TESMUS
...keeps you ahead

TEST FORM NUMBER

Maximum Marks : 100
Total Questions :   100
Time Allowed   : 60 Min.

INSTRUCTIONS TO CANDIDATE

Read the following instructions carefully before you begin to attempt the questions.

(1) This booklet contains **100 Questions** in all comprising the following **three** parts.

Part-(I)	**: English Language**	**(30 Questions)**
Part-(II)	**: Quantitative Aptitude**	**(35 Questions)**
Part-(III)	**: Reasoning Aptitude**	**(35 Questions)**

(2) All the questions are compulsory and carry equal marks.

(3) Before you start to attempt the questions, you must explore this booklet and ensure that it contains all the pages and find that no page is missing or replaced. If you find any flaw in this booklet, you must get it replaced immediately.

(4) **Each question carries negative marking also as 0.25 mark will be deducted for each wrong answer.**

(5) You will be supplied the Answer-sheet separately by the invigilator. You must complete the details of Name, Roll number, Test name/Id and name of the examination on the Answer-Sheet carefully before you actually start attempting the questions. You must also put your signature on the Answer-Sheet at the prescribed place. These instructions must be fully complied with, failing which, your Answer-Sheet will not be evaluated and you will be awarded 'ZERO' mark.

(6) Answer must be shown by completely blackening the corresponding circles on the Answer-Sheet against the relevant question number by **pencil or Black/Blue ball pen** only.

(7) A machine will read the coded information in the OMR Answer-Sheet. In case the information is incompletely/ different from the information given in the application form, the candidature of such candidate will be treated as cancelled.

(8) The Answer-Sheet must be handed over to the Invigilator before you leave the Examination Hall.

(9) Failure to comply with any of the above Instructions will make a candidate liable to such action/penalty as may be deemed fit.

(10) Answer the questions as quickly and as carefully as you can. Some questions may be difficult and others easy. Do not spend too much time on any question.

(11) Mobile phones and wireless communication device are completely banned in the examination halls/rooms. Candidates are advised not to keep mobile phones/any other wireless communication devices with them even switching it off, in their own interest. Failing to comply with this provision will be considered as using unfair means in the examination and action will be taken against them including cancellation of their candidature.

(12) No rough work is to be done on the Answer-Sheet.

(13) No candidate can leave the examination hall before completion of the exam.

NAME OF CANDIDATE:..

DATE :........................ CENTRE CODE :.................

ROLL No ....

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO

English Language

Direction (1-2): Select the phrase(s) from the given three options which can be used to form a single sentence from the two sentences given below, implying the same meaning as expressed in the statement sentences. The given options may or may not be starters.

1. A. Critics claim environmental regulations hurt productivity and profits.
B. In reality, incentive-based policies may actually benefit regulated firms in the traditional and green energy sectors.
1. While, in reality...
2. Additionally, in reality...
3. Because critics claim...
(A) Only 1   **(B)** Only 1 and 2
(C) Only 2 and 3   **(D)** Only 1 and 3
(E) All 1, 2 and 3

2. A. Access to healthcare in Guinea has improved marginally over the years.
B. The country still struggles with one of the worst health-care infrastructures in the world.
1. Although access to...
2. Since access to...
3. Yet the country...
(A) Only 3   **(B)** Only 1 and 2
(C) Only 2 and 3   **(D)** Only 1 and 3
(E) All 1, 2 and 3

Direction (3-8): In the following question, three sentences are given, revolving around the same theme or idea. Decide which of the sentences are grammatically and meaningfully correct and mark the answer accordingly.

3. 1. Although deplored by many, her decisions have great benefited the company.
2. The book describes the changes that have occurred in the landscape over many millennia.
3. Both candidates have agreed to take part in another debate before the election.
(A) Only 2   **(B)** Only 1 and 2
(C) Only 1 and 3   **(D)** Only 2 and 3
(E) All 1, 2 and 3

4. 1. Big banks have admitted to heinous crimes that have cost citizens billions of dollars.
2. The man's whole life should have been considered when the decision was made to give the award out.
3. Traditionally, voters have used by-elections to expressed anti-government sentiment.
(A) Only 1   **(B)** Only 1 and 2
(C) Only 1 and 3   **(D)** Only 2 and 3
(E) All 1, 2 and 3

5. 1. He is outspoken in his advocacy of the death penalty.
2. They have taken out expensive adverts in all trade papers, complete with favourable reviews.
3. Though bats and birds are both aerial creatures, records of there interaction have been extremely rare.

(A) Only 1   **(B)** Only 1 and 2
(C) Only 1 and 3   **(D)** Only 2 and 3
(E) All 1, 2 and 3

6. 1. Several lawyers have offered free advice on the issue.
2. We have installed additional signs on the road to advertise the fact that the speed limit have been reduced.
3. Advisories warning of fish contamination in the region have been emerging for several years.
(A) Only 3   **(B)** Only 1 and 2
(C) Only 1 and 3   **(D)** Only 2 and 3
(E) All 1, 2 and 3

7. 1. A lot of people don't want to advertise the fact that they have a personal trainer.
2. Seven nuclear facilities have been damaged or effectively destroyed by ransackers.
3. Given the already low supply, some towns reportedly did not have any plywood left to sell.
(A) Only 2   **(B)** Only 1 and 2
(C) Only 1 and 3   **(D)** Only 2 and 3
(E) All 1, 2 and 3

8. 1. Bats' ability to fly and use echolocation is well-known, but their diversity come with other peculiar behaviors.
2. Mexican fish-eating bats use their long claws to catch fish near Baja and the Gulf of California.
3. Sometimes classified as marine mammals, these bats drink salt water while spending lengthy amounts of time at sea.
(A) Only 2   **(B)** Only 1 and 2
(C) Only 1 and 3   **(D)** Only 2 and 3
(E) All 1, 2 and 3

Direction (9-12): In the question given below, rearrange the parts of the sentence in the correct order, and choose the correct option.

9. crossing from wildlife into livestock or people, (A)/ because of greater proximity between the two (B)/ carries a greater risk of diseases (C)/ human expansion into natural areas (D)
(A) ACDB   **(B)** CABD
(C) BADC   **(D)** DCAB
(E) No rearrangement required

10. studies conducted during the pandemic (A)/ and increased time spent on smartphones (B)/ to the consumption of Covid-19 related media (C)/ have linked both anxiety and depression (D)
(A) ADCB   **(B)** BCAD
(C) CDAB   **(D)** DCBA
(E) No rearrangement required

11. requires all of us to change (A)/ especially with reductions in meat consumption in wealthy countries (B)/ taking care of environmental and human health (C)/ what we eat and how it's produced (D)
(A) ADCB   **(B)** BCAD
(C) CADB   **(D)** DBAC

(E) No rearrangement required

12. On the issue of climate change, most scientists (A)/ a large-scale geophysical experiment with the planet (B)/ have likely formed the opinion that humanity is basically conducting (C)/ by increasing the concentration of greenhouse gases (D)
   (A) ACBD   **(B)** BDCA
   (C) CADB   **(D)** DCBA
   (E) No rearrangement required

Direction (13-17): In the question below, a sentence is given with four words highlighted in bold. One of these four words may either be wrongly spelled or inappropriate in the context of the sentence. Find out the word, which is wrongly spelled or inappropriate, if any. If all the words are correctly spelled and appropriate in the context of the sentence, mark (e) as your answer.

13. Classical literature is **rich** in lessons of character, but often gets a bad **reputation** because of its **amiable** language and **unfamiliar** settings.
   (A) rich   **(B)** reputation
   (C) amiable   **(D)** unfamiliar
   (E) All are correct

14. Some companies, such as Bank of Ireland, **automatically invoke** this **type** of accident in their standard cover, but this is not the **norm**.
   (A) automatically   **(B)** invoke
   (C) type   **(D)** norm
   (E) All are correct

15. The UN could have gone on **passing resolutions** and sending in inspectors but in the end there was no **realistic alternative** to war.
   (A) passing   **(B)** resolutions
   (C) realistic   **(D)** alternative
   (E) All are correct

16. **Excavations** have **revealed** a number of buildings, the most **notable** of which was a **large** town house with mosaic floors.
   (A) excevations   **(B)** revealed
   (C) notable   **(D)** large
   (E) All are correct

17. University of Nevada archaeologists **hope** to **establish** a lecture series as well as traveling exhibits to **showcase** the **artifacts**.
   (A) hope   **(B)** establish
   (C) showcase   **(D)** artifacts
   (E) All are correct

Direction (18-22): In the question below, a sentence is given with a part missing. From the options, choose the word that will fit in the sentence to make it correct.

18. Although the losses have been severe, the charge that those jobs were _____ by foreign competition simply doesn't square with the facts.
   (A) eliminated   **(B)** espoused
   (C) induced   **(D)** incited
   (E) implied

19. Since the oil crisis in 1973, plant oils, mainly from rapeseed and soybean, have been _____ as an alternative, renewable source of liquid fuels.
   (A) instigated   **(B)** inhibited
   (C) investigated **(D)** reminded
   (E) replaced

20. An additional 70 Icelanders died at sea, but it has not been _____ whether they lost their lives as a result of hostilities.
   (A) convened   **(B)** conformed
   (C) collected   **(D)** confirmed
   (E) commanded

21. These actions were aimed at keeping Icelanders' standard of living as high as it had become during the _____ war years.
   (A) cautious   **(B)** contentious
   (C) pompous   **(D)** preposterous
   (E) prosperous

22. Hospitals and doctors have been placed on alert to treat quarantine patients suspected of suffering from the early _____ of the virus.
   (A) positions   **(B)** institutions
   (C) stages   **(D)** insights
   (E) starts

Direction (23-30): Read the following passage carefully and answer the questions.

From coastal cities around the world, through pipes lurking just beneath the waves, streams of human waste flood into the sea. Sometimes this water is cleaned-filtered, aerated, and treated with bleach. Sometimes it is not, and the reams of sewage-whatever we wash down the drain or flush down the toilet-flow into the ocean raw. If that grosses you out, consider that human excrement is probably the least harmful component of the flow, at least when it comes to environmental impacts. More troubling are certain invisible substances that easily pass through wastewater treatment plants and end up in the ocean.

Every Advil you pop or antidepressant you swallow is processed in your body and excreted, often as chemical byproducts that can still affect other organisms. Scientists have only tested a fraction of pharmaceuticals for their effects on marine life, and most remain unregulated in wastewater. In their quest to understand the effects of drugs on marine life, however, scientists have found an involuntary ally: shellfish. Because they live stationary lives, clams and mussels have been accidental test subjects in pharmaceutical pollution research. Now, these shellfish are helping sound the

alarm about several common drugs and chemicals.

Off the shore of São Paulo, Brazil, a pipe releases mostly untreated sewage into Santos Bay. And as scientists report in a recent study, the animals around this outfall appear to be feeling the effects of our drugs. Recent studies have raised concerns about substances making it into the environment, including antibiotics in soaps and personal care products, estrogen mimics in birth control, and painkillers, but there's not much data on the effects of these compounds on wildlife. So, scientists grew shellfish in the lab on sediment contaminated with two drugs, exposing them to the same concentrations they face in Santos Bay.

One was ibuprofen, a common painkiller, and the other was triclosan, an antibacterial compound found in products including toothpastes and body washes. The drug exposure caused a range of negative effects, including malformed membranes and reproductive difficulties. This is a problem because most toxicity assessments done by governments to see if a substance should be regulated only look at acute effects, which usually means whether the compound is lethal. But just because animals are surviving our pharmaceutical pollution doesn't mean they are unaffected. Studies of chronic impacts from longer-term exposure are expensive and time-consuming, but it's exactly these impacts that are worrying.

Coastal environments vary widely from city to city. São Paulo's sewage lingers in sheltered Santos Bay, amplifying the effects of drug exposure. But on Canada's west coast, deep water, dynamic tides and strong currents routinely flush the Juan de Fuca Strait, where the city of Victoria, British Columbia, has been pumping raw sewage through only a coarse screen since the 1960s. City officials, however, are worried about pharmaceuticals and began routinely monitoring the outfalls for drugs in 2004.

A recent study showed that shellfish, sediment and water in the region immediately around sewage outfalls show traces of drugs, including triclosan and ibuprofen. So what does this outpouring of pharmaceutical waste mean for ocean life? Unlike heavy metals, most drugs don't accumulate up the food chain. Though some compounds, such as triclosan, can build up in animal fat. But since drugs are designed to be effective at low doses, a little can do a lot of potential damage.

As of yet, there's no widely used technology to target drugs. The only way these compounds are removed from sewage is if they bind to particles that are otherwise filtered out by standard treatments or if they break down naturally. Some researchers are developing systems that can be added to treatment plants to filter out pharmaceuticals, such as activated carbon filters or bacteria specifically designed to break down drugs. But these are still in development, and many drugs escape even the most advanced treatment plants currently operating.

Scientists say the effects of pharmaceutical waste vary by location and solutions should, too. In Brazil, for example, ibuprofen often comes in large packages, so people may flush a lot of expired medication. In this case, the solution may be to try to get manufacturers to make smaller packages. But ultimately, we need to learn a lot more about what these compounds do in the environment. Only then can we tell if the drugs that keep us healthy are making the ocean sick.

23. Which of the following pharmaceutical drugs was/ were found to cause negative effects in shellfish?
(A) A common painkiller known as ibuprofen
(B) An antibacterial compound by the name of triclosan
(C) Estrogen mimicking compounds found in birth control pills
(D) Both (A) and (B)
(E) All (A), (B) and (C)

24. Which of the following is the reason why most toxicity assessments done by governments only focus on acute effects of a substance?
(A) Acute effects are more likely to radiate through the food chain than chronic effects.
(B) Most pharmaceutical products have acute effects on animals than chronic effects.
(C) Acute effects on marine life are more likely to cause extinction than chronic effects.
(D) Pharmaceutical products that have chronic effects usually do not make their way into the ocean.
(E) Studies studying chronic impacts of a substance are expensive and time consuming.

25. Which of the following systems is being developed by scientists to filter out pharmaceuticals?
(A) Systems that detect the presence of pharmaceuticals in water
(B) Systems that separate water contaminated with drugs
(C) Systems that use activated carbon filters or bacteria that break down drugs
(D) Systems that release neutralizing chemicals into contaminated water
(E) None of the above

26. What solution does the author suggest for coastal regions where a particular pharmaceutical drug shows up in large quantities?
(A) Implement laws that prohibit flushing of drugs
(B) Persuade manufacturers to make smaller packages
(C) Improve water treatment facilities in these regions

(D) Redirect contaminated water into coastal regions with lesser wildlife

(E) Restrict sale of such pharmaceutical drugs

27. What role do deep water, tides and currents play in drug exposure for shellfish?
   (A) They routinely flush the coasts not allowing sewage to accumulate.
   (B) They amplify the effects of drug exposure by allowing sewage to accumulate.
   (C) They play no role whatsoever in drug exposure for shellfish.
   (D) They cause sewage from adjoining regions to flow into the area.
   (E) None of the above

28. Why are shellfish suitable for studying the effects of pharmaceutical pollution?
   (A) Because they are easily accessible on the coast
   (B) Because they live stationary lives
   (C) Because they are very resilient creatures
   (D) Because they represent the lowest level of the marine food chain
   (E) Because they have DNA that undergoes changes on drug exposure.

29. Which of the following is closest in meaning to the word 'vary' as used in the passage?
   (A) differ   **(B)** assign
   (C) imply   **(D)** induce
   (E) arouse

30. Which of the following is opposite in meaning to the word '**accumulate**' as used in the passage?
   (A) recollect   **(B)** comply
   (C) understand   **(D)** disperse
   (E) collect

Quantitative Aptitude

31. What will come in place of the question mark (?) in the following series?
   121, 123, 117, 135, ?, 243
   (A) 64   **(B)** 96
   (C) 81   **(D)** 72
   (E) 75

32. What will come in place of the question mark (?) in the following series?
   112, ?, 148, 184, 232, 292
   (A) 120   **(B)** 124
   (C) 128   **(D)** 130
   (E) None of these

33. What will come in place of the question mark (?) in the following series?
   7, 13, ?, 49, 97, 193
   (A) 25   **(B)** 30
   (C) 24   **(D)** 18
   (E) 36

34. What will come in place of the question mark (?) in the following series?
   8, ?, 269, 1079, 3239, 6479

(A) 53   **(B)** 64
(C) 60   **(D)** 50
(E) 48

35. What will come in place of the question mark (?) in the following series?
   20, 34, 54, 80, ?, 150
   (A) 125   **(B)** 120
   (C) 108   **(D)** 112
   (E) None of these

36. Five articles out of which 3 are cups and rest are glasses have to be arranged on a shelf. Find the number of ways of arrangement in which all three cups are not placed together.
   (A) 80 ways   **(B)** 72 ways
   (C) 60 ways   **(D)** 84 ways
   (E) 64 ways

37. 'A' and 'B' started a business by investing Rs. (x + 200) and Rs. (x – 800) for 8 months and 7 months, respectively. If the profit share of 'A' is Rs. 6900 out of total profit of Rs. 11500, then find the value of 'x'.
   (A) 4000   **(B)** 3200
   (C) 4200   **(D)** 4800
   (E) 3600

38. 144 litres of mixture contains milk and water in ratio of 5:7, respectively. When (x – 26) litres of milk and (x – 38) litres of water is added into it then the ratio quantity of milk to that of water in the final mixture becomes 7:8. Find the value of 'x'.
   (A) 30   **(B)** 35
   (C) 40   **(D)** 45
   (E) 50

39. 'A' can do 20% of work in 5 days and 'B' can do 33.33% of work in 10 days. If 'A' and 'B' started to work together and after 5 days 'A' left the work then in how many days 'B' will complete the remaining work?
   (A) 17 days   **(B)** 18 days
   (C) 19 days   **(D)** 20 days
   (E) 21 days

40. Train 'A' takes 12 seconds to cross a pole and 30 seconds to cross a 360 metre long bridge. If the length of the train had been 200 metres then find the time taken by it to cross 100 metre long bridge with same speed.
   (A) 16 seconds   **(B)** 12 seconds
   (C) 15 seconds   **(D)** 20 seconds
   (E) 18 seconds

41. The sum of the length of a rectangle and the side of a square is 42 cm. If the area of the square is 324 cm^2 and the perimeter of the rectangle is 80 cm, then find the area of the rectangle.
   (A) 374 cm^2 **(B)** 380 cm^2
   (C) 384 cm^2 **(D)** 284 cm^2
   (E) 364 cm^2

42. The present age of 'A' is 20% less than that of 'B' but 25% more than that of 'C'. If the difference between the present ages of 'B' and 'C' is 9 years, the find the ratio of the ages of 'A' and 'C', 8 years hence from now.
(A) 7:6   (B) 5:4
(C) 8:5   (D) 3:2
(E) 9:4

43. What approximate value will come in place of the question mark (?) in the following question?(Note: You are not expected to calculate the exact value.)
79.95 × 25.001 − 20.001 × 129.90 + 839.99 =?
(A) 240   (B) 300
(C) 320   (D) 200
(E) None of these

44. A boat covers 150 km in upstream and 196 km in downstream in a total of 10 hours. If the speed of stream is 60% less than speed of boat in still water then find the distance covered by boat in still water in 5 hours.
(A) 160 km   (B) 175 km
(C) 195 km   (D) 210 km
(E) None of these

45. Akash and Vikash invested Rs. 5000 each in schemes 'A' and 'B', respectively. Schemes 'A' and 'B' offers simple interest of 'x%' p.a. and compound interest of 20% p.a., compounded annually respectively. If at the end of 2 years, ratio of the interest received by Akash to that by Vikash was 15:11, then find the value of 'x'.
(A) 10   (B) 15
(C) 20   (D) 25
(E) 30

46. Sum of the weights of the students (boys + girls) in a class is 2800 kg. Average weight of all the boys and all the girls of the class is 40 kg and 32 kg, respectively. If the number of boys in the class is 60% of the number of girls, then find the total number of students in the class.
(A) 120   (B) 64
(C) 80   (D) 48
(E) 96

47. What approximate value will come in place of the question mark (?) in the following question?(Note: You are not expected to calculate the exact value.)
74.91% of 639.95 − 599.98% of 45 + 119.987 = ?
(A) 300   (B) 350
(C) 330   (D) 280
(E) 240

48. What approximate value will come in place of the question mark (?) in the following question?(Note: You are not expected to calculate the exact value.)
564.932 + 849.029 − 425.08 = 612.095 + ?
(A) 344   (B) 377
(C) 312   (D) 399

(E) 355

49. What approximate value will come in place of the question mark (?) in the following question?(Note: You are not expected to calculate the exact value.)
$\sqrt{1023} \times \sqrt{624} \div \sqrt{101}$ = ? + 24
(A) 42   (B) 56
(C) 40   (D) 50
(E) 64

50. What approximate value will come in place of the question mark (?) in the following question?(Note: You are not expected to calculate the exact value.)
$(519.98 + ?) \div 13.01 = \sqrt{440} + 20.01$
(A) 38   (B) 125
(C) 54   (D) 13
(E) 85

Direction (51-55): Answer the questions based on the information given below.

