Directions (1-8): Read the following passage carefully and answer the questions given below them.

In the world's effort to cut greenhouse gas emissions, the source of our food is coming into the spotlight. There's good reason for that: Agriculture accounts for 16 to 27% of human-caused climate-warming emissions. But much of these emissions are not from carbon dioxide, that familiar climate change villain. They're from another gas altogether: nitrous oxide (N2O). Also known as laughing gas, N2O does not get nearly the attention it deserves, says David Kanter, a nutrient pollution researcher at New York University and vice-chair of the International Nitrogen Initiative, an organisation focused on nitrogen pollution research and policy making. "It's a forgotten greenhouse gas," he says.

Yet molecule for molecule, N2O is about 300 times as potent as carbon dioxide at heating the atmosphere. And like CO2, it is long-lived, spending an average of 114 years in the sky before disintegrating. It also depletes the ozone layer. In all, the climate impact of laughing gas is no joke. Scientists at the Intergovernmental Panel on Climate Change (IPCC) have estimated that nitrous oxide comprises roughly 6% of greenhouse gas emissions, and about three-quarters of those N2O emissions come from agriculture. But despite its important contribution to climate change, N2O emissions have largely been ignored in climate policies. And the gas continues to **accumulate**. A 2020 review of nitrous oxide sources and sinks found that emissions rose 30% in the last four decades and are exceeding all but the highest potential emissions scenarios described by the IPCC. Agricultural soil – especially because of the globe's heavy use of synthetic nitrogen fertiliser – is the principal culprit.

Today, scientists are looking at several ways to treat the soil or adjust farming practices to cut back on N2O production. "Anything that can be done to improve fertiliser use efficiency would be big," says Michael Castellano, an agroecologist and soil scientist at Iowa State University. Humanity has _____(I)_____ the Earth's nitrogen cycle out of balance. Before the rise of modern agriculture, most plant-available nitrogen on farms came from compost, manure and nitrogen-fixing microbes which take nitrogen gas (N2) and convert it to ammonium, a soluble nutrient that plants can take up through their roots. That all changed in the early 1900s with the debut of the Haber-Bosch process that provided an industrial method to produce massive amounts of ammonia fertiliser.

This **abundance** of synthetic fertiliser has boosted crop yields and helped to feed people around the globe, but this surplus nitrate and ammonium comes with environmental costs. Producing ammonia fertiliser accounts for about 1% of all global energy use and 1.4% of CO2 emissions (the process requires heating nitrogen gas and subjecting it to pressures of up to 400 atmospheres, so it's very energy-intensive). More importantly, the fertiliser drives increased emissions of nitrous oxide because farmers tend to apply the nitrogen to their fields in a few large batches during the year, and crops can't use it all. When plant roots don't mop up that fertiliser, some of it runs off the field and pollutes waterways. What remains is consumed by a succession of soil microbes that convert the ammonia to nitrite, then nitrate and, finally, back to N2 gas. N2O is made as a by-product at a couple of points during this process.

Q1. Which of the following statement(s) is/are incorrect with reference to the information given in the passage?
(i) To reduce N2O generation, scientists are investigating a variety of soil treatments and farming practices.
(ii) There are no environmental costs associated with excess nitrate and ammonium.
(iii) When it comes to heating the atmosphere, N2O is around 300 times more powerful than carbon dioxide.
(a) Both (i) and (iii)
(b) Only (ii)
(c) Only (i)
(d) Both (ii) and (iii)
(e) All of them

Q2. What are the harmful effects of nitrous oxide as described in the passage?
(a) It lasts a long time in the sky, averaging 114 years before dissolving.
(b) It pollutes the water bodies of the earth.
(c) The ozone layer is also eroded by it.
(d) Both a and c
(e) All of these

Q3. The passage uses a more popular name of N2O. Choose which option mentions it.
(a) principal culprit.
(b) Haber-Bosch
(c) laughing gas
(d) ammonium
(e) None of these

Q4. Which factor is responsible for the copious amount of nitrogen being produced in the world?
(a) Compost, manure, and nitrogen-fixing bacteria, which consume nitrogen gas (N2) and convert it to ammonium, provided the majority of plant-available nitrogen on farms.
(b) Due to the widespread use of synthetic nitrogen fertilisers around the world, agricultural soil has been proven more harmful than one originally predicted.
(c) Synthetic fertiliser has increased crop yields and helped feed people all around the world.
(d) In the last four decades, emissions have increased by 30%, surpassing all except the IPCC's highest projected emissions forecasts.
(e) All of these

