SECTION III

VERBAL ABILITY & READING COMPREHENSION

For Questions 41 to 43

Choose the best concluding sentence for the paragraph provided.

41. "What is the capital of Slovakia?" intoned my son working on his assignment. To me, this was too much stress and embarrassment to suffer in one sitting. During the last couple of hours yours truly had already feigned a couple of restroom trips to sneak a peek at internet's take on Genghis Khan's lineage. Did one really care about whether the Mongolian marauder lived in a 'ger' or drank fermented mare's milk called 'airag'? Life seems rather unfair that one is now required to help out with children's homework. I am forced to revisit my school days that had happily ended over 35 years ago. Memories of what one learned then escape me. .
    (a) But honestly, the world has changed ever since!!
    (b) But honestly, hasn't the world changed ever since?
    (c) But honestly, the world hasn't changed ever since!!
    (d) But you tell me, hasn't the world changed ever since?
42. If my aunt in London is all for Monty Panesar's bowling, does that make her an insular British Asian? If she moons over Zaheer Khan — 'he's so handsome, what a cricketer' — does that make her a 'bad' Britisher as well as bad person of Indian origin? She had SreeSanth and R.P. Singh to choose from.
    (a) Besides, there were Rahul, Sachin and Saurav!
    (b) And then there was Dhoni, for god's sake!
    (c) Which cricketer you choose to support determines whether you are an insular British Asian or for that matter a 'bad' Britisher!
    (d) Why Zaheer, for God's sake!
43. I believe the nuclear deal will benefit both the countries. The deal can add new dimensions to the expanding relationship between the world's two largest democracies. For the US there may be gains in access to the Indian nuclear market but the crucial impact for it, as for India, will be the widened base of their relations.
    (a) Should the deal fail both countries will suffer.
    (b) However, a few negative points remain to be sorted out before the deal can go through.
    (c) Should the deal go through, hence, both countries would be the biggest gainers.
    (d) Should the deal go through, hence, both countries would be big gainers.

Directions for 44 to 48

The question is in the form of jumbled statements which when un-jumbled will form a coherent sequence. Choose the correct answer from the given options.

44. A. The invasion and occupation had little to do with what is today understood as regime change. In fact, it had the exact opposite goal in mind.
    B. The invasion of China in 1900 was designed to eliminate the Boxers, stabilize China, advance and protect imperial gains, and to actually buttress the Qing state—to give it enough power and legitimacy to quell domestic unrest, but not enough to expel foreign invaders.
    C. The western nations maintained the occupation for nine months, setting up shop in Beijing and other towns and cities—organizing police forces, cleaning streets, handing out jobs, implementing "law and order," and generally running a relatively efficient occupation—notwithstanding much rancor and division between and among the imperial powers.
    D. Indeed, the occupation of China can well be thought of as the first multi-lateral imperial project of the new century.
    E. Eventually, a western force of some 54,000 British, French, Russian, Japanese, and American forces—a total of eight nations contributed troops—invaded and occupied key parts of coastal China including Beijing
    (a) BACED (b) ABCDE
    (c) EABCD (d) EBACD
45. A. Sudoku conditions the mind to looking for answers that may not be immediately visible. The numbers within the box can only tell so much, but being able visualise numbers which are not in the box will go a long way.
    B. And that certainly helps in practically every area of life, being able to keep one's goal in focus instead of flustered by details.
    C. In certain IQ tests, such people are classified as Visual Mathematicians – the ones who are able to see the big picture.
    D. "Think outside the box" may just be the best advice to solving Sudoku, even if it sounds a tad paradoxical.
    (a) DACB (b) BACD
    (c) ABCD (d) CABD

