 7 = 12 minutes after A was opened.
8. **Different efficiencies**. Pipe A fills a tank three times as fast as pipe B. Together they fill it in 18 minutes. How long does B take alone? Rates 3 and 1, so 4 units a minute; capacity 4 × 18 = 72 units. B alone takes 72 ÷ 1 = 72 minutes (A alone 24 minutes). Check: 24 × 72 ÷ 96 = 18 minutes.

Three common exam traps

1. **The extra time is not the leak's time**. If a leak makes a 9-hour pipe take 10 hours, the leak alone does not empty the tank in 1 hour. Its rate is the difference of the two rates, 1/9 - 1/10 = 1/90, so it takes 90 hours: a slow leak makes only a small delay.
2. **In alternate hours**, **the tank can be full before a round ends**. With an inlet that fills in 5 hours and an outlet that empties in 10 hours working by turns, the net gain is 1 unit in 2 hours out of 10 units, but the answer is not 10 × 2 = 20 hours. After 16 hours the tank holds 8 units, and the inlet's next hour fills the last 2 units, so it is full at 17 hours.
3. **Which pipe is faster decides which way the level moves**. If the outlet empties faster than the inlet fills, an empty tank never fills, whatever the time. A full tank then empties at the outlet's rate minus the inlet's rate: an outlet of 9 hours against an inlet of 18 hours empties it in 9 × 18 ÷ 9 = 18 hours, not 9 hours.

Topic 340

Diego Garcia and the Chagos Archipelago: the UK–Mauritius treaty

Concept in one line

The Chagos Archipelago, whose largest island Diego Garcia holds a UK-US military base, is a group of atolls in the central Indian Ocean that the United Kingdom separated from Mauritius in 1965; after the International Court of Justice's advisory opinion of 2019, the UK and Mauritius signed a treaty on 22 May 2025 that recognises Mauritian sovereignty and lets the UK run the Diego Garcia base, but a UK Parliamentary briefing dated 8 October 2026 stated that it had not entered into force.

Revision notes

2.1 The place

Point	Key features
Location	an island group in the central Indian Ocean, about 1,600 km southwest of India and about 500 km south of the Maldives
The archipelago	About 58 islands and coral atolls; the count can vary as coral islands change.
Diego Garcia	The largest island of the archipelago and the location of the joint UK-US military base.
The ridge	The southernmost archipelago of the Chagos-Laccadive Ridge.
Name in UK law	The British Indian Ocean Territory (BIOT). the archipelago has been coterminous with the BIOT since 1976
The base	The 1966 UK-US agreement enabled defence use. The 2025 UK-Mauritius treaty provides for continued UK operation of the base, including joint operation with the US.

2.2 **The legal path**, 2017 **to** 2021

- **The request**: the UN General Assembly asked the International Court of Justice for an advisory opinion by resolution 71/292 of 22 June 2017. Under Article 96 of the UN Charter, the General Assembly or the Security Council may request an advisory opinion on any legal question.
- **The opinion**, 25 **February** 2019: Legal Consequences of the Separation of the Chagos Archipelago from Mauritius in 1965. The Court found unanimously that it had jurisdiction and decided by 12 votes to 2 to give the opinion. Its three findings, each by 13 votes to 1, in the operative paragraph:
- The process of decolonization of Mauritius was not lawfully completed when that country acceded to independence in 1968.
- The United Kingdom is under an obligation to bring to an end its administration of the Chagos Archipelago as rapidly as possible.
- All Member States are under an obligation to co-operate with the United Nations to complete the decolonisation of Mauritius.
- **Reasons**: the detachment was not based on the free and genuine expression of the will of the people concerned; the UK's continued administration is a wrongful act; the resettlement of Mauritian nationals, including those of Chagossian origin, is an issue relating to the protection of the human rights of those concerned, for the General Assembly to address.
- **UN General Assembly resolution** 73/295, 22 **May** 2019: it welcomed the opinion, affirmed that the Chagos Archipelago forms an integral part of the territory of Mauritius, and demanded that the UK withdraw its colonial administration unconditionally within a period of no more than six months. It called on the UN and its specialised agencies to recognise the archipelago as part of Mauritius.
- **Voting**: 116 in favour, 6 against, 56 abstentions, 15 not voting. Against: Australia, Hungary, Israel, the Maldives, the UK and the US. India voted in favour. India's Permanent Representative, Syed Akbaruddin, said India shared security concerns in the Indian Ocean but treated the Chagos question as a separate matter, and urged the governments concerned to reach a mutually agreeable understanding as soon as possible.
- **ITLOS**, 28 **January** 2021: a Special Chamber of the International Tribunal for the Law of the Sea (ITLOS), in Case No. 28 (Mauritius/Maldives) on their maritime boundary, gave its judgment on preliminary objections: it found that it had jurisdiction and that Mauritius's claim was admissible. It gave its judgment on the merits on 28 April 2023. The Chamber treated the ICJ’s findings on Mauritius’s sovereignty as relevant to the maritime-boundary dispute.

