

2025 Edition

UPSC-CSE PRELIMS CSAT

**Previous Year Questions
Topic-wise Classification &
Analysis**

Since New Pattern (2011-2024)



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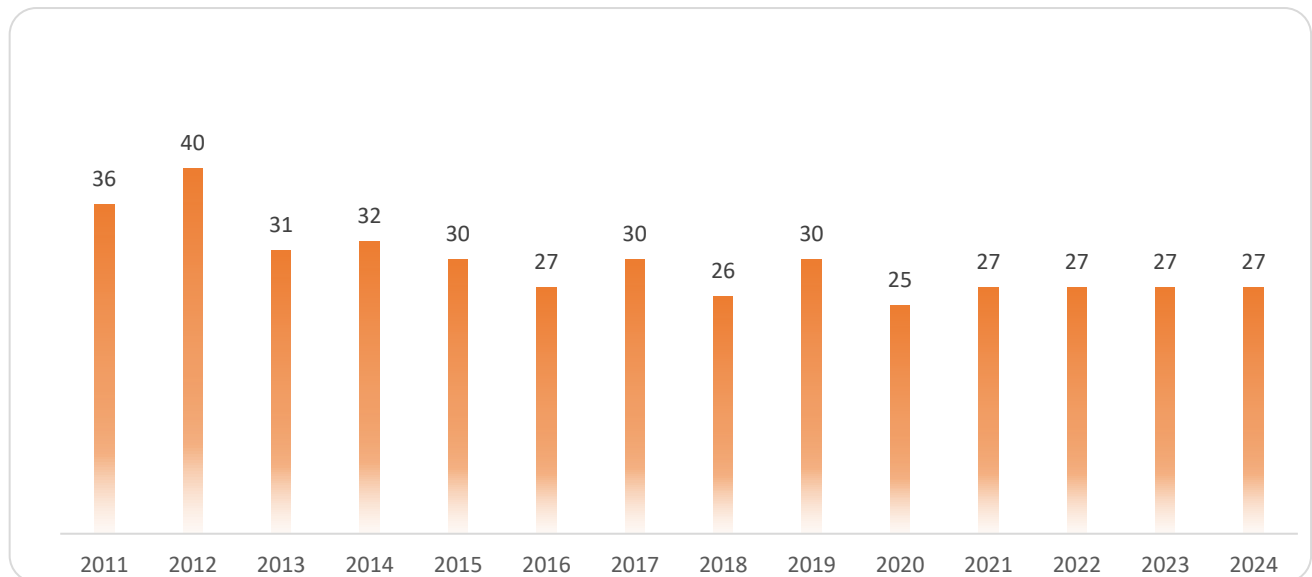
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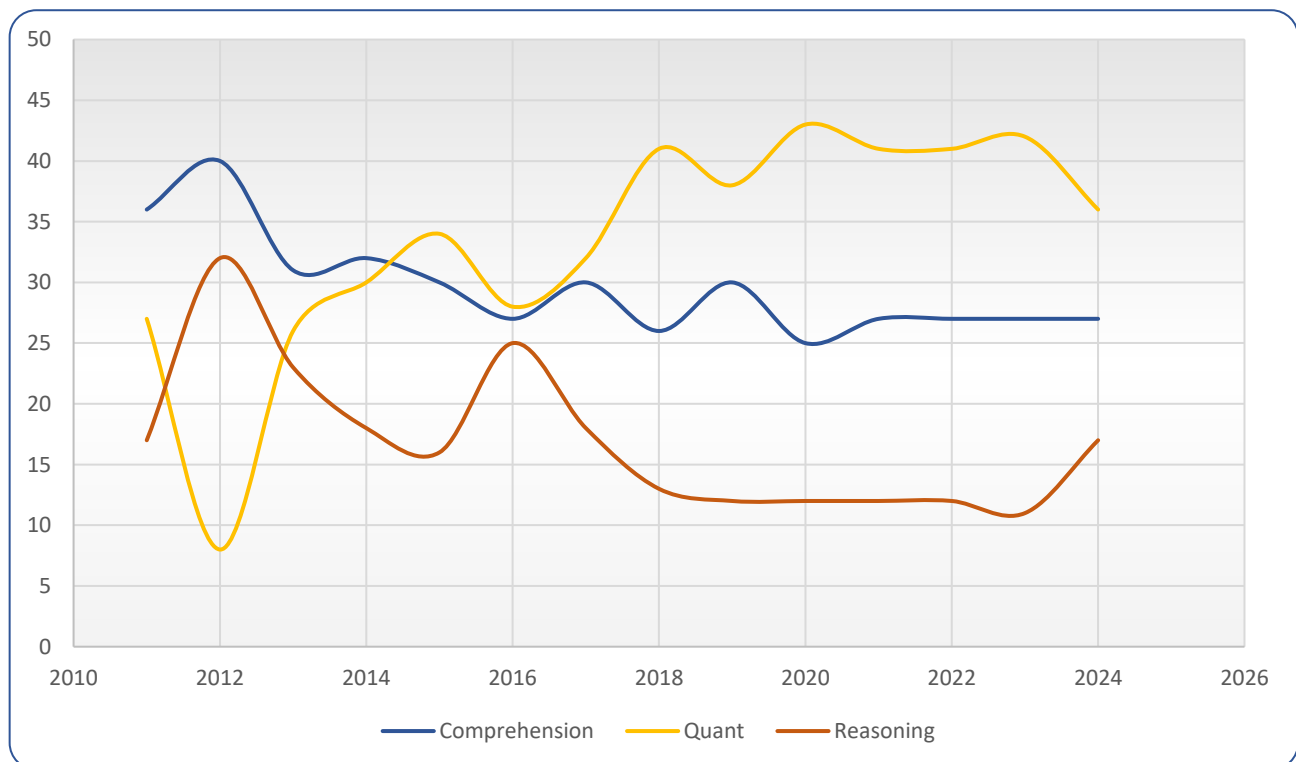
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Reading Comprehension

Graph: Year wise reading comprehension number of questions



Graph: Section wise Questions Trend from year 2011-2024



Year 2024 Questions

Directions for the following 4 (four) items:

Read the following two passages and answer the items that follow the passages. Your answers to these items should be based on the passages only.

Passage—1

According to the Food and Agriculture Organization, one-third of food produced for human consumption is lost or wasted globally. Food is lost or wasted throughout the supply chain, from initial agricultural production to final household consumption. The increasing wastage also results in land degradation by about 45%, mainly due to deforestation, unsustainable agricultural practices, and excessive groundwater extraction. The energy spent over wasted food results in about billion tonnes of carbon dioxide production every year. Decay also leads to harmful emissions of other gases in the atmosphere. Addressing the loss and wastage of food in all forms is critical to complete the cycle of food sufficiency and food sustainability.

Que 1. Which of the following statements best reflect the most logical and rational inferences that can be made from the passage? [2024/1]

1. The current methods of food distribution are solely responsible for the loss and wastage of food.
2. Land productivity is adversely affected by the prevailing trend of food loss and wastage.
3. Reduction in the loss and wastage of food results in lesser carbon footprint.
4. Post-harvest technologies to prevent or reduce the loss and wastage of food are not available.

Select the correct answer using the code given below.

- (a) 1, 2 and 3
- (b) 2 and 3 only
- (c) 1, 3 and 4
- (d) 1, 2, and 4

Que 2. Based on the above passage, the following assumptions have been made:

1. The food distribution mechanism needs to be reimagined and made effective to reduce the loss and wastage of food.
2. Ensuring the reduction of wastage and loss of food is a social and moral responsibility of all citizens.

Which of the assumptions given above is/are valid? [2024/2]

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

Passage—2

As inflation rises, even governments previously committed to budget discipline are spending freely to help households. Higher interest rates announced by central banks are supposed to help produce modest fiscal austerity, because to maintain stable debts while paying more to borrow, governments must cut spending or raise taxes. Without the fiscal backup monetary policy eventually loses traction. Higher interest rates become inflationary, not disinflationary, because they simply lead governments to borrow more to pay rising debt-service costs. The risk of monetary unmooring is greater when public debt rises, because interest rates become more important to budget deficits.