46. A. "We show that non-language related activities, such as playing or watching a sport, enhance one's ability to understand language about their sport precisely because brain areas normally used to act become highly involved in language understanding," said Sian Beilock, lead author and associate professor of psychology at the University of Chicago.
    B. In this study, 12 professional and intercollegiate hockey players, eight fans and nine people who had never watched a game listened to discussions about hockey players, shooting pucks, and making saves.
    C. Watching hockey may boost brain power and increase language skills as well.
    D. The brain boost helps athletes and fans understand hockey information, even though when people are listening to hockey, they have no intention to act.
    E. Participants also listened to sentences about everyday activities, such as ringing a doorbell. The researchers used functioning Magnetic Resonance Imaging (fMRI) to study which brain areas were most active when the participants were listening.
    (a) EABCD (b) ABCDE
    (c) ABEDC (d) BEADC
47. A. Then, their motivation and performance may increase—and then you'll be the happy employer of employees in good moods.
    B. So, if you're an employer, your best bet is *not* to hire unhappy employees, but to show your employees that being productive and performing their jobs well will make them feel good.
    C. Dr. Sinclair also found that when people believed that the task would make them feel good, they devoted more energy to the job.
    D. Psychological research does show that sad moods lead to more contemplation and, often, more thoughtful or accurate judgments.
    E. Are unhappy employees more productive?
    (a) EDCBA (b) CEDBA
    (c) BAEDC (d) CBAED
48. A. This zaps our energy and decreases our interest in a project. Instead, exaggerating the possible *positive* outcomes is a great way to deal with stress," says Dr Muller.
    B. "For instance, do you usually imagine the worst case scenario?
    C. "When faced with a challenge or problem, we often exaggerate the possible negative outcomes, and focus only on these.
    D. Dr Muller explains that this "opposite exaggeration" exercise can reduce negative thinking and inspire you to stay productive at work.
    E. Instead of picturing yourself losing the business account because you gave a terrible presentation that the boss hated, imagine the brilliant presentation that nets you not only the account but also the corner office, a huge raise, and use of the company jet!"
    (a) CABDE (b) EDCAB
    (c) BEDCA (d) CABED

Directions for questions 49 to 53

Read the passage below and answer the questions that follow.

School exams must do a few seemingly simple things. They should show what has been learnt and who has done best, with grades that are both precise and meaningful. They should be rigorous, but also fair. Standards should stay steady over time, but the curriculum should be up to date. The courses should be accessible and attractive, yet cover all the ground that universities and employers require.

Such contradictions guarantee dissatisfaction, especially as good results in the A—levels taken in the final school years play a huge role taken in university admissions—and thus future earning power. So in August, which should be the quietest month in the school year, there is an annual panic about Britain's education system.

This week's A level results showed a record pass- level of 96%, with a record 22.4% gaining the top A grade- and prompted the usual howls of dismay about dumbing – down and lack of differentiation. A government minister, David Miliband, said the row was "a pantomime, not a discussion". The threefold increase in students getting two passes or more over the past 30 years was a sign of improving education, he said, and those who criticised it were elitists defending "the old order".

Yet even Mr. Miliband agrees that there is a need for change in the way the best candidates are graded. Places at the top dozen universities are oversubscribed, sometimes hugely, by candidates with a plethora of A grades. It's a small problem compared with others - such as the fact that a quarter of schoolchildren never learn to read and count properly- but a politically important one.

One plan is to split the A grade into four sub-categories. Another is to publish the percentage marks scored, or to show the grade gained on each bit of exam. Such ploys might help to distinguish brilliant candidates from the merely clever. But not necessarily: exams are only a rough measure of ability, so it may be sensible to have broad categories rather than narrow ones. Some would like an extended essay, or a new A grade for those who answer the hardest questions. But whatever the system, the best schools will find ways of getting their candidates to do well. No system can achieve both social engineering and academic excellence.

What about the wider charge, that A levels have become too easy? The biggest changes have been in the way that the

exams work. Good exam technique matters less. Retakes are freely allowed and questions are less cryptic, with more signposting about how to answer them. The aim is to find out what candidates know, rather than what they don't. There is a great deal more coursework- with all the attendant dangers of plagiarism and cramming.

Given all that, and how much more exam- centred pupils and teachers have become, it would be odd if results did not improve. In fact, they have done so since 1982, suggesting that the trend is not a deliberate political plot. Educational results do generally improve as countries get richer. But it is also true that content has changed, and not always for the better. This is particularly true in the GCSE exams, taken at 16, which are widely seen as undemanding. But there are problems at A level too; It's possible to get an A in Maths without a solid grasp of calculus, for example. That used to be essential.