2.3 From the 2024 statement to the 2025 treaty

- 3 **October** 2024: a joint statement of the Prime Ministers of the UK and Mauritius announced an historic political agreement. Under a treaty to come, the UK would agree that Mauritius is sovereign over the archipelago, including Diego Garcia, and the UK would exercise sovereign rights over Diego Garcia for an initial period of 99 years. Mauritius would be free to start a resettlement programme on islands other than Diego Garcia, and the UK would capitalise a trust fund for the Chagossians. The statement thanked the US and India for their support.
- 22 **May** 2025: the Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the Republic of Mauritius concerning the Chagos Archipelago including Diego Garcia was signed, at London and Port Louis, by Keir Starmer and Navin Ramgoolam. At signature, the treaty was not yet in force.

Term	Where in the treaty	What the text says
Sovereignty	Article 1	Mauritius is sovereign over the Chagos Archipelago in its entirety, including Diego Garcia
The base	Article 2	Mauritius authorises the UK to exercise the rights and authorities necessary for long-term, secure and effective base operation. Mauritius retains title to Diego Garcia's land and territorial sea, including seabed and subsoil, and other rights not authorised to the UK. The UK may authorise joint operation with the US
Duration	Article 13	99 years from the entry into force of this Agreement; may be extended for a further 40 years if the parties agree on the conditions; the UK gets a right of first refusal on the use of Diego Garcia for 40 years after the initial period

Term	Where in the treaty	What the text says
Zone around Diego Garcia	Annex 1	Between 12 and 24 nautical miles around Diego Garcia, Mauritius and the UK shall jointly decide on the construction or emplacement of any maritime installation; beyond 24 nautical miles, Mauritius carries out a Security Review before approving certain developments. These are treaty-defined approval and security-review arrangements, not an unrestricted exclusion of all activities
Other forces	Annex 1	Security forces other than those of the UK, US and Mauritius require joint decision. Humanitarian or natural-disaster exceptions apply when UK/US forces are unable or unwilling to assist; a presence continuing beyond 30 days requires joint decision
Resettlement	Article 6	Mauritius is free to implement a programme of resettlement on the islands of the Chagos Archipelago other than Diego Garcia
Payments	Article 11	The UK pays an annual sum, capitalises a trust fund for Chagossians and gives development funding across 25 years; amounts and modalities shall be agreed separately. The treaty is the full and final settlement of all claims by Mauritius over the archipelago

Term	Where in the treaty	What the text says
Entry into force	Article 18	On the first day of the first month after the later of the two notes by which the parties say they have completed their internal requirements

- **Financial arrangements in the separate Exchange of Letters**: an annual payment of £165 million for years 1 to 3 and £120 million for years 4 to 13; a trust fund of £40 million; development grants of £45 million a year for 25 years. The announced £101 million annual-cost estimate and £3.4 billion net present value are valuation measures, not a fixed £101 million annual instalment.

- **Payment timing and indexation**: After year 13, the remaining period to 31 December is paid pro rata at the £120 million annual rate. The fourteenth and subsequent annual payments cover calendar years; each is adjusted from the preceding annual payment using the UK GDP deflator for the preceding calendar year. These payments are due on 1 May or within 21 days, unless extended by agreement. The final part-year is prorated. The £40 million trust payment falls in the month following the first entry-into-force anniversary; the first of the 25 annual £45 million development grants falls in the month following the third anniversary, with the same 21-day allowance.

2.4 Implementation and recent developments

- **The UK Bill**: the Diego Garcia Military Base and British Indian Ocean Territory Bill, meant to give effect to the treaty, was introduced in the House of Commons on 15 July 2025. It passed the Commons (third reading 20 October 2025) and the Lords (third reading 12 January 2026), and on 20 January 2026 the Commons disagreed with some Lords amendments. On 13 April 2026 a Foreign Office minister told the Commons that, because of delays in agreeing an update to the 1966 UK-US exchange of notes needed for ratification, the Bill cannot complete its passage in this parliamentary Session and cannot be carried over; he said the government could not let the treaty enter into force without US support. The session ended on 29 April 2026. The UK government's notes on the King's Speech of 13 May 2026 list no such Bill. The Bill had not completed enactment in that parliamentary session.
- **On hold**: All India Radio reported on 11 April 2026 that the transfer was on indefinite hold after the US withdrew its support. The UK government added that Diego Garcia remains a vital strategic asset.
- **Implementation**: a UK Parliamentary briefing dated 8 October 2026 stated that the treaty had not entered into force and UK ratification was paused. On 4 November 2026, Prime Minister Andy Burnham met Mauritian Prime Minister Navin Ramgoolam at

CHOGM in Antigua. The UK government readout published on 5 November said they agreed to work on a shared plan for further progress by the end of the year. This meeting was not an announcement that the treaty had entered into force.