Different number of courses (bank + SSC) were sold by four companies. The following bar graph shows the total number of courses sold and percentage of bank courses sold out of total number of courses sold by respective companies.

▨ **Total Number of Courses Sold**

▢ **Percentage of Number of Bank Courses Sold**
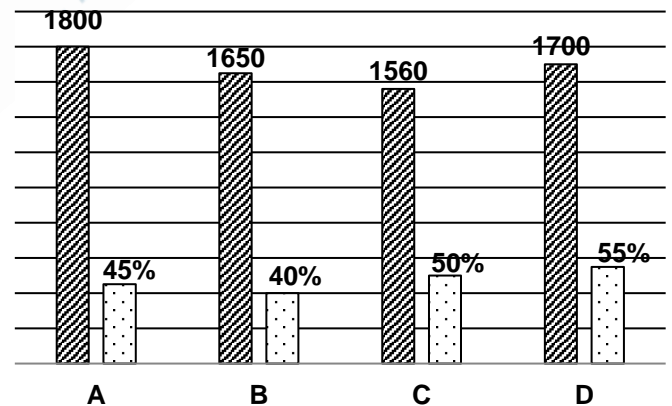
51. Find the ratio of number of bank courses sold by company 'B' to number of SSC courses sold by company 'A'.
(A) 5:3   (B) 9:7
(C) 2:3   (D) 11:9
(E) None of these

52. If the number of SSC courses sold by company 'E' is 25 more than the number bank courses sold by company 'D' then find the average number of SSC courses sold by companies 'C' and 'E'.
(A) 870   (B) 875
(C) 880   (D) 885
(E) 890

53. If the number of bank courses sold by company 'E' is 594 then the number of bank courses sold

by company 'E' is how much percent of the number of SSC courses sold by company 'B'?
(A) 50%   (B) 55%
(C) 60%   (D) 65%
(E) 70%

54. Find the sum of the number of bank courses sold by companies 'A' and 'C'.
(A) 1520   (B) 1530
(C) 1545   (D) 1560
(E) None of these

55. If the number of SSC courses sold by company 'F' is 40% of the total number of courses sold by company 'A' then find the difference between the number of SSC courses sold by companies 'D' and 'F'.
(A) 15   (B) 30
(C) 40   (D) 45
(E) 55

Direction (56-60): Answer the questions based on the information given below.

The given data is about number of boys and girls in three coaches (A1, B1 and C1). The ratio of number of boys in A1 and B1 is 8:5. The number of boys in B1 is 80% of total number of people (boys + girls) in B1. Number of girls in C1 is 20% more than that in B1. The number of boys in C1 is 75% less than that in A1. Total number of people in A1 is 4 times of that in C1. Number of girls in A1 is 120.

56. Find the difference between number of boys in A1 and number of girls in B1.
(A) 145   (B) 120
(C) 135   (D) 95
(E) 105

57. Find the average number of boys in given three coaches.
(A) 100   (B) 120
(C) 135   (D) 80
(E) 105

58. Total number of people in C1 is how much percent more/less than that in B1?
(A) 40%   (B) 60%
(C) 35%   (D) 60%
(E) 44%

59. Find 40% of number of girls in A1 and B1, together.
(A) 45   (B) 58
(C) 64   (D) 72
(E) 50

60. The ratio of total number of people in A1 and D1 is 7:5, respectively. If 45% of number of people (boys + girls) in D1 are boys then find the number of girls in D1.
(A) 150   (B) 100
(C) 140   (D) 110
(E) 90

Direction (61-65): Answer the questions based on the information given below.

The following table show the number of Indians rescued and ratio of the number of Indian males to females rescued, from four different countries.

Country	Number of Indians rescued	Ratio of the number of Indian males to females rescued
Nepal	840	4:3
China	660	1:2
Iraq	550	3:2
Iran	960	7:5

61. Find the ratio of the number of Indian males rescued from Iraq to number of Indian females rescued from China.
(A) 2:3   (B) 3:4
(C) 4:7   (D) 7:11
(E) None of these

62. If number of Indian females rescued from Qatar is half of the number of Indian males rescued from Nepal, then number of Indian females rescued from Qatar is how much percent of the number of Indian females rescued from Iran?
(A) 50%   (B) 55%
(C) 60%   (D) 65%
(E) 70%

63. Find the average of the number of Indian males rescued from China and Iran.
(A) 310   (B) 330
(C) 350   (D) 370
(E) 390

64. If number of Indians rescued from Qatar is 50% more than the number of Indian females rescued from Nepal then find the difference between the number of the Indians rescued from China and Qatar.
(A) 100   (B) 120
(C) 140   (D) 160
(E) 180

65. If the ratio of the number of Indians rescued from Iran to Kuwait is 8:9, respectively then find the sum of the number of Indian rescued from Kuwait and number of Indian females rescued from the Iraq.
(A) 1220   (B) 1240
(C) 1260   (D) 1280
(E) None of these

Reasoning Aptitude

66. Which of the following letter will be 5th letter from the right end if the letters of the word "BULLETINS" are arranged in reverse alphabetical order from left to right?
(A) Either (B) or (C)   (B) E
(C) N   (D) I
(E) L

Direction (67-71): Answer the questions based on the information given below.

Eight persons D, E, F, G, H, J, K and L sit in a straight row. Some of them face north while others face south direction. Number of persons facing south is two more than those facing north. D sits 2nd to the right of E. G sits 3rd to the right of F, who faces north direction. E and F sit immediate left of each other. L sits 2nd to the left of J, who faces same direction as E. Less than two persons sit between K and H, who doesn't sit adjacent to F. K and H face same direction as L.

67. What is the position of K with respect to L?
(A) 3rd to the right   (B) 4th to the left
(C) 3rd to the left   (D) 2nd to the right
(E) None of the above

68. Who sits 2nd to the right of H?
(A) E   (B) G
(C) F   (D) D
(E) None of the above

69. Which of the following statements is/are correct?
I. D and G face south direction
II. E sits to the left of D
III. F sits to the left of G
(A) Only II   (B) Only I
(C) Only II and III   (D) Only III
(E) Only I and III

70. ____ persons sit between G and L.
(A) Two   (B) One
(C) Four   (D) Five
(E) None of the above

71. What is the position of J with respect to F?
(A) 3rd to the right   (B) 2nd to the left
(C) 5th to the right   (D) 4th to the left
(E) None of the above

Direction (72-75): In the question, assuming the given statements to be true, find which of the conclusion (s) among given three conclusions is/are definitely true and then give your answer accordingly. The numbers are also taken as elements.

72. **Statements:** $A \geq 6$; $J = 4 < 8$; $A \geq 8$; $F > J$
Conclusions: I. $F > 8$ II. $A > J$
III. $6 > F$
(A) Only conclusion II is true.
(B) Only conclusions II and III are true.
(C) Only conclusion I is true
(D) Only conclusions I and II are true.
(E) None is true

73. **Statements:** $J = 7 > K$; $X \leq 3$; $K > A > R < 3$
Conclusions: I. $J > R$ II. $X > J$
III. $K > R$
(A) Only conclusion II is true.
(B) Only conclusions II and III are true.
(C) Only conclusion I is true

(D) Only conclusions I and II are true.
(E) Only conclusions I and III are true.

74. **Statements:** $2 > X \geq A$; $Y \leq L < 2$; $E > A \geq J$
Conclusions: I. $2 > E$ II. $L < A$
III. $J < 2$
(A) Only conclusion III is true.
(B) All conclusions I, II and III are false.
(C) Only conclusions I and III are true.
(D) Only conclusion I is true.
(E) Only conclusions I and II are true.

75. **Statements:** $A < B \leq F$; $A > L > V$; $R \geq B$; $V < C$
Conclusions: I. $R > L$ II. $C > A$
III. $F > V$
(A) Only conclusion III is true.
(B) All conclusions I, II and III are false.
(C) Only conclusions I and III are true.
(D) Only conclusion I is true.
(E) Only conclusions I and II are true.

76. If in the word, WEBSITE, 1st, 4th and 7th letters are replaced by their 3rd preceding letter as per English Alphabetical series, then, then how many meaningful English words can be formed from 1st, 4th and 7th letters after the replacement?
(A) 3   (B) 2
(C) 1   (D) 4
(E) None of the above

77. In the question below there are three statements followed by two conclusions I and II. You have to take the three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts.
Statements: Some CCC are SSS
All SSS are RRR
No RRR is TTT
Conclusions: I. Some TTT are CCC
II. All CCC being RRR is a possibility
(A) Only conclusion I follows
(B) Both the conclusions I and II follow
(C) Neither conclusion I nor II follow
(D) Only conclusion II follows
(E) Either conclusion I or II follows

78. In the question below there are four statements followed by three conclusions I, II and III. You have to take the four given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.
Statements: Some chip are drip.
100% chip is mix.
No mix is milk.
Only a few milk are sweet.
Conclusions: I. Some mix are drip.
II. Few chip are sweet.
III. All milk being sweet is not a possibility.

(A) Only conclusion I and conclusion III follow.
(B) Only conclusion II follows.
(C) Either conclusion I or conclusion II follows.
(D) Only conclusion III follows
(E) None of the above

Direction (79-83): Answer the questions based on the information given below:

Seven persons P, Q, R, S, T, U and V sit around a circular table facing towards the centre. Each of them has different number of rings (2, 3, 4, 6, 7, 8 and 11).
V sits 3rd to the right of the person, who has 6 rings. One person sits between V and U, who has half the number of rings of P. S sits 3rd to the right of U and has 7 rings. P sits 2nd to the left of S. V has lowest number of rings. R sits 2nd to the left of the one, who has 4 rings. T doesn'(96-100): t have odd number of rings. Q doesn't have 11 rings.

79. Who sits 3rd to the right of R?
    (A) U   **(B)** T
    (C) P   **(D)** Q
    (E) None of the above

80. What is the position of T with respect to the one, who has 3 rings?
    (A) 2nd to the left   **(B)** 3rd to the right
    (C) Immediate right   **(D)** 2nd to the right
    (E) None of the above

81. What is the sum of rings of the persons, who sit adjacent to U?
    (A) 9   **(B)** 14
    (C) 15   **(D)** 11
    (E) 12

82. ___ sits immediate right of the of the person, who has highest number of rings.
    (A) P   **(B)** U
    (C) T   **(D)** S
    (E) None of the above

83. Which among the following statements is/are true?
    (A) U has 3 rings.
    (B) V sits immediate left of Q
    (C) Q sits 3rd to the right of T
    (D) P sits 3rd to the right of R
    (E) None of the above statements is true

Direction (84-85): Answer the questions based on the information given below.

There are 7 members, P, Q, R, S, T, U and V in a family. No single person in the family is a parent.
R's only brother's father's only sister's mother is P. S is the only grandson of U. T is the only sister-in-law of V, who doesn't have any siblings.

84. How is Q related to P?

(A) Son   **(B)** Son-in-law
(C) Brother   **(D)** Nephew
(E) None of the above

85. How is V related to S?
    (A) Brother   **(B)** Father
    (C) Nephew   **(D)** Daughter
    (E) Mother

Direction (86-88): Answer the questions based on the information given below.

Nine persons, A, B, C, D, E, F, G, H and I are sitting at some distance from each other. D is sitting 5m west to B, who is sitting 1m south to G. I is sitting 11m north to H, who is sitting 6m east to A, who is sitting 3m south to E. G is sitting 2m east to F, who is sitting 9m north to C, who is sitting 8m west to E.

86. What is the shortest distance between D and I?
    (A) 17 m   **(B)** 15 m
    (C) 18 m   **(D)** 5 m
    (E) 12 m

87. B is in which direction with respect to C?
    (A) North   **(B)** Northwest
    (C) Northeast   **(D)** West
    (E) South

88. G is in which direction with respect to A?
    (A) North   **(B)** Northwest
    (C) Northeast   **(D)** West
    (E) South

89. In the question below there are three statements followed by two conclusions I and II. You have to take the three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts.
    Statements: Only luxury is rich
    Only a few luxury is poor
    88% poor is company
    Conclusions: I. Some rich is company
    II. All luxury being poor is not a possibility.
    (A) Both conclusion I and conclusion II follow
    (B) Only conclusion II follows
    (C) Only conclusion I follows
    (D) Neither conclusion I nor conclusion II follows
    (E) None of the above

90. In the question below there are three statements followed by two conclusions I and II. You have to take the three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts.
    Statements: All umbrella is shelter
    Some shelter is shade

Only a few shade is sunshine
Conclusions: I. Some shade can never be sunshine
II. All sunshine are umbrella
(A) Both conclusion I and conclusion II follow
(B) Only conclusion II follows
(C) Only conclusion I follows
(D) Neither conclusion I nor conclusion II follows
(E) None of the above

Direction (91-95): Answer the questions based on the information given below.

Six persons, P, Q, R, S, T, and U live in 6 flats of a 3-storey building. There are two types of flats, A and B in a building such that each floor has two types of flats. There are three floors in the building. The bottommost floor is numbered as 1 and the topmost floor is numbered 3. Flat A is in west of flat B. One person lives in each flat of each floor. Each person likes different colours, Pink, Blue, Black, Yellow, Grey and Red.
Note:
1. If a person lives immediately above/below of another person then they may or may not be living in same type of flat.
2. X lives in north-west of Y means X must be living above the person (in the same type of flat), who lives exactly in the west of Y.
3. If a person lives in the west/east of another person, then, they both must be living on the same floor.
U lives just above R, who doesn't live on prime numbered floor. Q lives in the north-west of R. P lives just below of T, who likes Blue. Person, who likes Pink lives in flat A of floor 1. P likes Red. Person, who likes Black lives immediately above the person, who likes Yellow but not in the same type of flat.
Q doesn't like Black.

91. Who among the following lives in flat -A of floor 2?
(A) P   **(B)** U
(C) Q   **(D)** S
(E) None of the above

92. Who lives immediately above the person, who likes Grey in same type of flat as he/she lives?
(A) U   **(B)** S
(C) Q   **(D)** P
(E) None of the above

93. Who lives in flat-B of floor 3?
(A) T   **(B)** P
(C) S   **(D)** Q
(E) None of above

94. Who lives exactly between T and R in the same type of flat?
(A) Q   **(B)** U
(C) S   **(D)** P
(E) Either (A) or (B)

95. Which of the following statements is true?

(A) R lives one floor below U in the same type of flat
(B) T lives one floor above S
(C) Q and S live on consecutive floors
(D) P lives west of U
(E) S and P live in different type of flat

Direction (96-100): Answer the questions based on the information given below.

Seven candidates A, B, C, D, E, F and G have exams on different days from Monday to Sunday in the same week. Their exams are at different times among 9am, 10am, 11am, 1pm, 2pm, 3pm and 4pm but not necessarily in the same order.
Note: If a person's exam is one or two days before or after the exam of another person then it must be irrespective of time given above.
C has exam on Wednesday and before 12 noon. G's exam is two days before B's exam, which is at 10am. Two persons have exam between G's and F's exam. F's exam is immediately before the exam of the candidates, whose exam is at 3pm. D has exam at 9am but neither on Monday nor Friday.
A's exam is immediately before the one, whose exam is at 11am. Neither F nor E has exam at 1pm.
F doesn't have exam at 4pm.