Q5. Select the option which best describes the core message(s) of the passage.
(a) N2O emissions, despite their significant contribution to climate change, have been generally overlooked in climate legislation.
(b) Along with CO2, nitrogen dioxide is equally, if not more, responsible for the high amounts of human-caused climate-warming emissions in the atmosphere.
(c) Rise of modern agriculture has resulted in production of ammonia fertiliser production which consumes roughly 1% of world energy and emits 1.4 percent of CO2.
(d) Both a and b
(e) All of these

Q6. What is the word most similar to **ACCUMULATE** as highlighted in the passage?
(a) escalate
(b) realign
(c) amass
(d) analogize
(e) apprise

Q7. Which of the following word fill the blank (I) to make contextual sense of the sentence?
(a) flinched
(b) tipped
(c) avenged
(d) belittled
(e) None of the above

Q8. What is the word opposite in meaning to **ABUNDANCE** as highlighted in the passage?
(a) nuance
(b) tranquil
(c) scantiness
(d) loathe
(e) None of the above

Directions (9-14): In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five options are given. Find out the appropriate word which fits the blank appropriately to make a grammatically and contextually correct sentence.

Q9. Archaeologists are concerned with studying the environment of a past (**9**) _____ and, like a detective, try to reconstruct a picture of what life in a particular area must have been like. Remains from the city of Jorvik told archaeologists a story about life in the Viking kingdom. A cap made of silk which was uncovered (**10**) _____ a connection with the Byzantine Empire and beyond. Coins (**11**)_____ inscriptions from the Uzbekistan city of Samarkand and a cowrie shell indicated (**12**) _____ with the Persian Gulf or the Red Sea tus showing how far some of the inhabitants must have travelled. Also uncovered side-by-side were Christian and pagan objects probably indicating that Christians were probably not in power at the time. It was clear from the wide range of everyday items uncovered that under the Vikings, Jorvik (**13**) _____ as an important manufacturing centre. The name 'Coppergate' means 'the street of cup-makers' in the old Norse language and further (**14**) _____ the manufacturing nature of the area as hundreds of wooden cores – the waste or off-cuts from wooden bowls and cups – were found in the area. This evidence points to a well-developed wood-working industry with the mass production of household wooden items.
(a) satiety
(b) proximity
(c) demeanour
(d) civilization
(e) None of these

Q10. Archaeologists are concerned with studying the environment of a past (**9**) _____ and, like a detective, try to reconstruct a picture of what life in a particular area must have been like. Remains from the city of Jorvik told archaeologists a story about life in the Viking kingdom. A cap made of silk which was uncovered (**10**) _____ a connection with the Byzantine Empire and beyond. Coins (**11**)_____ inscriptions from the Uzbekistan city of Samarkand and a cowrie shell indicated (**12**) _____ with the Persian Gulf or the Red Sea tus showing how far some of the inhabitants must have travelled. Also uncovered side-by-side were Christian and pagan objects probably indicating that Christians were probably not in power at the time. It was clear from the wide range of everyday items uncovered that under the Vikings, Jorvik (**13**) _____ as an important manufacturing centre. The name 'Coppergate' means 'the street of cup-makers' in the old Norse language and further (**14**) _____ the manufacturing nature of the area as hundreds of wooden cores – the waste or off-cuts from wooden bowls and cups – were found in the area. This evidence points to a well-developed wood-working industry with the mass production of household wooden items.
(a) indicated
(b) overstated
(c) personalized
(d) dramatized
(e) None of these

Q11. Archaeologists are concerned with studying the environment of a past (**9**) _____ and, like a detective, try to reconstruct a picture of what life in a particular area must have been like. Remains from the city of Jorvik told archaeologists a story about life in the Viking kingdom. A cap made of silk which was uncovered (**10**) _____ a connection with the Byzantine Empire and beyond. Coins (**11**)_____ inscriptions from the Uzbekistan city of Samarkand and a cowrie shell indicated (**12**) _____ with the Persian Gulf or the Red Sea tus showing how far some of the inhabitants must have travelled. Also uncovered side-by-side were Christian and pagan objects probably indicating that Christians were probably not in power at the time. It was clear from the wide range of everyday items uncovered that under the Vikings, Jorvik (**13**) _____ as an important manufacturing centre. The name 'Coppergate' means 'the street of cup-makers' in the old Norse language and further (**14**) _____ the manufacturing nature of the area as hundreds of wooden cores – the waste or off-cuts from wooden bowls and cups – were found in the area. This evidence points to a well-developed wood-working industry with the mass production of household wooden items.

