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TEST BOOKLET

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CSAT APTITUDE TEST– (4289) – 2024

Time Allowed: Two Hours   **Maximum Marks: 200**

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS BOOKLET **DOES NOT** HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.

2. ENCODE CLEARLY THE TEST BOOKLET SERIES **A, B, C** OR **D** AS THE CASE MAY BE IN THE APPROPRIATE PLACE IN THE ANSWER SHEET.

3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **DO NOT** write *anything else* on the Test Booklet.

4. This Test Booklet contains **80** items (Questions). Each item is printed in **English.** Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider most appropriate. In any case, choose **ONLY ONE** response for each item.

5. You have to mark all your responses **ONLY** on the separate Answer Sheet provided. See direction in the answers sheet.

6. All items carry equal marks. Attempt all items. Your total marks will depend only on the number of **correct responses** marked by you in the answer sheet. For **every incorrect** response **one-third** of the allotted **Marks** will be deducted.

7. Before you proceed to mark in the Answer sheet the response to various items in the Test booklet, you have to fill in some particulars in the answer sheets as per the instruction sent to you with your Admission Certificate.

8. After you have completed filling in all responses on the answer sheet and the examination has concluded, you should hand over to Invigilator only the answer sheet. You are permitted to take away with you the Test Booklet.

9. Sheets for rough work are appended in the Test Booklet at the end.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE ASKED TO DO SO

1

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

Passage – 1

Health practitioners and experts attending the inaugural Africa Climate Summit in Nairobi, Kenya, have expressed displeasure with the exclusion of health on the main agenda despite its inextricable link with climate change. Speaking at a side event within the summit, the specialists from the sector expressed worry that a comprehensive health standpoint is likely to miss from the 'Nairobi Declaration', which the meeting is intended to culminate in. The theme of the summit is "Driving green growth and climate finance solutions for Africa and the World". The Nairobi Declaration aims to give the African Group of Negotiators (AGN) a common voice ahead of the 28th Conference of Parties (COP28) to the United Nations Framework Convention on Climate Change to be held this year in the United Arab Emirates. The Acting Deputy Director General of Africa Centres for Disease Control and Prevention (Africa CDC) Ahmed Ouma Ogwell expressed regret that health had been excluded from the conference's main agenda. "Agriculture, health and development are suffering. So, bringing the health discussion onto the agenda of the climate change platform is essential for Africa," said Ogwell, stressing on the link between climate change and health. Any discussion about financing for climate change mitigation, building resilience and adaptation must include financing for the public health sector, which is equally strained, he said. "We must highlight the relationship between climate change, environment and health. We must have a clear approach on how best we can prevent the health disasters that come about as a result of the effects of climate change," said Ogwell.

1.   Which of the following subjects does the writer of the passage emphasise mostly?
     (a) Agriculture and health only.
     (b) Health only.
     (c) Environment, climate change and health only.
     (d) Green growth, climate finance and health only.

Passage – 2

India has made significant strides in electric vehicle (EV) battery research and more government focus can spur innovation in cell chemistry. Last week, Hyderabad-based Altmin, a Hyderabad-based battery material production and cell engineering company, collaborated with the International Advanced Research Centre for Powder Metallurgy and New Materials, an institution under the Union Ministry of Science and Technology to manufacture cathode active material for lithium-ion batteries (LIB). While the global EV industry has had an innovation trajectory of its own, India is not far behind when it comes to battery research. Vikram Sarabhai Space Centre, International Advanced Research Centre for Powder Metallurgy and New Materials and Nonferrous Materials Technology Development Centre have their own battery know-how and capabilities. Additionally, the Union Ministry of Electronics and Information Technology (MeitY) has set up its own pilot plants for manufacturing batteries as well as cells at the Centre for Materials for Electronics Technology, Pune. The Department of Science and Technology has also been proactive in holding dialogues with various institutes of higher education like the Indian Institutes of Technology, Indian Institute of Science and Indian Institutes of Science Education and Research and encouraging battery technology research and training programmes in these institutes. However, EV battery research is lacking in government sponsorship. Even though the Indian government, through its Advanced Chemistry Cell (ACC) Production-Linked Incentive (PLI) scheme, has laid out Rs 18,100 crore for manufacturing of ACC, it doesn't have a national programme to fund research and development into the latest technologies like SIB and SSB. The world transitioned from nickel cobalt aluminium chemistry to LFP within 15 years and is likely to shift to other latest technologies like SIB and SSB very soon. This is an opportunity for India to leapfrog in the battery race and put its money where the mouth is.

2. With reference to the above passage, which of the following can be attributed to the EV Industry in India?
1. Public-Private Partnership.
2. Indian research facilities have some expertise in EV batteries.
3. International collaborations.

Select the correct answer using the codes given below.
(a) 1 only
(b) 1 and 2 only
(c) 1, 2 and 3
(d) 2 only

3. Which of the following statements *best reflects the crucial message* conveyed by the author of the passage?
(a) Indian startups are making great strides in EV battery production.
(b) India's EV industry needs direct government backing in research for a technological transformation.
(c) Indian Space agencies are working to produce EV batteries for space missions.
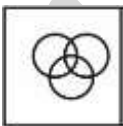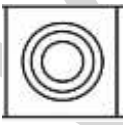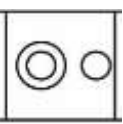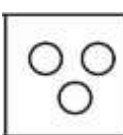(d) PLI scheme will make India a world leader in the latest technologies like SIB and SSB.

Direction for the following 3 (three) items:
Consider the following information and answer the three items that follow.
Nine persons A, B, C, D, E, F, G, H and J sit in a single row. They all face the same direction, but not necessarily in the same order.
C sits at an extreme end of the row. Two persons sit between C and F. More than two persons sit between F and J. J does not sit at an extreme end of the row. Three persons sit between B and D. G sits third to the left of B. E sits to the immediate right of H. B does not sit at extreme ends of the row.