96. Who has exam on Tuesday?
(A) F   **(B)** A
(C) G   **(D)** E
(E) None of the above

97. How many candidates have exams after E?
(A) Five   **(B)** Three
(C) Two   **(D)** One
(E) None of the above

98. _____ has exam at 2 pm.
(A) A   **(B)** G
(C) E   **(D)** B
(E) F

99. Who among the following have exam after A?
I. F   **II.** E
III. B
(A) Only I and III   **(B)** Only III
(C) Only II   **(D)** Only II and III
(E) Only I

100. Candidate, whose exam is at 2 pm, has exam on _____.
(A) Tuesday   **(B)** Saturday
(C) Friday   **(D)** Monday
(E) None of the above

English Language

1. Answer: (A)
The sentences show contradiction. A tells us that critics claim environmental regulations hurt productivity and profits. B says that incentive-based policies may actually benefit regulated firms in the traditional and green energy sectors.
1 is correct as WHILE is used to show contradiction. "Critics claim environmental regulations hurt productivity and profits while in reality, incentive-based policies may actually benefit regulated firms in the traditional and green energy sectors." Thus, (a) is the right answer.
2 is incorrect as ADDITIONALLY is used to show additionality, which is not the case here.
3 is incorrect as BECAUSE is used to show causation, which is not the case here.

2. Answer: (D)
The sentences show contradiction. A tells us that access to healthcare in Guinea has improved marginally over the years. B tells us that the country still struggles with one of the worst health-care infrastructures in the world.
1 is correct as ALTHOUGH is used to show contradiction. "Although access to healthcare in Guinea has improved marginally over the years, the country still struggles with one of the worst health-care infrastructures in the world."
3 is correct as YET is used to show contradiction. "Access to healthcare in Guinea has improved marginally over the years, yet the country still struggles with one of the worst health-care infrastructures in the world." Thus, (d) is the right answer.
2 is incorrect as SINCE is used to show causation, which is not the case here.

3. Answer: (D)
Both 2 and 3 are grammatically correct. In 1, replace the adjective GREAT with the adverb GREATLY as it is being used to modify the verb BENEFITED.

4. Answer: (B)
Both 1 and 2 are grammatically correct. In 3, replace the second form verb EXPRESSED with EXPRESS as the TO + VERB infinitive construction will take the base form verb.

5. Answer: (B)
Both 1 and 2 are grammatically correct. In 3, replace the adverb THERE with the possessive pronoun THEIR as the sentence talks about the interaction of birds and bats.

6. Answer: (C)
Both 1 and 3 are grammatically correct. In 2, replace the plural verb HAVE with the singular verb HAS as the subject SPEED LIMIT is singular.

7. Answer: (E)
All 1, 2 and 3 are grammatically correct and free of error.

8. Answer: (D)
Both 2 and 3 are grammatically correct and free of error.

In 1, replace the plural verb COME with the singular verb COMES as the subject DIVERSITY is singular.

9. Answer: (D)
DCAB is the final order. D begins by the sentence by establishing the subject - human expansion into natural areas. C follows D by telling us that it carries a greater risk of diseases. A adds that the sentence talks about diseases crossing from wildlife into livestock or people. B concludes the sentence by stating the reason for the same - greater proximity between animals and people.

10. Answer: (A)
ADCB is the final order. A begins the sentence by establishing the subject - studies conducted during the pandemic. B tells us that they have linked both anxiety and depression but does not specify to what. C and B follow in a pair to add that the said studies have linked anxiety and depression to the consumption of Covid-19 related media and increased time spent on smartphones.

11. Answer: (C)
CADB is the final order. C begins the sentence by introducing the subject - taking care of environmental and human health. A follows C by stating what we should do in order to take care of environmental and human health - change. D follows C by adding what it is that should be changed - what we eat and how it's produced. B concludes the sentence by adding that the changes are all the more necessary because of reductions in meat consumption in wealthy countries.

12. Answer: (A)
ACBD is the final order. A begins the sentence by introducing the subject - the take of most scientists on the issue of climate change. C and B occur in a pair and tell us that in their opinion humanity is conducting a large-scale geophysical experiment with the planet. D concludes the sentence by stating that they are doing so by increasing the concentration of greenhouse gases.

13. Answer: (C)
The sentence tells us how classical literature is rich (abundant) in lessons of character, but it often gets a bad reputation (image) due to its old language and unfamiliar (unknown) settings. AMIABLE means friendly and is contextually inapt. It should be replaced with ARCHAIC (old).

14. Answer: (B)
The sentence tells us how some companies automatically (by default) include this type (kind) of accident in their standard cover, but this is not the norm (regular practice). INVOKE (appeal to a deity) is inapt in this context, and should be replaced with INCLUDE.

15. Answer: (E)
The sentence tells us how the UN could have continued passing (implementing) resolutions (motions) but there was no realistic (practical) alternative (option) to war. All the words are contextually apt and correctly spelled.

16.   Answer: (A)
The sentence tells us how archaeological digs have revealed (unearthed) many buildings, the most notable (prominent) of which was a large (big) town house. A is incorrectly spelled. The correct spelling of the word is EXCAVATIONS.

17.   Answer: (E)
The sentence tells us the University of Nevada archaeologists hope (seek) to establish (set up) a lecture series as well as travelling exhibits to showcase (display) the artifacts (objects of cultural or historical significance). All the words are correctly spelled and contextually apt.

18.   Answer: (A)
We need a past participle form verb to fit in the passive voice construction WERE + VERB. ELIMINATED (removed) will fit here as the sentence tells us how the charge that the jobs were reduced due to foreign competition may not necessarily be true. Espoused - promoted. Induced - urged. Incited - provoked. Implied - suggested.

19.   Answer: (C)
We need a past participle form verb to fit in the passive voice construction HAVE + BEEN + VERB. INVESTIGATED (studied) will fit here as the sentence tells us how the plant oils have been considered as an alternative, renewable source of liquid fuels. Instigated - provoked. Inhibited - limited. Reminded - caused to remember. Replaced - supplanted.

20.   Answer: (D)
We need a past participle form verb to fit in the passive voice construction HAS + BEEN + VERB. CONFIRMED (made certain with proof) will fit here as the sentence tells us how it is not certain how the Icelanders died.
Convened - summoned. Collected - gathered. Conformed - adhered to rules or expectations. Commanded - ordered.

21.   Answer: (E)
We need an adjective here to modify the noun phrase WAR YEARS. PROSPEROUS (wealthy) will fit here as the sentence tells us how the standard of living had risen during the war years.
Cautious - careful. Contentious - controversial. Pompous - arrogant. Preposterous - ridiculous.

22.   Answer: (C)
We need a noun here to be modified by the adjective EARLY. STAGES (phases) will fit here as the sentence tells us how the patients suspected to be suffering from the early phases of the virus are to be treated. Positions - placements. Institutions - establishments. Insights - ideas. Starts (verb) - begins.

23.   Answer: (D)
Both A and B are mentioned in the passage as pharmaceutical substances found to cause harm to shellfish. Refer to the lines: "So, scientists grew shellfish in the lab on sediment contaminated with two drugs, exposing them to the same concentrations they face in Santos Bay. One was ibuprofen, a common painkiller, and the other was triclosan, an antibacterial compound found in products including toothpastes and body washes. The drug exposure caused a range of negative effects, including malformed membranes and reproductive difficulties."
C is not mentioned in the passage.

24.   Answer: (E)
Refer to the lines: "This is a problem because most toxicity assessments done by governments to see if a substance should be regulated only look at acute effects, which usually means whether the compound is lethal. But just because animals are surviving our pharmaceutical pollution doesn't mean they are unaffected. Studies of chronic impacts from longer-term exposure are expensive and time-consuming, but it's exactly these impacts that are worrying."
None of the other options is mentioned in the passage.

25.   Answer: (C)
Refer to the lines: "Some researchers are developing systems that can be added to treatment plants to filter out pharmaceuticals, such as activated carbon filters or bacteria specifically designed to break down drugs. But these are still in development, and many drugs escape even the most advanced treatment plants currently operating."
None of the other options is mentioned in the passage.

26.   Answer: (B)
Refer to the lines: "Scientists say the effects of pharmaceutical waste vary by location and solutions should, too. In Brazil, for example, ibuprofen often comes in large packages, so people may flush a lot of expired medication. In this case, the solution may be to try to get manufacturers to make smaller packages."
None of the other options is mentioned in the passage.

27.   Answer: (A)
Refer to the lines: "Coastal environments vary widely from city to city. São Paulo's sewage lingers in sheltered Santos Bay, amplifying the effects of drug exposure. But on Canada's west coast, deep water, dynamic tides and strong currents routinely flush the Juan de Fuca Strait, where the city of Victoria, British Columbia, has been pumping raw sewage through only a coarse screen since the 1960s."
The other options are not mentioned or implied in the passage.

28.   Answer: (B)
Refer to the lines: "In their quest to understand the effects of drugs on marine life, however, scientists have found an involuntary ally: shellfish. Because they live stationary lives, clams and mussels have been accidental test subjects in pharmaceutical pollution research. Now, these shellfish are helping sound the alarm about several common drugs and chemicals."
None of the other options is mentioned in the passage as the reason.

29. Answer: (A)
VARY means to differ, which will make (a) the right answer.
Assign - allot. Imply - suggest. Induce - urge. Arouse - stimulate.

30. Answer: (D)
ACCUMULATE means to gather, and DISPERSE (scatter) is its antonym.
Recollect - remember. Comply - abide by. Understand - comprehend. COLLECT is a synonym of the given word.

Quantitative Aptitude

31. Answer: (C)

32. Answer: (B)
$112 + (12 \times 1) = 124$
$124 + (12 \times 2) = 148$
$148 + (12 \times 3) = 184$
$184 + (12 \times 4) = 232$
$232 + (12 \times 5) = 292$

33. Answer: (A)
$7 \times 2 - 1 = 13$
$13 \times 2 - 1 = 25$
$25 \times 2 - 1 = 49$
$49 \times 2 - 1 = 97$
$97 \times 2 - 1 = 193$

34. Answer: (A)
$8 \times 6 + 5 = 53$
$53 \times 5 + 4 = 269$
$269 \times 4 + 3 = 1079$
$1079 \times 3 + 2 = 3239$
$3239 \times 2 + 1 = 6479$

35. Answer: (D)

36. Answer: (D)
Since there are 5 articles, total number of ways of arrangement = 5! = 120 ways
If we consider 3 cups as one article, therefore, number of ways of arrangement of cups among themselves = 3! = 6 ways
Number of ways of arrangement of remaining three articles = 3! = 6 ways
Therefore, required number of ways = 120 − (6 × 6) = 84 ways

37. Answer: (A)
According to the question,
Profit share of 'B' = 11500 − 6900 = Rs. 4600
Therefore,
$\{(x + 200) \times 8\} : \{(x - 800) \times 7\} = 6900:4600$
Or, $16(x + 200) = 21(x - 800)$
Or, $16x + 3200 = 21x - 16800$
Or, $5x = 20000$
Or, $x = 4000$

38. Answer: (E)

Quantity of milk in initial mixture
$= 144 \times \{5/(5 + 7)\} = 60$ litres
Quantity of water in initial mixture
$= 144 - 60 = 84$ litres
ATQ,
$\{(60 + x - 26)/(84 + x - 38)\} = 7/8$
Or, $\{(34 + x)/(46 + x)\} = 7/8$
Or, $272 + 8x = 322 + 7x$
Or, $x = 50$

39. Answer: (C)
Time taken by 'A' to complete the whole work
$= 5 \times (100/20) = 25$ days
Time taken by 'B' to complete the whole work
$= 10 \times 3 = 30$ days
Let the total work be 150 units.
Efficiency of 'A' = 150/25 = 6 units/day
Efficiency of 'B' = 150/30 = 5 units/day
Work done by 'A' and 'B' together in 5 days = (6 + 5) × 5 = 55 units
Remaining work = 150 − 55 = 95 units
Require time taken by 'B' = (95/5) = 19 days

40. Answer: (C)
According to the question,
Train 'A" took (30 − 12 = 18 seconds) to travel 360 metres
Therefore, speed of the train = 360/18
= 20 m/sec
Now, total distance to be travelled = 200 + 100
= 300 metres
Required time taken = 300/20 = 15 seconds

41. Answer: (C)
According to the question,
Area of the square = 324 cm²
$Side^2 = 324$ cm²
Side = 18 cm
Now, sum of the length of a rectangle and the side of a square = 42 cm
$l + 18 = 42$
$l = 24$ cm
Given, Perimeter of the rectangle = 80 cm
$2(l + b) = 80$
$24 + b = 40$
$b = 40 - 24 = 16$ cm
Area of rectangle = $l \times b = 24 \times 16 = 384$ cm²

42. Answer: (A)
Let the present age of 'B' be 'x' years
Therefore, present age of 'A' = 0.8x years
Present age of 'C' = 0.8x/1.25 = 0.64x years
According to the question,
$(x - 0.64x) = 9$
Or, $0.36x = 9$
Or, $x = (9/0.36) = 25$
Therefore, present age of 'A' = 0.8x = 20 years
Present age of 'C' = 0.64x = 16 years
Required ratio = (20 + 8):(16 + 8) = 28:24 = 7:6

43. Answer: (A)
$79.95 \times 25.001 - 20.001 \times 129.90 + 839.99 = ?$
$80 \times 25 - 20 \times 130 + 840 \sim ?$
$2000 - 2600 + 840 \sim ?$
$? \sim 240$

44. Answer: (C)
Let the speed of boat in still water is 'x' km/hr.
So, speed of stream = 0.40 × x = 0.4x km/hr
Upstream speed of the boat = x − 0.4x = 0.6x km/hr

Downstream speed of the boat = x + 0.4x
= 1.4x km/hr
ATQ,
(150/0.6x) + (196/1.4x) = 10
Or, 250 + 140 = 10x
Or, x = 39
Required distance = 39 × 5 = 195 km

45.   Answer: (E)
Interest received by Vikash = (5000 × 1.2 × 1.2) – 5000 = 0.44 × 5000 = Rs. 2200
Interest received by Akash = 2200 × (15/11) = Rs. 3000
Or, {(5000 × x × 2)/100} = 3000
Or, 100x = 3000
Or, x = 30

46.   Answer: (C)
Let the number of girls in the class be 'x'.
So, number of boys = 0.6x
According to question;
(0.6x × 40) + (x × 32) = 2800
Or, 24x + 32x = 2800
Or, 56x = 2800
Or, x = 50
So, total number of students in the class = 0.6 × 50 + 50 = 30 + 50 = 80

47.   Answer: (C)
74.91% of 639.95 – 599.98% of 45 + 119.987 = ?
75% of 640 – 600% of 45 + 120 ~ ?
? ~ 480 – 270 + 120
? ~ 330

48.   Answer: (B)
564.932 + 849.029 – 425.08 = 612.095 + ?
565 + 849 – 425 – 612 ~ ?
? ~ 1414 – 1037
? ~ 377

49.   Answer: (B)
√1023 × √624 ÷ √101 = ? + 24
√1024 × √625 ÷ √100 ~ ? + 24
32 × 25 ÷ 10 ~ ? + 24
80 – 24 ~ ?
? = 56

50.   Answer: (D)
(519.98 + ?) ÷ 13.01 = √440 + 20.01
(520 + ?) ÷ 13 ~ √441 + 20
40 + ? ÷ 13 ~ 21 + 20
? ÷ 13 ~ 41 – 40
? ~ 13

Directions (51-55):
Number of bank courses sold by company 'A' = 1800 × 0.45 = 810
Number of SSC courses sold by company 'A' = 1800 – 810 = 990
Similarly,

Company	Total number of courses sold	Number of bank courses sold	Number of SSC courses sold
A	1800	810	990
B	1650	660	990
C	1560	780	780
D	1700	935	765

51.   Answer: (C)
Required ratio = 660:990 = 2:3

52.   Answer: (A)
Number of SSC courses sold by company 'E' = 935 + 25 = 960

Required average = {(960 + 780)/2} = 870

53.   Answer: (C)
Required percentage = (594/990) × 100 = 60%

54.   Answer: (E)
Required sum = 810 + 780 = 1590

55.   Answer: (D)
Number of SSC courses sold by company 'F' = 1800 × 0.4 = 720
Required difference = 765 – 720 = 45

Direction (56-60): Let the number of boys in A1 and B1 be 8x and 5x, respectively
Total number of people in B1 = 5x/0.8 = 6.25x
Number of girls in B1 = 6.25x – 5x = 1.25x
Number of girls in C1 = 1.2 ×1.25x = 1.5x
Number of boys in C1 = 0.25 × 8x = 2x
Total number of people in C1 = 2x + 1.5x = 3.5x
Total number of people in A1 = 4 × 3.5x = 14x
Number of girls in A1 = 14x – 8x = 6x
Therefore, 6x = 120
Or, x = 20
Therefore,

Coach	Number of boys	Number of girls	Total number of people
A1	8x = 160	6x = 120	14x = 280
B1	5x = 100	1.25x = 25	6.25x = 125
C1	2x = 40	1.5x = 30	3.5x = 70

56.   Answer: (C)
Required difference = 160 – 25 = 135

57.   Answer: (A)
Required average = (160 + 40 + 100)/3 = 100

58.   Answer: (E)
Required percentage = {(125 – 70)/125} × 100 = 44%

59.   Answer: (B)
Required number of girls = 0.4 × (120 + 25) = 58

60.   Answer: (D)
Total number of people in D1 = 280 × (5/7) = 200
Number of girls in D1 = 0.55 × 200 = 110

Directions (61-65):
Number of Indian males rescued from Nepal = 840 × {4/(3 + 4)} = 480
Number of Indian females rescued from Nepal = 840 – 480 = 360
Similarly,

Country	Number of Indians rescued	Number of Indian males rescued	Number of Indian females rescued
Nepal	840	480	360
China	660	220	440
Iraq	550	330	220
Iran	960	560	400

61.   Answer: (B)
Required ratio = 330:440 = 3:4

62.   Answer: (C)
Number of Indian females rescued from Qatar = 480 × (1/2) = 240
Required percentage = (240/400) × 100 = 60%

63.   Answer: (E)
Required average = {(220 + 560)/2} = 390

64.   Answer: (B)
Number of Indians rescued from Qatar = 360 × 1.5 = 540
Required difference = 660 – 540 = 120

65.   **Answer: (E)**
Number of Indian rescued from Kuwait
= 960 × (9/8) = 1080
Required sum = 1080 + 220 = 1300

Reasoning Aptitude

66.   **Answer: (E)**
Given: BULLETINS
If arrange the letters in reverse alphabetical order then we would get the following word "U T S N L L I E B".
So, the letter, which is 5th from the right end is 'L'.

Direction (67-71):

J	D	L	E	F	K	H	G
	North	South	South	North	South	South	North

67.   **Answer: (C)**
K sits 3rd to the left of L.

68.   **Answer: (C)**
F sits 2nd to the right of H.