(a) plastering
(b) possessing
(c) bearing
(d) embodying
(e) None of these

Q12. Archaeologists are concerned with studying the environment of a past (**9**) _____ and, like a detective, try to reconstruct a picture of what life in a particular area must have been like. Remains from the city of Jorvik told archaeologists a story about life in the Viking kingdom. A cap made of silk which was uncovered (**10**) _____ a connection with the Byzantine Empire and beyond. Coins (**11**)_____ inscriptions from the Uzbekistan city of Samarkand and a cowrie shell indicated (**12**) _____ with the Persian Gulf or the Red Sea tus showing how far some of the inhabitants must have travelled. Also uncovered side-by-side were Christian and pagan objects probably indicating that Christians were probably not in power at the time. It was clear from the wide range of everyday items uncovered that under the Vikings, Jorvik (**13**) _____ as an important manufacturing centre. The name 'Coppergate' means 'the street of cup-makers' in the old Norse language and further (**14**) _____ the manufacturing nature of the area as hundreds of wooden cores – the waste or off-cuts from wooden bowls and cups – were found in the area. This evidence points to a well-developed wood-working industry with the mass production of household wooden items.
(a) contact
(b) dignify
(c) overshadow
(d) tread
(e) None of these

Q13. Archaeologists are concerned with studying the environment of a past (**9**) _____ and, like a detective, try to reconstruct a picture of what life in a particular area must have been like. Remains from the city of Jorvik told archaeologists a story about life in the Viking kingdom. A cap made of silk which was uncovered (**10**) _____ a connection with the Byzantine Empire and beyond. Coins (**11**)_____ inscriptions from the Uzbekistan city of Samarkand and a cowrie shell indicated (**12**) _____ with the Persian Gulf or the Red Sea tus showing how far some of the inhabitants must have travelled. Also uncovered side-by-side were

Christian and pagan objects probably indicating that Christians were probably not in power at the time. It was clear from the wide range of everyday items uncovered that under the Vikings, Jorvik (**13**) _____ as an important manufacturing centre. The name 'Coppergate' means 'the street of cup-makers' in the old Norse language and further (**14**) _____ the manufacturing nature of the area as hundreds of wooden cores – the waste or off-cuts from wooden bowls and cups – were found in the area. This evidence points to a well-developed wood-working industry with the mass production of household wooden items.
(a) deprived
(b) culminated
(c) modernized
(d) excelled
(e) None of these

Q14. Archaeologists are concerned with studying the environment of a past (**9)** _____ and, like a detective, try to reconstruct a picture of what life in a particular area must have been like. Remains from the city of Jorvik told archaeologists a story about life in the Viking kingdom. A cap made of silk which was uncovered (**10**) _____ a connection with the Byzantine Empire and beyond. Coins (**11)**_____ inscriptions from the Uzbekistan city of Samarkand and a cowrie shell indicated (**12**) _____ with the Persian Gulf or the Red Sea tus showing how far some of the inhabitants must have travelled. Also uncovered side-by-side were Christian and pagan objects probably indicating that Christians were probably not in power at the time. It was clear from the wide range of everyday items uncovered that under the Vikings, Jorvik (**13**) _____ as an important manufacturing centre. The name 'Coppergate' means 'the street of cup-makers' in the old Norse language and further (**14**) _____ the manufacturing nature of the area as hundreds of wooden cores – the waste or off-cuts from wooden bowls and cups – were found in the area. This evidence points to a well-developed wood-working industry with the mass production of household wooden items.
(a) curtailed
(b) mutilated
(c) illustrated
(d) suspended
(e) None of these

Each question below has one blank, which is indicating that something has been omitted. Find out which option(s) can be used to fill up the blank in the sentence in the same sequence to make it meaningfully complete.

Q15. PayPal is buying Japanese startup Paidy, _____ the latest major tie-up in the fast-growing space of buy now, pay later companies.
(a) acquitting
(b) reconciling
(c) marking
(d) annunciating
(e) None of these

Q16. Much of a child's future social and intellectual _____ hinges upon their ability to acquire language.
(a) implement
(b) development
(c) master
(d) unravel
(e) None of these

Q17. Toyota Motor Corp trimmed its production outlook to 9 million units from 9.3 million units for the fiscal year through March, _____ the spread of the coronavirus in Southeast Asia.
(a) relocating
(b) blaming
(c) aspiring
(d) authorizing
(e) None of these

Q18. Congress leader Kapil Sibal on Friday alleged that the Centre will try to _____ the Taliban regime in Afghanistan for its own advantage ahead of the Uttar Pradesh Assembly election.
(a) manipulate
(b) backpedal
(c) conceptualize
(d) summarize
(e) None of these

Q19. Anti-Covid jabs available in India are around 97% effective in preventing mortality, whereas vaccination also significantly reduces hospitalisation, the assessment of real time vaccination data _____under Covid Vaccine tracker shows.
(a) mentored
(b) customized
(c) murmured
(d) captured
(e) None of these

Directions (20-24): In each of the questions given below four words are given in bold. These four words may or may not be in their correct position. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of the words that replace each other. If the sentence is correct as it then select option (E) as your choice.