4. How many persons sit between A and H?
(a) More than two persons
(b) Less than two persons
(c) Only one person
(d) Only two persons

5. Which of the following is correct with respect to the given arrangement?
(a) C and J sit at the extreme ends.
(b) B and D sit at the extreme ends.
(c) C and D sit at the extreme ends.
(d) C and G are not immediate neighbours.

6. If all the persons are rearranged according to alphabetical order, who would sit third to the left of G?
(a) C
(b) B
(c) D
(d) A

7. In an examination conducted for teachers, 24 teachers applied for primary level, 26 applied for junior level and 28 applied for Trained Graduate Teacher (TGT level). Among them 14 teachers applied for both primary and junior level, 12 teachers applied for both TGT and primary level, 15 teachers applied for both junior and TGT level, and 8 teachers applied for all the three categories. How many teachers applied for the examination in total?
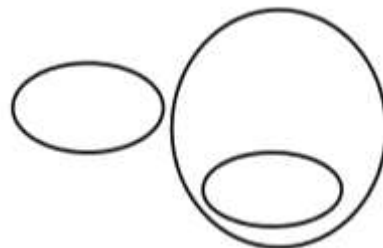(a) 35
(b) 45
(c) 49
(d) None of these

8. In a birthday party, 5% of the guests do not like the food, decoration and music; while 10% like all the three. 20% like food and decoration, 25% like food and music, 25% like music and decoration, 55% like food, 50% like decoration and 50% like music. The percent of guests who like both decoration and music but not food is:
(a) 25%
(b) 20%
(c) 15%
(d) 10%

9. In a security selection examination, 53% are selected in Army, 61% are selected in Navy, 60% are selected in Airforce, 24% in Army and Navy, 35% in Navy and Airforce, 27% in Army and Airforce, while 5% are not selected in any of these three. If total number of candidates is 300, how many are selected in only one of these?
(a) More than 50
(b) Less than 40
(c) 46
(d) 48

10. Consider the following entities.
Children below the age of 18 years. Persons enrolled in the voter list. Persons who have voted.
Select the appropriate diagram from the options given below, that aptly represents the relationship between these.

(a)

(b)

(c)

(d)

11. Consider the following.

$\_\_ > \_\_ < \_\_ \leq \_\_ > \_\_ \leq \_\_$

Which of the following should be placed in the blank spaces (in the same order from left to right) in order to complete the given inequality in such a manner that makes the expression 'L > M' definitely *false*?
(a) L, M, N, O, P, Q
(b) N, M, O, Q, P, L
(c) M, L, N, Q, O, P
(d) N, P, Q, M, O, L

12. Consider the figure given below:

The figure represents the relationship between which of the following sets correctly?
(a) Tea, beverages, coffee
(b) Authors, teachers, men
(c) Boys, students, athletes
(d) Sparrows, birds, mice

Directions for the following 3 (three) items:
*Read the following **three** passages and answer the items that follow each passage. Your answers to these items should be based on the passages only.*

Passage – 1

Ever since their colonisation of British cities sometime during the last century, urban red foxes (Vulpes vulpes) have become somewhat of a cultural phenomenon. Some people love them for their striking marmalade coats but others, including former prime minister Boris Johnson, think of them as a menace. In recent times, people seem to think urban foxes are becoming bolder and more cunning, "wreaking havoc in central London" by scavenging in bins for food scraps. But our recent study suggests that this popular portrayal may only be partially true for the species. Cities are dynamic places. The people, traffic, smells, noises and opportunities for food are constantly changing. This, in theory, should be ideal for bolder animals who would have the confidence to exploit resources like outdoor bins, for instance, despite the risk of coming into conflict with humans. Cunning animals would also be good at learning to push, pull or lift human-made materials such as bin lids and food containers to extract discarded food. In our recent study, we tested whether urban foxes have indeed become bolder and more cunning by comparing them to their countryside cousins. We gave a series of puzzle feeders to foxes in 104 urban and rural locations across a large area, from London to Edinburgh, and left them in place for two weeks. The food inside each puzzle could be released through simple actions such as removing lids or pulling sticks to dislodge food from pipes. Across all of our study locations, 96 foxes acknowledged the objects, most of which showed an initial avoidance of the puzzles. Around a third (31) touched the puzzles, but only 12 of those foxes persisted long enough to extract the food. We found urban foxes were more likely to interact with the puzzles than rural ones, suggesting they were bolder. However, when it came to their willingness to solve the puzzles, there was no difference between the two populations.

13. Which of the following statements best reflects the *most logical and rational message* conveyed by the author of the passage?
    (a) Bolder animals easily adjust to the urban culture.
    (b) Animal habitations have been reduced as cities become more populated.
    (c) Animals are not affected by the local culture beyond a certain point.
    (d) Colonisation by the British significantly reduced forest areas in their colonies.

Passage – 2

European honeybees can be an effective biomonitor for determining the spread of antimicrobial resistance (AMR) in urban neighbourhoods. A recent paper has found the insects can carry genetic elements of key AMR drivers in their digestive tracts. AMR is the ability of bacteria and other microbes to resist the drugs used to inhibit or kill them. The paper was published in the journal Environmental Science and Technology in July 2023. The dangerous rise of AMR could lead to up to 10 million deaths annually by 2050, a United Nations Environment Programme report released February 2023 found. This would be on par with the 2020 rate of global deaths from cancer. A World Health Organization report in 2022 showed that over 50 per cent of life-threatening bacterial infections are becoming resistant to treatment. The numbers were this high even though many countries could not report data for 2020 due to the novel coronavirus COVID-19 pandemic. The global health body had called for more research to discover why AMR had increased and the extent to which infections are related to hospitalisations and antibiotic treatments during the COVID-19 pandemic. European honeybees, or Apis mellifera, can be "crowdsourced" environmental proxy as they interact with contaminants in soil, dust, air, water and pollen while they forage, according to the scientists from Macquarie University, Australia. "Bees interact with human environments, so they are a really good indicator of pollution that may present risk of harm to humans," said first author Kara Fry from Macquarie University, reported news aggregator Phys.org. The researchers looked into the gut bacteria of 144 bees.

