Day 24 | 20 MCQs with complete explanations

English

IAS with Dr Ravi · APPSC Group 1 · 1,000 Topics in 100 Days

Topics 231–240. Updated 31 October 2026. Pictographs are supplied separately; these notes preserve the full teaching sequence.

Topic	Contents
231	Indus Valley art, religion and the decline of the civilisation
232	Attorney General and Advocate General
233	Right to Freedom: Article 19
234	Impact of bifurcation on state revenue and the revenue deficit (AP)
235	Census 2011: concepts, reference dates and territorial-boundary cautions
236	Cropping seasons and cropping patterns in India
237	Environmental hazards: natural and man-made
238	Counting triangles in a figure
239	Simplification with fractions and decimals
240	Current affairs: rare earth corridors announced in the Union Budget 2026-27

Questions

Topic 231 | Indus Valley art, religion and the decline of the civilisation

Q1. Match List I (Harappan sculpture) with List II (Site where it was found):

List I (Harappan sculpture)	List II (Site where it was found)
A. Male torso of red stone, with sockets for fixing separately made parts	1. Mohenjo-daro
B. “Dancing girl” figure, cast in metal by the lost-wax method	2. Harappa
C. Bronze figure of a bull	3. Lothal
D. Copper figures of a dog and a bird	4. Kalibangan

(1) A-2, B-1, C-4, D-3

(2) A-1, B-2, C-4, D-3

(3) A-2, B-1, C-3, D-4

(4) A-1, B-2, C-3, D-4

Q2. Consider the following statements about Harappan religion, the script and the end of the civilisation:

1. NCERT points out that the Rigveda depicts the god Rudra as Pashupati, the lord of animals.
2. NCERT infers that the Harappan script was written from right to left, because some seals show a wider spacing on the right.
3. George Dales’s re-examination of the skeletons found at Mohenjo-daro supported Wheeler’s view that they were victims of a single massacre.
4. According to NCERT, by about 1800 BCE most of the Mature Harappan sites in regions such as Cholistan had been abandoned.

Which of the statements given above is/are correct?

(1) 1 and 2 only

(2) 3 and 4 only

(3) 2 and 4 only

(4) 1 and 3 only

Topic 232 | Attorney General and Advocate General

Q1. Consider the following statements about the Attorney General for India:

1. Article 76 requires the Attorney General to be a person who has been an advocate of a High Court for at least ten years.
2. The Law Officers (Conditions of Service) Rules, 1987 apply to the Solicitor General and the Additional Solicitors General as well as to the Attorney General.
3. Under the Law Officers (Conditions of Service) Rules, 1987, a Law Officer shall not accept office in any company or corporation without the permission of the Government of India.
4. Article 105(4) applies to the Attorney General the freedom of speech and the immunities that clauses (1), (2) and (3) of Article 105 give to members of Parliament.

Which of the statements given above is/are correct?

(1) 1 and 2 only

(2) 1, 3 and 4 only

(3) 2 and 3 only

(4) 2, 3 and 4 only

Q2. Match List I (Article of the Constitution) with List II (What it provides):

List I (Article of the Constitution)	List II (What it provides)
A. Article 76	1. The officer may take part in the proceedings of any joint sitting of the Houses
B. Article 88	2. In a State having a Legislative Council, the officer may take part in the proceedings of both Houses
C. Article 165	3. The officer must be qualified to be appointed a Judge of a High Court
D. Article 177	4. The officer has a right of audience in all courts in the territory of India

(1) A-3, B-1, C-4, D-2

(2) A-4, B-1, C-3, D-2

(3) A-3, B-2, C-4, D-1

(4) A-4, B-2, C-3, D-1

Topic 233 | Right to Freedom: Article 19

Q1. Consider the following statements about Article 19 of the Constitution of India:

1. "Public order" was not one of the grounds in Article 19(2) in the original text of the Constitution as it came into force in 1950.
2. "The sovereignty and integrity of India" is a ground on which reasonable restrictions may be placed on the freedom to practise any profession.
3. Clause (5) of Article 19 permits reasonable restrictions on the freedom to reside and settle in any part of India for the protection of the interests of any Scheduled Tribe.
4. The words "war or by external aggression" have been part of Article 358 since the Constitution came into force.

Which of the statements given above is/are correct?