Que 3. Which of the following statements best reflects/reflect the most logical and rational inference/ inferences that can be made from the passage? [2024/3]

1. Central banks cannot bring down inflation without budgetary backing.
2. The effects of monetary policy depend on the fiscal policies pursued by the government.

Select the correct answer using the code given below.

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

Que 4. Based on the above passage, the following assumptions have been made:

1. Fiscal policies of governments are solely responsible for higher prices.
2. Higher prices do not affect the long-term government bonds.

Which of the assumptions given above is/are valid? [2024/4]

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

Directions for the following 4 (four) items:

Read the following two passages and answer the items that follow the passages. Your answers to these items should be based on the passages only.

Passage—1

Today, if we consider cities such as New York, London, and Paris as some of the most iconic cities in the world, it is

because plans carrying a heavy systems approach were imposed on their precincts. The backbone of the systems theory is the process of translating social, spatial and cultural desirables into mathematical models using computing, statistics, optimization, and an algorithmic way of formulating and solving problems. The early universities of the West which began to train professionals in planning, spawned some of the most ingenious planners, who were experts in these domains. This was because these very subjects were absorbed into the planning curriculum that had its roots in the social sciences, geography, and architecture. Planning in India, and its education differ from the West.

Que 5. Which one of the following statements best reflects the most logical and rational inference that can be made from the above passage? [2024/11]

- (a) Curriculum for urban planning courses should have diverse and interdisciplinary approach.
- (b) In India, city administration is under bureaucracy which lacks formal training in urban planning and management.
- (c) In India, the management of urban areas is a local affair with a chronic problem of insufficient funds.
- (d) With high density of population and widespread poverty in our urban areas, planned development in them is very difficult.

Que 6. Based on the above passage, the following assumptions have been made:

1. India needs a new generation of urban professionals with knowledge relevant to modern urban practice.
2. Indian universities at present have no capacity or potential to impart training in systems approach.

Which of the assumptions given above is/are correct? [2024/12]

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

Passage—2

Not every voice on the internet commands the same kind of audience. When anonymous private entities with high capital can pay for more space for their opinions, they are effectively buying a louder voice. If political discourse in the digital sphere is a matter of outshining one's opponent till the election is won, then the quality of politics suffers. The focus of social media is restricted to the promotion of content that generates more user engagement, regardless of how inflammatory the content may be.

Que 7. Which one of the following statements best reflects the central idea of the above passage? [2024/13]

- (a) Constructed as a marketplace of views, social media ensures instant access to information.
- (b) Social media are not ideal or moral institutions but the products built by companies to make profits.
- (c) Social media have been created to strengthen democracies.
- (d) In today's world, social media are inevitable for well-informed social life.

Que 8. Based on the above passage, the following assumptions have been made:

1. Internet is not inclusive enough.
2. Internet can adversely affect the quality of politics in a country.

Which of the assumptions given above is/are valid? [2024/14]

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2

- (d) Neither 1 nor 2

Directions for the following 3 (three) items:

Read the following two passages and answer the items that follow the passages. Your answers to these items should be based on the passages only.

Passage—1

By the time children reach class 8, the bulk of them tend to be in the age range of 13 years to 15 years. But in our country, about a quarter of all children in class 8 struggle with reading simple texts and more than half are still unable to do basic arithmetic operations like division. Every year about 25 million young boys and girls from elementary school move into the life that lies for them beyond compulsory schooling. They cannot enter the workforce at least in the organized sector till they are 18. For many families, these children are the first from their families ever to get this far in school. Parents and children expect that such 'graduates' from school will go on to high school and college. Hardly anyone wants to go back to agriculture. On the other hand, abilities in terms of academic competencies are far lower than they should be even based on curricular expectations of class 8.

Que 9. Based on the above passage, the following assumptions have been made:

1. For effective school education, parents have greater role than the governments.
2. School curriculum that conforms to today's requirements and is uniform for the entire country may address the issues brought out.

Which of the assumptions given above is/are valid? [2024/21]

- (a) 1 only
- (b) 2 only

- (c) Both 1 and 2
(d) Neither 1 nor 2

Que 10. Which one of the following statements best reflects the central idea conveyed by the passage? [2024/22]

- (a) Total eradication of poverty in the country will resolve the issue of under-performance of our school- children.
(b) Monetary incentives to parents and teachers is a strategy to improve the children's academic performance.
(c) Public policy should ensure that competencies and achievements of young people are aligned with their expectations.
(d) India is not going to take advantage of the demographic dividend unless some school pass-outs go back to agriculture.

Passage—2

We take it for granted now that science has a social responsibility. The idea would not have occurred to Newton or Galileo. They thought of science as an account of the world as it is, and the only responsibility that they acknowledged was to tell the truth. The idea that science is a social enterprise is modern, and it begins at the industrial revolution. We are surprised that we cannot trace a social sense further back, because we nurse the illusion that the industrial revolution ended a golden age.

Que 11. Which one of the following statements best reflects the thinking of the author about the science? [2024/23]

- (a) Science must value the commitment of the scientists.
(b) Science is a product of civilized society and must be used for the promotion of scientific awareness in people.
(c) Industrial revolution was made possible by the advancements in science.
(d) Science must pursue truth but be responsible for social welfare.

Directions for the following 4 (four) items:

Read the following two passages and answer the items that follow the passages. Your answers to these items should be based on the passages only.

Passage—1

"The history of science is the real history of mankind." In this striking epigram, a nineteenth-century writer links science with its background. Like most epigrams, its power lies in emphasizing by contrast an aspect of truth which may be easily overlooked. In this case, it is easy to overlook the relations between science and mankind, and to treat the former as some abstract third party, which can sometimes be praised for its beneficial influences, but frequently and conveniently blamed for the horrors of war. Science and mankind cannot be divorced from time to time at men's convenience. Yet we have seen that, in spite of countless opportunities of improvement, the opening years of the present period of civilization have been dominated by international conflict. Is this the inevitable result of the progress of science or does the fault lie elsewhere?

Que 12. Which of the following is/ are emphatically conveyed by the author of the passage? [2024/31]

1. Without science, mankind could not have continued to exist till today.
2. It is the science that will ultimately determine the destiny of mankind.

Select the correct answer using the code given below.

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

Que 13. Based on the above passage, the following assumptions have been made:

1. The horrors of modern life are the inevitable result of the progress of science.
2. The aspect of truth likely to be overlooked is that science is what man has made it.

Which of the assumptions given above is/ are correct? [2024/32]

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

Passage—2

Only with long experience and opening of his wares on many a beach where his language is not spoken, will the merchant come to know the worth of what he carries, and what is parochial and what is universal in his choice. Such delicate goods as justice, love and honour, courtesy, and indeed all the things we care for, are valid everywhere but they are variously moulded and often differently handled, and sometimes nearly unrecognizable if you meet them in a foreign land, and the art of learning fundamental common values is perhaps the greatest gain of travel to those who wish to live at ease among their fellows.

Que 14. When we meet other people while we travel, we learn to differentiate between [2024/33]

- (a) imagination and understanding
- (b) communities and nationalities
- (c) local values and universal values
- (d) friends and foes

Que 15. With reference to the above passage, the following assumptions have been made:

1. Travel leads to an understanding of humans.
2. Travel helps those who wish to learn fundamental common values.

3. A person with long experience in travel can resolve differences amongst people.

Which of the assumptions given above are valid? [2024/34]

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Directions for the following 4 (four) items:

Read the following two passages and answer the items that follow the passages. Your answers to these items should be based on the passages only.

Passage—1

Conventional classrooms, by emphasizing fixed duration over learning effectiveness, resign themselves to variable outcomes. The tyranny of the classroom is that every learner is subjected to the same set of lectures in the same way for the same duration. In the end, a few learners shine, some survive, and the rest are left behind. After the fixed duration, the classroom model moves on, with not a thought spared for those left behind. This is how we end up with 10 percent employability in our graduates after a decade and half of formal education. Repeating the same ineffectual script in the realm of skill education will not produce different results.