14. Which of the following statements can be *inferred* from the above passage?
1. AMR-related mortality will be equal to cancer-related deaths in 2050.
2. Covid 19 played an important role in the spread of AMR, globally.

Select the correct answer using the codes given below.
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Passage – 3

It could take 11 high-income countries over 200 years to reduce their 2022 greenhouse gas emissions by 95 per cent, according to a new analysis. If current trends continue, these countries would emit 27 times their fair share of the 1.5 degrees Celsius carbon budget, the study published in journal The Lancet Planetary Health stated. Fair share in carbon budgets is the amount of carbon dioxide (CO_2) that can still be emitted for a 50 percent chance of warming staying below 1.5°C. These 11 high-income countries are: Australia, Austria, Belgium, Canada, Denmark, France, Germany, Luxembourg, the Netherlands, Sweden and the United Kingdom. "Green growth is, therefore, not occurring and appears out of reach for high-income countries. Our findings suggest that the continued pursuit of economic growth in high-income countries is at odds with the climate and equity commitments of the Paris Agreement," researchers from the University of Leeds and the University of Barcelona wrote in their paper. The Paris Agreement is a treaty signed by 196 countries to limit "the increase in the global average temperature to well below 2°C above pre-industrial levels" and pursue efforts "to limit the temperature increase to 1.5°C above pre-industrial levels." Scientists have warned that green growth can only occur if decoupling is fast enough to reduce emissions consistent with the Paris Agreement. Decoupling, according to the study, is a decrease in CO_2 emissions per unit of gross domestic product (GDP). The researchers first identified 11 countries that achieved "absolute decoupling", which means those that decreased their CO_2 emissions alongside increasing GDP between 2013 and 2019. To do this, they collected GDP data from the World Bank and CO_2 emissions data from the Global Carbon Project. They compared each country's 'business-as-usual' emission cut rates in the future to the "Paris-compliant" rates needed to comply with their "fair share" of the respective global carbon budget.

15. Which of the following statements can be *inferred* from the above passage?
1. The 11 countries mentioned will never be able to reduce their greenhouse gas emissions by 100%.
2. Demands for a green growth align with the Paris Agreement.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

16. Given below are two statements and four conclusions.
Statements:
1. All automobiles are buses.
2. All buses are trains.
Conclusions:
1. All automobiles are trains.
2. Some buses are automobiles.
3. Some trains are buses.
4. Some trains are automobiles.
Read the Statements and choose which of the conclusions follow logically from the given two statements.
(a) None of the conclusions follow.
(b) Only conclusion 1 and 2 follow.
(c) Only conclusions 2, 3 and 4 follow.
(d) All the conclusions follow.

Direction for the following 3 (three) items:
Consider the given information and answer the three items that follow.
In a kindergarten eight kids J, K, L, M, N, O, P and R were sitting in a straight line facing the south direction. Two of them were sitting between K and J, and two were sitting between M and O. N was sitting 2nd to the left of O. L was sitting 2nd to the right of M. Either L or M were sitting at one of the extreme ends. J was neither an immediate neighbor of O, nor an immediate neighbor L. Two kids were sitting between P and R. P was not an immediate neighbor of J.

17. Who was sitting third to the left of L?

(a) No one

(b) J

(c) R

(d) M

18. How many kids were sitting between P and K?

(a) None

(b) More than four

(c) More than five

(d) Four

19. Who among the following were sitting at the extreme ends of the line?

(a) L, M

(b) L, N

(c) M, R

(d) M, J

20. Consider the following four sets of three sentences each.

I. Some cats are dogs. Some dogs are rats. Some cats are rats.

II. All bikes are cars. Some cars are trains. Some bikes are trains.

III. No book is pen. Only pens have colours . No book has colours.

IV. Some monkeys are goats. Some goats are white. Some monkeys are white.

Choose the set(s) in which the third statement is a logical conclusion of the first two.

(a) Only I and IV

(b) Only III

(c) Only IV

(d) None of these

21. Three statements followed by three conclusions are given below. You have to take the statements to be true even if they seem to be at variance from the commonly known facts. Read all the conclusions and then decide which of the given conclusion(s) logically follows/follow from the given statements, disregarding the commonly known facts.

Statements:

(i) All clothes are tablets.

(ii) No candy are clothes.

(iii) Some cakes are tablets.

Conclusions:

I. Some tablets are cakes.

II. No clothes are candy.

III. Some cakes are candy.

Choose the correct answer using the codes given below.

(a) Only I follows

(b) Only I and II follow

(c) Only III follows

(d) None follows

22. Three statements followed by three conclusions are given below. You have to take the statements to be true even if they seem to be at variance from the commonly known facts. Read all the conclusions and then decide which of the given conclusion(s) logically follows/follow from the statements, disregarding the commonly known facts.

Statements:

(i) All Spices are Jams.

(ii) All Jams are Breads.

(iii) All Rusks are Breads.

Conclusions:

I. No Spices is a Rusk.

II. Some Rusks are Jams.

III. Some Breads are Spices.

Choose the correct answer using the codes given below.