(1) 1 and 2 only

(2) 1 and 3 only

(3) 3 and 4 only

(4) 2 and 4 only

Q2. Match List I (judgments of the Supreme Court) with List II (what the judgment held):

List I (Judgment)	List II (What it held)
A. Shreya Singhal v. Union of India	1. Restriction orders must be made public and are open to judicial review, and only the least restrictive measure may be used
B. Bijoe Emmanuel v. State of Kerala	2. A penal provision was declared unconstitutional; mere discussion or advocacy of a cause, however unpopular, is protected, and clause (2) comes in only when speech reaches incitement
C. Anuradha Bhasin v. Union of India	3. The circulars relied on were mere departmental instructions, not law, and the expulsion of the students from school violated Articles 19(1)(a) and 25(1)
D. Union of India v. Naveen Jindal	4. The right it recognised is "a qualified one", open to restriction under clause (2), and the Code on the subject is not "law" under Article 13(3)(a)

(1) A-1, B-4, C-2, D-3

(2) A-1, B-3, C-2, D-4

(3) A-2, B-4, C-1, D-3

(4) A-2, B-3, C-1, D-4

Topic 234 | Impact of bifurcation on state revenue and the revenue deficit (AP)

Q1. Match List I (Figure linked with Andhra Pradesh's finances after 2014) with List II (Amount):

List I (Figure)	List II (Amount)
A. Revenue deficit of Andhra Pradesh in 2019-20 (actuals)	1. Rs 21,876 crore
B. Grants from the Centre to Andhra Pradesh in 2019-20 (actuals)	2. Rs 22,112 crore
C. Revenue deficit grant for Andhra Pradesh in the Fifteenth Finance Commission's report for 2021-26	3. Rs 26,441 crore
D. Fourteenth Finance Commission revenue deficit grant for Andhra Pradesh for 2015-20, in all	4. Rs 30,497 crore

(1) A-1, B-3, C-4, D-2

(2) A-3, B-1, C-2, D-4

(3) A-3, B-1, C-4, D-2

(4) A-1, B-3, C-2, D-4

Q2. Consider the following statements about the finances of Andhra Pradesh after the bifurcation:

1. The Sixteenth Finance Commission recommended revenue deficit grants for Andhra Pradesh for 2026-31.
2. Section 46(2) of the Andhra Pradesh Reorganisation Act, 2014 makes it mandatory for the Central Government to make grants to Andhra Pradesh.
3. Section 49 of the Act divides the cash and bank balances of the existing State between the two States in the ratio of their areas.
4. The Sixteenth Finance Commission recommended that a State's fiscal deficit be capped at 3 per cent of its GSDP, to be enforced under clause (3) of Article 293.

Which of the statements given above is/are correct?

(1) 4 only

(2) 1 and 3 only

(3) 2 and 4 only

(4) 1, 2 and 3 only

Topic 235 | Census 2011: concepts, reference dates and territorial-boundary cautions

Q1. Consider the following statements about the Census of India:

1. In Census 2011, the Houselisting and Housing Census was conducted between April and September 2010.
2. The Census 2011 figures for “Andhra Pradesh” relate to the State as it stood before its bifurcation in 2014.
3. Census 2011 was the eighth Census to be taken in India after independence.
4. The Census Act, 1948 and the Census Rules, 1990 provide the legal framework for conducting the Census.

Which of the statements given above is/are correct?

(1) 1 and 3 only

(2) 2 and 4 only

(3) 2, 3 and 4 only

(4) 1, 2 and 4 only

Q2. Match List I (Census 2011 term) with List II (its meaning in the Census):

List I (Census 2011 term)	List II (meaning in the Census)
A. Statutory town	1. A unit with a population of 1,00,000 or more
B. Census town	2. A continuous spread made of a town and its adjoining outgrowths, or of two or more physically contiguous towns
C. Urban agglomeration	3. A place without a municipal body that has at least 5,000 people, at least 400 persons per sq km and at least 75 per cent of its male main workers outside agriculture
D. City	4. A place with a municipality, a corporation or a cantonment board, whatever its population

Select the correct answer using the code given below:

(1) A-4, B-3, C-2, D-1

(2) A-1, B-3, C-2, D-4

(3) A-4, B-2, C-3, D-1

(4) A-1, B-2, C-3, D-4

Topic 236 | Cropping seasons and cropping patterns in India

Q1. Match List I (Cropping practice) with List II (What it means):