Q20. Elizabeth Holmes and the US government **former (A)** off in a San Jose federal **courtroom (B)** in the long-awaited **criminal (C)** trial of the founder and **faced (D)** CEO of Theranos.
(a) C-D & A-B
(b) A-D
(c) A-B
(d) B-C
(e) No replacement required

Q21. Amazon is **offering (A)** to cover four-year college tuition for most of its **approximately (B)** 750,000 hourly workers in the United States, the latest major **employer (C)** to offer the perk to attract and retain hourly employees in a **tight (D)** job market.
(a) C-D
(b) A-B
(c) A-D
(d) C-B
(e) No replacement required

Q22. There is no state, **minimum (A)** or city in the United States where a full-time, **county (B)** wage worker working 40 hours a week can **afford (C)** a two-bedroom rental, a report from the National Low Income Housing Coalition **showed (D)**.
(a) A-D
(b) B-C
(c) C-D
(d) A-B
(e) No replacement required

Q23. Indian Prime Minister Narendra Modi has **renewed (A)** a pledge to spend more than $1 trillion on **infrastructure (B)** to create jobs for **boost (C))** of thousands of young Indians and **hundreds (D** the economy.
(a) A-D
(b) B-C
(c) C-D
(d) A-B
(e) No replacement required

Q24. The media **company (A)** behind the now-shuttered Hong Kong tabloid Apple Daily is **resigned (B)** down after its entire board **shutting (C)**, citing "a climate of fear" over the city's **controversial (D)** national security law.
(a) B-C
(b) C-D
(c) A-B
(d) A-D
(e) No replacement required

Directions (25-30): The following questions consist of a sentence. Four of the words of the sentences are marked in bold, which may or may not be correctly spelled. Option corresponding to misspelt word is your answer. If there is no misspelled word in the sentence then choose (D), i.e., 'All are correct' as your answer.

Q25. President Joe Biden spoke with China's **President** Xi Jinping on Thursday evening as relations between the two countries have remained tense in recent months, particularly in **cyberspace**, with the US having **acused** China of widespread **malfeasance.**
(a) President
(b) cyberspace
(c) acused
(d) malfeasance
(e) All are correct

Q26. Vietnam and Taiwan are **brasing** for twin **tropical** storms which are expected to make landfall over the coming days, with **typhoon** Chanthu **strengthening** into a Super Typhoon in the past 24 hours.
(a) brasing
(b) tropical
(c) typhoon
(d) strengthening
(e) All are correct

Q27. Laden with olive groves, **surrounded** by clear, sparkling water and **speckld** with charming, historic towns and villages, Puglia region's **rustic** appeal has made it an increasingly popular **destination** for tourists.
(a) surrounded
(b) speckld
(c) rustic
(d) destination
(e) All are correct

Q28. There's a **shortage** of truck drivers in the US and worldwide, **exacerbated** by the e-commerce boom brought on by the **pandemic** and one solution to the problem is **autonomuos** trucks.
(a) shortage
(b) exacerbated
(c) pandemic
(d) autonomuos
(e) All are correct

Q29. The "Ironhand", a battery-**powered** glove could help workers by taking some of the **strain** as it strengthens the wearer's grip, meaning they don't have to use as much force to perform **repetative manual** tasks.
(a) powered
(b) strain
(c) repetative
(d) manual
(e) All are correct

Q30. China is starting to sell off some of the oil it keeps in **strategic reserve** in a bid to lower prices in the market, a **historic** first for the world's biggest **importer** of oil and its second largest consumer.
(a) strategic
(b) reserve
(c) historic
(d) importer
(e) All are correct

Directions (31-35): Table given below shows the percentage of marks obtained by six students in four different subjects. Answer the following question on the basis of the
information given below: -

STUDENTS	MATHMETICS (OUT OF 80)	REASONING (OUT OF 80)	SCIENCE (OUT OF 50)	ENGLISH (OUT OF 100)
Ganesh	45	70	56	35
Amit	70	50	60	65
Ajay	40	60	40	68
Jay	60	35	50	89
Shubham	80	75	30	75
Atul	85	46	40	25

Q31. What is the approximate percentage of marks obtained by Amit in all the subjects?
(a) 47%
(b) 62%
(c) 41%
(d) 52%
(e) 58%

Q32. What is the sum of average percentage of marks obtained by all students in Reasoning and English?
(a) 146.5%
(b) 115.5%
(c) 126.5%
(d) 134.5%
(e) 138.5%