(a) Either I or III follows

(b) Only II and III follow

(c) Only III follows

(d) All follow

23. Consider the following statements and conclusions.

Statement:

I. P > M = C > L

II. X ≥ P > O

III. C ≤ B < Y

Conclusion:

I. O > M

II. M < Y

Assuming the given statements to be true, find which of the conclusions is/are definitely true.

(a) Only conclusion I follows

(b) Either conclusion I or II follows

(c) Only conclusion II follows

(d) Both conclusion I and II follow

Direction for the following 3 (three) items:

Consider the given information and answer the three items that follow.

A certain number of persons are sitting in a row facing the south direction. M sits fourth to the right of O. Only two persons sit between M and Q. R sits second to the right of Q. S sits fourth to the left of O. Not more than five persons sit between P and Q. P sits adjacent to S, but towards his right. Only three persons sit to the right of R.

24. How many persons sit between P and Q?

(a) Two

(b) Three

(c) Four

(d) Five

25. In the arrangement, who is sitting to the immediate right of Q?

(a) O

(b) R

(c) Cannot be determined

(d) M

26. How many persons are there in the row in total?

(a) More than 10 persons.

(b) Seventeen persons.

(c) Twelve persons.

(d) Eight persons.

27. If 3<x<6 and 8<y<12, then which of the following statements is correct?

(a) Largest integer value of x+y is 17 when both x and y are integers.

(b) Largest integer value of x+y is 16 when both x and y are non-integers.

(c) Either the value of x or the value of y should be given for calculating the largest integer value of x+y.

(d) None of the above.

Directions for the following 3 (three) items:

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

Passage – 1

Throughout history, people and societies have adjusted to and coped with changes in climate and extremes with varying degrees of success. Climate change (drought in particular) has been at least partly responsible for the rise and fall of civilizations. Earth's climate has been relatively stable for the past 10,000 years, and this stability has allowed for the development of our modern civilization and agriculture. Our modern life is tailored to that stable climate, not the much warmer climate of the next thousand years. As our climate changes, we will need to adapt. The faster the climate changes, the more difficult it will be. While climate change is a global issue, it is felt on a local scale. Local governments are therefore at the frontline of adaptation. Cities and local communities around the world have been focusing on solving their climate problems. They are working to build flood defences, plan for heat waves and higher temperatures, install better-draining pavements to deal with floods and stormwater, and improve water storage and use.

28. Based on the above passage, the following *assumptions* have been made:

1. In the process of climate change adaptation, the role of local governments is more important than national governments.

2. People and societies have had a minimal role in accelerating climate change across the earth.

Which of the above assumptions is/are valid?

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

29. Which of the following statements *best reflects the crux* of the passage?

(a) Considering the possible devastation of climate change, adaptations at the local level can help our modern lives to continue with stability.

(b) Despite being a global issue, climate change requires interventions at the local level for its reversal.

(c) For a stable modern life, people should not only focus on local adaptation but also work towards global mitigation of climate change.

(d) Unless the adaptations at the local level are done, it would be challenging to tackle climate change at the global level.

Passage – 2

An energy source is a necessary element of socio-economic development. The increasing economic growth of developing nations in the last decades has caused an accelerated increase in energy consumption. This trend is anticipated to grow. A prediction of future power consumption is essential for the investigation of adequate environmental and economic policies. Likewise, an outlook on future power consumption helps to determine future investments in renewable energy. Energy supply and security have not only increased the essential issues for the development of human society but also for their global political and economic patterns. Hence, international comparisons are helpful to identify past, present, and future power consumption.

30. Which of the following statements *best reflects the logical inference* from the passage given above?

(a) Unlike developed nations, it's the developing nations which are more likely to be dependent on renewable energy in future.

(b) Estimation of future energy demands will help in the smooth transition to renewable sources of energy.

(c) In the context of energy supply across the world, the past is fossil and solar energy is the future.

(d) For fair future estimation of energy demands, understanding the history of renewable energy share in different countries across the globe is important.

Direction for the following 4 (four) items:

Consider the following information and answer the four items that follow.

Twelve persons B, C, E, G, J, L, N, P, Q, S, U and W sit around a hexagonal table, but not necessarily in the same order. Six persons sitting at the corners are facing towards the center, while six persons sitting at the middle of the edges are facing away from the center.

Four persons sit between E and N. N sits to the immediate left of S. C sits second to the left of W. B sits fourth to the right of J, who faces away from the center. P sits third to the right of U and is adjacent to S and J. Only one person sits between B and L. L sits to the immediate right of Q. Neither E nor W sits adjacent to B.

31. Which of the following are sitting facing away from the center?

(a) C, W, U

(b) B, E, L

(c) G, B, L

(d) U, S, Q

32. Which of the following statements is **correct**?

(a) C is sitting adjacent to G.

(b) B is sitting facing towards the center.

(c) B and L are the neighbors of G.

(d) U and Q are not adjacent to each other.

33. In the given arrangement, who is sitting seventh to the left of G?

(a) J

(b) U

(c) N

(d) W

34. Find out the odd triplet from the options given below.

(a) J, W, E

(b) U, N, S

(c) P, S, N

(d) G, L, C

35. Consider the Question and two Statements given below.

Question: A, B, C, D and E are five persons in a group. How many persons are taller than E?

Statement-1: B is shorter than only A and E.

Statement-2: C is shorter than A, who is shorter than E.

Which one of the following is correct in respect of the above Question and the Statements?

(a) The Question can be answered using Statement-1 alone.

(b) The Question can be answered using either of the Statements alone.

(c) The Question can be answered using both the Statements together, but cannot be answered using either Statement alone.

(d) The Question cannot be answered even by using both the Statements together.