List I (Cropping practice)	List II (What it means)
A. Intercropping	1. A later crop is sown into the field while the earlier crop is still standing, so the two share the field for only part of their lives
B. Crop rotation	2. Another crop is sown on the same field in the same year after the earlier crop has been harvested
C. Relay cropping	3. Two or more crops are grown on the same field at the same time
D. Double cropping	4. Different crops follow one another on the same field in a fixed order over successive seasons or years

(1) A-4, B-3, C-1, D-2

(2) A-3, B-4, C-1, D-2

(3) A-4, B-3, C-2, D-1

(4) A-3, B-4, C-2, D-1

Q2. Consider the following statements about farming types and the cropping pattern of India:

1. NCERT describes dryland farming in India as largely confined to regions with an annual rainfall of more than 75 cm.
2. According to the Ministry of Agriculture's figures, the area under wheat in India in 2022-23 was more than twice its area in 1960-61.
3. NCERT names rice, jute and sugarcane among the crops of wetland farming.
4. According to the Ministry of Agriculture's figures, the area under coarse cereals in India was larger in 2022-23 than in 1960-61.

Which of the statements given above is/are correct?

(1) 1 and 2 only

(2) 3 and 4 only

(3) 2 and 3 only

(4) 1 and 4 only

Topic 237 | Environmental hazards: natural and man-made

Q1. Consider the following statements about disasters and hazards:

1. Under the Disaster Management Act, 2005, an event counts as a "disaster" only if its nature or magnitude is beyond the coping capacity of the community of the affected area.
2. The Explanation added to the definition of "disaster" in 2025 brings law and order situations within "man made causes".
3. The Sendai Framework for Disaster Risk Reduction sets four global targets and seven priorities for action.
4. In the UNDRR terminology, every hazard is either natural or anthropogenic in origin; no third group is recognised.

Which of the statements given above is/are correct?

(1) 2 and 3 only

(2) 3 and 4 only

(3) 1 only

(4) 1, 2 and 4 only

Q2. Match List I (man-made disaster) with List II (the substance released):

List I (disaster)	List II (substance released)
A. Bhopal, 1984	1. Methyl isocyanate
B. Visakhapatnam, 2020	2. Oleum
C. Delhi, 1985	3. Cobalt-60
D. Delhi, 2010	4. Styrene

(1) A-4, B-1, C-2, D-3

(2) A-1, B-4, C-2, D-3

(3) A-1, B-4, C-3, D-2

(4) A-4, B-1, C-3, D-2

Topic 238 | Counting triangles in a figure

Q1. Draw a triangle PQR with P at the top, Q at the bottom left and R at the bottom right. Mark a point S on QR and a point T on PR. Join P to S and Q to T; these two lines cross at a point X inside the triangle. Finally, join S to T. How many triangles are there in the figure?

(1) 5

(2) 10

(3) 12

(4) 16

Q2. In a triangle PQR, P is at the top and QR is the base. Three lines are drawn from P to the base, cutting QR into four parts. Then one line is drawn parallel to QR; it runs from side PQ to side PR and crosses all three lines. How many triangles are there in the figure?

(1) 10

(2) 12

(3) 16

(4) 20

Topic 239 | Simplification with fractions and decimals

Q1. Simplify: (1/5 of 0.8 + 0.7 × 0.6) ÷ (2/5 + 1/10)

(1) 1.16

(2) 1.34

(3) 2.9

(4) 8.72

Q2. In the numbers below, a digit written in round brackets repeats without end: 0.(7) = 0.777... and 0.8(5) = 0.8555.... What is the value of 0.(7) + 0.8(5)?

(1) 14/9

(2) 49/30

(3) 18/11

(4) 31/18

Topic 240 | Current affairs: rare earth corridors announced in the Union Budget 2026-27

Q1. Consider the following statements about rare earth minerals and their processing in India:

1. In the Atomic Minerals Directorate's State-wise table of heavy mineral resources (as on December 2025), Andhra Pradesh has more monazite than any other State.
2. The AMD's December 2025 figure of 13.15 Mt represents contained rare earth oxide rather than monazite mineral.
3. The Ministry of Mines has described India's rare earth resources as predominantly heavy rare earth elements.
4. IREL's Rare Earth Extraction Plant, which produces rare earth concentrate as mixed rare earth chloride, is in Odisha.

Which of the statements given above is/are correct?