Such shortcomings certainly impose strain on the next stage in the system. A survey this week showed that 90% of academics thought A levels had become less demanding. In the highly rated actuarial- science course at London's city University, for example, the first term of the first year is spent filling in gaps in Maths that students used to learn at A level: chiefly geometry, vectors and calculus. The university- level Maths that actuaries need is crammed into two terms of the first year.

Remedial courses are widespread, but not yet very burdensome, says Universities UK, a lobby group. A –levels no longer dovetail neatly into the intensive three- year degree course that is still British universities' main offering. But it may well be better to leave universities to plug specific gaps, rather than expect all A - level candidates in, say, maths, to learn things that only a few will need. In the end, American style levels of participation in higher education will require American- style flexibility, with more part- time degrees and greater use of credits, and a greater financial contribution from the student.

Even if the universities' complaints are largely overblown, the other big constituency – employers – is still unhappy. They once saw A – levels as a solid signal of achievement, but many now say they distrust them.

There is evidence that some basic skills are becoming patchier. SHL, the country's largest provider of private testes, has seen a steady decline in the numerical and verbal reasoning abilities of graduate- level applicants. Because there are a lot more graduates than there used to be, it is not wholly surprising that standards have dropped a bit. But there's no doubt that faith in the system is dented.

In the end, arguments about declining standards are beside the point. No exam system imaginable could provide all the information that A – levels are supposed to signal. Some sensible tweaks are possible: more differentiation of the very brightest, extra marks for good grammar and spelling in essays, a larger core curriculum in maths, fewer resits and less coursework, and less narrow specialisation. But in the end, the best exam system will be one that matters less than the education it seeks to measure, not more.

49. Which of the following are valid inferences that can be drawn from the passage?
    (i) Mr. Miliband believes that the only problem with the current A level examination system is the lack of differentiation amongst the best candidates.
    (ii) One of the ways in which the examination system is being tried to be improved is to create a better differentiation amongst the best candidates.
    (iii) The author does not believe that A level students should necessarily be prepared for the intensive three year degree courses in universities.
    (iv) More coursework means less weightage to examinations and hence better grades in the examination.
    (v) The author believes that people in general have lost faith in the A-Grade results.
    (a) All 5
    (b) All except (i)
    (c) All except (i) & (v)
    (d) None of these options.
50. Which of the following can be inferred to be problems that the author believes exist with the current A level examination system?
    (i) The current examination system does not properly differentiate amongst the good students.
    (ii) The current examination system should emphasize on spellings and grammar.
    (iii) The current examination system does not adequately cover the curriculum in Maths.
    (iv) The current examination system should reduce its emphasis on coursework
        (a) All 4
        (b) All except (i)
        (c) All except (ii) & (iv)
        (d) None of these options.
51. Which according to the author is the best examination system?
    (i) One that tests the candidates abilities together with sensible tweaks such as more differentiation of the very brightest.
    (ii) One that dovetails neatly into the intensive three year degree course that is still British Universities main offering.
    (iii) One that is a solid signal of achievement and skill together with thorough knowledge.
    (iv) One in which the education that is measured is more critical than the measurement itself.
        (a) Only (i) & (ii) (b) Only (iii) & (iv)
        (c) Only (iv) (d) All of the above.

52. "It's a small problem compared with others such as ... But a politically important one" Which problem is being referred to in the sentence of reference?
    (a) That a quarter of the school children never learn to read and count properly
    (b) That the numerical and verbal reasoning test scores have declined over the years
    (c) That the supply of A grade applications for admission is increasing by leaps and bounds at the top universities
    (d) None of these.
53. Which of the following statements is David Miliband likely to agree with?
    (i) That there should be no pantomime, but a discussion of the issue of A level examinations.
    (ii) Those who are against the A-level grading system are dogmatic and not pragmatic.
    (iii) The current results are a signal of improvement in the education system but not a signal of decline of educational standards.
    (iv) The A level examination system should have an improved distinction between the best candidates.
        (a) All of these
        (b) All except (i)
        (c) All except (i) & (ii)
        (d) Only (iii)

Directions for Question 54

Four statements with blanks are given followed by 4 alternatives. Choose the one which fits the set of statements the maximum number of times.