36. Of the 500 patients who were checked for allergic diseases/symptoms, 40% had allergy from pollen, 50% had allergy from fur and 60% had allergy from dust. If all the patients had at least one of the aforesaid allergies and 20% of the patients had exactly two of the aforesaid allergies, how many of the patients had only one of these allergies?

(a) 275

(b) 300

(c) 325

(d) 350

37. Out of 50 applicants for a job, 24 had at least 2 years of experience, 30 had MBA degrees, and 5 had less than 2 years of experience and did not have an MBA degree. Find the ratio of the number of applicants having an MBA degree but less than 2 years of experience and the number of applicants having at least 2 years of experience and an MBA degree.

(a) 9:4

(b) 7:3

(c) 8:3

(d) 5:4

Directions for the following 2 (two) items:

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

Passage – 1

Many who struggle to secure the financial resources they require often, find themselves unduly swayed by the perspectives of others. They allow newspapers and gossipy neighbours to mould their beliefs and guide their thinking. Opinions, however, are abundant and often come at little cost. They can be readily imparted to anyone willing to accept them. Relying on the judgments of others to make decisions can undermine one's success in any pursuit. True success arises from the ability to sift through external influence, cultivating independent, informed decisions based on a clear understanding of one's goals.

38. Which of the following statements *best reflects what the passage implies*?

(a) If one wants to succeed in life, he/she should avoid newspapers and not listen to any person.

(b) The most important negative impact of opinions in one's life is on the financial aspect of life.

(c) It is not the opinion or gossip which fails a person but a lack of inner conviction and well-reasoned choices.

(d) People's opinion compromises the independent ability to make informed decisions for success.

Passage – 2

When businesses prioritize transparency, accountability, and ethical practices in their operations, they create a foundation of trust with stakeholders, including suppliers and customers. This trust forms the basis for strong, mutually beneficial relationships along the supply chain. Effective governance ensures that companies maintain rigorous standards in areas like risk management, compliance with regulations, and responsible environmental and social practices. These factors are vital for supply chain stability, as they reduce the likelihood of disruptions and costly setbacks. Furthermore, good governance practices foster innovation and adaptability, enabling businesses to respond swiftly to changing market conditions and emerging challenges.

39. Which one of the following statements ***best reflects the crux*** of the passage?

(a) People should be the centre point of any business to succeed in today's dynamic business landscape.

(b) With the changing business landscape, it is important to adopt principles of responsible environmental and social practices in business.

(c) Trust, innovation, adaptability, and swift response to changing market conditions are the foundations of good corporate governance.

(d) Good corporate governance is not just a set of principles; it's a fundamental driver of supply chain strength and resilience in today's dynamic business landscape.

40. Read the two statements given below and choose the most logical conclusion that is true based on the statements:

Statement 1: All A's are Z.

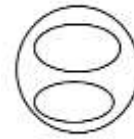Statement 2: All B's are Z.

Conclusion 1: Some A's are B

Conclusion 2: No B are A.

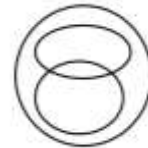Select the correct answer using the codes given below.

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

41. Which of the following figures correctly demonstrate the relationship between natural numbers, even numbers and prime numbers?
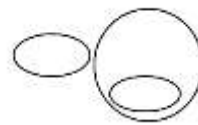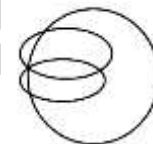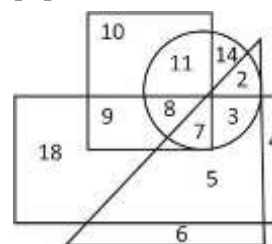
(a)
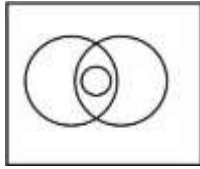

(b)

(c)

(d)

42. In the figure given below, circle represents the urban population, square represents the educated population, rectangle represents the working population and triangle represents the clever population.

What is the number of urban educated people who are clever?

(a) 12

(b) 9

(c) 7

(d) 5

43. Consider the following Venn diagram.

The above Venn diagram represents the relationship among which of the following entities?
(a) Singer, Writer, Musician
(b) Vegetarian, Cow, Lion
(c) Furniture, Table, Chair
(d) Punjab, Chandigarh, Haryana

Direction for the following 3 (three) items:
Consider the following information and answer the three items that follow.
Eight friends F, M, N, O, P, R, S and T are sitting around a circular table facing the centre. P is 3rd to the right of M and to the immediate right of S. T is 3rd to the left of S. O is to the immediate right of N and to the immediate left of F.

44. Who is sitting fifth to the right of R?
(a) O
(b) T
(c) F
(d) S

45. How many persons are sitting between M and O when counting from the right side of M?
(a) Less than three
(b) More than five
(c) Only four
(d) Only five

46. Find the odd pair in the options given below.
(a) R, S
(b) P, F
(c) M, T
(d) S, P

Direction for the following 2 (two) items:
Consider the following information and answer the two items that follow.

In a school during lunch break seven friends decided to sit around a circular table. Only four of them were facing the center.
C was sitting 3rd to the left of D and both of them were facing the center. E was neither sitting adjacent to C nor sitting adjacent to D. The only person sitting between D and F was not facing the center. G was sitting 3rd to the right of A and was facing the center. One of the immediate neighbors of B was not facing the center. E and F were sitting across the table facing away from each other.

47. Who among the following was facing away from the center?
(a) C
(b) G
(c) B
(d) F

48. Who was sitting 4th to the left of G?
(a) C
(b) A
(c) B
(d) F

49. Ten new magazines were started in January; 5 by company A, 3 by company B and 2 by company C. By April, only seven of the new magazines were still being published, five of them were by company A.
Which of following conclusion logically follows from the information given above?
(a) Only one magazine from Company C is still being published.
(b) Readers prefer company A over company B.
(c) At least one discontinued magazine was from company B.
(d) Only one magazine from company B is still being published.