Q33. What is the difference between average marks obtained by Atul in all subjects and average marks marks obtained by Shubham in all subjects?
(a) 12.77
(b) 9.65
(c) 16.05
(d) 10
(e) 13.07

Q34. What are the average marks of all the students in Mathematics (approximately)?
(a) 75
(b) 70
(c) 87
(d) 51
(e) 67

Q35. What is the sum of marks obtained by Ganesh in Mathematics and Science together to the marks obtained by Jay in Reasoning and English together?
(a) 180
(b) 182
(c) 195
(d) 181
(e) 115

Directions (36-40): The given line graph shows total number of voters (000) in four different villages and the percentage distribution of total valid voters out of total voters in these four villages. Answer the following question on the basis of the information given below.
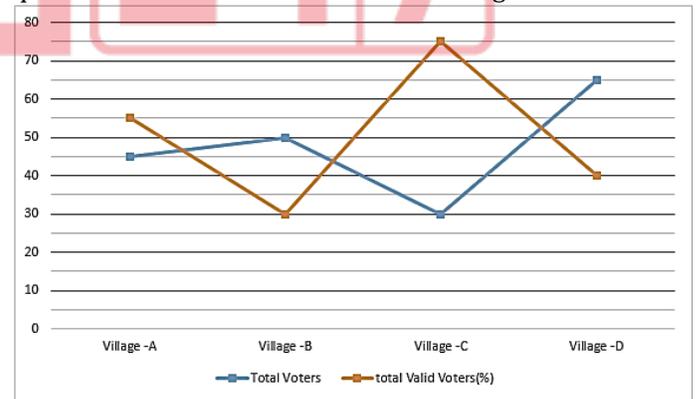
Q36. Find out the sum of invalid voters in all villages?
(a) 97850
(b) 98750
(c) 96750
(d) 95000
(e) 101750

Q37. Find the difference between valid voters village A to that of Village D?
(a) 2150
(b) 1350
(c) 1250
(d) 1100
(e) 1450

Q38. Find the sum of invalid voters of Village C and Village B?
(a) 40050
(b) 39500
(c) 38500
(d) 42500
(e) 41000

Q39. Find the ratio between total no. of valid voters of village A and village C together to total no. of valid voters of village B and village D together?
(a) 79 :125
(b) 111 : 70
(c) 189 : 164
(d) 52:75
(e) 95 : 78

Q40. Find the average no. of total voters in all villages?
(a) 48500
(b) 46500
(c) 45600
(d) 47000
(e) 47500

Directions (41-45): Find the wrong number in following number series.

Q41. 161, 170, 188, 224, 295, 440, 728
(a) 170
(b) 295
(c) 188
(d) 440
(e) 224

Q42. 24, 70, 36, 106, 55, 160, 81
(a) 24
(b) 106
(c) 55
(d) 160
(e) 36

Q43. 156, 237, 301, 349, 386, 411, 427
(a) 237
(b) 411
(c) 156
(d) 349
(e) 386

Q44. 31, 15, 14, 26, 75, 296, 1485
(a) 15
(b) 75
(c) 296
(d) 31
(e) 1485

Q45. 238, 245, 256, 269, 286, 305, 327
(a) 238
(b) 245
(c) 269
(d) 327
(e) 305

Directions (46-50): In the given questions, two quantities are given, one as 'Quantity I' and another as 'Quantity II'. You have to determine relationship between two quantities and choose the appropriate option

Q46. Quantity I: If 4A + 4B = 200. What is the value of 140% of (A +B)?
Quantity II: The average of four numbers A, B, C and D is 30. The sum of A and B is 50. What is the sum of C+D?
(a) Quantity I > Quantity II
(b) Quantity I < Quantity II
(c) Quantity I ≤ Quantity II
(d) Quantity I ≥ Quantity II
(e) Quantity I = Quantity II or Relationship can't be established.

Q47. Amit spends 20% and 40% of his income on rent and food respectively and 70% of the remaining income spend on travelling, Finally, he saves Rs. 9600.
Quantity I: Find the total income of Amit.
Quantity II: 35000 Rs.
(a) Quantity I > Quantity II
(b) Quantity I < Quantity II
(c) Quantity I ≤ Quantity II
(d) Quantity I ≥ Quantity II
(e) Quantity I = Quantity II or Relationship can't be established.

Q48. Quantity I: 50 km/hr.

Quantity II: The total time taken by a boat to cover 160 km while travelling upstream and 240 km while travelling downstream is 35hours. The ratio of speed of boat in still water to the speed of stream is 3:1. Find the downstream speed of boat,

(a) Quantity I > Quantity II

(b) Quantity I < Quantity II

(c) Quantity I ≤ Quantity II

(d) Quantity I ≥ Quantity II

(e) Quantity I = Quantity II or Relationship can't be established.