54. (i) People sensed ...
    (ii) A bad ... case had come in form of a person with a smashed knee.
    (iii) And then, without warning ... struck.
    (iv) The animals were the first to recognize the signs of oncoming ...
        (a) Tragedy (b) Accident
        (c) Disaster (d) Calamity

Directions for questions 55 to 57

Read the passage below and answer the questions that follow.

Do you recall the pleasure of discovering a new brand that actually delivers something that is perceptively superior to an existing one? It usually doesn't involve an entirely new approach or radical departure from conventional wisdom—one feels the product in question is effortlessly superior to whatever the previous standard was. This happened to me when I purchased my first pair of Timberland boots in the late Seventies from a cubbyhole of a shop in High Street Kensington. They looked just like other boots but were amazing—robust, comfortable and durable—something I confirmed while I tramped along the Thai-Cambodia border attempting to assist refugees fleeing from the Khmer Rouge.

These days, Timberland has established itself as a clothing, beachwear, and accessories brand, turning out scores of designer boots, shoes, slip-ons and deck shoes. Nowadays they are fully up to speed about their carbon footprint and recently acquired a company with a range of accessories for skateboarders. It is still a good brand, but there is that niggling feeling that Timberland is merely a fashion statement rather than a mould-breaking take on the work boot for the leisured classes.

Like Timberland, Riedel, the pioneer wine glass makers, knocked me sideways when I first tasted Bordeaux from their specially designed glass. It was state-of-the-art and effective; if you ever doubted the curve of a wine glass could completely alter the wine's taste, you only had to drink an identical wine from two differently designed wine glasses. I can assure you, a Bordeaux tasted from a Burgundy glass was completely different. Various grape varieties taste differently according to the glass used because they affect specific parts of the palate, so that if the wine is "thrown" towards a particular portion of the roof of the mouth, different taste sensations arise.

Riedel glassware turn out their traditional quality products that are more or less still at the summit for their type. However, they now feel impelled to diversify in the desire to "expand the brand", perhaps aiming to cover all bases while consumers still have a jangle in their spare-change pocket. Or perhaps, having enjoyed enormous growth off the back of a single, simple and inspired idea in the 1950's, Riedel, like Timberland, is experiencing a midlife crisis of sorts.

To celebrate their fiftieth anniversary, Riedel have launched the "Sommeliers Black Tie Range", ultra-expensive glasses from £50 to £80 a throw. Doubtless there will be a market for these glasses in the tuxedo-wearing classes. The stems are black so when you eye up a filled glass on your banqueting table, it appears that the Lafleur '47 (or is it Kangarouge NV?) goes all the way down to the base. To help those hard of seeing, the white wine version merely has a black base and a clear stem. And that's not all—Riedel now have something "to wow your guests" called Nachtmann Bossa Nova plates, which "show off your culinary presentation skills". Help! Get me out of here! All I ever wanted was a sturdy pair of boots and a perfect glass for my Bordeaux—not some sort of lifestyle nightmare.

It might be time to consider the impact of appropriate glasses for various wines. We should start with Champagne as virtually no one except celebrants at Mongolian National day in Ulan Bator uses those old saucer-shaped ones (Champagne coupes, they're called). Little-known fact: the shape was allegedly based on Marie-Antoinette's breast.

The slender flute is the now the preferred Champagne shape, although I have yet to hear anyone claim it is based on any part of the anatomy of Louis XVI. The flute is superior because it manages to contain the bubbles of the Champagne—

and provided you are drinking something not mass-produced by the lifestyle people, you can actually smell its nose.