2.5 Positions

Party	Position
United Kingdom	The deal secures the base, for at least the next century; in April 2026 it said the deal would go ahead only with US support
Mauritius	Sovereign under Article 1. On 25 September 2026 its Foreign Minister, Dhananjay Ramful, told the UN General Assembly that the 2025 agreement showed that multilateral diplomacy and UN judicial bodies can settle disputes peacefully, and called for a historical injustice to be corrected without delay
United States	Backed the agreement in May 2025; in 2026 President Trump criticised it and, as reported in April 2026, the US withdrew its support
India	Voted for resolution 73/295. MEA, 3 October 2024: This significant understanding completes the decolonisation of Mauritius; India has consistently supported Mauritius's claim for sovereignty over Chagos. On the 2025 treaty, the MEA called it a milestone achievement and the culmination of the process of decolonisation of Mauritius, in line with India's principled position on decolonisation, respect for sovereignty, and the territorial integrity of nations. Prime Minister Modi, 11 September 2025: India has always supported decolonization, and the full recognition of Mauritius' sovereignty
Maldives	Voted against resolution 73/295; the other party in the ITLOS boundary case

2.6 Why it matters for India

- The MEA said in October 2024 that India would keep working with Mauritius and other like-minded partners on maritime safety, security and prosperity in the Indian Ocean. Mauritius is also where SAGAR was launched (2015) and MAHASAGAR announced (2025).

Extra section: chronology of the Chagos question, 1814 to 2026

Date	Event
1814	Treaty of Paris: France cedes Isle de France (Mauritius) and the Chagos Islands to the UK; the UK says it has exercised sovereignty over the archipelago since 1814
1965	The UK and a representative of Mauritius agree to detach the archipelago from Mauritius; Mauritius receives a grant of £3 million
8 November 1965	The British Indian Ocean Territory is created by Order in Council made on 8th November
16 December 1965	General Assembly resolution 2066 (XX), later recalled in resolution 73/295
1966	UK-US Exchange of Notes on defence use of the territory, for an initial period of 50 years, which could run for a further 20 years beyond 2016
1968 to 1973	Chagossian inhabitants were removed to Mauritius or Seychelles and prevented from returning
1968	Mauritius becomes independent
22 June 2017	General Assembly resolution 71/292 requests the advisory opinion
25 February 2019	ICJ advisory opinion
22 May 2019	General Assembly resolution 73/295 (116 to 6, with 56 abstentions)
28 January 2021	ITLOS Special Chamber: judgment on preliminary objections (jurisdiction) in the Mauritius/Maldives case
28 April 2023	ITLOS Special Chamber: judgment on the merits
3 October 2024	UK-Mauritius joint statement on a political agreement; India's MEA welcomes it
22 May 2025	The treaty is signed; India welcomes it
15 July 2025	The Diego Garcia Military Base and British Indian Ocean Territory Bill is introduced in the House of Commons
January 2026	The Bill completes its Lords stages (12 January) and returns to the Commons (20 January)

Date	Event
April 2026	The deal is put on hold after the US withdraws support; the government says the Bill cannot complete its passage, and the session ends on 29 April
13 May 2026	King's Speech: the government's notes list no Diego Garcia Bill
8 October 2026	UK Parliamentary briefing states that the treaty had not entered into force
4–5 November 2026	UK–Mauritius meeting on 4 November; readout published on 5 November describes a shared plan for progress by year-end

How to read the table:

- The separation (1965) came before Mauritian independence (1968). That order is the heart of the ICJ's finding that decolonisation was not lawfully completed.
- The legal steps (2017 to 2021) came from three bodies: the ICJ gave an opinion, the General Assembly passed a resolution, and ITLOS ruled in a boundary case.
- The treaty was signed in 2025, but signing is not the same as entry into force, which needs both sides to complete their internal steps.

Three common exam traps

1. **Dating the separation to independence**. The archipelago was detached in 1965 and the British Indian Ocean Territory was set up on 8 November 1965, three years before Mauritius became independent in 1968. The question put to the ICJ was about the separation in 1965.
2. **Mixing up the two agreements**. The 1966 agreement is between the UK and the US and concerns the use of the islands for defence. The 2025 treaty is between the UK and Mauritius; the US is not a party to it, though the UK government said in April 2026 that the treaty would proceed only with US support.
3. **Placing Diego Garcia in the wrong group**. Diego Garcia is not a separate island chain or part of the Maldives: it is the largest island of the Chagos Archipelago, which lies about 500 km south of the Maldives and about 1,600 km south of the southern tip of the Indian subcontinent.