Q49. Quantity I: Average weight of boys in a class is 60 kg while average weight of girls is 53 kg and total students in a class is 49. The average weight of class is 55 kg. Find number of Girls in class.

Quantity II: 30

(a) Quantity I > Quantity II

(b) Quantity I < Quantity II

(c) Quantity I ≤ Quantity II

(d) Quantity I ≥ Quantity II

(e) Quantity I = Quantity II or Relationship can't be established.

Q50. Quantity I: $x^2 + 11x + 28 = 0$

Quantity II: $y^2 - 22y + 105 = 0$

(a) Quantity I > Quantity II

(b) Quantity I < Quantity II

(c) Quantity I ≤ Quantity II

(d) Quantity I ≥ Quantity II

(e) Quantity I = Quantity II or Relationship can't be established.

Directions (51-55): What approximate value will come in the place of question (?) mark in the given following questions:

Q51.

49.99% of 699.98 + $(24.95)^2$ = ? × 4.95

(a) 190

(b) 195

(c) 180

(d) 280

(e) 240

Q52. $\frac{1350.05}{(9.95 + 19.87)} + 14.95 = \frac{?}{35.98}$

(a) 2060

(b) 2160

(c) 2260

(d) 2035

(e) 2180

Q53.

$(624.99 \div 25.03 + 7.96 \times 19.72) - \frac{1289.95}{(85.86 - 56.07)} = ?$

(a) 142

(b) 243

(c) 148

(d) 317

(e) 153

Q54. 37.5% of 151.92 of ? = 40% of 149.74 + 110.86

(a) 7

(b) 10

(c) 15

(d) 3

(e) 18

Q55. (? + 16) × 6.87 + 24.69% of 499.81 = 299.67

(a) 9

(b) 18

(c) 5

(d) 21

(e) 15

Q56. 10 men take 54 days to do a work while 10 women complete 2/5th of work in 54 days. In how many days 12 men and 15 women together will complete the same work?

(a) 27

(b) 30

(c) 35

(d) 37

(e) 32

Q57. The simple interest accrued on an amount of Rs. 23100 at the end of three years is Rs. 6930, What would be the compound interest (approximately) accrued on the same amount at the same rate in 2 years?

(a) 4851

(b) 3758

(c) 9654

(d) 4238

(e) None of these

Q58. Amit started a business by investing Rs. 48000. After 6 months Rahul joined him with some investment. At the end of the Year, the total profit was divided between in the ratio of 12:7. How much investment was invested by Rahul in the business?

(a) Rs.58000

(b) Rs. 56000

(c) Rs.46000

(d) Rs.45850

(e) Rs.56500

Q59. In a mixture of juice and water, juice is 20% more than water. This is mixed with another mixture having juice & water in ratio 5:6. If these two are mixed in ratio 3:4. Find ratio of juice & water in final mixture.
(a) 35 :39
(b) 35 :38
(c) 1 :1
(d) 38:41
(e) 38 :39

Q60. Two train coming from the opposite sides crosses each other in 40 seconds, if the lengths of first train and second train be 800m and 1600m respectively, and the speed of first train be 162 km/hr. find the speed of second train?
(a) 60 km/hr
(b) 46 km/hr
(c) 36 km/hr
(d) 54 km/hr
(e) 72 km/hr

Q61. A thief running at 12 km/hr is chased by a policeman whose speed is 20km/hr. If the thief is 240 meters ahead of the policeman, then the time required by the policeman to catch the thief.
(a) 2 minutes
(b) 1.8 minutes
(c) 2.5 minutes
(d) 3 minutes
(e) 3.5 minutes

Q62. Ratio of length and breadth of a rectangle is 7:5 respectively and perimeter of rectangle is 144cm. find the area of rectangle.
(a) 1260 cm²
(b) 1560 cm²
(c) 1160 cm²
(d) 1760 cm²
(e) 1060 cm²
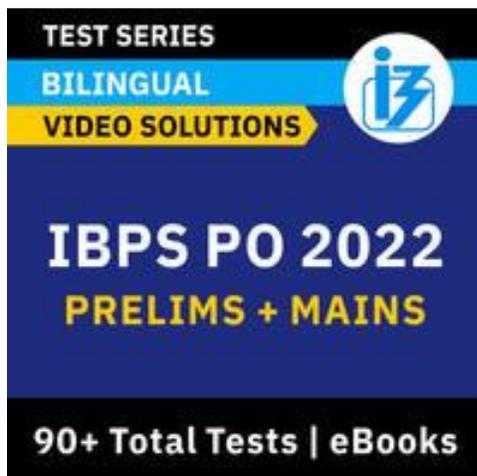
Q63. There are 7 boys and 3 girls in a class. if 5 children are to be randomly selected for a quiz contest. What is the probability that all are boys?
(a) 1/11
(b) 2/21
(c) 1/12
(d) 3/13
(e) 5/13