Que 16. Which of the following statements best reflects/reflect the most logical and rational inference/ inferences that can be made from the passage? [2024/41]

1. In conventional classroom learning, the central goal is duration of learning rather than attainment of competency.

2. Conventional classrooms encourage one-size-fits-all approach and stamp out all differentiation.

Select the correct answer using the code given below.

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

Que 17. Based on the above passage, the following assumptions have been made:

1. As a large number of workers in our country are employed in unorganized sector, India does not need to change its present conventional classroom system of education.

2. Even with its present conventional classroom system of education, India produces sufficient number of skilled workers to fully realize the benefits of demographic dividend.

Which of the assumptions given above is/are valid? [2024/42]

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

Passage—2

When a child reaches adolescence, there is apt to be a conflict between the parents and the child, since the latter considers himself to be by now quite capable of managing his own affairs, while the former are filled with parental solicitude, which is often a disguise for love of power. Parents consider, usually, that the various moral problems which arise in adolescence are peculiarly their province. The options they express, however, are so dogmatic that the young seldom confide in them, and usually go their own way in secret.

Que 18. Based on the above passage, the following assumptions have been made:

1. The adolescent does not feel comfortable with his parents because they tend to be dominating and assertive.
2. The adolescent of modern times does not have much respect for parents.
Which of the assumptions given above is/are valid? [2024/43]

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

Que 19. Which one of the following statements best reflects the central idea of the above passage? [2024/44]

- (a) Parents in general may not be of much help when children are on their way to becoming adults.
- (b) When children reach adolescence, involvement of parents in their lives is unnecessary.
- (c) Modern-day nuclear families are not capable of bringing up children properly.
- (d) In modern societies, adolescents tend to be stubborn, disobedient, and careless.

Directions for the following 3 (three) items:

Read the following three passages and answer the items that follow the passages. Your answers to these items should be based on the passages only.

Passage—1

When an international team of scientists pumped a carbon dioxide and water mix into underground basalt rocks, basic chemistry took over. The acidic mixture dissolved rocks' calcium and magnesium and formed limestone. Basically, carbon dioxide is converted into stone, exclaimed the scientists.

Que 20. Which one of the following statements best reflects the most logical, rational, and practical suggestion implied by the passage? [2024/50]

- (a) It is a cheap and practical method to produce limestone at commercial level for building purposes.
- (b) This can be used as one of the methods of carbon sequestration.
- (c) Basalt rock can be made a good source of calcium and magnesium minerals by this method.
- (d) Good rock-dissolving acid can be produced by mixing carbon dioxide and water.

Passage-2

Geographers analysed 175 satellite images of ocean colour, which is an indicator of phytoplankton productivity at the ocean's surface, and found that giant icebergs are responsible for storing up to 20 percent of carbon in the Southern Ocean. The researchers discovered that melting water from giant icebergs which contains iron and other nutrients, supports hitherto unexpectedly high levels of phytoplankton growth.

Que 21. Based on the above passage, the following assumptions have been made:

1. Giant icebergs have a bearing on primary productivity and food chains of the Southern Ocean.
2. Melting of giant icebergs can produce climate change effects and impact world fisheries.

Which of the assumptions given above is/are valid? [2024/52]

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

Passage—3

Evolution has endowed caterpillars that feed on corn with a unique ability, they can induce the plant to turn off its defence against insect predators. This helps caterpillars to eat more and grow faster. The agent that causes this effect is the caterpillar's faeces or frass. The find could throw new light on compounds associated with plant response to pathogens like fungi or bacteria.

Que 22. Which one of the following statements best reflects the most logical, rational and practical message conveyed by the passage? [2024/53]

- (a) Farmers can use caterpillars to feed on weeds in their crop fields/ plantations.
- (b) This finding can help in the development of clinically useful antimicrobial compounds.
- (c) This finding can help in the development of organic, ecologically sustainable pesticides.
- (d) Caterpillars can be genetically modified to be predators of the other plant pests.

Directions for the following 3 (three) items:

Read the following three passages and answer the items that follow the passages. Your answers to these items should be based on the passages only.

Passage—1

In a robust democracy, reality, howsoever inconvenient it may be, finds its expression both in the speech of political leaders and the other social forms of assertion. The existence of the real has to be transparent, both through its circulation in and by the media as well as its argumentative articulation in deliberative democracy. A normatively responsible media through its communication effect has the responsibility to circulate the content of reality without distortion.

Que 23. Which one of the following statements best reflects the crux of the above passage? [2024/61]

- (a) Responsible media should not distort the real in ideal democracy.
- (b) Fake news seems inherent in the life of an ideal democracy.
- (c) There should not be any kind of restrictions on the freedom of expression in an ideal democracy.
- (d) Irresponsible media and political leaders cannot be effectively controlled in an ideal democracy.

Passage 2

Now-a-days there is a growing trend to use interconnected home devices. As consumers increasingly network their homes, the connected home device manufacturers and service providers will seek to overcome "thin profit margins by gathering more of our personal data—with or without our agreement—turning the home into a corporate storefront". Corporate marketers will have powerful incentives to observe consumer behaviour to understand the buying needs and preferences of the device owners

Que 24. Which one of the following statements best reflects the most logical, rational and practical message implied by the passage? [2024/62]

- (a) Knowledge of consumer behaviour leads to more capital expenditure in manufacturing sector.
- (b) Knowledge of consumer behaviour stimulates the growth of commerce and trade and thus helps in the overall economic development of the country.
- (c) Interconnected devices give a lot of comfort to home users and improve the overall quality of life.
- (d) Interconnected devices can be at security risk and home users may have privacy risk.

Passage—3

Green growth involves rethinking growth strategies with regard to the impacts on environmental sustainability and the environmental resources available to poor and vulnerable groups. In rethinking growth, we need to focus on the current reality of a resource-constrained world. Resource intensive and, in particular energy intensive processes will need to make way for more efficient and resource frugal development strategies if we are to avoid an economic dead end or a world in which only a small elite is able to enjoy affluence in the midst of a sea of poverty.

Que 25. Which one of the following statements best reflects the crux of the above passage? [2024/63]

- (a) Environmental sustainability is inimical to our objective of achieving a high rate of GDP growth.
- (b) Poverty eradication is not possible without a rapid economic growth and the consequent environmental degradation.
- (c) Maintaining high environmental standards is now a prerequisite for achieving a steady, sufficient and inclusive growth.
- (d) With large populations, rampant poverty and limited resources of today's world, environmental degradation cannot be prevented and inequalities are inevitable.

Directions for the following 2 (two) items:

Read the following two passages and answer the items that follow the passages. Your answers to these items should be based on the passages only.

Passage -1

Unlike religion and science, poetry does not posit or expect any belief in absolute truths. Those forces or individuals who

claim to have absolute truths in their grasp tend to turn dictatorial and tyrannical. Truth usually does not admit any contradictions or imperfections. It is unitarian. It is, therefore, not of much use for poetry. Poetry abides by the plurality of life and existence. Perhaps poetry follows reality which is plural, anachronistic, full of contradictions. Against the tyranny of truth, poetry remains a partisan of democratic reality. Against the arrogance of power, wealth and hierarchy, poetry proposes both humility and defiance.

Que 26. Which one of the following statements best reflects the most logical and rational message conveyed by the above passage? [2024/71]

- (a) It is the poetry, not science or religion, which recognizes and accepts imperfections in humans.
- (b) Truth is revealed through science or religion and poetry is anathema to truth.
- (c) Poetry is romantic, imaginary and is about feeling whereas science and religion are about truth.
- (d) In a world of violence, tyranny and bigotry, poetry is a form of dynamic resistance.

Passage -2

The flower was not invented to please us. It flaunted its petals and spread its perfume to attract an insect. The insect carries the pollen from flower to flower so that pollen is not carried away by wind and thus not wasted. What we call a flower's beauty is merely a by-product and a human invention. The perfume is not there to please us, it pleases us because it is there and we have been conditioned to it.