(1) 2 and 3 only

(2) 1 only

(3) 2, 3 and 4 only

(4) 1 and 4 only

Q2. Match List I (official decisions) with List II (what each decided or did):

List I	List II
A. Union Cabinet, January 2025	1. Rs 7,280 crore for integrated manufacturing of sintered magnets, from rare earth oxides to finished magnets, through five beneficiaries
B. Ministry of Mines, 2023	2. Identification of 30 minerals as critical minerals, with rare earth elements among them
C. Union Cabinet, November 2025	3. A mission covering every stage from exploration to recovery from end-of-life products, with an expenditure of Rs 16,300 crore
D. Union Budget speech, 1 February 2026	4. A proposal to support Odisha, Kerala, Andhra Pradesh and Tamil Nadu in setting up dedicated Rare Earth Corridors

(1) A-3, B-2, C-1, D-4

(2) A-3, B-4, C-1, D-2

(3) A-1, B-4, C-3, D-2

(4) A-1, B-2, C-3, D-4

Answer key and detailed explanations

Topic 231 | Indus Valley art, religion and the decline of the civilisation

Q1. Answer: (1) A-2, B-1, C-4, D-3

- Why it is correct: the male torso of red stone with sockets for its parts is from Harappa, as the Indian Culture portal records it (A-2). The “dancing girl”, cast by the lost-wax method, is from Mohenjo-daro (B-1). NCERT’s art book names “the bronze figure of a bull from Kalibangan” (C-4) and “the copper dog and bird of Lothal” (D-3).
- Why (2) is wrong: it exchanges the torso and the “dancing girl”. Mohenjo-daro gave the bronze “dancing girl”; Harappa gave the red stone torso (and a grey stone male dancer, which is a different figure).
- Why (3) is wrong: it exchanges the two metal animal figures. The bronze bull is from Kalibangan; the copper dog and bird are from Lothal.
- Why (4) is wrong: it exchanges both pairs.

Q2. Answer: (3) 2 and 4 only

- Statement 1 is wrong: NCERT says the Rigveda mentions a god named Rudra, but that Rudra there is neither depicted as Pashupati nor as a yogi. This is NCERT’s caution against reading the seal as Shiva.
- Statement 2 is correct: NCERT says it is apparent that the script was written from right to left, because some seals show a wider spacing on the right.
- Statement 3 is wrong: Dales found that the skeletons did not belong to the same period, and that there was no destruction layer, no burning and no sign of a last defence. His work undercut Wheeler’s view.
- Statement 4 is correct: NCERT says that by about 1800 BCE most of the Mature Harappan sites in regions such as Cholistan had been abandoned.
- Why the other options are wrong: (1) includes statement 1, which is wrong. (2) includes statement 3, which is wrong. (4) includes both wrong statements.

Topic 232 | Attorney General and Advocate General

Q1. Answer: (4) 2, 3 and 4 only

- Statement 1 is wrong: Article 76(1) requires only that he be qualified to be appointed a Judge of the Supreme Court. Under Article 124(3) a citizen qualifies by any one of three routes: five years as a High Court Judge, ten years as a High Court advocate, or being a distinguished jurist in the opinion of the President. Ten years at the Bar is one route, not a requirement.
- Statement 2 is correct: Rule 2(d) of the 1987 Rules defines a "Law Officer" as the Attorney General, the Solicitor General and the Additional Solicitors General.
- Statement 3 is correct: Rule 8(1)(d) bars a Law Officer from accepting office in any company or corporation without the permission of the Government of India.
- Statement 4 is correct: Article 105(4) applies clauses (1), (2) and (3) to persons who by virtue of the Constitution have the right to speak in and take part in the proceedings of a House of Parliament or its committees. Article 88 makes the Attorney General such a person.
- Why the other options are wrong: (1) includes statement 1, which is wrong, and leaves out statements 3 and 4, which are correct. (2) includes statement 1, which is wrong, and leaves out statement 2, which is correct. (3) leaves out statement 4, which is correct.

Q2. Answer: (2) A-4, B-1, C-3, D-2

- A-4: Article 76(3) gives the Attorney General right of audience in all courts in the territory of India.
- B-1: Article 88 gives the Attorney General the right to take part in the proceedings of any joint sitting of the Houses of Parliament.
- C-3: Article 165(1) requires the Advocate General to be qualified to be appointed a Judge of a High Court.
- D-2: Article 177 gives the Advocate General, in a State having a Legislative Council, the right to take part in the proceedings of both Houses.
- Why (1) is wrong: it exchanges Articles 76 and 165. The right of audience in all courts is in Article 76; Article 165 has no such clause, and its qualification is that of a High Court Judge.
- Why (4) is wrong: it exchanges Articles 88 and 177. Article 88 deals with the Houses of Parliament and names the joint sitting; Article 177 deals with the State Legislature, says nothing of a joint sitting, and is the one that speaks of a Legislative Council.
- Why (3) is wrong: it makes both exchanges.