Directions for the following 3 (three) items:

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

Passage – 1

Strengthening education in rural India is not merely a matter of policy; it's a necessity for fostering inclusive development and reducing socio-economic disparities. Rural areas often face a multitude of challenges in providing quality education, including inadequate infrastructure, a shortage of qualified teachers, and limited access to educational resources. Investing in rural education holds immense potential for transforming lives and communities. It empowers individuals with knowledge and skills, enhancing their employability and income-earning prospects. Furthermore, an educated rural populace is better equipped to make informed decisions about health, sanitation, and sustainable agricultural practices, leading to improved living conditions. Additionally, education can help bridge the urban-rural divide by enabling rural youth to actively participate in emerging sectors, including technology and entrepreneurship. This can lead to more balanced regional development and reduce migration pressures on already overcrowded cities. To realize India's full potential, policymakers must prioritize rural education, allocate resources, and implement comprehensive reforms to ensure that quality education is accessible to every child. In doing so, they can unlock the untapped potential of rural India and drive the nation's overall progress.

50. Based on the above passage, the following *assumptions* have been made:
   1. Lack of education in rural youth is one of the causes of their poor participation in sectors such as technology and entrepreneurship.
   2. Rural education could lead to emigration from urban centres leading to balanced regional development.

   Which of the above assumptions is/are *invalid*?
   (a) 1 only
   (b) 2 only
   (c) Both 1 and 2
   (d) Neither 1 nor 2

Passage – 2

Hard work has been romanticized since corporations existed. In the business world, idioms about how sleep is for the weak or how no amount of talent can supersede hard work were doled out for decades. The underlying assumption was that if you worked hard enough for long enough, you would succeed. However, this advice misses one big point: Most people fail not because of a lack of effort but because their effort was misdirected or misaligned with their interests. People who make informed and intelligent choices about the work they choose to focus on have been quicker to reach success. Hard work has helped them get there, but only because they've chosen to focus on tasks, projects, and roles that align with their long-term growth goals.

51. Which one of the following statements **best reflects the crux** of the passage?
   (a) Capitalists have used the hard work of their employees as a tool for the promotion of their self-interests.
   (b) For success, people should not focus on hard work but value informed and intelligent choices in their lives.
   (c) Without informed and intelligent choices aligned with long-term growth goals, achieving success in life would be difficult.
   (d) Informed and intelligent life choices, along with hard work, are equally important for anyone to be successful.

Passage – 3

In the context of GM crops, the precautionary principle demands rigorous scrutiny. While proponents argue that GM crops can enhance yields, reduce pesticide use, and alleviate food shortages, there are concerns about long-term environmental impacts, potential allergenicity, and the monopolistic control of seed markets by a few biotechnology companies. The lack of emphasis on the precautionary principle in GM crop discussions can result in hasty approvals and inadequate safety assessments. Policymakers, scientists, and stakeholders must prioritize comprehensive, independent research and transparent risk assessments to ensure the responsible development and deployment of GM crops, considering the precautionary principle to safeguard both our ecosystems and human health. Ignoring this principle could have irreversible consequences for our environment and future generations.

52. Which of the following statements *best reflects the crux* of the passage?

   (a) Few biotechnology companies should not be allowed to monopolize the GM crop seed market.

   (b) The precautionary principle may counter the concerns related to the development of GM crops.

   (c) In the future, despite the precautionary principle, GM crops could be a double-edged sword for society.

   (d) Only focusing on the precautionary principle is not enough to address the possible concerns related to GM crops. Grassroot participation of farmers is essential for this cause.

53. Examine the following statements:

   1. Only those who have a telescope can be members of astronomy club.

   2. Some members of astronomy club have cameras.

   3. Those members who have cameras can take part in photo-contest.

   Which of the following conclusions can be drawn from the above statements?

   (a) All those who have a telescope are members of astronomy club.

   (b) All members of astronomy club have telescope.

   (c) All those who take part in photo contests are members of astronomy club.

   (d) No conclusion can be drawn

54. 78 people are surveyed about their preferences regarding some mobile phones - Samsung, Apple or OnePlus. Of these 36 like Samsung, 48 like Apple while 32 like OnePlus. 14 like both Samsung and Apple, 20 like both Apple and OnePlus and 12 like both One Plus and Samsung. Find the ratio of the number of people who like only Samsung to the number of people who like only OnePlus.

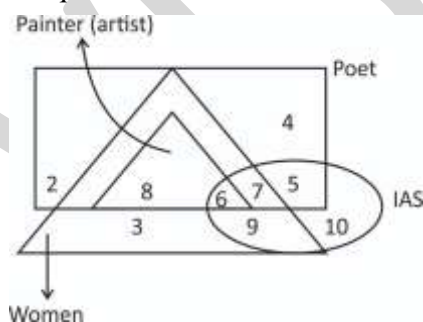   (a) 9:3

   (b) 12:7

   (c) 3:2

   (d) None of these

55. Three subjects – Accounts, Business Studies and Commerce are taught by three teachers who wore coats of black, blue and orange colours (not necessarily in that order) and tie of green, yellow and orange colours (not necessarily in that order). No teacher wore coat and tie of same color. Further, it is given that

1. Accounts teacher did not wear coat of black colour.
2. Business Studies teacher did not wear coat of blue colour.
3. Commerce teacher did not wear coat of orange colour.
4. Accounts teacher did not wear tie of green colour.
5. Business studies teacher wore tie of orange colour.

What are the respective colours of tie and coat worn by Commerce teacher?