Que 27. Based on the above passage, the following assumptions have been made:

- 1. The author of the passage believes that flowers are creations of Nature's luxury.
- 2. The author of the passage does not believe in the usefulness of flowers except as things of beauty.

Which of the assumptions given above is/are valid? [2024/72]

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

Answers to Reading Comprehension Year 2024

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
B	A	B	D	A	D	B	C	B	C	D	B	B	C	A

16	17	18	19	20	21	22	23	24	25	26	27
C	D	A	A	C	A	B	A	D	C	A	D

Year 2023 Questions

Passage — 1

We often hear about conflicts among different States in India over river waters. Of the 20 major river systems, 14 are already water-stressed; 75% of the population lives in water-stressed regions, a third of whom live in water-scarce areas. Climate change, the demands of rising population and the need for agriculture to keep pace, and increased rate of urbanization and industrialization will exacerbate water stress. According to the Constitution of India, water is a State subject and not that of the Union, except for regulation of inter-state rivers. Key to ensuring balance between competing demands of various stakeholders is a basin-based approach to allocate water amongst constituent regions and States. Allocating fair share of water to them requires assessments based on objective criteria, such as specificities of the river basin, size of dependent population, existing water use and demand, efficiency of use, projected future use, etc. while ensuring the environmental needs of the river and aquifers.

Que 1. Which one of the following statements best reflects the most rational, practical, and immediate action required to ensure fair and equitable allocation of water to different stakeholders? [2023/1]

- (a) A national, pragmatic, legal and policy framework for water allocation should be made.
- (b) All river systems of the country should be linked and huge aquifers created.
- (c) Water channels between regions of water surplus and regions of water deficit should be created.
- (d) To mitigate water crisis, water demand of sectors such as agriculture and industry should be reduced.

Passage-2

More than half of Indian women and almost a quarter of Indian men of working age suffer from anaemia. According to studies, they are anywhere from 5-15% less productive than they could be, as a result thereof. India also has the largest tuberculosis burden in the world, costing 170 million workdays to the country annually. But what is just as important as lost productivity now is lost potential in the future. It is becoming increasingly clear that on many measures of cognitive ability, malnourished Indian children perform two or three times worse than their adequately nourished peers. For an economy that will be more dependent on highly skilled workers, this poses a significant challenge. And it is one that really should be addressed given India's demographic outlook.

Que 2. Which one of the following statements best reflects what is implied by the passage? [2023/2]

- (a) Education system must be strengthened in rural areas.
- (b) Large scale and effective implementation of skill development programme is the need of the hour.
- (c) For economic development, health and nutrition of only skilled workers needs special attention.
- (d) For rapid economic growth as envisaged by us, attention should be paid to health and nutrition of the people.

Passage-3

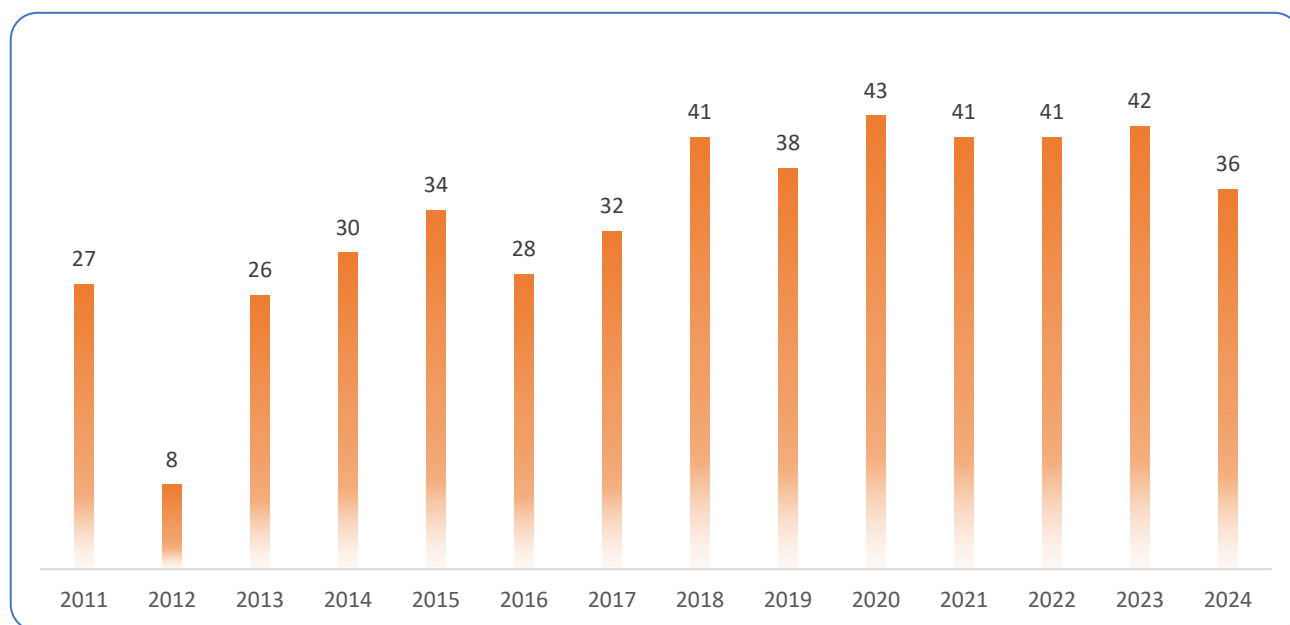
In India, a majority of farmers are marginal and small, less educated and possess low adaptive capabilities to climate change, perhaps because of credit and other constraints. So, one cannot expect autonomous adaptation to climate change. Even if it was possible, it would not be sufficient to offset losses from climate change. To deal with this, adaptation to climate change is paramount, alongside at fast mitigation response. Another solution is to have a planned or policy-driven adaptation,

Quantitative Ability

Chart: Topic wise number of questions of Quantitative Ability from year 2011-2024

Sr No.	Row Labels	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
1	Numbers						2	3	4	7	13	7	8	13	14	71
2	Averages	1		1	1		1	3		2	4	2	2	2	1	20
3	Percentage and Ratio	2		1	4	5	6	7	2	7	6	6	4		5	55
4	Mixture		1			1	1				1		1		1	6
5	Linear Equations	2		7	5	8	5	7	4	10	7	9	5	7	5	81
6	Compound Interest							1						1		2
7	LCM HCF			1	2		1		1		1	1	1	2	1	11
8	SETS	3	1		1	2										7
9	Probability	1			1	5	3	2	1		1	3	10	8		35
10	Data Interpretation	9	1	5	5	3			14		1	1				39
11	Sequence	1	2	6	6	3			5	5	3	5	4	4	3	47
12	Calendar				1					2	1	1	1		1	7
13	Clock				1	1	1	2		1		1			2	9
14	Work Time			1		1	3	1				1	1	1	2	11
15	Time and Distance	2	1	3	2	2	1	1	2	1	1	2	2			20
16	Boat and Stream										1					1
17	Geometry	6	2	1	1	3	4	6	7	3	3	2	2	4	1	45

Graph: Year wise quantitative ability number of questions



Numbers

Que 1. In the expression $5 * 4 * 3 * 2 * 1$, $*$ is chosen from $+$, $-$, $\times$ each at the most two times. What is the smallest non-negative value of the expression? [2024/6]
 (a) 3
 (b) 2
 (c) 1
 (d) 0

Que 2. How many consecutive zeros are there at the end of the integer obtained in the product $1^2 \times 2^4 \times 3^6 \times 4^8 \times \dots \times 25^{50}$? [2024/9]
 (a) 50
 (b) 55
 (c) 100
 (d) 200

Que 3. On January 1st, 2023, a person saved rupee 1. On January 2nd, 2023, he saved rupee 2 more than that on the previous day. On January 3rd, 2023 he saved 2 more than that on the previous day and so on. At the end of which date was his total savings a perfect square as well a perfect cube? [2024/10]
 (a) 7th January, 2023
 (b) 8th January, 2023
 (c) 9th January, 2023
 (d) Not possible

Que 4. $222^{333} + 333^{222}$ is divisible by which of the following numbers? [2024/15]
 (a) 2 and 3 but not 37
 (b) 3 and 37 but not 2
 (c) 2 and 37 but not 3
 (d) 2, 3 and 37