Topic 233 | Right to Freedom: Article 19

Q1. Answer: (2) 1 and 3 only

- Statement 1 is correct: in the original 1950 text, clause (2) named libel, slander, defamation, contempt of court, decency or morality, and matters that "undermines the security of, or tends to overthrow, the State". Romesh Thappar (1950) held that a law made for public order in general fell outside it. The First Amendment, 1951 substituted clause (2) with retrospective effect, and the new clause named "public order". The statement speaks of the original text, which did not have it.
- Statement 2 is wrong: the freedom to practise any profession is in 19(1)(g), and its restriction clause is clause (6). Clause (6) speaks of "the interests of the general public". "The sovereignty and integrity of India" stands only in clauses (2), (3) and (4), where the Sixteenth Amendment put it in 1963.
- Statement 3 is correct: clause (5) covers sub-clauses (d) and (e), movement and residence, and its grounds are "the interests of the general public" and "the protection of the interests of any Scheduled Tribe".
- Statement 4 is wrong: Article 358 once opened "While a Proclamation of Emergency is in operation". The 44th Amendment Act, 1978 put in the words about war or external aggression, from 20 June 1979.
- Why the other options are wrong: (1) includes statement 2, which is wrong, and leaves out statement 3. (3) includes statement 4, which is wrong, and leaves out statement 1. (4) is made up of the two wrong statements.

Q2. Answer: (4) A-2, B-3, C-1, D-4

- A-2: Shreya Singhal (24 March 2015) declared section 66A of the Information Technology Act, 2000 unconstitutional. Section 66A was a penal provision: it punished sending information that was "grossly offensive" or had a "menacing character" through a computer resource or communication device. The Court held that mere discussion or advocacy of a cause, however unpopular, is at the heart of 19(1)(a), and that clause (2) comes in only when speech reaches incitement.
- B-3: Bijoe Emmanuel (11 August 1986): three children, Jehovah's Witnesses, stood respectfully when the National Anthem was sung but did not sing it. Their expulsion violated Articles 19(1)(a) and 25(1). The circulars relied on were "mere departmental instructions", not law.
- C-1: Anuradha Bhasin (10 January 2020), the case on the internet shutdown in Jammu and Kashmir, held that restriction orders must be made public and are open to judicial review, and that "only the least restrictive measure can be resorted to by the State". It also held that an indefinite suspension of internet services is impermissible.
- D-4: Naveen Jindal (23 January 2004) held that the "Right to fly the National Flag freely with respect and dignity is a fundamental right of a citizen". The right is "a qualified one", open to restriction under clause (2). The Flag Code is not "law" under Article 13(3)(a).

- Why the other options are wrong: (1) makes both exchanges, A with C and B with D. (2) exchanges the two internet cases, A and C. (3) exchanges the two cases on national symbols, B and D.

Topic 234 | Impact of bifurcation on state revenue and the revenue deficit (AP)

Q1. Answer: (3) A-3, B-1, C-4, D-2

- A-3: in 2019-20 (actuals) the State's revenue deficit was Rs 26,441 crore, 2.72 per cent of GSDP (PRS).
- B-1: in 2019-20 (actuals) the grants from the Centre were Rs 21,876 crore; with the share in central taxes of Rs 28,242 crore they made transfers of Rs 50,118 crore (PRS).
- C-4: the Fifteenth Finance Commission's report for 2021-26 gives Andhra Pradesh a revenue deficit grant of Rs 30,497 crore (PRS).
- D-2: the Fourteenth Finance Commission's post-devolution revenue deficit grant for 2015-20 came to Rs 22,112 crore in all (Lok Sabha reply of 6 February 2019).
- Why (1) is wrong: it exchanges A and B. In 2019-20 the revenue deficit (Rs 26,441 crore) was larger than the grants from the Centre (Rs 21,876 crore).
- Why (2) is wrong: it exchanges C and D. Rs 30,497 crore is the Fifteenth Commission's grant; the Fourteenth Commission's grant for all five years, 2015-20, came to Rs 22,112 crore.
- Why (4) is wrong: it makes both exchanges.