Flying in the face of this advice, the most memorable Champagne I ever tasted was Cristal RosÃ© served in a plastic cup on a Eurostar as it pulled out of Paris. We had just spent the night at Chateau de Saran in Epernay drinking no end of different vintages of Dom Perignon, including their rare RosÃ©. One of our party thought that while those wines were perfectly acceptable, they didn't compare to the charms of Cristal RosÃ©. I still have no idea how he managed to slip away from the queue at the Gare du Nord and return triumphant, clutching a handful of plastic cups. Even with the handicap of the drinking vessel, it managed to transcend anything we had drunk in the past day or two. I have no doubt it would have been even more ethereal in a flute.

The same would apply to my first experience of Latour '59, served up in a stone mug on a stem. I drank it with a passionate socialist friend (later a Labour Government Minister) who believed that despite his privileged upbringing, it was only just that one of the greatest wines of the century should be served at his table in earthenware. I watched in horror as he expounded on some now obscure point of the class struggle between slurps from his mug.

At the reverse end of the spectrum, I have drunk several bottles of Cheval Blanc '83 with a hedge fund owner who insists on serving this glorious wine in eighteenth century crystal, which for all I know could have been Marie-Antoinette's. It still managed to strut its stuff—no easy task when the crystal is as thick as a bottle top. However, even he was dumbstruck when I arrived with a series of tasting glasses and thought it would be amusing to compare them. The quality leap was discernable but sadly I was not affluent enough to gift them to him, so it will be back to the ancien rÃ©gime. Riedel are not the only option when it comes to fine wine; at present I prefer drinking fine Bordeaux from very thin tasting glasses, half the dimensions of the classic Riedel variety. However, Riedel do deserve huge credit for introducing the concept of wine-specific glasses, ranging from Bordeaux and Burgundies to Chianti and red RhÃ´nes.

I recently went to a dinner in honour of Georg Riedel in London, where he had vast displays of his glassware, including the dreaded Black Tie ones. It was tad gratuitous to put up a Riedel glass of Grand-Puy-Lacoste '01 against a plastic cup with the same wine. No prizes for which tasted more interesting and revealed more of its character. Still, he is a craftsman and deserves honour.

I only wish that the human race wasn't genetically impelled to always expand and hunt for new markets. It is nothing very new, historically. When the Emperor Augustus died, his will instructed his successor not to expand the boundaries of the Empire, but before too many centuries the legions became restless and began appointing their own Emperors, such was their shame at not being allowed to conquer and pillage. I don't have any fears about Riedel going down this fatal route if they stopped spreading themselves into the wider philistine world of the consumer. On the contrary, I won't be too surprised when I hear of the Alcopops Riedel glass or the eco-friendly slingback Timberland.

55. Why was the wine at the author's friends place served in a stone mug?
    A. because the friend wanted to show that he could use extraordinary glasses to produce different tastes
    B. because the friends wanted to show how rooted to the masses he was in spite of his contrasting upbringing.
    C. because the author and his friend belonged to the labour party and both deemed it fit that, it was only just that one of the greatest wines of the century should be served at his table in earthenware.
    (a) only A and B (b) only C
    (c) only B and C (d) only B
56. What according to the author is the reason that the champagne and wines taste different in different glasses?
    (a) The stem of the glass allows the liquid to move smoothly on the tongue giving it a unique shape.
    (b) The tip of the glass allows the user to smell the wine which accentuates the taste.
    (c) Even with the handicap of the drinking vessel, a fine drink managed to transcend anything that can be drunk so the vessel according to the author was not important, but it was the quality of the drink that mattered.
    (d) none of these.
57. Which of the following options would be the best choice to define the purpose of writing this passage?
    (a) Why should one complicate their life by using fancy products, when simpler alternatives are available?
    (b) Why do beloved brands have to expand past their initial ground-breaking product?
    (c) It might make sense to consider the impact of appropriate glasses for various wines.
    (d) None of these.

Directions for Questions 58 to 60

Fill in the blanks in the statements with the right words from the given options.