Que 5. What is the rightmost digit preceding the zeros in the value of 30^{30} ? [2024/17]
 (a) 1
 (b) 3
 (c) 7
 (d) 9

Que 6. 421 and 427, when divided by the same number, leave the same remainder 1. How many numbers can be used as the divisor in order to get the same remainder 1? [2024/18]
 (a) 1
 (b) 2
 (c) 3
 (d) 4

Que 7. Consider the following statements in respect of the sum $S = x + y + z$, where x , y and z are distinct prime numbers each less than 10:
 1. The unit digit of S can be 0.
 2. The unit digit of S can be 9.
 3. The unit digit of S can be 5.
 Which of the statements given above are correct? [2024/20]
 (a) 1 and 2 only
 (b) 2 and 3 only
 (c) 1 and 3 only
 (d) 1, 2 and 3

Que 8. Consider the following:
 1. 1000 litres = $1 m^3$
 2. 1 metric ton = 1000 kg
 3. 1 hectare = $10000 m^2$
 Which of the above are correct? [2024/30]
 (a) 1, and 2 only
 (b) 2 and 3 only
 (c) 1 and 3 only
 (d) 1, 2 and 3

Que 9. Let p , q , r and s be distinct positive integers. Let p , q be odd and r , s be even.

Consider the following statements.

1. $(p - r)^{2qs}$ is even
2. $(q - s)^{2s}$ is even
3. $(q + r)^{2(p+s)}$ is odd.

Which of the statements given above are correct? [2024/39]

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Que 10. What is the number of fives used in numbering a 260-page book? [2024/45]

- (a) 55
- (c) 56
- (b) 57
- (d) 60

Que 11. $32^5 + 2^{27}$ is divisible by [2024/54]

- (a) 3
- (b) 7
- (c) 10
- (d) 11

Que 12. Let p and q be positive integers satisfying $p < q$ and $p + q = k$. What is the smallest value of k that does not determine p and q uniquely? [2024/55]

- (a) 3
- (b) 4
- (c) 5
- (d) 6

Que 13. If $a + b$ means $a - b$; $a - b$ means $a \times b$; $a \times b$ means $a + b$; $a + b$ means $a \div b$, then what is the value of $10 + 30 - 100 \times 50 + 25$? [2024/75]
(Operations are to be replaced simultaneously)

- (a) 15
- (b) 0
- (c) -15
- (d) -25

Que 14. In some code, letters P, Q, R, S, T represent numbers 4, 5, 10, 12, 15. It is not known which letter represents which number. If $Q - S = 2S$ and $T = R + S + 3$, then what is the value of $P + R - T$? [2024/80]

- (a) 1
- (b) 2
- (c) 3
- (d) Cannot be determined due to insufficient data

Que 15. What is the remainder when $85 \times 87 \times 89 \times 91 \times 95 \times 96$ is divided by 100? [2023/7]

- (a) 0
- (b) 1
- (c) 2
- (d) 4

Que 16. What is the unit digit in the expansion of $57242^{9 \times 7 \times 5 \times 3 \times 1}$? [2023/8]

- (a) 2
- (b) 4
- (c) 6
- (d) 8

Que 17. Three of the five positive integers p , q , r , s , t are even and two of them are odd (not necessarily in order). Consider the following

1. $p + q + r - s - t$ is definitely even

2. $2p + q + 2r - 2s + t$ is definitely odd.

Which of the above statements is/are correct? [2023/14]

- (a) 1 only
- (b) 2 only

- (c) Both 1 and 2
(d) Neither 1 nor 2

Que 18. Consider the following in respect of prime number p and composite number c .

1. $(p+c)/(p-c)$ can be even
2. $2P+C$ can be odd.
3. pc can be odd.

Which of the statements given above are correct? [2023/15]

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Que 19. For any choices of values of X , Y and Z , the 6-digit number of the form $XYZXYZ$ is divisible by? [2023/17]

- (a) 7 and 11 only
(b) 11 and 13 only
(c) 7 and 13 only
(d) 7, 11 and 13

Que 20. How many distinct 8-digit numbers can be formed by rearranging the digits of the number 11223344 such that odd digits occupy odd positions and even digits occupy even positions? [2023/19]

- (a) 12
(b) 18
(c) 36
(d) 72

Que 21. If $7@9@10=8$, $9@11@30=5$, $11@17@21=13$ what is the value of $23@4@15$? [2023/24]

- (a) 6
(b) 8
(c) 13

- (d) 15

Que 22. A number N is formed by writing 9 for 99 times. What is the remainder if N is divided by 13? [2023/27]

- (a) 11
(b) 9
(c) 7
(d) 1

Que 23. Each digit of a 9-digit number is 1. It is multiplied by itself. What is the sum of the digits of the resulting number? [2023/28]

- (a) 64
(b) 80
(c) 81
(d) 100

Que 24. How many natural numbers are there which give a remainder of 31 when 1186 is divided by these natural numbers? [2023/45]

- (a) 6
(b) 7
(c) 8
(d) 9

Que 25. Let pp , qq and rr be 2-digit numbers where $p < q < r$. If $pp + qq + rr = tto$, where tto is a 3-digit number ending with zero, consider the following statements:

1. The number of possible values of p is 5.
2. The number of possible values of q is 6.

Which of the above statements is/are correct? [2023/46]

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

Que 26. If today is Sunday, the which day is it exactly of 10^{10} th day? [2023/49]

- (a) Wednesday
- (b) Thursday
- (c) Friday
- (d) Saturday

Que 27. What is the remainder if 2^{192} is divided by 6? [2023/74]

- (a) 0
- (b) 1
- (c) 2
- (d) 4

Que 28. An Identity Card has the number ABCDEFG, not necessarily in that order, where each letter represents a distinct digit (1, 2, 4, 5, 7, 8, 9 only). The number is divisible by 9. After deleting the first digit from the right, the resulting number is divisible by 6. After deleting two digits from the right of original number, the resulting number is divisible by 5. After deleting three digits from the right of original number, the resulting number is divisible by 4. After deleting four digits from the right of original number, the resulting number is divisible by 3. After deleting five digits from the right of original number, the resulting number is divisible by 2. Which of the following is a possible value for the sum of the middle three digits of the number? [2022/5]

- (a) 8
- (b) 9
- (c) 11
- (d) 12

Que 29. Which number amongst 2^{40} , 3^{21} , 4^{18} and 8^{12} is the smallest? [2022/9]

- (a) 2^{40}
- (b) 3^{21}
- (c) 4^{18}
- (d) 8^{12}

Que 30. A has some coins. He gives half of the coins and 2 more to B. B gives half of the coins and 2 more to C. C gives half of the coins and 2 more to D. The number of coins D has now, is the smallest two-digit number. How many coins does A have in the beginning? [2022/28]

- (a) 76
- (b) 68
- (c) 60
- (d) 52

Que 31. How many seconds in total are there in x weeks, x days, x hours, x minutes, and x seconds? [2022/35]

- (a) $11580x$
- (b) $11581x$
- (c) $694860x$
- (d) $694861x$

Que 32. What is the remainder when $91 \times 92 \times 93 \times 94 \times 95 \times 96 \times 97 \times 98 \times 99$ is divided by 1261? [2022/58]

- (a) 3
- (b) 2
- (c) 1
- (d) 0

Que 33. What is the smallest number greater than 1000 that when divided by any one of the numbers 6, 9, 12, 15, 18 leaves a remainder of 3? [2022/65]

- (a) 1063
- (b) 1073
- (c) 1083
- (d) 1183

Que 34. Consider the following statements in respect of two natural numbers p and q such that p is a prime number and q is a composite number.

1. $p \times q$ can be an odd number,
2. q/p can be a prime number,

3. $p \pm q$ can be a prime number.