Q64. A man can row 8 km/h in still water. If the speed of the current is 2 km/h, it takes 2 hours more in upstream than in the downstream for the same distance. Find the distance.
(a) 30 km
(b) 35 km
(c) 25 km
(d) 20 km
(e) 15 km

Q65. Akshay buys an article and markup it 30 % above its cost price. At the time of sale, he gives 10% discount instead of 15% due to which he earns Rs. 13 more. Find cost price?
(a) Rs. 230
(b) None of these
(c) Rs. 150
(d) Rs. 130
(e) Rs. 200

Directions (66-70): Study the following information carefully and answer the questions given below:
Eight persons sit around a square table in such a way that four persons sit at each corner and face inside while four persons sit at middle of each side and face outside.
Two persons sit between H and A. Only one person sits between B and E. A faces inside. C sits second to the right of A. G sits third to the right of E who neither an immediate neighbor of C nor H. F sits third to the right of D who is an immediate neighbor of B

Q66. Who among the following sits immediate left of B?
(a) C
(b) F
(c) D
(d) G
(e) None of these

Q67. How many persons sit between C and D, when counted right of C?
(a) Two
(b) One
(c) Four
(d) Three
(e) None

Q68. What is the position of G with respect to F?
(a) Immediate right
(b) Third to the left
(c) Second to the right
(d) Fourth to the left
(e) Fourth to the right

Q69. Who among the following sits opposite to the one who sit immediate right of F?
(a) G
(b) B
(c) D
(d) H
(e) None of these

Q70. Who among the following sits second to the right of G?
(a) E
(b) A
(c) F
(d) C
(e) None of these

Q71. In which of these expression 'O > Z' is definitely True?
(a) L < Z ≥ S ≥ Q < P> A ≥ O > V
(b) P > O > M = D ≥ B = A > Z = R
(c) N ≤ A > O > L ≥ V ≤ B = Z < S
(d) S > O = C ≥ H = H ≥ Z ≤ Q = T
(e) B > O ≤ A = N < Q ≤ T = Z < G

Directions (72-75): Study the following information carefully and answer the given questions.
In a certain code language,
'Report the financial crisis' is coded as 'bx fe fm xp'
'The effect global financial' is coded as 'fm xp xe kx'
'Report financial downward effect' is coded as 'xi xe fm fe'
'Economy crisis financial planning' is coded as 'dx bx lx fm'

Q72. Which of the following is the code for 'financial'?
(a) bx
(b) xe
(c) fe
(d) fm
(e) None of these

Q73. Which of the following word is coded as 'xp'?
(a) great
(b) Report
(c) the
(d) financial
(e) None of these

Q74. What may be the code of 'Word Report'?
(a) fe fm
(b) fe kx
(c) fe xi
(d) fe zx
(e) None of these

Q75. Which of the following code is coded for 'Effect'?
(a) fe
(b) xe
(c) xp
(d) xi
(e) None of these

Directions (76-80): Study the following information carefully and answer the questions given below:
Nine boxes- P, Q, R, S, T, U, V, W and X are placed one above the other in a stack. Five boxes are placed between V and P, placed below V. Box R is placed above box V. Three boxes are placed between R and T. Box W placed immediate above box S. Four Boxes are placed between S and U. The number of boxes are placed above U is same as the number of boxes placed below X.

Q76. Which of the following box is placed immediate above box V?
(a) S
(b) Q
(c) U
(d) V
(e) None of these

Q77. How many boxes are placed between box Q and X?
(a) Two
(b) Three
(c) Four
(d) One
(e) None

Q78. Which of the following box is placed second from the bottom most position?
(a) Q
(b) S
(c) X
(d) P
(e) None of these

Q79. Which of the following statement is true about box Q?
(a) Box Q is placed immediate below box T
(b) More than three boxes are placed between Q and X
(c) Box U is placed immediate above box Q
(d) Not more than two boxes placed between box Q and R
(e) None is true

Q80. Four of the following five are alike in a certain way so form a group, which of the following does not belong to that group?
(a) R-Q
(b) U-T
(c) W-P
(d) V-W
(e) T-P

Directions (81-82): Study the following information carefully and answer the given questions.
Abhay starts walking from point X in east direction after walk 12m he reached at point B. Then he takes a left turn and walks 5m to reach point C. From point C he takes two consecutive left turn and walks 6m and 2m respectively to reach at point E.