58. The Mayor of Lucknow formed a committee to simplify several dozen _____ city ordinances that were unnecessarily complicated and out-of-date.
    (a) pedantic (b) empirical
    (c) byzantine (d) slovenly
59. The _____ rumors did a great deal of damage even though they turned out to be false.
    (a) bemused (b) prosaic
    (c) apocryphal (d) ebullient
60. My great grand uncle who lost his life in the 1856 mutiny was a _____ for Indian independence.
    (a) knave (b) reactionary
    (c) compatriot (d) martyr

ANSWER KEY

1. (a)	2. (b)	3. (a)	4. (b)	5. (c)	31. (d)	32. (d)	33. (d)	34. (d)	35. (d)
6. (d)	7. (c)	8. (b)	9. (b)	10. (b)	36. (d)	37. (c)	38. (c)	39. (c)	40. (d)
11. (a)	12. (c)	13. (a)	14. (a)	15. (d)	41. (b)	42. (d)	43. (a)	44. (c)	45. (a)
16. (a)	17. (a)	18. (b)	19. (d)	20. (a)	46. (c)	47. (a)	48. (d)	49. (b)	50. (c)
21. (b)	22. (d)	23. (d)	24. (a)	25. (b)	51. (c)	52. (d)	53. (c)	54. (c)	55. (d)
26. (d)	27. (b)	28. (d)	29. (c)	30. (b)	56. (d)	57. (b)	58. (d)	59. (d)	60. (d)

ANSWERS WITH SOLUTIONS

QUANTITATIVE APTITUDE

1. Let the number be x.
   Here we have $x + 100 = k^2$ and $x + 152 = m^2$, where x is the integer and k and m are natural numbers.
   We have $m^2 - k^2 = 52$
   or $(m + k)(m - k) = 26 \times 2$ or 52×1 or 13×4
   but only 26×2 will give us integer solution. So $m = 14$ and $k = 12$.
   $\Rightarrow \quad x = 44$.
2. It is equivalent to finding how many such two-digit numbers are there. In such numbers, we cannot have 0 or 1 in unit's place. When we have 2 in unit's place, we have 1 such number, 12. When we have 3 in unit's place, we have 2 such numbers 13, 23...
   Then, we have 9 in unit's place, we have 8 such numbers. So number of such numbers is $(1 + 2 + 3 + \ldots + 8) = 36$.
   Hence, the resulting number has 72 digits.
3. The maximum area would be either when the height = 30 cm or
   when the side of the equilateral triangle = 30 cm.
   Hence, the maximum area would be $300\sqrt{3}$ or $225\sqrt{3}$ sq cm respectively. The greater area is $300\sqrt{3}$ sq cm.
4. 55% of the families own air conditioners, 85% own coolers, at least $55 + 85 - 100 = 40\%$ own both, and 75% own Generator sets.
   At least $75 + 40 - 100 = 15\%$ people own all the three.
   Or
   $100 - [(100 - 55) + (100 - 85) + (100 - 75)] = 15\%$

Solutions for Questions 5 & 6

Suppose initial speed of Aditya was v m/s, so that of Yashpal was $v + 1$ m/s and the final speed of Aditya was $v + 2$ m/s. It is obvious that,
$500/(v + 1) - 500/(v + 2) = 25$
or $v = 3$ m/s.
So speed of Yashpal was 4 m/s.
Suppose once Aditya and Yashpal meet, the remaining distance is D. Since Yashpal finish 7 min and 8 s after Aditya, i.e. 428 s.
So, $D/4 - D/5 = 428$ or, $D = 8560$ m.
Before meeting they had travelled
$10,000 - 8,560 = 1,440$ m.
Difference in time taken or time lapse $= 1440/3 - 1440/4 = 120$ s $= 2$ min.
Hence option (c) is the correct answer for Q. 5.
Hence option (d) is the correct answer for Q. 6.