69.   **Answer: (D)**
Among the given statements, only "F sits to the left of G" is correct statement.

70.   **Answer: (C)**
Four persons sit between G and L.

71.   **Answer: (D)**
J sits 4th to the left of F.

72.   **Answer: (A)**
Given statements:
A ≥ 6; J = 4 < 8; A ≥ 8; F > J
On combining, we get
F > J = 4 < 8 ≤ A ≥ 6
Conclusions:
I. F > 8: False (F > J = 4 < 8, the relationship between F and 8 can't be determined)
II. A > J: True (J = 4 < 8 ≤ A, so, A > J)
III. 6 > F: False (F > J = 4 < 8 ≤ A ≥ 6, the relationship between 6 and F can't be determined)

73.   **Answer: (E)**
Given statements:
J = 7 > K; X ≤ 3; K > A > R < 3
On combining, we get
J = 7 > K > A > R < 3 ≥ X
Conclusions:
I. J > R: True (J = 7 > K > A > R, so, J > R)
II. X > J: False (J = 7 > K > A > R < 3 ≥ X, so, the relationship between X and J can't be established)
III. K > R: True (K > A > R, so, K > R)

74.   **Answer: (A)**
Given statements:
2 > X ≥ A; Y ≤ L < 2; E > A ≥ J
On combining, we get
Y ≤ L < 2 > X ≥ A ≥ J; E > A ≤ X < 2
Conclusions:
I. 2 > E: False (As E > A ≤ X < 2, relation between 2 and E can't be determined)
II. L < A: False (As L < 2 > X ≥ A, relation between L and A can't be determined)
III. J < 2: True (As 2 > X ≥ A ≥ J, so J < 2)
Only conclusion III is true.

75.   **Answer: (C)**
Given statements:
A < B ≤ F; A > L > V; R ≥ B; V < C

On combining, we get
R ≥ B > A > L > V < C; F ≥ B > A > L > V
Conclusions:
I. R > L: True (As R ≥ B > A > L, so, R > L)
II. C > A: False (As A > L > V < C, relation between C and A can't be determined)
III. F > V: True (As F ≥ B > A > L > V, so, F > V)
Only conclusion I and III are true.

76.   **Answer: (E)**
Given word: WEBSITE
The 1st, 4th and 7th letters are W, S and E.
After replacement, we get, T, P and B.
So, no meaningful word is formed.

77.   **Answer: (D)**
Following figures can be formed from the statements.
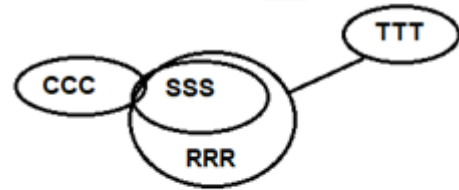
So, only conclusion II follows.
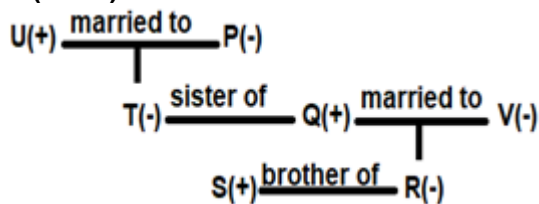
78.   **Answer: (A)**
Following figure can be formed:
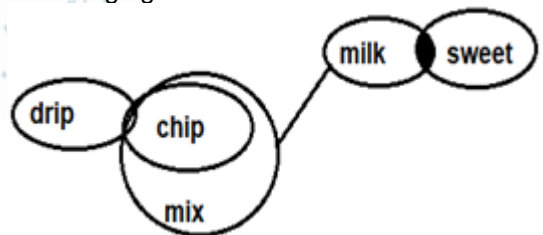
From the figure, both conclusions I and III follow.

Direction (79-83):
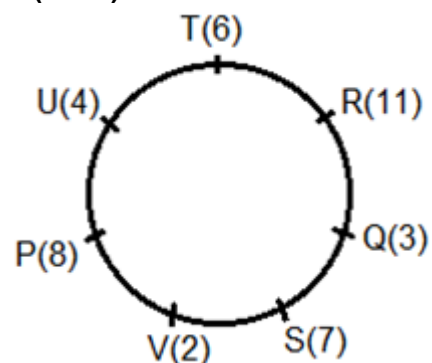
79.   **Answer: (C)**
P sits 3rd to the right of R.

80.   **Answer: (D)**
T sits 2nd to the right of Q, who has 3 rings.

81.   **Answer: (B)**
T and P sit adjacent to U.
T has 6 rings. P has 8 rings.
Sum = (8 + 6) = 14

82.   **Answer: (C)**
T sits immediate right of R, who has 11 rings (i.e. highest number of rings).
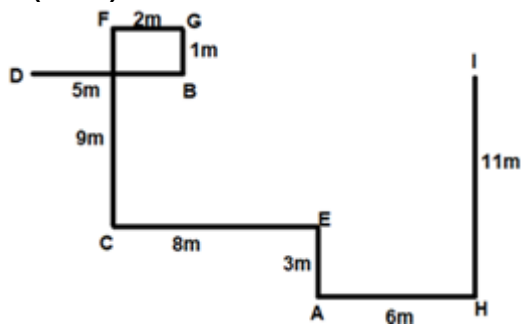
83. **Answer: (D)**
P sits 3rd to the right of R.

Direction (84-85):

84. **Answer: (A)**
Q is the son of P.

85. **Answer: (E)**
V is mother of S.

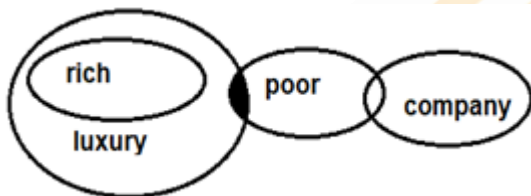**Direction (86-88):**

86. **Answer: (A)**
The shortest distance between D and I is 17 m.

87. **Answer: (C)**
B is in northeast direction with respect to C.
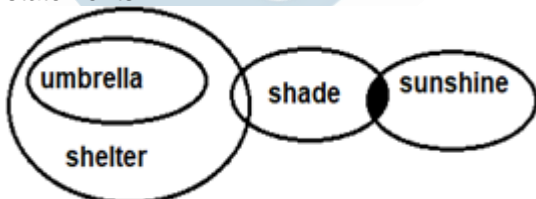
88. **Answer: (B)**
G is in northwest direction with respect to A.

89. **Answer: (B)**
Following figure can be formed from the statements:

So, only conclusion II follows.

90. **Answer: (C)**
Following figure can be formed from the statements:

So, only conclusion I follows.

Direction (91-95):

Floors	Flat-A	Flat-B
3	Q (Grey)	T (Blue)
2	U (Black)	P (Red)
1	S (Pink)	R (Yellow)

91. **Answer: (B)**
U lives in flat-A of floor 2.

92. **Answer: (E)**
No-one lives above Q, who likes Grey.

93. **Answer: (A)**
T lives in flat-B of floor 3.

94. **Answer: (D)**
P lives exactly between T and R in the same type of flat.

95. **Answer: (E)**
S and P live in different type of flat.

Direction (96-100):

Day	Candidate	Time
Monday	F	2 pm
Tuesday	A	3 pm
Wednesday	C	11 am
Thursday	G	1 pm
Friday	E	4 pm
Saturday	B	10 am
Sunday	D	9 am

96. **Answer: (B)**
A has exam on Tuesday.

97. **Answer: (C)**
Two candidates have exams after E.

98. **Answer: (E)**
F has exam at 2 pm.

99. **Answer: (D)**
Among the given options, only E and B have exam after A.

100. **Answer: (D)**
F has exam at 2 pm on Monday.

TesMus
...keeps you ahead

टेस्ट फॉर्म नंबर	अधिकतम अंक : 100
	कुल प्रश्न : 100
	निर्धारित समय : 60 मि.

उम्मीदवारों को निर्देश

प्रश्नों को हल करने से पहले निम्नलिखित निर्देशों को ध्यान से पढ़ें।

(1) इस पुस्तिका में **100 प्रश्न** हैं, जो कि कुल **3 भागों** में विभाजित हैं।

     भाग -(I) : English Language   **(30 प्रश्न)**

     भाग -(II) : Quantitative Aptitude   **(35 प्रश्न)**

     भाग -(III) : Reasoning Aptitude   **(35 प्रश्न)**

(2) सभी प्रश्न अनिवार्य हैं तथा सबके बराबर अंक हैं।

(3) प्रश्नों को हल करना प्रारम्भ करने से पहले आपको इस पुस्तिका की जांच करनी चाहिए और यह सुनिश्चित करना चाहिए कि इसमें सभी पृष्ठ उपस्थित हैं और कोई पृष्ठ कम या बदला हुआ नहीं है। अगर आपको इस पुस्तिका में कोई दोष मिलता है, तो आपको तुरंत इसे बदलना होगा।

(4) **प्रत्येक प्रश्न में नकारात्मक अंकन होता है क्योंकि प्रत्येक गलत उत्तर के लिए 0.25 अंक काट दिया जाएगा।**

(5) आपको निरीक्षक द्वारा उत्तर पुस्तिका अलग से दी जाएगी। आपको प्रश्नों को हल करना प्रारम्भ करने से पहले अपना नाम, रोल नंबर, टेस्ट नाम आईडी और/परीक्षा का नाम उत्तर-पुस्तिका पर सावधानीपूर्वक पूरा/ करना होगा। आपको उत्तरपुस्तिका में - निर्धारित स्थान पर अपना हस्ताक्षर भी करना होगा। इन निर्देशों का पूरी तरह से पालन किया जाना चाहिए, जिसको न करने पर आपकी उत्तर पुस्तिका का मूल्यांकन नहीं किया जाएगा और आपको-'शून्य ·अंक दिया जाएगा।

(6) उत्तर केवल **पेंसिल या ब्लैकब्लू बॉल पेन/** द्वारा उत्तरपुस्तिका प्रासंगिक प्रश्न संख्या के सम्बंधित गोले को पूरी तरह से ब्लैक - करके दिखाया जाना चाहिए।

(7) OMR उत्तर पुस्तिका को एक मशीन द्वारा जांचा जायेगा। यदि किसी स्थिति में उपलब्ध जानकारी, आवेदन पत्र में दी गयी जानकारी से अलग पायी गयी, तो आवेदक का आवेदन निरस्त कर दिया जायेगा।

(8) निरीक्षक की अनुमति मिलने के बाद ही कोई परीक्षा कक्ष छोड़ सकता है।

(9) उपरोक्त में से किसी भी निर्देश का अनुपालन करने में विफल उम्मीदवार को उपयुक्त कार्यवाहीजुर्माना के लिए उत्तरदायी / समझा जा सकता है।

(10) जितनी जल्दी हो सके उतनी जल्दी और सावधानी से प्रश्नों का उत्तर दें। कुछ सवाल कठिन हो सकते हैं और दूसरे आसान हो सकते हैं। किसी भी प्रश्न पर ज्यादा समय नहीं बिताएं।

(11) मोबाइल फोन और वायरलेस संचार उपकरण, परीक्षा कक्ष कमरे में पूरी तरह से प्रतिबंधित/हैं। कोई भी आवेदक अपने मोबाइल का या किसी वायरलेस संचार उपकरण को बंद करके भी अपने पास नहीं रख सकता। नियम का उल्लंघन करने पर आवेदक के विरूद्ध उचित कार्यवाही की जायेगी और उसका आवेदन भी निरस्त किया जा सकता है।

(12) उत्तर-पत्र पर कोई रफ काम नहीं किया जाना चाहिए।

(13) कोई भी उम्मीदवार परीक्षा पूरा होने से पहले परीक्षा कक्ष नहीं छोड़ सकता है।

परीक्षार्थी का नाम:...
दिनाँक:............. परीक्षा कोड ....
अनुक्रमांक:...

जब तक आपको यह परीक्षण पुस्तिका खोलने को न कहा जाए तब तक न खोलें ।

English Language

Direction (1-2): Select the phrase(s) from the given three options which can be used to form a single sentence from the two sentences given below, implying the same meaning as expressed in the statement sentences. The given options may or may not be starters.

1. A. Critics claim environmental regulations hurt productivity and profits.
B. In reality, incentive-based policies may actually benefit regulated firms in the traditional and green energy sectors.
1. While, in reality...
2. Additionally, in reality...
3. Because critics claim...
(A) Only 1   **(B)** Only 1 and 2
(C) Only 2 and 3   **(D)** Only 1 and 3
(E) All 1, 2 and 3

2. A. Access to healthcare in Guinea has improved marginally over the years.
B. The country still struggles with one of the worst health-care infrastructures in the world.
1. Although access to...
2. Since access to...
3. Yet the country...
(A) Only 3   **(B)** Only 1 and 2
(C) Only 2 and 3   **(D)** Only 1 and 3
(E) All 1, 2 and 3

Direction (3-8): In the following question, three sentences are given, revolving around the same theme or idea. Decide which of the sentences are grammatically and meaningfully correct and mark the answer accordingly.

3. 1. Although deplored by many, her decisions have great benefited the company.
2. The book describes the changes that have occurred in the landscape over many millennia.
3. Both candidates have agreed to take part in another debate before the election.
(A) Only 2   **(B)** Only 1 and 2
(C) Only 1 and 3   **(D)** Only 2 and 3
(E) All 1, 2 and 3

4. 1. Big banks have admitted to heinous crimes that have cost citizens billions of dollars.
2. The man's whole life should have been considered when the decision was made to give the award out.
3. Traditionally, voters have used by-elections to expressed anti-government sentiment.
(A) Only 1   **(B)** Only 1 and 2
(C) Only 1 and 3   **(D)** Only 2 and 3
(E) All 1, 2 and 3

5. 1. He is outspoken in his advocacy of the death penalty.
2. They have taken out expensive adverts in all trade papers, complete with favourable reviews.
3. Though bats and birds are both aerial creatures, records of there interaction have been extremely rare.
(A) Only 1   **(B)** Only 1 and 2
(C) Only 1 and 3   **(D)** Only 2 and 3
(E) All 1, 2 and 3

6. 1. Several lawyers have offered free advice on the issue.
2. We have installed additional signs on the road to advertise the fact that the speed limit have been reduced.
3. Advisories warning of fish contamination in the region have been emerging for several years.
(A) Only 3   **(B)** Only 1 and 2
(C) Only 1 and 3   **(D)** Only 2 and 3
(E) All 1, 2 and 3

7. 1. A lot of people don't want to advertise the fact that they have a personal trainer.
2. Seven nuclear facilities have been damaged or effectively destroyed by ransackers.
3. Given the already low supply, some towns reportedly did not have any plywood left to sell.
(A) Only 2   **(B)** Only 1 and 2
(C) Only 1 and 3   **(D)** Only 2 and 3
(E) All 1, 2 and 3

8. 1. Bats' ability to fly and use echolocation is well-known, but their diversity come with other peculiar behaviors.
2. Mexican fish-eating bats use their long claws to catch fish near Baja and the Gulf of California.
3. Sometimes classified as marine mammals, these bats drink salt water while spending lengthy amounts of time at sea.
(A) Only 2   **(B)** Only 1 and 2
(C) Only 1 and 3   **(D)** Only 2 and 3
(E) All 1, 2 and 3

Direction (9-12): In the question given below, rearrange the parts of the sentence in the correct order, and choose the correct option.

9. crossing from wildlife into livestock or people, (A)/ because of greater proximity between the two (B)/ carries a greater risk of diseases (C)/ human expansion into natural areas (D)
(A) ACDB   **(B)** CABD
(C) BADC   **(D)** DCAB
(E) No rearrangement required

10. studies conducted during the pandemic (A)/ and increased time spent on smartphones (B)/ to the consumption of Covid-19 related media (C)/ have linked both anxiety and depression (D)
(A) ADCB   **(B)** BCAD
(C) CDAB   **(D)** DCBA
(E) No rearrangement required

11. requires all of us to change (A)/ especially with reductions in meat consumption in wealthy countries (B)/ taking care of environmental and human health (C)/ what we eat and how it's produced (D)
(A) ADCB   **(B)** BCAD
(C) CADB   **(D)** DBAC

(E) No rearrangement required

12. On the issue of climate change, most scientists (A)/ a large-scale geophysical experiment with the planet (B)/ have likely formed the opinion that humanity is basically conducting (C)/ by increasing the concentration of greenhouse gases (D)
(A) ACBD   **(B)** BDCA
(C) CADB   **(D)** DCBA
(E) No rearrangement required

Direction (13-17): In the question below, a sentence is given with four words highlighted in bold. One of these four words may either be wrongly spelled or inappropriate in the context of the sentence. Find out the word, which is wrongly spelled or inappropriate, if any. If all the words are correctly spelled and appropriate in the context of the sentence, mark (e) as your answer.

13. Classical literature is **rich** in lessons of character, but often gets a bad **reputation** because of its **amiable** language and **unfamiliar** settings.
(A) rich   **(B)** reputation
(C) amiable   **(D)** unfamiliar
(E) All are correct

14. Some companies, such as Bank of Ireland, **automatically invoke** this **type** of accident in their standard cover, but this is not the **norm**.
(A) automatically   **(B)** invoke
(C) type   **(D)** norm
(E) All are correct

15. The UN could have gone on **passing resolutions** and sending in inspectors but in the end there was no **realistic alternative** to war.
(A) passing   **(B)** resolutions
(C) realistic   **(D)** alternative
(E) All are correct

16. **Excavations** have **revealed** a number of buildings, the most **notable** of which was a **large** town house with mosaic floors.
(A) excevations   **(B)** revealed
(C) notable   **(D)** large
(E) All are correct

17. University of Nevada archaeologists **hope** to **establish** a lecture series as well as traveling exhibits to **showcase** the **artifacts**.
(A) hope   **(B)** establish
(C) showcase   **(D)** artifacts
(E) All are correct

Direction (18-22): In the question below, a sentence is given with a part missing. From the options, choose the word that will fit in the sentence to make it correct.