Which of the above statements are correct? [2022/67]

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Que 35. If $15 \times 14 \times 13 \times \dots \times 3 \times 2 \times 1 = 3^m \times n$ where m and n are positive integers, then what is the maximum value of m ? [2022/74]

- (a) 7
- (b) 6
- (c) 5
- (d) 4

Que 36. If 3^{2019} is divided by 10, then what is the remainder? [2021/5]

- (a) 1
- (b) 3
- (c) 7
- (d) 9

Que 37. The number 3798125P369 is divisible by 7. What is the value of the digit P? [2021/6]

- (a) 1
- (b) 6
- (c) 7
- (d) 9

Que 38. A biology class at high school predicted that a local population of animals will double in size every 12 years. The population at the beginning of the year 2021 was estimated to be 50 animals. If P represents the population after n years, then which one of the following equations represents the model of the class for the population? [2021/8]

- (a) $P = 12 + 50n$
- (b) $P = 50 + 12n$
- (c) $P = 50 (2)^{12n}$

(d) $P = 50 (2)^{n/12}$

Que 39. Integers are listed from 700 to 1000. In how many integers is the sum of the digits 10? [2021/19]

- (a) 6
- (b) 7
- (c) 8
- (d) 9

Que 40. Consider all 3-digit numbers (without repetition of digits) obtained using three non-zero digits which are multiples of 3. Let S be their sum.

Which of the following is/are correct?

1. S is always divisible by 74.
2. S is always divisible by 9.

Select the correct answer using the code given below: [2021/36]

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

Que 41. What is the value of 'X' in the sequence 2, 7, 22, 67, 202, X, 1822? [2021/50]

- (a) 603
- (b) 605
- (c) 607
- (d) 608

Que 42. When a certain number is multiplied by 7, the product entirely comprises ones only (1111...). What is the smallest such number? [2021/79]

- (a) 15713
- (b) 15723
- (c) 15783
- (d) 15873

Que 43. How many zeroes are there at the end of the following product? [2020/7]

$1 \times 5 \times 10 \times 15 \times 20 \times 25 \times 30 \times 35 \times 40 \times 45 \times 50 \times 55 \times 60$

- (a) 10
- (b) 12
- (c) 14
- (d) 15

Que 44. Let p, q, r and s be natural numbers such that $p - 2016 = q + 2017 = r - 2018 = s + 2019$ Which one of the following is the largest natural number? [2020/9]

- (a) p
- (b) q
- (c) r
- (d) s

Que 45. How many five-digit prime numbers can be obtained by using all the digits 1, 2, 3, 4 and 5 without repetition of digits? [2020/10]

- (a) Zero
- (b) One
- (c) Nine
- (d) Ten

Que 46. How many integers are there between 1 and 100 which have 4 as a digit but are not divisible by 4? [2020/37]

- (a) 5
- (b) 11
- (c) 12
- (d) 13

Que 47. What is the largest number among the following? [2020/50]

- (a) $\left(\frac{1}{2}\right)^{-6}$
- (b) $\left(\frac{1}{4}\right)^{-3}$

- (c) $\left(\frac{1}{3}\right)^{-4}$
- (d) $\left(\frac{1}{6}\right)^{-2}$

Que 48. What the greatest length x such that $3\frac{1}{2}$ m and $8\frac{3}{4}$ m are integral multiples of x? [2020/51]

- (a) $1\frac{1}{2}$ m
- (b) $1\frac{1}{3}$ m
- (c) $1\frac{1}{4}$ m
- (d) $1\frac{3}{4}$ m

Que 49. The recurring decimal representation 1.272727... is equivalent to? [2020/53]

- (a) $13/11$
- (b) $14/11$
- (c) $127/99$
- (d) $137/99$

Que 50. What is the least four-digit number when divided by 3, 4, 5 and 6 leaves a remainder 2 in each case? [2020/54]

- (a) 1012
- (b) 1022
- (c) 1122
- (d) 1222

Que 51. What is the remainder when $51 \times 27 \times 35 \times 62 \times 75$ is divided by 100? [2020/56]

- (a) 50
- (b) 25
- (c) 5
- (d) 1

Que 52. For what value of it, the sum of digits in the number $(10^n + 1)$ is 2? [2020/58]

- (a) For n = 0 only
- (b) For any whole number n

- (c) For any positive integer n only
 (d) For any real number n

Que 53. How many pairs of natural numbers are there such that the difference of whose squares is 63? [2020/75]

- (a) 3
 (b) 4
 (c) 5
 (d) 2

Que 54. Which one of the following will have minimum change in its value if 5 is added to both numerator and the denominator of the fractions $2/3$, $3/4$, $4/5$ and $5/6$? [2020/76]

- (a) $2/3$
 (b) $3/4$
 (c) $4/5$
 (d) $5/6$

Que 55. A digit $n > 3$ is divisible by 3 but not divisible by 6. Which one of the following is divisible by 4? [2020/77]

- (a) $2n$
 (b) $3n$
 (c) $2n+4$
 (d) $3n+1$

Que 56. The number of times the digit 5 will appear while writing the integers from 1 to 1000 is? [2019/9]

- (a) 269
 (b) 271
 (c) 300
 (d) 302

Que 57. In a school every student is assigned a unique identification number. A student is a football player if and only if the identification number is divisible by 4, whereas a student is a cricketer if and only if the identification number is divisible by

6. If every number from 1 to 100 is assigned to a student, then how many of them play cricket as well as football? [2019/15]

- (a) 4
 (b) 8
 (c) 10
 (d) 12

Que 58. If the numerator and denominator of a proper fraction are increased by the same positive quantity which is greater than zero, the resulting fraction is [2019/50]

- (a) always less than the original fraction
 (b) always greater than the original fraction
 (c) always equal to the original fraction
 (d) such that nothing can be claimed definitely

Que 59. A printer numbers the pages of a book starting with 1 and uses 3089 digits in all. How many pages does the book have? [2019/53]

- (a) 1040
 (b) 1048
 (c) 1049
 (d) 1050

Que 60. Number 136 is added to $5B7$ and the sum obtained is $7A3$, where A and B are integers. It is given that $7A3$ is exactly divisible by 3. The only possible value of B is? [2019/60]

- (a) 2
 (b) 5
 (c) 7
 (d) 8

Que 61. Sunita cuts a sheet of paper into three pieces. Length of first piece is equal to the average of the three single digit odd prime numbers. Length of the second piece is equal to that of the first plus one-third the length of the third. The

third piece is as long as the other two pieces together. The length of the original sheet of paper is [2019/69]

- (a) 13 units
- (b) 15 units
- (c) 16 units
- (d) 30 units

Que 62. An 8-digit number 4252746B leaves remainder 0 when divided by 3. How many values of B are possible? [2019/75]

- (a) 2
- (b) 3
- (c) 4
- (d) 6

Que 63. Consider the following sum:

$$\bullet + 1 \bullet + 2 \bullet + \bullet 3 + \bullet 1 = 21 \bullet$$

In the above sum, $\bullet$ stands for [2018/2]

- (a) 4
- (b) 5
- (c) 6
- (d) 8

Que 64. If X is between -3 and -1, and Y is between -1 and 1, then $X^2 - Y^2$ is in between which of the following? [2018/23]

- (a) -9 and 1
- (b) -9 and -1
- (c) 0 and 8
- (d) 0 and 9

Que 65. X and Y are natural numbers other than 1, and Y is greater than X. Which of the following represents the largest number? [2018/24]

- (a) XY
- (b) X/Y
- (c) Y/X
- (d) (X+Y)/XY

Que 66. While writing all the numbers from 700 to 1000, how many numbers occur in which the digit at hundred's place is greater than the digit at ten's place, and the digit at tens place is greater than the digit at unit's place? [2018/36]

- (a) 61
- (b) 64
- (c) 85
- (d) 91

Que 67. Certain 3-digit numbers have following characteristics:

1. All the three digits are different.
2. The number is divisible by 7.
3. The number on reversing the digits is also divisible by 7.