7. The expression needs to be evaluated at different values of x and we can easily see that at $x = 0$, the value of the function becomes -1. Further at $x = 0.5$ we can find that the value is $-3/2$. So we can understand that the value of the function is reducing when we move to the right of 0. It can also be seen that to the left of 0 also there will be a drop in the value of the function. For instance at $x = -0.1$ also the value of the function will be less than -1. So obviously the function is reaching a kind of a maximum at -1 and is not going beyond that when the range of values are in this range.
   It can be observed that after $x = 1$, the function will become positive. At $x = 1.1$ it can be seen that the value of the function would become around 10-11. As you would increase the value of x beyond 1, 1 the function would reduce in value. Also, it can be seen that after $x = 1$, the funtion would achieve its minimum value at $x = 2 \rightarrow$ where it's value would be 3. After 2 the value would start increasing. Hence, the value of the function cannot be between -1 to $+3$. Hence, option (c) is the correct answer.
8. There would be 10 chapters with even number of pages. Place them to start with- each of them would start on an odd numbered page. After that, start to place the chapters with an odd number of pages- the first one would start on an odd numbered page, the second on a even numbered page, the third on an odd numbered page and so on. Thus there would be $10 + 5 = 15$ chapters out of 20 which can at the maximum start on an odd numbered page. Hence, option (b) is correct.
9. For this question, you would have to count the actual number of numbers. In the hundreds, the first numbers you would find would be in the 120s. The first numbers are 124, 126, 128, 134, 136, 138, 146, 148, 156, 158, 168, 178.
   In the 200s, the values would be 234, 236, 238, 246, 248, 256, 258, 268, 278
   In the 300s the values would be 346, 348, 356, 358, 368, 378
   In the 400s the values would be 456, 458, 468, 478
   In the 500s there would be only 2 values.
   1 value in the 600s and no value after that. Hence 34 values.
   But in all there are 450 even three digit numbers starting from 100, 102, 104 ... 998. Hence, the required answer is $450 - 34 = 416$.
10. $\log(2x - 3/4) > 2 \log x$ Solving we get 2 cases:
    Case 1: When $x > 1 \Rightarrow (2x - 3/4) > x^2$.
    Case 2: When $x < 1 \Rightarrow (2x - 3/4) < x^2$

Solving these inequalities we get:
x lies in $(3/8, ½) \cup (1, 3/2)$
viz: $(0.375, 0.5) \cup (1, 1.5)$

In these ranges we have two independent values which could be expressed as $p/5$

viz: $0.4 = 2/5$ and $1.2 = 6/5$. Since in both the cases, p is co prime with 5, we can say that both these cases satisfy the conditional requirements.

Hence, option (b) is the right answer.

11. Total matches being played = $8C2 \times 8C2 = 28^2 = 784$. Thus, a total of $784 \times 4 = 3136$ people are part of these 784 matches. Each of the 16 players would play in the same number of matches = 3136/16 = 196. Hence, option (a) is the right answer.

12. Each of the 3 places can take 3 letters $\Rightarrow$ 27. But we don't want the combination (1, 2, 3) $\Rightarrow$ 3! = 6 are out $\Rightarrow 27 - 6 = 21$.
13. Unit's digit of X should be 1, 5 or 6. Ten's digit can be 4 or 6. So the values of the number can be 41, 45 and 61. In case of 46, 65 and 66 the square of the reverse will exceed 3000. Hence only 41, 45 & 61 satisfy. Hence only 3 values.
14. $AB = AC$, so angle $ABC = ACB$
Let angle $ABC = ACB = a$
$AE = AD$, so angle $ADE = AED$
Angle EDC + ECD = angle AED (exterior angle)
$x + a$ = angle AED
Angle BAD + DBA = CDA (exterior angle)
$30 + a$ = angle CDE + angle $EDA = x + x + a$
$x = 15°$
15. If the ratio of the altitudes of a triangle is 3 : 5 : 6, the ratio of its sides will be 1/3 : 1/5 : 1/6 = 10 : 6 : 5. Therefore, checking from the options we find that the sides of the triangle are 50, 30, 25.
16. If the diameter of the bigger sphere is 1, the length of the diagonal of the cube will also be 1. Hence, the side of the cube which is also the diameter of the smaller sphere will be $1:(3)^{1/2}$ or the ratio of diameters = $(3)^{1/2}$: 1.
Hence, the ratio of the surface areas = 3 : 1.
17. Out of 7000 books, 1000 are given free and from the balance 6000, for every 19 books one book is given free. Hence, 5700 books are sold at 80% of 11.25.