Q2. Answer: (1) 4 only

- Statement 1 is wrong: the Sixteenth Finance Commission did not recommend revenue deficit grants to any State, as the Union's explanatory memorandum of 1 February 2026 records.
- Statement 2 is wrong: Section 46(2) says the Central Government "may" make appropriate grants, having regard to the resources available to Andhra Pradesh. It is an enabling provision, not a mandatory one.
- Statement 3 is wrong: Section 49 divides the cash and bank balances on the population ratio (58.32 : 41.68), through adjustments in the books of the Reserve Bank of India.
- Statement 4 is correct: the Sixteenth Finance Commission recommended that States' fiscal deficit be capped at 3 per cent of GSDP (excluding SASCI loans), to be strictly enforced under clause (3) of Article 293.
- Why the other options are wrong: (2) and (4) contain statements 1 and 3, both wrong; (4) also contains statement 2. (3) contains statement 2, which is wrong.

Topic 235 | Census 2011: concepts, reference dates and territorial-boundary cautions

Q1. Answer: (4) 1, 2 and 4 only

- Statement 1 is correct: Phase 1 of Census 2011, the Houselisting and Housing Census, ran from April to September 2010. Phase 2, Population Enumeration, followed from 9 to 28 February 2011.
- Statement 2 is correct: Census 2011 was taken before the bifurcation of 2014, so its figures for "Andhra Pradesh" are for the undivided State.
- Statement 3 is wrong: Census 2011 was the 15th Census of India and the seventh after independence. Census 2027 will be the eighth after independence.
- Statement 4 is correct: these are the words of the Government's own statement on Census 2027, and ORGI's material for 2011 names the same Act and Rules.
- Why the other options are wrong: (1) has statement 3, which is wrong, and leaves out statements 2 and 4. (2) leaves out statement 1, which is correct. (3) has statement 3, which is wrong, and leaves out statement 1.

Q2. Answer: (1) A-4, B-3, C-2, D-1

- A-4: a statutory town is urban because it has a civic body (municipality, corporation, cantonment board or notified town area committee), whatever its population.
- B-3: a census town has no such body; it is urban because it passes all three tests: at least 5,000 people, at least 400 persons per sq km and at least 75 per cent of male main workers in non-agricultural work.
- C-2: an urban agglomeration is a continuous urban spread of a town and its adjoining outgrowths, or of two or more physically contiguous towns; it must contain at least one statutory town.
- D-1: the Census calls a town of 1,00,000 and above a city.
- Why the other options are wrong: (2) exchanges the statutory town and the city. (3) exchanges the census town and the urban agglomeration. (4) makes both exchanges.

Topic 236 | Cropping seasons and cropping patterns in India

Q1. Answer: (2) A-3, B-4, C-1, D-2

- A-3: intercropping is the growing of two or more crops on the same field at the same time.
- B-4: crop rotation is the growing of different crops one after another in a specified order on the same field, and the order may run over several years.
- C-1: in relay cropping the later crop is sown while the earlier one is still growing, so the two overlap for only a part of the season.
- D-2: in double cropping a second crop is sown in the same year only after the first has been harvested; the two crops do not overlap, and they may even be the same crop.
- Why (1) is wrong: it exchanges intercropping and crop rotation. Intercropping is simultaneous; a rotation is a sequence over seasons or years.
- Why (4) is wrong: it exchanges relay and double cropping. The whole difference is whether the later crop goes in before or after the earlier crop is harvested.
- Why (3) is wrong: it makes both exchanges, so all four of its pairs are wrong.

Q2. Answer: (3) 2 and 3 only

- Statement 1 is wrong: NCERT says dryland farming is largely confined to regions with an annual rainfall of less than 75 cm. Wetter regions fall under wetland farming.
- Statement 2 is correct: the area under wheat rose from 12.9 million hectares in 1960-61 to 31.4 million hectares in 2022-23, about 2.4 times.
- Statement 3 is correct: NCERT names rice, jute and sugarcane as wetland crops, where the rainfall is in excess of the soil moisture needs of plants in the rainy season.
- Statement 4 is wrong: the area under coarse cereals fell from 45.0 million hectares in 1960-61 to 24.1 million hectares in 2022-23, a fall of about 46 per cent.
- Why the other options are wrong: (1) contains statement 1, which is wrong, and leaves out statement 3. (2) contains statement 4, which is wrong, and leaves out statement 2. (4) contains statements 1 and 4, both wrong.