(a) Orange and Black
(b) Green and Blue
(c) Blue and Green
(d) Yellow and black.

56. Study the following Venn diagram and answer the question that follows.

Painter (artist)

Poet

4

2   8   6 7 5   IAS

3   9   10

Women

How many women painters are IAS?

(a) 9
(b) 13
(c) 6
(d) 18

57. For Independence Day celebrations, all students participated either in singing or dancing. If 420 students participated in singing, 450 students participated in dancing and 120 students participated in both, then what is the total number of participants?

(a) 870
(b) 950
(c) 750
(d) None of these

Directions for following 3 (three) items:
Read the information given below and answer the three items that follow.

A class has 120 students, roll numbers 1 through 120. All the students with even roll numbers opt for Science, students whose numbers are divisible by 5 opt for Arts and those whose roll numbers are divisible by 7 opt for Literature. 12 students study Arts and Science, 3 students study Arts and Literature, 8 students study Science and Literature and 1 student studies all these three subjects.

58. How many opt for neither Science nor Arts?

(a) 48
(b) 36
(c) 60
(d) 78

59. On a particular day, only Science, Arts and Literature classes are scheduled. How many students have no classes on that day?

(a) 41
(b) 47
(c) 44
(d) 42

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60. How many students opt for exactly 2 subjects from amongst Arts, Science and Literature?

(a) 23

(b) 24

(c) 21

(d) 20

Direction for the following 3 (three) items:

Consider the following information and answer the three items that follow.

Eight persons are sitting in a straight line facing the north. Two people sit between P and R. Neither P nor R sit at the extreme ends. V and T are immediate neighbors of each other. S sits at one of the extreme ends. Two people sit between S and T. R sits 2nd to the right of V. R sits 3rd from one of the ends. U sits to the left of T, but to the right of Q. W sits to the right of Q.

61. Find the odd pair among the following.

(a) P, Q

(b) U, V

(c) T, R

(d) T, W

62. Who is sitting to the immediate right of W?

(a) Q

(b) U

(c) R

(d) S

63. How many persons are sitting between U and W?

(a) Three

(b) Two

(c) Four

(d) One

64. Three statements followed by three conclusions are given below. You have to take the statements to be true even if they seem to be at variance from the commonly known facts. Read all the conclusions and then decide which of the given conclusion(s) logically follows/follow from the statements, disregarding the commonly known facts.

Statements:

(i) All hens are chairs.

(ii) Some hats are chairs.

(iii) All toys are Hats.

Conclusions:

I. All toys are chairs.

II. Some hens are hats.

III. Some toys are hens.

Select the correct answer using the codes given below.

(a) Only I and II follow

(b) Only I and III follow

(c) Only II and III follow

(d) None follows

65. Rohit is standing north of Rajan and Raman is standing east of Rajan. The distance between Rohit and Rajan is 12 m and the distance between Raman and Rajan is 16 m. A boy, Shyam, wants to walk from where Raman is standing to where Rohit is standing.

Which of the following statements may be true?

(a) Shyam will have to walk at least 28 m.

(b) Shyam will have to walk at max 28 m.

(c) Shyam will have to walk less than 20 m.

(d) The length of the path travelled by Shyam may be 21 m.

66. Five people, Anil, Binny, Chintu, Deepa and Emily are seated around a pentagonal table.

1. Chintu is seated adjacent to Anil.
2. Anil is two seats away from Deepa.
3. Binny is not seated next to Anil.

Which of the following must be true?

I. Deepa is seated next to Binny.

II. Emily is seated next to Anil.

Select the correct answer from the codes given below:

(a) I only

(b) II only

(c) Both I and II

(d) Neither I nor II

67. Consider the following statements and conclusions.

Statements:

I. $a > b > c = d < e$

II. $f \leq g = h < c < i$

Conclusions:

I. $b > g$

II. $f \leq d$

Assuming the given statements to be true, find which of the conclusions is/are definitely true.

(a) Only conclusion I follows

(b) Either conclusion I or II follows

(c) Only conclusion II follows

(d) Both conclusion I and II follow

68. There are some coins of denominations Rs 2, Rs 5, and Rs 10 on a table. The value of Rs. 10 coins is twice the value of Rs 5 coins on the table. The number of Rs 2 coins is equal to the total number of Rs 5 and Rs 10 coins on the table. The total number of coins on the table is

(a) twice the number of Rs 5 coins on the table.

(b) thrice the number of Rs 5 coins on the table.

(c) four times the number of Rs 5 coins on the table.

(d) cannot be ascertained.

Directions for the following 2 (two) items:

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

Passage

Fake news stories use technology and social media to look like proper news sites. Organisations and political groups may target you with ads that look like the news. Hackers use bots, and bits of software, to create multiple social media accounts and use those to spread misinformation. This can make a false story seem real, simply because it looks like it has been shared by so many people. Fake social media posts and accounts help make misinformation viral. Sometimes this is then reported as fact by real journalists. When it becomes the news, the line between fact and fiction becomes blurred. Fake news presents strong, often prejudiced opinions, as fact. It can also direct these opinions to those most likely to agree to reinforce them. This so-called "echo chamber" effect is made worse by algorithms, and clever bits of software, which encourage you to read material like what you are already sharing. Hackers often hack or manipulate these algorithms.

69. Based on the above passage, the following *assumptions* have been made:

1. There is an urgent need to check and control the spread of misinformation in India.

2. With increasing fake news, it is becoming difficult to trust even the real journalists.

Which of the above assumptions is/are valid?

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

70. Which of the following statements *best reflects the crux* of the passage?

(a) To address the issue of fake news, technological regulations and ethics should be the first step.

(b) Social media sites are the prime source of fake news which needs to be regulated by the government.