18. Although the losses have been severe, the charge that those jobs were _____ by

foreign competition simply doesn't square with the facts.
(A) eliminated   **(B)** espoused
(C) induced   **(D)** incited
(E) implied

19. Since the oil crisis in 1973, plant oils, mainly from rapeseed and soybean, have been _____ as an alternative, renewable source of liquid fuels.
(A) instigated   **(B)** inhibited
(C) investigated   **(D)** reminded
(E) replaced

20. An additional 70 Icelanders died at sea, but it has not been _____ whether they lost their lives as a result of hostilities.
(A) convened   **(B)** conformed
(C) collected   **(D)** confirmed
(E) commanded

21. These actions were aimed at keeping Icelanders' standard of living as high as it had become during the _____ war years.
(A) cautious   **(B)** contentious
(C) pompous   **(D)** preposterous
(E) prosperous

22. Hospitals and doctors have been placed on alert to treat quarantine patients suspected of suffering from the early _____ of the virus.
(A) positions   **(B)** institutions
(C) stages   **(D)** insights
(E) starts

Direction (23-30): Read the following passage carefully and answer the questions.

From coastal cities around the world, through pipes lurking just beneath the waves, streams of human waste flood into the sea. Sometimes this water is cleaned-filtered, aerated, and treated with bleach. Sometimes it is not, and the reams of sewage-whatever we wash down the drain or flush down the toilet-flow into the ocean raw. If that grosses you out, consider that human excrement is probably the least harmful component of the flow, at least when it comes to environmental impacts. More troubling are certain invisible substances that easily pass through wastewater treatment plants and end up in the ocean.

Every Advil you pop or antidepressant you swallow is processed in your body and excreted, often as chemical byproducts that can still affect other organisms. Scientists have only tested a fraction of pharmaceuticals for their effects on marine life, and most remain unregulated in wastewater. In their quest to understand the effects of drugs on marine life, however, scientists have found an involuntary ally: shellfish. Because they live stationary lives, clams and mussels have been accidental test subjects in pharmaceutical pollution research. Now, these shellfish are helping sound the

alarm about several common drugs and chemicals.

Off the shore of São Paulo, Brazil, a pipe releases mostly untreated sewage into Santos Bay. And as scientists report in a recent study, the animals around this outfall appear to be feeling the effects of our drugs. Recent studies have raised concerns about substances making it into the environment, including antibiotics in soaps and personal care products, estrogen mimics in birth control, and painkillers, but there's not much data on the effects of these compounds on wildlife. So, scientists grew shellfish in the lab on sediment contaminated with two drugs, exposing them to the same concentrations they face in Santos Bay.

One was ibuprofen, a common painkiller, and the other was triclosan, an antibacterial compound found in products including toothpastes and body washes. The drug exposure caused a range of negative effects, including malformed membranes and reproductive difficulties. This is a problem because most toxicity assessments done by governments to see if a substance should be regulated only look at acute effects, which usually means whether the compound is lethal. But just because animals are surviving our pharmaceutical pollution doesn't mean they are unaffected. Studies of chronic impacts from longer-term exposure are expensive and time-consuming, but it's exactly these impacts that are worrying.

Coastal environments vary widely from city to city. São Paulo's sewage lingers in sheltered Santos Bay, amplifying the effects of drug exposure. But on Canada's west coast, deep water, dynamic tides and strong currents routinely flush the Juan de Fuca Strait, where the city of Victoria, British Columbia, has been pumping raw sewage through only a coarse screen since the 1960s. City officials, however, are worried about pharmaceuticals and began routinely monitoring the outfalls for drugs in 2004.

A recent study showed that shellfish, sediment and water in the region immediately around sewage outfalls show traces of drugs, including triclosan and ibuprofen. So what does this outpouring of pharmaceutical waste mean for ocean life? Unlike heavy metals, most drugs don't accumulate up the food chain. Though some compounds, such as triclosan, can build up in animal fat. But since drugs are designed to be effective at low doses, a little can do a lot of potential damage.

As of yet, there's no widely used technology to target drugs. The only way these compounds are removed from sewage is if they bind to particles that are otherwise filtered out by standard treatments or if they break down naturally. Some researchers are developing systems that can be added to treatment plants to filter out pharmaceuticals, such as activated carbon filters or bacteria specifically designed to

break down drugs. But these are still in development, and many drugs escape even the most advanced treatment plants currently operating.

Scientists say the effects of pharmaceutical waste vary by location and solutions should, too. In Brazil, for example, ibuprofen often comes in large packages, so people may flush a lot of expired medication. In this case, the solution may be to try to get manufacturers to make smaller packages. But ultimately, we need to learn a lot more about what these compounds do in the environment. Only then can we tell if the drugs that keep us healthy are making the ocean sick.

23. Which of the following pharmaceutical drugs was/ were found to cause negative effects in shellfish?
(A) A common painkiller known as ibuprofen
(B) An antibacterial compound by the name of triclosan
(C) Estrogen mimicking compounds found in birth control pills
(D) Both (A) and (B)
(E) All (A), (B) and (C)

24. Which of the following is the reason why most toxicity assessments done by governments only focus on acute effects of a substance?
(A) Acute effects are more likely to radiate through the food chain than chronic effects.
(B) Most pharmaceutical products have acute effects on animals than chronic effects.
(C) Acute effects on marine life are more likely to cause extinction than chronic effects.
(D) Pharmaceutical products that have chronic effects usually do not make their way into the ocean.
(E) Studies studying chronic impacts of a substance are expensive and time consuming.

25. Which of the following systems is being developed by scientists to filter out pharmaceuticals?
(A) Systems that detect the presence of pharmaceuticals in water
(B) Systems that separate water contaminated with drugs
(C) Systems that use activated carbon filters or bacteria that break down drugs
(D) Systems that release neutralizing chemicals into contaminated water
(E) None of the above

26. What solution does the author suggest for coastal regions where a particular pharmaceutical drug shows up in large quantities?
(A) Implement laws that prohibit flushing of drugs
(B) Persuade manufacturers to make smaller packages
(C) Improve water treatment facilities in these regions

(D) Redirect contaminated water into coastal regions with lesser wildlife
(E) Restrict sale of such pharmaceutical drugs

27. What role do deep water, tides and currents play in drug exposure for shellfish?
(A) They routinely flush the coasts not allowing sewage to accumulate.
(B) They amplify the effects of drug exposure by allowing sewage to accumulate.
(C) They play no role whatsoever in drug exposure for shellfish.
(D) They cause sewage from adjoining regions to flow into the area.
(E) None of the above

28. Why are shellfish suitable for studying the effects of pharmaceutical pollution?
(A) Because they are easily accessible on the coast
(B) Because they live stationary lives
(C) Because they are very resilient creatures
(D) Because they represent the lowest level of the marine food chain
(E) Because they have DNA that undergoes changes on drug exposure.

29. Which of the following is closest in meaning to the word 'vary' as used in the passage?
(A) differ   **(B)** assign
(C) imply   **(D)** induce
(E) arouse

30. Which of the following is opposite in meaning to the word '**accumulate**' as used in the passage?
(A) recollect   **(B)** comply
(C) understand   **(D)** disperse
(E) collect

Quantitative Aptitude

31. निम्नलिखित श्रृंखला में प्रश्नवाचक चिन्ह (?) के स्थान पर क्या आएगा?
121, 123, 117, 135, ?, 243
(A) 64   **(B)** 96
(C) 81   **(D)** 72
(E) 75

32. निम्नलिखित श्रृंखला में प्रश्नवाचक चिन्ह (?) के स्थान पर क्या आएगा?
112, ?, 148, 184, 232, 292
(A) 120   **(B)** 124
(C) 128   **(D)** 130
(E) इनमें से कोई नहीं

33. निम्नलिखित श्रृंखला में प्रश्नवाचक चिन्ह (?) के स्थान पर क्या आएगा?
7, 13, ?, 49, 97, 193
(A) 25   **(B)** 30
(C) 24   **(D)** 18
(E) 36

34. निम्नलिखित श्रृंखला में प्रश्नवाचक चिन्ह (?) के स्थान पर क्या आएगा?
8, ?, 269, 1079, 3239, 6479
(A) 53   **(B)** 64
(C) 60   **(D)** 50
(E) 48

35. निम्नलिखित श्रृंखला में प्रश्नवाचक चिन्ह (?) के स्थान पर क्या आएगा?
20, 34, 54, 80, ?, 150
(A) 125   **(B)** 120
(C) 108   **(D)** 112
(E) इनमें से कोई नहीं

36. पाँच वस्तुएँ जिनमें से 3 कप हैं और शेष गिलास हैं, को एक शेल्फ पर व्यवस्थित करना है। व्यवस्था के उन तरीकों की संख्या ज्ञात कीजिए जिनमें तीनों कप एक साथ नहीं रखे गए हैं।
(A) 80 तरीके   **(B)** 72 तरीके
(C) 60 तरीके   **(D)** 84 तरीके
(E) 64 तरीके

37. 'A' और 'B' ने क्रमशः 8 महीने और 7 महीने के लिए रु. (x + 200) और रु. (x – 800) का निवेश करके एक व्यवसाय शुरू किया। यदि 11500 रु. के कुल लाभ में से 'A' का लाभ हिस्सा 6900 रु. है, तो 'x' का मान ज्ञात कीजिए।
(A) 4000   **(B)** 3200
(C) 4200   **(D)** 4800
(E) 3600

38. 144 लीटर मिश्रण में दूध और पानी क्रमशः 5:7 के अनुपात में है। जब (x - 26) लीटर दूध और (x - 38) लीटर पानी इसमें मिलाया जाता है तो अंतिम मिश्रण में दूध और पानी की मात्रा का अनुपात 7:8 हो जाता है। 'x' का मान ज्ञात करें।
(A) 30   **(B)** 35
(C) 40   **(D)** 45
(E) 50

39. 'A' 20% काम 5 दिनों में कर सकता है और 'B' 33.33% काम 10 दिनों में कर सकता है। यदि 'A' और 'B' एक साथ काम करना शुरू करते हैं और 5 दिनों के बाद 'A' काम छोड़ देता है तो 'B' शेष काम को कितने दिनों में पूरा करेगा?
(A) 17 दिन   **(B)** 18 दिन
(C) 19 दिन   **(D)** 20 दिन
(E) 21 दिन

40. ट्रेन 'A' एक पोल को पार करने में 12 सेकंड और 360 मीटर लंबे पुल को पार करने में 30 सेकंड का समय लेती है। यदि ट्रेन की लम्बाई 200 मीटर होती तो उसी गति से 100 मीटर लम्बे पुल को पार करने में उसे लगने वाला समय ज्ञात कीजिए।
(A) 16 सेकंड   **(B)** 12 सेकंड
(C) 15 सेकंड   **(D)** 20 सेकंड
(E) 18 सेकंड

41. एक आयत की लंबाई और एक वर्ग की भुजा का योग 42 सेमी है। यदि वर्ग का क्षेत्रफल 324 सेमी² है और आयत का परिमाप 80 सेमी है, तो आयत का क्षेत्रफल ज्ञात कीजिए।
(A) 374 सेमी²　　　　　(B) 380 सेमी²
(C) 384 सेमी²　　　　　(D) 284 सेमी²
(E) 364 सेमी²

42. 'A' की वर्तमान आयु 'B' से 20% कम है लेकिन 'C' की आयु से 25% अधिक है। यदि 'B' और 'C' की वर्तमान आयु के बीच का अंतर 9 वर्ष है, तो अब से 8 वर्ष बाद 'A' और 'C' की आयु का अनुपात ज्ञात कीजिए।
(A) 7:6　　　　　(B) 5:4
(C) 8:5　　　　　(D) 3:2
(E) 9:4

43. निम्नलिखित प्रश्न में प्रश्न चिह्न (?) के स्थान पर क्या अनुमानित मान आएगा? (नोट: आपको सटीक मान की गणना करने की आवश्यकता नहीं है।)
79.95 × 25.001 – 20.001 × 129.90 + 839.99 =?
(A) 240　　　　　(B) 300
(C) 320　　　　　(D) 200
(E) इनमें से कोई नहीं

44. एक नाव धारा विरुद्ध में 150 किमी और धारा अनुप्रवाह में 196 किमी की दूरी को कुल 10 घंटे में तय करती है। यदि धारा की गति शांत जल में नाव की गति से 60% कम है, तो शांत जल में नाव द्वारा 5 घंटे में तय की गयी दूरी ज्ञात कीजिए।
(A) 160 किमी　　　　　(B) 175 किमी
(C) 195 किमी　　　　　(D) 210 किमी
(E) इनमें से कोई नहीं

45. आकाश और विकास में से प्रत्येक ने योजना 'A' और 'B' में 5000 रु. का निवेश किया। योजना 'A' और 'B' क्रमशः 'x%' प्रति वर्ष साधारण ब्याज और 20% प्रतिवर्ष वार्षिक देय चक्रवृद्धि ब्याज प्रदान करता है। यदि 2 वर्ष के अंत में, आकाश द्वारा प्राप्त ब्याज और विकास द्वारा प्राप्त ब्याज का अनुपात 15:11 था, तो 'x' का मान ज्ञात कीजिए।
(A) 10　　　　　(B) 15
(C) 20　　　　　(D) 25
(E) 30

46. एक कक्षा में छात्रों (लड़के + लड़कियों) के वजन का योग 2800 किग्रा है। कक्षा के सभी लड़कों और सभी लड़कियों का औसत वजन क्रमशः 40 किग्रा और 32 किग्रा है। यदि कक्षा में लड़कों की संख्या लड़कियों की संख्या का 60% है, तो कक्षा में छात्रों की कुल संख्या ज्ञात कीजिए।
(A) 120　　　　　(B) 64
(C) 80　　　　　(D) 48
(E) 96

47. निम्नलिखित प्रश्न में प्रश्न चिह्न (?) के स्थान पर क्या अनुमानित मान आएगा? (नोट: आपको सटीक मान की गणना करने की आवश्यकता नहीं है।)
74.91% of 639.95 – 599.98% of 45 + 119.987 = ?
(A) 300　　　　　(B) 350

(C) 330　　　　　(D) 280
(E) 240

48. निम्नलिखित प्रश्न में प्रश्न चिह्न (?) के स्थान पर क्या अनुमानित मान आएगा? (नोट: आपको सटीक मान की गणना करने की आवश्यकता नहीं है।)
564.932 + 849.029 – 425.08 = 612.095 + ?
(A) 344　　　　　(B) 377
(C) 312　　　　　(D) 399
(E) 355

49. निम्नलिखित प्रश्न में प्रश्न चिह्न (?) के स्थान पर क्या अनुमानित मान आएगा? (नोट: आपको सटीक मान की गणना करने की आवश्यकता नहीं है।)
√1023 × √624 ÷ √101 = ? + 24
(A) 42　　　　　(B) 56
(C) 40　　　　　(D) 50
(E) 64

50. निम्नलिखित प्रश्न में प्रश्न चिह्न (?) के स्थान पर क्या अनुमानित मान आएगा? (नोट: आपको सटीक मान की गणना करने की आवश्यकता नहीं है।)
(519.98 + ?) ÷ 13.01 = √440 + 20.01
(A) 38　　　　　(B) 125
(C) 54　　　　　(D) 13
(E) 85

निर्देश (51-55): नीचे दी गयी जानकारी के आधार पर प्रश्नों के उत्तर दें।

चार कंपनियों द्वारा अलग-अलग संख्या में पाठ्यक्रम (बैंक + एस.एस.सी) बेचे गए। निम्नलिखित बार ग्राफ बेचे गए पाठ्यक्रम की कुल संख्या और संबंधित कंपनियों द्वारा बेचे गए पाठ्यक्रम की कुल संख्या में से बेचे गए बैंक पाठ्यक्रम का प्रतिशत दर्शाता है।

▨ **Total Number of Courses Sold**

□ **Percentage of Number of Bank Courses Sold**

	A	B	C	D
Total Number of Courses Sold	1800	1650	1560	1700
Percentage of Number of Bank Courses Sold	45%	40%	50%	55%
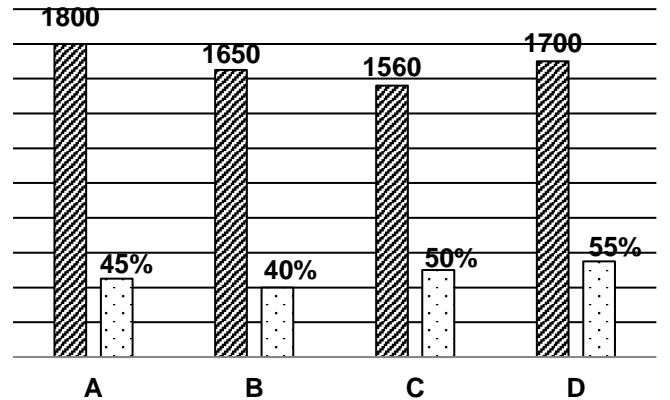
51. कंपनी 'B' द्वारा बेचे गए बैंक पाठ्यक्रमों की संख्या और कंपनी 'A' द्वारा बेचे गए एसएससी पाठ्यक्रमों की संख्या का अनुपात ज्ञात कीजिए।

(A) 5:3　　　　　(B) 9:7

(C) 2:3   **(D)** 11:9
(E) इनमें से कोई नहीं

52. यदि कंपनी 'E' द्वारा बेचे गए एसएससी पाठ्यक्रमों की संख्या कंपनी 'D' द्वारा बेचे गए बैंक पाठ्यक्रमों की संख्या से 25 अधिक है, तो कंपनियों 'C' और 'E' द्वारा बेचे गए एसएससी पाठ्यक्रमों की औसत संख्या ज्ञात कीजिए।
(A) 870   **(B)** 875
(C) 880   **(D)** 885
(E) 890

53. यदि कंपनी 'E' द्वारा बेचे गए बैंक पाठ्यक्रमों की संख्या 594 है, तो कंपनी 'E' द्वारा बेचे गए बैंक पाठ्यक्रमों की संख्या कंपनी 'B' द्वारा बेचे गए एसएससी पाठ्यक्रमों की संख्या का कितना प्रतिशत है?
(A) 50%   **(B)** 55%
(C) 60%   **(D)** 65%
(E) 70%

54. कंपनी 'A' और 'C' द्वारा बेचे गए बैंक पाठ्यक्रमों की संख्या का योग ज्ञात करें?
(A) 1520   **(B)** 1530
(C) 1545   **(D)** 1560
(E) इनमें से कोई नहीं

55. यदि कंपनी 'F' द्वारा बेचे गए एसएससी पाठ्यक्रमों की संख्या कंपनी 'A' द्वारा बेचे गए पाठ्यक्रमों की कुल संख्या का 40% है, तो कंपनी 'D' और 'F' द्वारा बेचे गए एसएससी पाठ्यक्रमों की संख्या के बीच का अंतर ज्ञात कीजिए।
(A) 15   **(B)** 30
(C) 40   **(D)** 45
(E) 55