Topic 237 | Environmental hazards: natural and man-made

Q1. Answer: (3) 1 only

- Statement 1 is correct: section 2(d) requires that the event be of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.
- Statement 2 is wrong: the Explanation added by the Disaster Management (Amendment) Act, 2025 does the opposite. It says "man made causes" do not cover law and order matters or situations arising from them.
- Statement 3 is wrong: it reverses the two numbers. The Sendai Framework has seven global targets and four priorities for action.
- Statement 4 is wrong: UNDRR recognises three origins: natural, anthropogenic and socionatural. Socionatural hazards come from a combination of natural and human factors.
- Why the other options are wrong: (1) includes statements 2 and 3, which are wrong, and leaves out statement 1. (2) includes statements 3 and 4, which are wrong, and leaves out statement 1. (4) includes statements 2 and 4, which are wrong.

Q2. Answer: (2) A-1, B-4, C-2, D-3

- A-1: at Bhopal on 3 December 1984, about 45 tons of methyl isocyanate escaped from Union Carbide's insecticide plant.
- B-4: at Visakhapatnam on 7 May 2020, styrene gas leaked from the LG Polymers plant at R.R. Venkatapuram village.
- C-2: in Delhi in December 1985, oleum gas escaped from a unit of Shriram Foods and Fertiliser Industries.
- D-3: in Delhi in 2010, cobalt-60 from an unused gamma cell of Delhi University reached a scrap shop in Mayapuri.
- Why (1) is wrong: it exchanges Bhopal and Visakhapatnam. Methyl isocyanate was the Bhopal chemical; styrene was the Visakhapatnam one.
- Why (3) is wrong: it exchanges the two Delhi events. The 1985 leak was of oleum; the 2010 event was radiological, from cobalt-60.
- Why (4) is wrong: it makes both exchanges.

Topic 238 | Counting triangles in a figure

Q1. Answer: (3) 12

- Worked solution by parts: the lines cut the figure into five parts, all of them triangles: PQX, PTX, QSX, STX and RST.
- One part: PQX, PTX, QSX, RST, STX (5). Two parts: PQS (PQX and QSX), PQT (PQX and PTX), PST (PTX and STX), QST (QSX and STX) (4). Three parts: PRS (PTX, STX and RST), QRT (QSX, STX and RST) (2). Five parts: PQR (1). Total 5 + 4 + 2 + 1 = 12.
- Check by vertices: first letter P: PQR, PQS, PQT, PQX, PRS, PST, PTX (7); Q: QRT, QST, QSX (3); R: RST (1); S: STX (1). 7 + 3 + 1 + 1 = 12.
- Why (1) is wrong: 5 counts only the smallest parts.
- Why (2) is wrong: 10 misses the two triangles made of three parts, PRS and QRT, which cross the line ST.
- Why (4) is wrong: 16 is a double count. It adds the 7 triangles that have P as a vertex, the 7 that have Q as a vertex and the 2 that have neither (RST, STX); the 4 triangles with both P and Q (PQR, PQS, PQT, PQX) are then counted twice.

Q2. Answer: (4) 20

- Worked solution: the three lines from P cut the base into n = 4 parts, so one layer gives $n(n + 1)/2 = 4 \times 5/2 = 10$ triangles. The parallel line makes 2 layers, so the total is $10 \times 2 = 20$.
- Check: 10 triangles have their base on QR, and 10 have their base on the parallel line, because that line meets the same five lines from P (the two sides and the three lines drawn).
- Why (1) is wrong: 10 is the count for one layer only. It forgets that the parallel line makes a second layer.
- Why (2) is wrong: $12 = 6 \times 2$ comes from $n(n - 1)/2 = 4 \times 3/2 = 6$ with n = 4 parts of the base. With parts the rule is $n(n + 1)/2$; the form $L(L - 1)/2$ holds only with L = the number of lines from P, here 5 ($5 \times 4/2 = 10$).
- Why (3) is wrong: $16 = 4 \times 4$ uses n squared, which counts the small triangles in a triangle cut into equal small triangles. It is not the rule for lines from one vertex.