(c) There is a lack of ethics among hackers as they manipulate information for selfish reasons.

(d) Technology is the prime enabler of the fake news menace, negatively impacting the lives of the people.

71. Three statements followed by four conclusions are given below. You have to take the statements to be true even if they seem to be at variance from the commonly known facts. Read all the conclusions and then decide which of the given conclusion(s) logically follows/follow from the statements, disregarding the commonly known facts.

Statements:

(i) Some boys are balls.

(ii) No ink is pen.

(iii) All pens are balls.

Conclusions:

I. Some balls are boys.

II. Some balls are pens.

III. Some balls are Ink.

IV. Some inks are boys.

Select the correct answer using the codes given below.

(a) Only II and III follow

(b) Only II and IV follow

(c) Only I and II follow

(d) None follows

Directions for the following 2 (two) items:
Read the information carefully and answer the two items that follow.

The plan below shows the location of offices of six colleagues A, B, C, D, E and F in a building.

→	Office 1	Office 2	Office 3
	Office 4	Office 5	Office 6

Both A and B occupy offices on the left side of the corridor as one enters in the building as per the direction arrow shown in the above plan. E occupies office on the right. D and E occupy offices on opposite sides of the corridor but their offices do not face each other. Offices of A and C face each other. E occupies a corner office and A does not occupy a corner office.

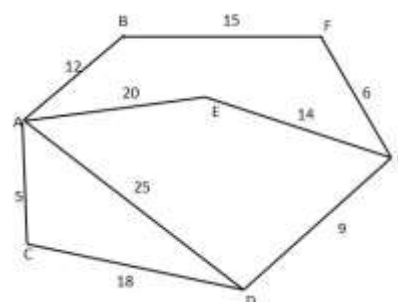**72.** Who occupies office 6?

(a) E

(b) F

(c) Either F or E

(d) C

73. Whose offices are farthest from each other?

(a) A and C

(b) A and D

(c) B and D

(d) B and F

Directions for the following 2 (two) items:
Read the given information carefully and answer the two items that follow.

There are 7 centres of Vision IAS classes in New Delhi. All the centres are linked to each other through different routes as shown in the figure given below. The number shown near each route represents the distance (in km) between the two connected centres.

74. A student is at centre G and needs to meet his friend who is at centre A. What is the shortest distance he needs to travel to reach centre A?

(a) 34

(b) 35

(c) 33

(d) None of these

75. Monica is at centre A and needs to go to centre G. What are the number of different routes she can follow, if she cannot pass through any centre twice?

(a) 4

(b) 3

(c) 6

(d) 5

76. Consider the following statements and conclusions.

Statements:

I. R < S ≤ T < Q ≤ C

II. V = H ≠ Q = G ≥ K > L

III. D ≤ X < Z = P = K

Conclusions:

I. C > Z

II. R < X

Assuming the given statements to be true, find which of the conclusions is/are definitely true.

(a) Neither conclusion I nor II follows

(b) Either conclusion I or II follows

(c) Only conclusion II follows

(d) Both conclusions I and II follow

77. In which of the following expressions 'M > S' as well as 'K > S' are definitely true?

(a) M > X > E = S < H ≤ K

(b) M ≥ X = E > S ≤ H < K

(c) M = X > E ≥ S < H < K

(d) All of the above

Directions for the following 2 (two) items:

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

Passage – 1

The population growth in urban areas is accompanied by an increased demand for water, stretching the capacity of existing supply systems. This imbalance leads to water shortages and uneven distribution. Rapid urbanisation has outpaced the development and maintenance of water supply systems, leading to shortages and unequal distribution. Insufficient financial resources and investment in water infrastructure hinder the expansion and improvement of water supply networks. This results in inadequate coverage and service disruptions. Mismanagement, leakages, and inadequate maintenance further exacerbate the problem. Ageing pipes and inadequate repair and maintenance programs result in significant water losses. Climate change-induced uncertainties, such as erratic rainfall patterns and prolonged droughts, place additional stress on urban water sources.

78. Which of the following is/are the *most rational and logical inference/inferences* that can be drawn from the passage?

1. The solution to water shortages is not limited to urban governance, it requires people's participation.
2. Continued water shortage in urban areas could lead to the de-urbanization of our cities.

Select the correct answer from the code given below:

(a) 1 only

(b) 2 only

(c) Both 1 and 2 only

(d) Neither 1 nor 2

Passage – 2

In our contemporary world, where economies are continually evolving, the social sector has emerged as a crucial avenue for generating large-scale employment opportunities. This shift towards bolstering sectors such as healthcare, education, and public infrastructure holds immense potential for several reasons. Firstly, investments in healthcare and education create a demand for skilled professionals, ranging from doctors and teachers to support staff and technicians. This not only provides jobs but also enhances the overall quality of human capital. Secondly, improved public infrastructure, like transportation and renewable energy projects, requires a considerable workforce, contributing significantly to job creation. However, increased social sector expenditure must be combined with efficient governance, accountability, and measures to combat corruption to ensure the funds are effectively utilised.

79. Based on the above passage, the following *assumptions* have been made:

1. Lack of investment is the fundamental reason for poor employment opportunities in the social sector.
2. Investment alone may not be enough for growth if the menace of corruption is not addressed.

Which of the above assumptions is/are *invalid*?

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

80. Consider the following statements followed by two conclusions:

Statements:

1. Some people are rich.
2. Some people are hard working.

Conclusions:

1. People are either rich or hardworking.
2. Some people are neither rich nor hardworking.

Which one of the following options is correct?

(a) Only conclusion 1 is valid.

(b) Only conclusion 2 is valid.

(c) Both conclusions are valid.

(d) Neither of the conclusions is valid.