निर्देश (56-60): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

दी गई जानकारी तीन कोचों (A1, B1 और C1) में लड़कों और लड़कियों की संख्या के बारे में है। A1 और B1 में लड़कों की संख्या का अनुपात 8:5 है। B1 में लड़कों की संख्या B1 में कुल व्यक्तियों (लड़के + लड़कियों) का 80% है। C1 में लड़कियों की संख्या B1 की तुलना में 20% अधिक है। C1 में लड़कों की संख्या A1 की तुलना में 75% कम है। A1 में व्यक्तियों की कुल संख्या C1 की तुलना में 4 गुना है। A1 में लड़कियों की संख्या 120 है।

56. A1 में लड़कों की संख्या और B1 में लड़कियों की संख्या के बीच का अंतर ज्ञात कीजिए।
(A) 145   **(B)** 120
(C) 135   **(D)** 95
(E) 105

57. दिए गए तीन कोचों में लड़कों की औसत संख्या ज्ञात कीजिए।
(A) 100   **(B)** 120
(C) 135   **(D)** 80
(E) 105

58. C1 में व्यक्तियों की कुल संख्या B1 की तुलना में कितने प्रतिशत अधिक/कम है?
(A) 40%   **(B)** 60%
(C) 35%   **(D)** 60%
(E) 44%

59. A1 और B1 में लड़कियों की संख्या का 40% ज्ञात कीजिए।
(A) 45   **(B)** 58
(C) 64   **(D)** 72
(E) 50

60. A1 और D1 में व्यक्तियों की कुल संख्या का अनुपात क्रमशः 7:5 है। यदि D1 में 45% व्यक्ति (लड़के + लड़कियां) लड़के हैं, तो D1 में लड़कियों की संख्या ज्ञात कीजिए।
(A) 150   **(B)** 100
(C) 140   **(D)** 110
(E) 90

निर्देश (61-65): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

निम्नलिखित तालिका चार अलग-अलग देशों से बचाए गये भारतीयों की संख्या और बचाए गये भारतीय पुरुषों और महिलाओं की संख्या का अनुपात दिखाती है।

देश	बचाए गए भारतीयों की संख्या	बचाए गए भारतीय पुरुषों से महिलाओं की संख्या का अनुपात
नेपाल	840	4:3
चीन	660	1:2
इराक	550	3:2
ईरान	960	7:5

61. इराक से बचाए गये भारतीय पुरुषों की संख्या और चीन से बचाए गयी भारतीय महिलाओं की संख्या का अनुपात ज्ञात कीजिए।
(A) 2:3   **(B)** 3:4
(C) 4:7   **(D)** 7:11
(E) इनमें से कोई नहीं

62. यदि कतर से बचाई गयी भारतीय महिलाओं की संख्या नेपाल से बचाए गये भारतीय पुरुषों की संख्या की आधी है, तो कतर से बचाई गयी भारतीय महिलाओं की संख्या ईरान से बचाई गयी भारतीय महिलाओं की संख्या का कितना प्रतिशत है?
(A) 50%   **(B)** 55%
(C) 60%   **(D)** 65%
(E) 70%

63. चीन और ईरान से बचाए गये भारतीय पुरुषों की संख्या का औसत ज्ञात कीजिए।
(A) 310   **(B)** 330
(C) 350   **(D)** 370
(E) 390

64. यदि कतर से बचाए गये भारतीयों की संख्या नेपाल से बचाई गयी भारतीय महिलाओं की संख्या से 50% अधिक है, तो चीन और कतर से बचाए गये भारतीयों की संख्या के बीच का अंतर ज्ञात कीजिए।
(A) 100   (B) 120
(C) 140   (D) 160
(E) 180

65. यदि ईरान और कुवैत से बचाए गये भारतीयों की संख्या का अनुपात क्रमशः 8:9 है, तो कुवैत से बचाए गये भारतीयों की संख्या और इराक से बचाई गयी भारतीय महिलाओं की संख्या का योग ज्ञात कीजिए।
(A) 1220   (B) 1240
(C) 1260   (D) 1280
(E) इनमें से कोई नहीं

Reasoning Aptitude

66. यदि "BULLETINS" शब्द के अक्षरों को बाएं से दाएं उल्टे वर्णानुक्रम में व्यवस्थित किया जाता है, तो निम्नलिखित में से कौन-सा अक्षर दाएं छोर से पांचवां अक्षर होगा?
(A) या तो (B) या (C)   (B) E
(C) N   (D) I
(E) L

निर्देश (67-71): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

आठ व्यक्ति D, E, F, G, H, J, K और L एक सीधी पंक्ति में बैठे हैं। उनमें से कुछ का मुख उत्तर की ओर है जबकि अन्य का मुख दक्षिण दिशा की ओर है। दक्षिण की ओर मुख करके बैठे व्यक्तियों की संख्या उत्तर की ओर मुख किए व्यक्तियों से दो अधिक है।
D E के दाएं से दूसरे स्थान पर बैठा है। G F के दाएं से तीसरे स्थान पर बैठा है और F का मुख उत्तर दिशा की ओर है। E और F एक दूसरे के तत्काल बाएं बैठे हैं। L, J के बाएं से दूसरे स्थान पर बैठा है और J का मुख E के दिशा के समान है। K और H के बीच दो से कम व्यक्ति बैठे हैं और H F के बगल में नहीं बैठा है। K और H का मुख उसी दिशा की ओर है जिस दिशा की ओर L का मुख है।

67. L के सन्दर्भ में K का स्थान क्या है?
(A) दाएं से तीसरा   (B) बाएं से चौथा
(C) बाएं से तीसरा   (D) दाएं से दूसरा
(E) उपरोक्त में से कोई नहीं

68. H के दाएं से दूसरे स्थान पर कौन बैठा है?
(A) E   (B) G
(C) F   (D) D
(E) उपरोक्त में से कोई नहीं

69. निम्नलिखित में से कौन-सा कथन सही है?
I. D और G का मुख दक्षिण दिशा की ओर है।
II. E, D के बाएं बैठा है।
III. F, G के बाएं बैठा है।
(A) केवल II   (B) केवल I

(C) केवल II और III   (D) केवल III
(E) I और III

70. ___ व्यक्ति G और L के बीच बैठे हैं।
(A) दो   (B) एक
(C) चार   (D) पांच
(E) उपरोक्त में से कोई नहीं

71. F के सन्दर्भ में J का स्थान क्या है?
(A) दाएं से तीसरा   (B) बाएं से दूसरा
(C) दाएं से पांचवा   (D) बाएं से चौथा
(E) उपरोक्त में से कोई नहीं

निर्देश (72-75): प्रश्न में दिए गए कथनों को सत्य मानते हुए ज्ञात करें कि दिए गए तीन निष्कर्षों में से कौन-सा निष्कर्ष निश्चित रूप से सत्य है और फिर उसी के अनुसार अपना उत्तर दें। इन संख्याओं को तत्वों के रूप में लिया गया है।

72. **कथन:** $A \geq 6; J = 4 < 8; A \geq 8; F > J$
निष्कर्ष: I. $F > 8$ **II.** $A > J$
III. $6 > F$
(A) केवल निष्कर्ष II सत्य है।
(B) केवल निष्कर्ष II और III सत्य हैं।
(C) केवल निष्कर्ष I सत्य है।
(D) केवल निष्कर्ष I और II सत्य हैं।
(E) कोई भी सत्य नहीं है

73. **कथन:** $J = 7 > K; X \leq 3; K > A > R < 3$
निष्कर्ष: I. $J > R$ **II.** $X > J$
III. $K > R$
(A) केवल निष्कर्ष II सत्य है।
(B) केवल निष्कर्ष II और III सत्य हैं।
(C) केवल निष्कर्ष I सत्य है।
(D) केवल निष्कर्ष I और II सत्य हैं।
(E) केवल निष्कर्ष I और III सत्य हैं।

74. **कथन:** $2 > X \geq A; Y \leq L < 2; E > A \geq J$
निष्कर्ष: I. $2 > E$ **II.** $L < A$
III. $J < 2$
(A) केवल निष्कर्ष III सत्य है।
(B) सभी निष्कर्ष I, II और III असत्य हैं।
(C) केवल निष्कर्ष I और III सत्य हैं।
(D) केवल निष्कर्ष I सत्य है।
(E) केवल निष्कर्ष I और II सत्य हैं।

75. **कथन:** $A < B \leq F; A > L > V; R \geq B; V < C$
निष्कर्ष: I. $R > L$ **II.** $C > A$
III. $F > V$
(A) केवल निष्कर्ष III सत्य है।
(B) सभी निष्कर्ष I, II और III असत्य हैं।
(C) केवल निष्कर्ष I और III सत्य हैं।
(D) केवल निष्कर्ष I सत्य है।
(E) केवल निष्कर्ष I और II सत्य हैं।

76. यदि WEBSITE शब्द में पहले, चौथे और सातवें अक्षरों को अंग्रेजी वर्णमाला श्रृंखला के अनुसार उनके तीसरे पिछले अक्षर से प्रतिस्थापित कर दिया जाता है, तो प्रतिस्थापन के

बाद पहले, चौथे और सातवें अक्षरों से कितने अर्थपूर्ण अंग्रेजी शब्द बनाए जा सकते हैं?
(A) 3 　　　　　　　　　　(B) 2
(C) 1 　　　　　　　　　　(D) 4
(E) उपरोक्त में से कोई नहीं

77. प्रश्न में तीन कथन और उसके बाद दो निष्कर्ष I और II दिए गए हैं। आपको दिए गए तीन कथनों को सत्य मानना है, भले ही वे सामान्य रूप से ज्ञात तथ्यों से अलग दिखाई देते हों और फिर तय करें कि दिए गए निष्कर्षों में से कौन-सा निष्कर्ष सामान्य रूप से ज्ञात तथ्यों की अवहेलना करता है और तीन कथनों का तार्किक रूप से अनुसरण करता है।
कथन: कुछ CCC SSS हैं।
सभी SSS RRR हैं।
कोई RRR TTT नहीं है।
निष्कर्ष: I. कुछ TTT CCC हैं।
II. सभी CCC के RRR होने की संभावना है।
(A) केवल निष्कर्ष I अनुसरण करता है
(B) निष्कर्ष I और II दोनों अनुसरण करते हैं
(C) न तो निष्कर्ष I और न ही II अनुसरण करते हैं
(D) केवल निष्कर्ष II अनुसरण करता है
(E) या तो निष्कर्ष I या II अनुसरण करता है

78. प्रश्न में चार कथनों के बाद तीन निष्कर्ष I, II और III दिए गए हैं। आपको दिए गए चार कथनों को सत्य मानना है, भले ही वे सामान्य रूप से ज्ञात तथ्यों से अलग दिखाई देते हों और फिर तय करें कि दिए गए निष्कर्षों में से कौन-सा निष्कर्ष सामान्य रूप से ज्ञात तथ्यों की अवहेलना करता है और दिए गए कथनों का तार्किक रूप से अनुसरण करता है।
कथन: कुछ chip drip हैं।
100% chip mix है।
कोई mix milk नहीं है।
केवल कुछ milk sweet हैं।
निष्कर्ष: I. कुछ mix drip हैं।
II. कुछ chip sweet हैं।
III. सभी milk के sweet होने की संभावना नहीं है।
(A) केवल निष्कर्ष I और निष्कर्ष III अनुसरण करते हैं।
(B) केवल निष्कर्ष II अनुसरण करता है।
(C) या तो निष्कर्ष I या निष्कर्ष II अनुसरण करता है।
(D) केवल निष्कर्ष III अनुसरण करता है
(E) उपरोक्त में से कोई नहीं

निर्देश (79-83): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें:

सात व्यक्ति P, Q, R, S, T, U और V एक वृताकार मेज पर केंद्र की ओर मुख करके बैठे हैं। उनमें से प्रत्येक के पास अलग-अलग संख्या में अंगूठियां (2, 3, 4, 6, 7, 8 और 11) हैं।
V उस व्यक्ति के दाएं से तीसरे स्थान पर बैठा है, जिसके पास 6 अंगूठियां हैं। V और U के बीच एक व्यक्ति बैठा है, U के अंगूठियों की संख्या P के अंगूठियों की संख्या का आधा है। S U के दाएं से तीसरे स्थान पर बैठा है और उसके पास 7 अंगूठी हैं। P S के बाएं से दूसरे स्थान पर बैठा है। V के पास सबसे कम संख्या में अंगूठियां हैं। R उस

व्यक्ति के बाएं से दूसरे स्थान पर बैठा है, जिसके पास 4 अंगूठी हैं। T के पास विषम संख्या में अंगूठी नहीं हैं। Q के पास 11 अंगूठी नहीं हैं।

79. R के दाएं से तीसरे स्थान पर कौन बैठा है?
(A) U 　　　　　　　　　　(B) T
(C) P 　　　　　　　　　　(D) Q
(E) उपरोक्त में से कोई नहीं

80. 3 अंगूठी वाले व्यक्ति के सन्दर्भ में T का स्थान क्या है?
(A) बाएं से दूसरा 　　　　(B) दाएं से तीसरा
(C) तत्काल दाएँ 　　　　　(D) दाएं से दूसरा
(E) उपरोक्त में से कोई नहीं

81. U के बगल में बैठे व्यक्तियों के अंगूठियों का योग क्या है?
(A) 9 　　　　　　　　　　(B) 14
(C) 15 　　　　　　　　　　(D) 11
(E) 12

82. ____ उस व्यक्ति के तत्काल दाएं बैठा है, जिसके पास अंगूठी की सबसे अधिक संख्या हैं।
(A) P 　　　　　　　　　　(B) U
(C) T 　　　　　　　　　　(D) S
(E) इनमे से कोई भी नहीं

83. निम्नलिखित में से कौन-सा कथन सत्य है?
(A) U के पास 3 अंगूठी है
(B) V, Q के तत्काल बाएं बैठा है
(C) Q, T के दाएं से तीसरे स्थान पर बैठा है
(D) P, R के दाएं से तीसरे स्थान पर बैठा है
(E) उपरोक्त में से कोई भी कथन सत्य नहीं है

निर्देश (84-85): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

एक परिवार में 7 सदस्य, P, Q, R, S, T, U और V हैं। परिवार में कोई भी अविवाहित व्यक्ति एक अभिभावक नहीं है।
R के इकलौते भाई के पिता की इकलौती बहन की माता P है। S U का इकलौता पोता/नाती है। T V की इकलौती साली/भाभी/ननद है और V का कोई भाई-बहन नहीं है।

84. Q, P से कैसे संबंधित है?
(A) पुत्र 　　　　　　　　　(B) दामाद
(C) भाई 　　　　　　　　　(D) भतीजा/भांजा
(E) उपरोक्त में से कोई नहीं

85. V, S से कैसे संबंधित है?
(A) भाई 　　　　　　　　　(B) पिता
(C) भतीजा/भांजा 　　　　(D) पुत्री
(E) माता

निर्देश (86-88): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

नौ व्यक्ति, A, B, C, D, E, F, G, H और I एक दूसरे से कुछ दूरी पर बैठे हैं। D, B के 5 मी पश्चिम में बैठा है और B, G के 1 मी दक्षिण में बैठा है। I, H के 11 मी उत्तर में बैठा है

और H, A के 6 मी पूर्व में बैठा है और A, E के 3 मी दक्षिण में बैठा है। G F के 2 मी पूर्व में बैठा है और F, C के 9 मी उत्तर में बैठा है और C, E के 8 मी पश्चिम में बैठा है।

86. D और I के बीच न्यूनतम दूरी कितनी है?
(A) 17 मी   (B) 15 मी
(C) 18 मी   (D) 5 मी
(E) 12 मी

87. C के सन्दर्भ में B किस दिशा में है?
(A) उत्तर   (B) उत्तर पश्चिम
(C) उत्तर पूर्व   (D) पश्चिम
(E) दक्षिण

88. A के सन्दर्भ में G किस दिशा में है?
(A) उत्तर   (B) उत्तर पश्चिम
(C) उत्तर पूर्व   (D) पश्चिम
(E) दक्षिण

89. प्रश्न में तीन कथन और उसके बाद दो निष्कर्ष I और II दिए गए हैं। आपको दिए गए तीन कथनों को सत्य मानना है, भले ही वे सामान्य रूप से ज्ञात तथ्यों से अलग दिखाई देते हों और फिर तय करें कि दिए गए निष्कर्षों में से कौन-सा निष्कर्ष सामान्य रूप से ज्ञात तथ्यों की अवहेलना करता है और तीन कथनों का तार्किक रूप से अनुसरण करता है।
कथन: केवल luxury rich है।
केवल कुछ luxury poor हैं।
88% poor company है।
निष्कर्ष: I. कुछ rich company है।
II. सभी luxury के poor होने की संभावना नहीं है।
(A) निष्कर्ष I और निष्कर्ष II दोनों अनुसरण करते हैं
(B) केवल निष्कर्ष II अनुसरण करता है
(C) केवल निष्कर्ष I अनुसरण करता है
(D) न तो निष्कर्ष I और न ही निष्कर्ष II अनुसरण करता है
(E) उपरोक्त में से कोई नहीं

90. प्रश्न में तीन कथन और उसके बाद दो निष्कर्ष I और II दिए गए हैं। आपको दिए गए तीन कथनों को सत्य मानना है, भले ही वे सामान्य रूप से ज्ञात तथ्यों से अलग दिखाई देते हों और फिर तय करें कि दिए गए निष्कर्षों में से कौन-सा निष्कर्ष सामान्य रूप से ज्ञात तथ्यों की अवहेलना करता है और तीन कथनों का तार्किक रूप से अनुसरण करता है।
कथन: सभी umbrella shelter हैं।
कुछ shelter shade है।
केवल कुछ shade sunshine हैं।
निष्कर्ष: I. कुछ shade कभी sunshine नहीं हो सकते हैं।
II. सभी sunshine umbrella हैं।
(A) निष्कर्ष I और निष्कर्ष II दोनों अनुसरण करते हैं
(B) केवल निष्कर्ष II अनुसरण करता है
(C) केवल निष्कर्ष I अनुसरण करता है
(D) न तो निष्कर्ष I और न ही निष्कर्ष II अनुसरण करता है
(E) उपरोक्त में से कोई नहीं