Topic 239 | Simplification with fractions and decimals

Q1. Answer: (1) 1.16

- Worked solution, step 1 (the first bracket): "of" first, 1/5 of 0.8 = 0.8 ÷ 5 = 0.16. Then 0.7 × 0.6 = 0.42 (7 × 6 = 42, two places). Sum: 0.16 + 0.42 = 0.58.
- Step 2 (the second bracket): 2/5 + 1/10 = 4/10 + 1/10 = 5/10 = 1/2.
- Step 3: 0.58 ÷ 1/2 = 0.58 × 2 = 1.16.
- No division sign stands just before the "of", so working "of" first or as an ordinary × gives the same 1.16.
- Why (2) is wrong: 1.34 comes from treating "of" as division: 1/5 ÷ 0.8 = 0.25, then (0.25 + 0.42) × 2 = 1.34. "Of" means multiplication.
- Why (3) is wrong: 2.9 comes from adding the numerators and adding the denominators in the second bracket: (2 + 1)/(5 + 10) = 3/15 = 1/5, then 0.58 ÷ 1/5 = 2.9. The sum 2/5 + 1/10 is 1/2.
- Why (4) is wrong: 8.72 comes from misplacing the decimal point: 0.7 × 0.6 taken as 4.2 in place of 0.42, then (0.16 + 4.2) × 2 = 8.72. Two numbers with one decimal place each give a product with two decimal places.

Q2. Answer: (2) 49/30

- Worked solution, step 1: 0.(7) is pure, with a one-digit block, so it is 7/9.
- Step 2: 0.8(5) is mixed. With x = 0.8(5): 10x = 8.555... and 100x = 85.555...; subtracting, 90x = 77, so x = 77/90. (Short cut: (85 - 8)/90 = 77/90.)
- Step 3: the LCM of 9 and 90 is 90. 7/9 + 77/90 = 70/90 + 77/90 = 147/90 = 49/30.
- Check in decimals: 0.777... + 0.8555... = 1.6333..., and 49/30 = 1.6333....
- Why (1) is wrong: 14/9 comes from reading 0.(7) as the terminating 0.7 = 7/10: 63/90 + 77/90 = 140/90 = 14/9. A recurring block goes over 9s, not over 10.
- Why (3) is wrong: 18/11 comes from using the pure rule for the mixed decimal, 0.8(5) = 85/99: 77/99 + 85/99 = 162/99 = 18/11. The 8 does not repeat, so the denominator is 90, not 99.
- Why (4) is wrong: 31/18 comes from not subtracting the non-repeating digit, 0.8(5) = 85/90: 70/90 + 85/90 = 155/90 = 31/18. The numerator must be 85 - 8 = 77.

Topic 240 | Current affairs: rare earth corridors announced in the Union Budget 2026-27

Q1. Answer: (4) 1 and 4 only

- Statement 1 is correct: in the AMD table as on December 2025, Andhra Pradesh has 4.05 Mt of monazite, ahead of Odisha (3.22 Mt), Tamil Nadu (2.55 Mt) and Kerala (1.84 Mt).
- Statement 2 is wrong: 13.15 Mt is monazite mineral, not contained rare earth oxide. The Ministry reports about 7.23 Mt of contained rare earth oxide; the mineral and its oxide content must not be equated.
- Statement 3 is wrong: the Ministry of Mines (3 February 2026) describes India's resources as predominantly light rare earth elements.
- Statement 4 is correct: IREL's Rare Earth Extraction Plant is at its OSCOM unit in Odisha and produces mixed rare earth chloride.
- Why the other options are wrong: (1) holds only the two wrong statements. (2) leaves out statement 4, which is correct. (3) adds the wrong statements 2 and 3 and leaves out statement 1.

Q2. Answer: (1) A-3, B-2, C-1, D-4

- Why it is correct: the Union Cabinet approved the National Critical Mineral Mission on 29 January 2025, with an expenditure of Rs 16,300 crore (A-3). The Ministry of Mines released the list of 30 critical minerals in 2023 (B-2). The Union Cabinet approved the Rs 7,280 crore scheme for sintered rare earth permanent magnets on 26 November 2025 (C-1). The Budget speech of 1 February 2026 proposed support for Odisha, Kerala, Andhra Pradesh and Tamil Nadu (D-4).
- Why (2) is wrong: it exchanges B and D. The list of 30 critical minerals dates from 2023; the Budget speech did not draw up such a list. The support to the four States was proposed in the Budget speech, not in 2023.
- Why (3) is wrong: it makes both exchanges, so all four of its pairs are wrong.
- Why (4) is wrong: it exchanges A and C. The mission was approved in January 2025 and the magnet scheme in November 2025, not the other way round.