How many such 3-digit numbers are there? [2017/49]

- (a) 2
- (b) 4
- (c) 6
- (d) 8

Que 68. How many numbers are there between 99 and 1000 such that the digit 8 occupies the units place? [2017/51]

- (a) 64
- (b) 80
- (c) 90
- (d) 104

Que 69. What is the total number of digits printed, if a book containing 150 pages is to be numbered from 1 to 150? [2017/80]

- (a) 262
- (b) 342
- (c) 360
- (d) 450

Que 70. If R and S are different integers both divisible by 5, then which of the following is **not necessarily true**? [2016/62]

- (a) R - S is divisible by 5
- (b) R + S is divisible by 10
- (c) R x S is divisible by 25
- (d) $R^2 + S^2$ is divisible by 5

Que 71. How many numbers are there between 100 and 300 which either begin with or end with 2? [2016/63]

- (a) 110
- (b) 111
- (c) 112
- (d) None of the above

Answers to Numbers

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
D	D	B	B	D	C	C	D	D	B	C	C	D	B	A

16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
A	A	D	D	C	A	A	C	D	C	A	D	A	B	D

31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
D	D	C	D	B	C	B	D	D	C	C	D	A	C	A

46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
C	C	D	B	B	A	B	A	D	D	C	B	B	C	D

61	62	63	64	65	66	67	68	69	70	71
D	C	D	D	A	C	B	C	B	B	A

Averages

Que 1. Consider the following:
Weight of 6 boys = Weight of 7 girls =
Weight of 3 men = Weight of 4 women
If the average weight of the women is 63 kg, then what is the average weight of the boys? [2024/36]

- (a) 40 kg
- (b) 42 kg
- (c) 45 kg
- (d) 63 kg

Que 2. In an examination, the maximum marks for each of the four papers namely P, Q, R and S are 100. Marks scored by the students are in integers. A student can score 99% in n different ways. What is the value of n? [2023/65]

- (a) 16
- (b) 17
- (c) 23
- (d) 35

Que 3. There are large number of silver coins weighing 2 gm, 5 gm, 10 gm, 25 gm, 50 gm each. Consider the following statements:

1. To buy 78 gm of coins one must buy at least 7 coins.
2. To weigh 78 gm using these coins one can use less than 7 coins.

Which of the following statements given above is/are correct? [2023/69]

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

Que 4. On one side of a 1.01 km long road, 101 plants are planted at equal distance from each other. What is the total

distance between 5 consecutive plants? [2022/26]

- (a) 40 m
- (b) 40.4 m
- (c) 50 m
- (d) 50.5 m

Que 5. The average weight of A, B, C is 40 kg, the average weight of B, D, E is 42 kg and the weight of F is equal to that of B. What is the average weight of A, B, C, D, E and F? [2022/80]

- (a) 40.5 Kg
- (b) 40.80 Kg
- (c) 41 Kg
- (d) Can not be determined as data is inadequate.

Que 6. There are two Classes A and B having 25 and 30 students respectively. In Class-A the highest score is 21 and lowest score is 17. In Class-B the highest score is 30 and lowest score is 22. Four students are shifted from Class-A to Class-B.

Consider the following statements:

1. The average score of Class-B will definitely decrease.
2. The average score of Class-A will definitely increase.

Which of the above statements is/are correct? [2021/37]

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

Que 7. Consider the following addition problem: $3P + 4P + PP + PP = RQ2$; where P, Q and R are different digits. What is the

arithmetic mean of all such possible sums? [2021/59]

- (a) 102
- (b) 120
- (c) 202
- (d) 220

Que 8. Consider the following data.

	Average marks in English	Average marks in Hindi
Girls	9	8
Boys	8	7
Average marks	8.8	x

What is the value of x in the able table? [2020/18]

- (a) 7.8
- (b) 7.6
- (c) 7.4
- (d) 7.2

Que 9. The average age of a teacher and three students is 20 years. If all the three students are of same age and the difference between the age of the teacher and each student is 20 years, then what is the age of the teacher? [2020/39]

- (a) 25 years
- (b) 30 years
- (c) 35 years
- (d) 45 years

Que 10. In a class, there are three groups A, B and C. If one student from group A and two students from group B are shifted to group C, then what happens to the average weight of the students of the class? [2020/59]

- (a) It increases.
- (b) It decreases.

(c) It remains the same.

(d) No conclusion can be drawn due to insufficient data.

Que 11. The average score of a batsman after his 50th innings was 46.4. After 60th innings, his average Score increases by 2.6. What was his average score in the last ten innings? [2020/69]

- (a) 122
- (b) 91
- (c) 62
- (d) 49

Que 12. The average marks of 100 students are given to be 40. It was found later that marks of one student were 53 which were misread as 83. The corrected mean marks are [2019/40]

- (a) 39
- (b) 39.7
- (c) 40
- (d) 40.3

Que 13. A family has two children along with their parents. The average of the weights of the children and their mother is 50 kg. The average of the weights of the children and their father is 52 kg. If the weight of the father is 60 kg, then what is the weight of the mother? [2019/55]

- (a) 48 kg
- (b) 50 kg
- (c) 52 kg
- (d) 54 kg

Que 14. Suppose the average weight of 9 persons is 50 kg. The average weight of the first 5 persons is 45 kg, whereas the average weight of the last 5 persons is 55 kg. Then the weight of the 5th person will be [2017/28]

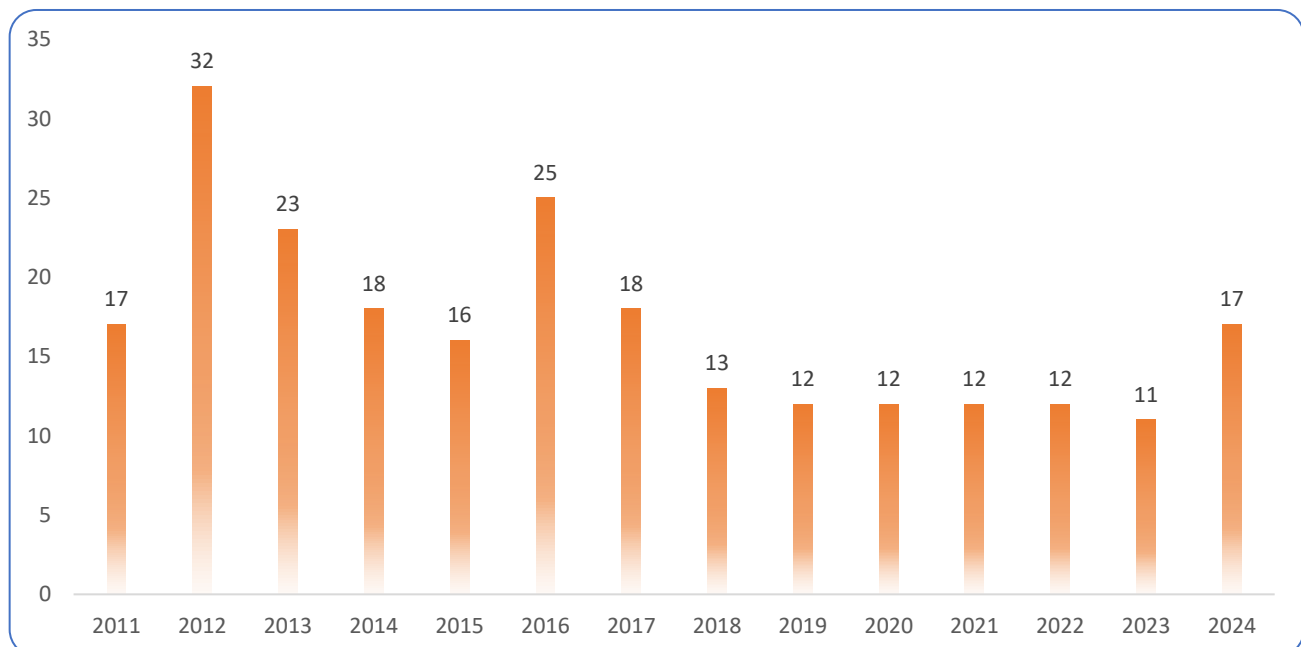
- (a) 45 kg
- (b) 47.5 kg
- (c) 50kg
- (d) 52.5 Kg