निर्देश (91-95): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

छह व्यक्ति, P, Q, R, S, T और U एक 3 मंजिला इमारत के 6 फ्लैट में रहते हैं। एक इमारत में दो प्रकार के फ्लैट A और B हैं। प्रत्येक मंजिल में दो प्रकार के फ्लैट हैं। इमारत में तीन मंजिल हैं। सबसे नीचे की मंजिल की संख्या 1 है और सबसे ऊपरी मंजिल की संख्या 3 है। फ्लैट A फ्लैट B के पश्चिम में है। प्रत्येक मंजिल के प्रत्येक फ्लैट में एक व्यक्ति रहता है। प्रत्येक व्यक्ति को अलग-अलग रंग पसंद हैं - गुलाबी, नीला, काला, पीला, ग्रे और लाल।
ध्यान दें:
1. यदि कोई व्यक्ति किसी अन्य व्यक्ति के तत्काल ऊपर/नीचे रहता है तो वह एक ही प्रकार के फ्लैट में रह भी सकता है और नहीं भी।
2. X Y के उत्तर-पश्चिम में रहता है अर्थात X अवश्य ही उस व्यक्ति के ऊपर रहता है (समान प्रकार के फ्लैट में) जो Y के ठीक पश्चिम में रहता है।
3. यदि कोई व्यक्ति दूसरे व्यक्ति के पश्चिम/पूर्व में रहता है, तो उन दोनों को एक ही मंजिल पर रहने चाहिए।
U R के ठीक ऊपर रहता है और R अभाज्य संख्या से अंकित मंजिल पर नहीं रहता है। Q R के उत्तर-पश्चिम में रहता है। P T के तत्काल नीचे रहता है और T को नीला रंग पसंद है। गुलाबी रंग पसंद करने वाला व्यक्ति मंजिल 1 के फ्लैट A में रहता है। P को लाल रंग पसंद है। काला रंग पसंद करने वाला व्यक्ति पीला रंग पसंद करने वाले व्यक्ति की तत्काल ऊपर रहता है, लेकिन समान प्रकार के फ्लैट में नहीं।
Q को Black रंग पसंद नहीं है।

91. निम्नलिखित में से कौन मंजिल 2 के फ्लैट-A में रहता है?
(A) P   (B) U
(C) Q   (D) S
(E) उपरोक्त में से कोई नहीं

92. समान प्रकार के फ्लैट में Grey रंग पसंद करने वाले व्यक्ति के ठीक ऊपर कौन रहता है?
(A) U   (B) S
(C) Q   (D) P
(E) उपरोक्त में से कोई नहीं

93. मंजिल 3 के फ्लैट-B में कौन रहता है?
(A) T   (B) P
(C) S   (D) Q
(E) उपरोक्त में से कोई नहीं

94. एक ही प्रकार के फ्लैट में T और R के ठीक बीच में कौन रहता है?
(A) Q   (B) U
(C) S   (D) P
(E) या तो (A) या (B)

95. निम्नलिखित में से कौन-सा कथन सत्य हैं?
(A) समान प्रकार के फ्लैट में R U के नीचे एक मंजिल पर रहता है
(B) T S से एक मंजिल ऊपर रहता है
(C) Q और S लगातार मंजिलों पर रहते हैं
(D) P U के पश्चिम में रहता है

(E) S और P अलग-अलग प्रकार के फ्लैट में रहते हैं

निर्देश (96-100): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

सात उम्मीदवारों A, B, C, D, E, F और G की परीक्षा एक ही सप्ताह में सोमवार से रविवार तक अलग-अलग दिनों में होती है। उनकी परीक्षाएं 9 am, 10 am, 11 am, 1 pm, 2 pm, 3 pm और 4 pm के बीच अलग-अलग समय पर होती हैं, लेकिन जरूरी नहीं कि इसी क्रम में हों।

ध्यान दें:

यदि किसी व्यक्ति की परीक्षा किसी अन्य व्यक्ति की परीक्षा के एक या दो दिन पहले या बाद में है तो यह ऊपर दिए गए समय की परवाह किए बिना होना चाहिए।

C की परीक्षा बुधवार को और 12 दोपहर से पहले है। G की परीक्षा B की परीक्षा से दो दिन पहले है और B की परीक्षा 10 am पर है। G और F की परीक्षा के बीच दो व्यक्तियों की परीक्षा है। F की परीक्षा उस उम्मीदवार की परीक्षा से तत्काल पहले है जिसकी परीक्षा 3 pm पर है। D की परीक्षा 9 am पर है है लेकिन न तो सोमवार और न ही शुक्रवार को है।

A की परीक्षा उस व्यक्ति के ठीक पहले है, जिसकी परीक्षा 11am पर है। न तो F और न ही E की परीक्षा 1 pm पर है। F की परीक्षा 4 pm पर नहीं है।

96. मंगलवार को किसकी परीक्षा है?

(A) F   **(B)** A
(C) G   **(D)** E
(E) उपरोक्त में से कोई नहीं

97. E के बाद कितने उम्मीदवारों की परीक्षा है?
(A) पांच   **(B)** तीन
(C) दो   **(D)** एक
(E) उपरोक्त में से कोई नहीं

98. ____ की परीक्षा 2 pm को है।
(A) A   **(B)** G
(C) E   **(D)** B
(E) F

99. निम्नलिखित में से किसकी परीक्षा A के बाद है?
I. F   **II.** E
III. B
(A) केवल I और III   **(B)** केवल III
(C) केवल II   **(D)** केवल II और III
(E) केवल I

100. जिस अभ्यर्थी की परीक्षा 2 pm पर है, उसकी परीक्षा ____ को है।
(A) मंगलवार   **(B)** शनिवार
(C) शुक्रवार   **(D)** सोमवार
(E) उपरोक्त में से कोई नहीं

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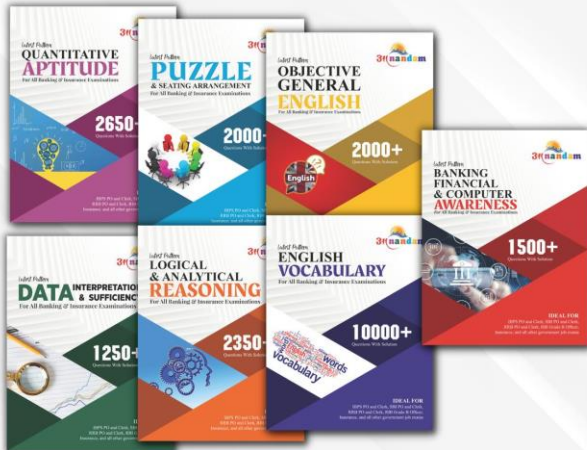
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English Language

1. Answer: (A)
The sentences show contradiction. A tells us that critics claim environmental regulations hurt productivity and profits. B says that incentive-based policies may actually benefit regulated firms in the traditional and green energy sectors.
1 is correct as WHILE is used to show contradiction. "Critics claim environmental regulations hurt productivity and profits while in reality, incentive-based policies may actually benefit regulated firms in the traditional and green energy sectors." Thus, (a) is the right answer.
2 is incorrect as ADDITIONALLY is used to show additionality, which is not the case here.
3 is incorrect as BECAUSE is used to show causation, which is not the case here.

2. Answer: (D)
The sentences show contradiction. A tells us that access to healthcare in Guinea has improved marginally over the years. B tells us that the country still struggles with one of the worst health-care infrastructures in the world.
1 is correct as ALTHOUGH is used to show contradiction. "Although access to healthcare in Guinea has improved marginally over the years, the country still struggles with one of the worst health-care infrastructures in the world."
3 is correct as YET is used to show contradiction. "Access to healthcare in Guinea has improved marginally over the years, yet the country still struggles with one of the worst health-care infrastructures in the world." Thus, (d) is the right answer.
2 is incorrect as SINCE is used to show causation, which is not the case here.

3. Answer: (D)
Both 2 and 3 are grammatically correct. In 1, replace the adjective GREAT with the adverb GREATLY as it is being used to modify the verb BENEFITED.

4. Answer: (B)
Both 1 and 2 are grammatically correct. In 3, replace the second form verb EXPRESSED with EXPRESS as the TO + VERB infinitive construction will take the base form verb.

5. Answer: (B)
Both 1 and 2 are grammatically correct. In 3, replace the adverb THERE with the possessive pronoun THEIR as the sentence talks about the interaction of birds and bats.

6. Answer: (C)
Both 1 and 3 are grammatically correct. In 2, replace the plural verb HAVE with the singular verb HAS as the subject SPEED LIMIT is singular.

7. Answer: (E)
All 1, 2 and 3 are grammatically correct and free of error.

8. Answer: (D)
Both 2 and 3 are grammatically correct and free of error.

In 1, replace the plural verb COME with the singular verb COMES as the subject DIVERSITY is singular.

9. Answer: (D)
DCAB is the final order. D begins by the sentence by establishing the subject - human expansion into natural areas. C follows D by telling us that it carries a greater risk of diseases. A adds that the sentence talks about diseases crossing from wildlife into livestock or people. B concludes the sentence by stating the reason for the same - greater proximity between animals and people.

10. Answer: (A)
ADCB is the final order. A begins the sentence by establishing the subject - studies conducted during the pandemic. B tells us that they have linked both anxiety and depression but does not specify to what. C and B follow in a pair to add that the said studies have linked anxiety and depression to the consumption of Covid-19 related media and increased time spent on smartphones.

11. Answer: (C)
CADB is the final order. C begins the sentence by introducing the subject - taking care of environmental and human health. A follows C by stating what we should do in order to take care of environmental and human health - change. D follows C by adding what it is that should be changed - what we eat and how it's produced. B concludes the sentence by adding that the changes are all the more necessary because of reductions in meat consumption in wealthy countries.

12. Answer: (A)
ACBD is the final order. A begins the sentence by introducing the subject - the take of most scientists on the issue of climate change. C and B occur in a pair and tell us that in their opinion humanity is conducting a large-scale geophysical experiment with the planet. D concludes the sentence by stating that they are doing so by increasing the concentration of greenhouse gases.

13. Answer: (C)
The sentence tells us how classical literature is rich (abundant) in lessons of character, but it often gets a bad reputation (image) due to its old language and unfamiliar (unknown) settings. AMIABLE means friendly and is contextually inapt. It should be replaced with ARCHAIC (old).

14. Answer: (B)
The sentence tells us how some companies automatically (by default) include this type (kind) of accident in their standard cover, but this is not the norm (regular practice). INVOKE (appeal to a deity) is inapt in this context, and should be replaced with INCLUDE.

15. Answer: (E)
The sentence tells us how the UN could have continued passing (implementing) resolutions (motions) but there was no realistic (practical) alternative (option) to war. All the words are contextually apt and correctly spelled.

16.   **Answer: (A)**
The sentence tells us how archaeological digs have revealed (unearthed) many buildings, the most notable (prominent) of which was a large (big) town house. A is incorrectly spelled. The correct spelling of the word is EXCAVATIONS.

17.   **Answer: (E)**
The sentence tells us the University of Nevada archaeologists hope (seek) to establish (set up) a lecture series as well as travelling exhibits to showcase (display) the artifacts (objects of cultural or historical significance). All the words are correctly spelled and contextually apt.

18.   **Answer: (A)**
We need a past participle form verb to fit in the passive voice construction WERE + VERB. ELIMINATED (removed) will fit here as the sentence tells us how the charge that the jobs were reduced due to foreign competition may not necessarily be true. Espoused - promoted. Induced - urged. Incited - provoked. Implied - suggested.

19.   **Answer: (C)**
We need a past participle form verb to fit in the passive voice construction HAVE + BEEN + VERB. INVESTIGATED (studied) will fit here as the sentence tells us how the plant oils have been considered as an alternative, renewable source of liquid fuels. Instigated - provoked. Inhibited - limited. Reminded - caused to remember. Replaced - supplanted.

20.   **Answer: (D)**
We need a past participle form verb to fit in the passive voice construction HAS + BEEN + VERB. CONFIRMED (made certain with proof) will fit here as the sentence tells us how it is not certain how the Icelanders died.
Convened - summoned. Collected - gathered. Conformed - adhered to rules or expectations. Commanded - ordered.

21.   **Answer: (E)**
We need an adjective here to modify the noun phrase WAR YEARS. PROSPEROUS (wealthy) will fit here as the sentence tells us how the standard of living had risen during the war years.
Cautious - careful. Contentious - controversial. Pompous - arrogant. Preposterous - ridiculous.

22.   **Answer: (C)**
We need a noun here to be modified by the adjective EARLY. STAGES (phases) will fit here as the sentence tells us how the patients suspected to be suffering from the early phases of the virus are to be treated. Positions - placements. Institutions - establishments. Insights - ideas. Starts (verb) - begins.

23.   **Answer: (D)**
Both A and B are mentioned in the passage as pharmaceutical substances found to cause harm to shellfish. Refer to the lines: "So, scientists grew shellfish in the lab on sediment contaminated with two drugs, exposing them to the same concentrations they face in Santos Bay. One was ibuprofen, a common painkiller, and the other was triclosan, an antibacterial compound found in products including toothpastes and body washes. The drug exposure caused a range of negative effects, including malformed membranes and reproductive difficulties."
C is not mentioned in the passage.

24.   **Answer: (E)**
Refer to the lines: "This is a problem because most toxicity assessments done by governments to see if a substance should be regulated only look at acute effects, which usually means whether the compound is lethal. But just because animals are surviving our pharmaceutical pollution doesn't mean they are unaffected. Studies of chronic impacts from longer-term exposure are expensive and time-consuming, but it's exactly these impacts that are worrying."
None of the other options is mentioned in the passage.

25.   **Answer: (C)**
Refer to the lines: "Some researchers are developing systems that can be added to treatment plants to filter out pharmaceuticals, such as activated carbon filters or bacteria specifically designed to break down drugs. But these are still in development, and many drugs escape even the most advanced treatment plants currently operating."
None of the other options is mentioned in the passage.

26.   **Answer: (B)**
Refer to the lines: "Scientists say the effects of pharmaceutical waste vary by location and solutions should, too. In Brazil, for example, ibuprofen often comes in large packages, so people may flush a lot of expired medication. In this case, the solution may be to try to get manufacturers to make smaller packages."
None of the other options is mentioned in the passage.

27.   **Answer: (A)**
Refer to the lines: "Coastal environments vary widely from city to city. São Paulo's sewage lingers in sheltered Santos Bay, amplifying the effects of drug exposure. But on Canada's west coast, deep water, dynamic tides and strong currents routinely flush the Juan de Fuca Strait, where the city of Victoria, British Columbia, has been pumping raw sewage through only a coarse screen since the 1960s."
The other options are not mentioned or implied in the passage.

28.   **Answer: (B)**
Refer to the lines: "In their quest to understand the effects of drugs on marine life, however, scientists have found an involuntary ally: shellfish. Because they live stationary lives, clams and mussels have been accidental test subjects in pharmaceutical pollution research. Now, these shellfish are helping sound the alarm about several common drugs and chemicals."
None of the other options is mentioned in the passage as the reason.

29. **Answer: (A)**
VARY means to differ, which will make (a) the right answer.
Assign - allot. Imply - suggest. Induce - urge. Arouse - stimulate.

30. **Answer: (D)**
ACCUMULATE means to gather, and DISPERSE (scatter) is its antonym.
Recollect - remember. Comply - abide by. Understand - comprehend. COLLECT is a synonym of the given word.

Quantitative Aptitude

31. **Answer: (C)**

$$\times 3 \quad \times 3 \quad \times 3 \quad \times 3$$
$$+2 \quad -6 \quad +18 \quad -54 \quad +162$$
$$121 \quad 123 \quad 117 \quad 135 \quad 81 \quad 243$$

32. **Answer: (B)**
$112 + (12 \times 1) = 124$
$124 + (12 \times 2) = 148$
$148 + (12 \times 3) = 184$
$184 + (12 \times 4) = 232$
$232 + (12 \times 5) = 292$

33. **Answer: (A)**
$7 \times 2 - 1 = 13$
$13 \times 2 - 1 = 25$
$25 \times 2 - 1 = 49$
$49 \times 2 - 1 = 97$
$97 \times 2 - 1 = 193$

34. **Answer: (A)**
$8 \times 6 + 5 = 53$
$53 \times 5 + 4 = 269$
$269 \times 4 + 3 = 1079$
$1079 \times 3 + 2 = 3239$
$3239 \times 2 + 1 = 6479$

35. **Answer: (D)**

$$+6 \quad +6 \quad +6 \quad +6$$
$$+14 \quad +20 \quad +26 \quad +32 \quad +38$$
$$20 \quad 34 \quad 54 \quad 80 \quad 112 \quad 150$$

36. **Answer: (D)**
चूंकि 5 वस्तु हैं, व्यवस्था के तरीकों की कुल संख्या = 5! = 120 तरीके
यदि हम 3 कप को एक वस्तु मानते हैं, तो कपों को आपस में व्यवस्थित करने के तरीकों की संख्या = 3! = 6 तरीके
शेष तीन वस्तुओं को व्यवस्थित करने के तरीकों की संख्या = 3! = 6 तरीके
इसलिए, अभीष्ट तरीकों की संख्या = 120 - (6 × 6) = 84 तरीके

37. **Answer: (A)**
प्रश्न के अनुसार,
'B' का लाभ = 11500 - 6900 = रु. 4600
इसलिए,
$\{(x + 200) \times 8\}:\{(x – 800) \times 7\} = 6900:4600$
या, $16(x + 200) = 21(x – 800)$

या, $16x + 3200 = 21x – 16800$
या, $5x = 20000$
या, $x = 4000$

38. **Answer: (E)**
प्रारंभिक मिश्रण में दूध की मात्रा = $144 \times \{5/(5 + 7)\}$ = 60 लीटर
प्रारंभिक मिश्रण में पानी की मात्रा = 144 - 60 = 84 लीटर
प्रश्नानुसार,
$\{(60 + x – 26)/(84 + x – 38)\} = 7/8$
या, $\{(34 + x)/(46 + x)\} = 7/8$
या, $272 + 8x = 322 + 7x$
या, $x = 50$

39. **Answer: (C)**
'A' द्वारा पूरा कार्य पूरा करने में लिया गया समय = $5 \times (100/20) = 25$ दिन
'B' द्वारा पूरा कार्य पूरा करने में लिया गया समय = $10 \times 3 = 30$ दिन
माना कुल कार्य 150 इकाई है।
'A' की क्षमता = $150/25 = 6$ यूनिट/दिन
'B' की क्षमता = $150/30 = 5$ यूनिट/दिन
5 दिनों में 'ए' और 'बी' द्वारा एक साथ किया गया कार्य = $(6 + 5) \times 5 = 55$ यूनिट
शेष कार्य = 150 - 55 = 95 इकाई
'B' द्वारा लिया गया आवश्यक समय = $(95/5) = 19$ दिन