Q81. What is the shortest distance between point X to point C?
(a) 25m
(b) 13m
(c)20m
(d)17m
(e)None of these

Q82. What is the direction of point E with respect to point B?
(a) West
(b)North
(c)South-east
(d)North-west
(e)None of these

Directions (83-84): In each of the questions below are given some statements followed by some Conclusions. You have to take the given statements to be true even, if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Q83. Statements:
Only a few Bat are Chair
All Chair are Ball
No Ball is Table
Conclusions:
I: All Ball can be Bat
II: No Chair is Table
(a) If only conclusion I follows.
(b) If only conclusion II follows.
(c) If either conclusion I or II follows.
(d) If neither conclusion I nor II follows.
(e) If both conclusions I and II follow.

Q84. Statements:
All Sand are Dust
No Soil is Dust
All Soil are Water
Conclusions:
I. Some Water being Sand is a possibility
II. No Dust is water
(a) If only conclusion I follows.
(b) If only conclusion II follows.
(c) If either conclusion I or II follows.
(d) If neither conclusion I nor II follows.
(e) If both conclusions I and II follow.

Q85. If all the letters in the word 'ASSOCIATION' are arranged in alphabetical order from left to right, then all vowels are replaced with next letter and all consonants are replaced with previous letter of the word. Then which of the following letter is 6th from the right end?
(a) R
(b) P
(c) B
(d) M
(e) None of these

Directions (86-90): Study the following information carefully to answer the given questions:
Eight employees of a company are working on eight different designation of a company viz. CMD, MD, CEO, COO, Manager, AM, Assistant, Trainee. All the designations given are to be considered in a given order (as CMD is considered as Senior-most and Trainee is considered as the Junior-most).
Only two persons are senior to D. Only one person is posted between A and D. Three designations lies between A and B. Two persons posted between B and C. H is just senior to F. E is senior to D. H is just senior to F who is not trainee. Not more than two persons are posted between F and G who is senior to C.

Q86. Who among the following is just senior to D?
(a) G
(b) H
(c) E
(d) F
(e) None of these

Q87. Who among the following is COO of the company?
(a) H
(b) F
(c) E
(d) G
(e) None of these

Q88. A posted on which of the following designation in the company?
(a) AM
(b) CMD
(c) Manager
(d) COO
(e) None of these

Q89. How many persons are posted between E and F?
(a) Four
(b) Three
(c) Two
(d) One
(e) None

Q90. How many persons are senior to H?
(a) Four
(b) One
(c) Two
(d) More than four
(e) Three

Directions (91-94): Study the following alphanumeric series carefully and answer the questions given below:
H 2 8 7 % S 3 2 W 4 1 @ 2 R 2 Y D 9 & U V # $ 2 G 8 * M A 5

Q91. How many such alphabets are there which is preceded and followed by a number?
(a) Three
(b) Two
(c) One
(d) Four
(e) None

Q92. How many such symbols are there which is preceded by numbers and followed by vowels?
(a) Two
(b) None
(c) One
(d) Four
(e) Three

Q93. How many such numbers are there which is preceded by alphabets and followed by symbols?
(a) One
(b) Two
(c) Three
(d) Four
(e) None

Q94. If all numbers are eliminated from the series, then, which of the following element is 14th from right end of the series?
(a) @
(b) W
(c) S
(d) &
(e) None of these

Q95. How many pairs of letters are there in the word 'CLASSMATE', each of which have as many letters between them (both forward and backward direction) in the word as they have between them according to English alphabetical order?
(a) More than three
(b) One
(c) Three
(d) Two
(e) None

Directions (96-100): Study the following information carefully to answer the given questions:
Eight persons sit in a row facing north. Not more than two persons sit to the left of T. Three persons sit between T and V. P sits second to the left of V. Q sits third to the right of P. W neither immediate neighbor of T not P. W sits immediate left of R. Not more than one person sits between R and U who sit left of S.

Q96. Who among the following sit immediate right of U?
(a) T
(b) Q
(c) V
(d) P
(e) None of these

Q97. How many persons sit between S and Q?
(a) Four
(b) Three
(c) One
(d) Two
(e) None

Q98. Who among the following sits third to the left of V?
(a) W
(b) U
(c) S
(d) R
(e) None of these

Q99. The number of persons sit between W and U is same as the number of persons sit to the right of ___?
(a) S
(b) Q
(c) V
(d) T
(e) None of these

Q100. Who among the following sits fourth to the right of R?

(a) W
(b) Q
(c) V
(d) S
(e) None of these