Logical Reasoning

Chart: Topic wise number of questions of Logical Reasoning from year 2011-2024

Sr No.	Topic	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
1	Directions	1			2	1	3			2	1	2	1		2	15
2	Inequalities					1	1		1					1		4
3	Coding						1	1	2		2	1		1	2	10
4	Syllogism	4	7			2		4	1	2	2	3	2	2	2	31
5	Data Sufficiency							1		2	5	5	5	5	11	34
6	Deduction	8	13	8	5	5	5	1								45
7	Ranking Puzzles	1	2	1	3	5	2	4		5				1		24
8	Sitting Array			1	1		1				1		3			7
9	Relationship							2		1	1		1	1		6
10	Correlations	3	10	13	7	2	12	5	9			1				62

Graph: Year wise number of questions of Logical Reasoning



Directions

Que 1. A person walks 100 m straight from his house, turns left and walks 100 m, again turns left and walks 300 m, then turns right and walks 100 m to reach his office. In which direction does he walk initially from his house if his office is exactly in the North-East direction? [2024/56]

- (a) North-West
- (b) West
- (c) South
- (d) South-West

Que 2. A person walks 100 m Westward, then turns left and walks 100 m. He then takes 225 degrees turn clockwise. In which direction is he walking now? [2024/57]

- (a) South-West
- (b) South-East
- (c) North-West
- (d) North-East

Que 3. Two friends X and Y start running and they run together for 50 m in the same direction and reach a point, X turns right and runs 60 m, while Y turns left and runs 40 m. Then X turns left and runs 50 m and stops, while Y turns right and runs 50 m and then stops. How far are the two friends from each other now? [2022/6]

- (a) 100 m
- (b) 90 m
- (c) 60 m
- (d) 50 m

Que 4. A bank employee drives 10 km towards South from her house and turns to her left and drives another 20 km. She again turns left and drives 40 km, then she turns to her right and drives for another 5 km. She again turns to her right and drives another 30 km to reach her

bank where she works. What is the shortest distance between her bank and her house? [2021/18]

- (a) 20 km
- (b) 25 km
- (c) 30 km
- (d) 35 km

Que 5. A woman runs 12 km towards her North, then 6 km towards her South and then 8 km towards her East. In which direction is she from her starting point? [2021/20]

- (a) An angle less than 45° South of East
- (b) An angle less than 45° North of East
- (c) East An angle more than 45° South of East
- (d) East An angle more than 45° North of East

Que 6. A man walks down the backside of his house straight 25 meters, then turns to the right and walks 50 meters again; then he turns towards left and again walks 25 meters. If his house faces to the East, what is his direction from the starting point? [2020/31]

- (a) South-East
- (b) South-West
- (c) North-East
- (d) North-West

Que 7. P, Q and R are three towns. The distance between P and Q is 60 km, whereas the distance between P and R is 80 km. Q is in the West of P and R is in the South of P. What is the distance between Q and R? [2019/30]

- (a) 140 km
- (b) 130 km
- (c) 110 km
- (d) 100 km

Que 8. 'A' started from his house and walked 20 m towards East, where his friend B joined him. They together walked

10 m in the same direction. Then 'A' turned left while 'B' turned right and travelled 2 m and 8 m respectively. Again 'B' turned left to travel 4 m followed by 5 m to his right to reach his office. 'A' turned right and travelled 12 m to reach his office. What is the shortest distance between the two offices? [2019/57]

- (a) 15 m
- (b) 17 m
- (c) 19 m
- (d) 20 m

Que 9. A person X was driving in a place where all roads ran either north-south or east-west, forming a grid. Roads are at a distance of 1 km from each other in a parallel. He started at the intersection of two roads, drove 3 km north, 3 km west and 4 km south. Which further route could bring him back to his starting point, if the same route is not repeated? [2016/9]

- (a) 3 km east, then 2 km south
- (b) 3 km east, then 1 km north
- (c) 1 km north, then 2 km west
- (d) 3 km south, then 1 km north

Que 10. A person climbs a hill in a straight path from point 'O' on the ground in the direction of north-east and reaches a point 'A' after travelling a distance of 5 km. Then, from the point 'A' he moves to point 'B' in the direction of north-west. Let the distance AB be 12 km. Now, how far is the person away from the starting point 'O'? [2016/49]

- (a) 7 km
- (b) 13 km
- (c) 17 km
- (d) 11 km

Que 11. A person walks 12 km due north, then 15 km due east, after that 19 km due west and then 15 km due south. How far is he from the starting point? [2016/58]

- (a) 5 km
- (b) 9 km

- (c) 37 km
- (d) 61 km

Que 12. Shahid and Rohit start from the same point in opposite directions. After each 1 km, Shahid always turns left and Rohit always turns right. Which of the following statements is correct? [2015/33]

- (a) After both have travelled 2 km. the distance between them is 4 km.
- (b) They meet after each has travelled 3 km.
- (c) They meet for the first time after each has travelled 4 km
- (d) They go on without ever meeting again.

Que 13. Consider the following statements: [2014/10]

There are six villages A, B, C, D, E and F.

F is 1 km to the west of D.

B is 1 km to the east of E.

A is 2 km to the north of E.

C is 1 km to the east of A.

D is 1 km to the south of A.

Which three villages are in a line?

- (a) A, C, B
- (b) A, D, E
- (c) C, B, F
- (d) E, B, D

Que 14. Location of B is north of A and location of C is east of A. The distances AB and AC are 5 km and 12 km respectively. The shortest distance (in km) between the locations B and C is [2014/68]

- (a) 60
- (b) 13
- (c) 17
- (d) 7

Que 15. The houses of A and B face each other on a road going north-south, A's being on the western side. A comes out of his house, turns left, travels 5 km, turns right, travels 5 km to the front of D's house. B does exactly the same and reaches the front of C's house. In this

context, which one of the following statements is correct? [2011/51]

- (a) C and D live on the same street.
- (b) C's house faces south.
- (c) The houses of C and D are less than 20 km apart.
- (d) None of the above

Answers to Directions

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	D	A	B	B	D	D	B	B	B	A	B	B	B	C

Inequalities

Que 1. Consider the following:

I. $A + B$ means A is neither smaller nor equal to B.

II. $A - B$ means A is not greater than B.

III. $A \times B$ means A is not smaller than B.

IV. $A \div B$ means A is neither greater nor equal to B.

V. $A \pm B$ means A is neither smaller nor greater than B.

statement: $P \times Q$, $P - T$, $T \div R$, $R \pm S$

Conclusion-1: $Q \pm T$

Conclusion-2: $S + Q$

Which one of the following is correct in respect of the above Statement and the Conclusions? [2023/70]

- (a) Only Conclusion-1 follows from the Statement.
- (b) Only Conclusion-2 follows from the Statement.
- (c) Both Conclusion-1 and Conclusion-2 follow from the Statement.
- (d) Neither Conclusion-1 nor Conclusion-2 follows from the Statement.

Que 2. If $\text{Pen} < \text{Pencil}$, $\text{Pencil} < \text{Book}$ and $\text{Book} > \text{Cap}$, then which one of the following is always true? [2018/37]

- (a) $\text{Pen} > \text{Cap}$
- (b) $\text{Pen} < \text{Book}$
- (c) $\text{Pencil} = \text{Cap}$

(d) $\text{Pencil} > \text{Cap}$

Que 3. Consider the following statements:

1. Either A and B are of the same age or A is older than B

2. Either C and D are of the same age or D is older than C

3. B is older than C

Which of the following conclusions can be drawn from the above statements? [2016/32]

- (a) A is older than B
- (b) B and D are of the same age
- (c) D is older than C
- (d) A is older than C

Que 4. Examine the following statements:

1. Lady's finger is tastier than cabbage.

2. Cauliflower is tastier than lady's finger.

3. Cabbage is not tastier than peas.

The conclusion that can be drawn from these statements is that [2015/32]

- (a) peas are as tasty as lady's finger.
- (b) peas are as tasty as cauliflower and lady's finger.
- (c) cabbage is the least tasty of the four vegetables.
- (d) cauliflower is tastier than cabbage.

Answers to Inequalities

1	2	3	4
B	B	D	D