40. **Answer: (C)**
प्रश्न के अनुसार,
ट्रेन 'A' को 360 मीटर की यात्रा करने में (30 - 12 = 18 सेकंड) का समय लगा
इसलिए, ट्रेन की गति = 360/18 = 20 मीटर/सेकंड
अब, तय की जाने वाली कुल दूरी = 200 + 100 = 300 मीटर
आवश्यक समय = 300/20 = 15 सेकंड

41. **Answer: (C)**
प्रश्न के अनुसार,
वर्ग का क्षेत्रफल = 324 सेमी^{2}
भुजा^{2} = 324 सेमी^{2}
भुजा = 18 सेमी
अब, एक आयत की लंबाई और एक वर्ग की भुजा का योग = 42 सेमी
$l + 18 = 42$
$l = 24$ सेमी
दिया गया है, आयत का परिमाप = 80 सेमी
$2(l + b) = 80$
$24 + b = 40$
$b = 40 - 24 = 16$ सेमी
आयत का क्षेत्रफल = $l \times b = 24 \times 16 = 384$ सेमी^{2}

42. **Answer: (A)**
माना 'B' की वर्तमान आयु 'x' वर्ष है
अत: 'A' की वर्तमान आयु = 0.8x वर्ष
'C' की वर्तमान आयु = 0.8x/1.25 = 0.64x वर्ष
प्रश्न के अनुसार,
$(x - 0.64x) = 9$
या, $0.36x = 9$
या, $x = (9/0.36) = 25$
अत: 'A' की वर्तमान आयु = 0.8x = 20 वर्ष

'C' की वर्तमान आयु = 0.64x = 16 वर्ष
आवश्यक अनुपात = (20 + 8):(16 + 8) = 28:24 = 7:6

43.   Answer: (A)
79.95 × 25.001 – 20.001 × 129.90 + 839.99 = ?
80 × 25 – 20 × 130 + 840 ~ ?
2000 – 2600 + 840 ~ ?
? ~ 240

44.   Answer: (C)
माना शांत जल में नाव की गति 'x' किमी/घंटा है।
तो, धारा की गति = 0.40 × x = 0.4x किमी/घंटा
नाव की धारा के प्रतिकूल गति = x - 0.4x = 0.6x किमी/घंटा
नाव की अनुप्रवाह गति = x + 0.4x = 1.4x किमी/घंटा
प्रश्नानुसार,
(150/0.6x) + (196/1.4x) = 10
या, 250 + 140 = 10x
या, x = 39
आवश्यक दूरी = 39 × 5 = 195 किमी

45.   Answer: (E)
विकाश को प्राप्त ब्याज = (5000 × 1.2 × 1.2) - 5000
= 0.44 × 5000 = रु. 2200
आकाश को प्राप्त ब्याज = 2200 × (15/11) = रु. 3000
या, {(5000 × x × 2)/100} = 3000
या, 100x = 3000
या, x = 30

46.   Answer: (C)
माना कक्षा में लड़कियों की संख्या 'x' है।
अत: लड़कों की संख्या = 0.6x
प्रश्न के अनुसार;
(0.6x × 40) + (x × 32) = 2800
या, 24x + 32x = 2800
या, 56x = 2800
या, x = 50
अत: कक्षा में विद्यार्थियों की कुल संख्या = 0.6 × 50 + 50
= 30 + 50 = 80

47.   Answer: (C)
74.91% of 639.95 – 599.98% of 45 + 119.987 = ?
75% of 640 – 600% of 45 + 120 ~ ?
? ~ 480 – 270 + 120
? ~ 330

48.   Answer: (B)
564.932 + 849.029 – 425.08 = 612.095 + ?
565 + 849 – 425 – 612 ~ ?
? ~ 1414 – 1037
? ~ 377

49.   Answer: (B)
√1023 × √624 ÷ √101 = ? + 24
√1024 × √625 ÷ √100 ~ ? + 24
32 × 25 ÷ 10 ~ ? + 24
80 – 24 ~ ?
? = 56

50.   Answer: (D)
(519.98 + ?) ÷ 13.01 = √440 + 20.01
(520 + ?) ÷ 13 ~ √441 + 20
40 + ? ÷ 13 ~ 21 + 20
? ÷ 13 ~ 41 – 40

? ~ 13

निर्देश (51-55):
कंपनी 'A' द्वारा बेचे गए बैंक पाठ्यक्रमों की संख्या
= 1800 × 0.45 = 810
कंपनी 'A' द्वारा बेचे गए एसएससी पाठ्यक्रमों की संख्या
= 1800 - 810 = 990
उसी प्रकार,

कंपनी	बेचे गए पाठ्यक्रमों की कुल संख्या	बेचे गए बैंक पाठ्यक्रमों की संख्या	बेचे गए एसएससी पाठ्यक्रमों की संख्या
A	1800	810	990
B	1650	660	990
C	1560	780	780
D	1700	935	765

51.   Answer: (C)
आवश्यक अनुपात = 660:990 = 2:3

52.   Answer: (A)
कंपनी 'E' द्वारा बेचे गए एसएससी पाठ्यक्रमों की संख्या =
935 + 25 = 960
आवश्यक औसत = {(960 + 780)/2} = 870

53.   Answer: (C)
आवश्यक प्रतिशत = (594/990) × 100 = 60%

54.   Answer: (E)
आवश्यक राशि = 810 + 780 = 1590

55.   Answer: (D)
कंपनी 'F' द्वारा बेचे गए एसएससी पाठ्यक्रमों की संख्या =
1800 × 0.4 = 720
आवश्यक अंतर = 765 – 720 = 45

निर्देश (56-60):
माना A1 और B1 में लड़कों की संख्या क्रमशः 8x और 5x है
B1 में लोगों की कुल संख्या = 5x/0.8 = 6.25x
B1 में लड़कियों की संख्या = 6.25x - 5x = 1.25x
C1 में लड़कियों की संख्या = 1.2 ×1.25x = 1.5x
C1 में लड़कों की संख्या = 0.25 × 8x = 2x
C1 में लोगों की कुल संख्या = 2x + 1.5x = 3.5x
A1 में लोगों की कुल संख्या = 4 × 3.5x = 14x
A1 में लड़कियों की संख्या = 14x - 8x = 6x
इसलिए, 6x = 120
या, x = 20
इसलिए,

कोच	लड़कों की संख्या	लड़कियों की संख्या	लोगों की कुल संख्या
A1	8x = 160	6x = 120	14x = 280
B1	5x = 100	1.25x = 25	6.25x = 125
C1	2x = 40	1.5x = 30	3.5x = 70

56.   Answer: (C)
आवश्यक अंतर = 160 – 25 = 135

57.   Answer: (A)
आवश्यक औसत = (160 + 40 + 100)/3 = 100

58.   Answer: (E)
आवश्यक प्रतिशत = {(125 – 70)/125} × 100 = 44%

59.   Answer: (B)
लड़कियों की आवश्यक संख्या = 0.4 × (120 + 25)
= 58

60.   Answer: (D)

D1 में कुल लोगों की संख्या = 280 × (5/7) = 200
D1 में लड़कियों की संख्या = 0.55 × 200 = 110

निर्देश (61-65):
नेपाल से बचाए गए भारतीय पुरुषों की संख्या
= 840 × {4/(3 + 4)} = 480
नेपाल से बचाए गए भारतीय महिलाओं की संख्या
= 840 - 480 = 360
इसी तरह,

देश	बचाए गए भारतीयों की संख्या	बचाए गए भारतीय पुरुषों की संख्या	बचाई गई भारतीय महिलाओं की संख्या
नेपाल	840	480	360
चीन	660	220	440
इराक	550	330	220
ईरान	960	560	400

61.   **Answer: (B)**
आवश्यक अनुपात = 330:440 = 3:4

62.   **Answer: (C)**
कतर से छुड़ाई गई भारतीय महिलाओं की संख्या = 480 × (1/2) = 240
आवश्यक प्रतिशत = (240/400) × 100 = 60%

63.   **Answer: (E)**
आवश्यक औसत = {(220 + 560)/2} = 390

64.   **Answer: (B)**
कतर से बचाए गए भारतीयों की संख्या
= 360 × 1.5 = 540
आवश्यक अंतर = 660 – 540 = 120

65.   **Answer: (E)**
कुवैत से छुड़ाए गए भारतीयों की संख्या = 960 × (9/8) = 1080
आवश्यक योग = 1080 + 220 = 1300

Reasoning Aptitude

66.   **Answer: (E)**
दिया गया: BULLETINS
यदि अक्षरों को उल्टे वर्णानुक्रम में व्यवस्थित करें तो हमें निम्नलिखित शब्द " U T S N L L I E B " मिलेगा।
तो, जो अक्षर दायें छोर से 5वां है वह 'L' है।

निर्देश (67-71):

J	D	L	E	F	K	H	G
उत्तर	दक्षिण	दक्षिण	दक्षिण	उत्तर	दक्षिण	दक्षिण	उत्तर

67.   **Answer: (C)**
K, L के बायें से तीसरे स्थान पर बैठा है।

68.   **Answer: (C)**
F, H के दायें से दूसरे स्थान पर बैठा है।

69.   **Answer: (D)**
दिए गए कथनों में से केवल "F, G के बाईं ओर बैठता है" सही कथन है।

70.   **Answer: (C)**
G और L के मध्य चार व्यक्ति बैठे हैं।

71.   **Answer: (D)**
J, F के बायें से चौथे स्थान पर बैठा है।

72.   **Answer: (A)**
दिए गए कथन:
A ≥ 6; J = 4 < 8; A ≥ 8; F > J
संयोजन करने पर, हम प्राप्त करते हैं

F > J = 4 < 8 ≤ A ≥ 6
निष्कर्ष:
I. F > 8: असत्य (F > J = 4 < 8, F और 8 के बीच संबंध निर्धारित नहीं किया जा सकता)
II. A > J: सत्य (J = 4 < 8 ≤ A, अतः A > J)
III. 6 > F: असत्य (F > J = 4 < 8 ≤ A ≥ 6, 6 और F के बीच संबंध निर्धारित नहीं किया जा सकता)

73.   **Answer: (E)**
दिए गए कथन:
J = 7 > K; X ≤ 3; K > A > R < 3
संयोजन करने पर, हम प्राप्त करते हैं
J = 7 > K > A > R < 3 ≥ X
निष्कर्ष:
I. J > R: सत्य (J = 7 > K > A > R, अतः, J > R)
II. X > J: असत्य (J = 7 > K > A > R < 3 ≥ X, इसलिए, X और J के बीच संबंध स्थापित नहीं किया जा सकता)
III. K > R: सत्य (K > A > R, अतः, K > R)

74.   **Answer: (A)**
दिए गए कथन:
2 > X ≥ A; Y ≤ L < 2; E > A ≥ J
संयोजन करने पर, हम प्राप्त करते हैं
Y ≤ L < 2 > X ≥ A > J; E > A ≤ X < 2
निष्कर्ष:
I. 2 > E: असत्य (चुकि, E > A ≤ X < 2, 2 और E के बीच संबंध निर्धारित नहीं किया जा सकता)
II. L < A: असत्य (चुकि, L < 2 > X ≥ A, L और A के बीच संबंध निर्धारित नहीं किया जा सकता)
III. J > 2: सत्य (चुकि, 2 > X ≥ A > J, अतः J < 2)
केवल निष्कर्ष III सत्य है।

75.   **Answer: (C)**
दिए गए कथन:
A < B ≤ F; A > L > V; R ≥ B; V < C
संयोजन करने पर, हम प्राप्त करते हैं
R ≥ B > A > L > V < C; F ≥ B > A > L > V
निष्कर्ष:
I. R > L: सत्य (चुकि, R ≥ B > A > L, अतः, R > L)
II. C > A: असत्य (चुकि, A > L > V < C, C और A के बीच संबंध निर्धारित नहीं किया जा सकता)
III. F > V: सत्य (चुकि, F ≥ B > A > L > V, अतः, F > V)
केवल निष्कर्ष I और III सत्य हैं।

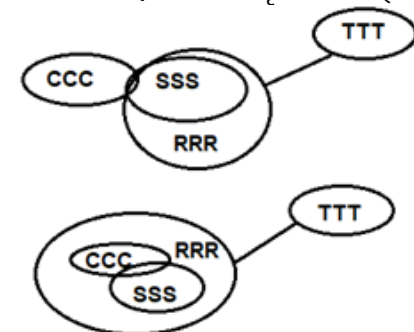**76.**   **Answer: (E)**
दिया गया शब्द: WEBSITE
पहला, चौथा और सातवां अक्षर W, S और E हैं।
प्रतिस्थापन के बाद, हम प्राप्त करते हैं, T, P और B।
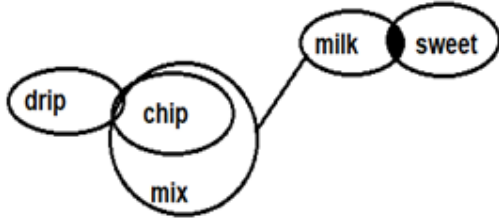अतः कोई सार्थक शब्द नहीं बनता है।

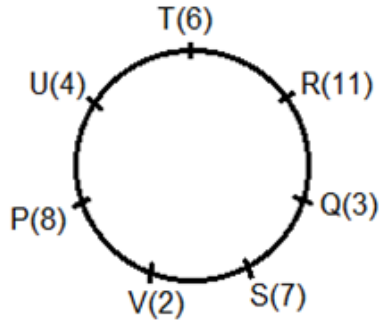**77.**   **Answer: (D)**
कथनों से निम्नलिखित आकृतियाँ बनाई जा सकती हैं।

अत: केवल निष्कर्ष II अनुसरण करता है।

78. Answer: (A)
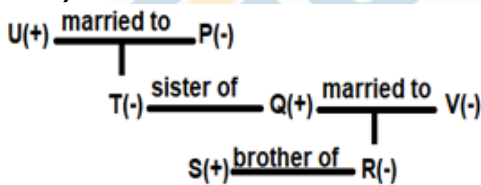निम्नलिखित आकृति बनाई जा सकती है:

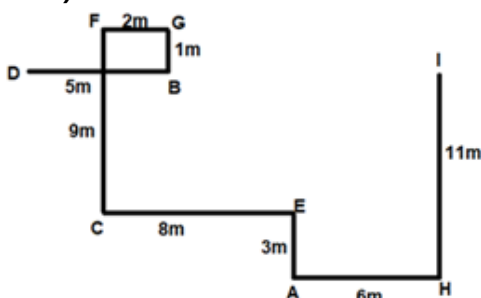आकृति से, निष्कर्ष I और III दोनों अनुसरण करते हैं।

निर्देश (79-83):

79. Answer: (C)
P, R के दायें से तीसरे स्थान पर बैठा है।

80. Answer: (D)
T, Q के दायें से दूसरे स्थान पर बैठा है, जिसके पास 3 अंगूठियां हैं।

81. Answer: (B)
T और P, U के आसन्न बैठे हैं।
T के पास 6 अंगूठियां हैं। P के पास 8 अंगूठियां हैं।
योग = (8 + 6) = 14

82. Answer: (C)
T, R के ठीक दायें बैठा है, जिसके पास 11 अंगूठियां (अर्थात सबसे अधिक संख्या में अंगूठियां) हैं।

83. Answer: (D)
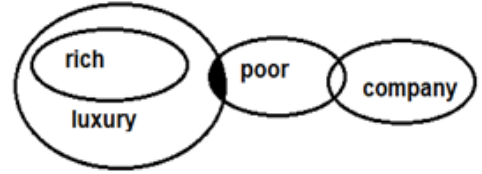P, R के दायें से तीसरे स्थान पर बैठा है।

निर्देश (84-85):

84. Answer: (A)
Q, P का पुत्र है।

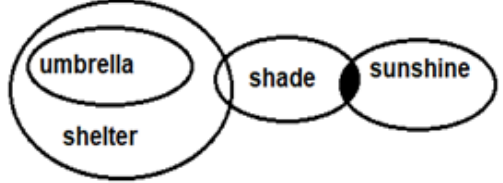**85. Answer: (E)**
V, S की माता है।

निर्देश (86-88):

86. Answer: (A)
D और I के मध्य न्यूनतम दूरी 17 मी है।

87. Answer: (C)
B, C के सन्दर्भ में उत्तर पूर्व दिशा में है।

88. Answer: (B)
G, A के सन्दर्भ में उत्तर पश्चिम दिशा में है।

89. Answer: (B)
कथनों से निम्नलिखित आकृति बनाई जा सकती है:

अत: केवल निष्कर्ष II अनुसरण करता है।

90. Answer: (C)
कथनों से निम्नलिखित आकृति बनाई जा सकती है:

इसलिए, केवल निष्कर्ष I अनुसरण करता है।

निर्देश (91-95):

फ्लोर	फ्लैट-A	Flat-B
3	Q (ग्रे)	T (नीला)
2	U (काला)	P (लाल)
1	S (गुलाबी)	R (पीला)

91. Answer: (B)
U मंजिल 2 के फ्लैट-A में रहता है।

92. Answer: (E)
Q, जिसे ग्रे रंग पसंद है, के ऊपर कोई नहीं रहता है।

93. Answer: (A)
T मंजिल 3 के फ्लैट-B में रहता है।

94. Answer: (D)
P एक ही प्रकार के फ्लैट में T और R के ठीक बीच में रहता है।

95. Answer: (E)
S और P विभिन्न प्रकार के फ्लैट में रहते हैं।

निर्देश (96-100):

दिन	उम्मीदवार	समय
सोमवार	F	2 pm
मंगलवार	A	3 pm
बुधवार	C	11 am
गुरूवार	G	1 pm
शुक्रवार	E	4 pm
शनिवार	B	10 am
रविवार	D	9 am

96. Answer: (B)
A की मंगलवार को परीक्षा है।

97. Answer: (C)
E के बाद दो उम्मीदवारों की परीक्षा है।

98. Answer: (E)
F की परीक्षा दोपहर 2 बजे है।

99. Answer: (D)
दिए गए विकल्पों में से केवल E और B की परीक्षा A के बाद है।

100. Answer: (D)
F की परीक्षा सोमवार को दोपहर 2 बजे है।