Thus, $SP = 5700 \times 11.25 \times 0.80 = 51300$, $CP = 44000$.
Therefore, Gain percentage = (51300 – 44000)/44000 = 16.5%
18. Equate $12 - x = 8 + x$ to give you the intersection point between the two lines 12-x and $8 + x$. The intersection occurs at a value of x as 2. It can be visualized by plotting both these lines that the maximum value of the given function would occur at $x = 2$. Hence, the correct answer would be 10.
19. would exist for the following structures of making the value of 5:
$0 + 5 \rightarrow$ This would happen if we take the value of x as 4 and y can take the values of 7 or -3. Hence, there would be 2 sets of integral (x, y) values giving us $0 + 5 = 5$
$1 + 4 \rightarrow (5, 6), (5, –2), (3, 6), (3, –2) \rightarrow$ four solutions
$2 + 3 \rightarrow$ four possibilities again
$3 + 2 \rightarrow$ four possibilities again
$4 + 1 \rightarrow$ four possibilities again
$5 + 0 \rightarrow 2$ possibilities
20. It can be seen by plotting the graph of this expression that the function $y = 3^x - 2x - 1$ would cut the x axis twice. Hence, the equation would have 2 real solutions.

DATA INTERPRETATION AND LOGICAL REASONING

Solution

This set involves three tasks—(1) matching hair color to each child, (2) sequencing the children according to the age, and (3) grouping the children according to room assignments. We simply list the clues given as follows:

w	Brown
x O	Brown/private
y	red boy
z (youngest shares)	does not share with oldest

The only additional information that can be deduced from the clues is that, since W and X both have brown hair, either Y or Z must be a red haired boy, as indicated above.

21. W and X both have brown hair. Thus Y and Z must be the two red haired children who are assigned to semi-private rooms. Although Y or Z, or both may share a room with W, Y and Z must share a room with each other; otherwise one of them would have to share the room with X, which would violate the constraint that X is assigned to a private room. Since Z cannot share a room with the oldest child, Y cannot be the oldest child. Hence option (b) is the correct answer.
22. Considering statement (I), if two boys have brown hair, then three of the children (W, Y and Z) must be boys (because either Y or Z is a red-haired boy). If every boy is older than every girl, then X, the only girl, would be the youngest child but this violates clue statement (i). Thus statement (I) must be false. Considering statement (II), X is assigned to a private room. Thus, if three children must be W, X and Z. Z will not share room with the oldest child, and therefore cannot be younger than every boy. Hence this statement is also false. Considering statement (III), if two children are boys and are assigned to a semi-private room, one of two situations must be

true- either one of those boys is the youngest child (the youngest must share a room) or the youngest child is a girl and must share a room. In the former case every boy could not be older than every girl, and in the latter case *X* is assigned a private room as the youngest girl. Hence this statement is also false. Hence option (d) is the correct answer.

Solution 23 & 24

To solve this we will create a diagram where men will be denoted by upper case letter and women with lower case letters and we will list the extras separately to avoid confusion. Here, given that Cathy and Debbie must both be selected because if they were not selected then Adam and Bill or Ernie and Felicia (three of whom are men) would all be selected; as a result only two women Felicia and Irene at most will be selected. However according to the constraints at least as many women as men must be selected, thus Cathy and Debbie must both be selected.

[AB] [© ⓓ] [E/f]

GHi (≥ 1]

Women ≥ MEN

23. Eliminate each options using the clues given in the information. Only option (d) suffices. Hence option (d) is the correct answer.
24. Cathy and Debbie must both be selected. Hence option (a) is the correct answer.

Solutions for Questions 25 to 30

First round results for the presidential nomination are given below:

Evan Bayh	*3*	*6*	*12*	*33*
Joe Biden	6	10	14	52
Wes Clark	4	3	13	31
Hillary Clinton	2	13	13	45
John Edwards	6	5	7	35
Russ Feingold	4	2	3	19
Al Gore	4	10	12	44
John Kerry	6	6	14	44
Bill Richardson	3	4	12	29
Tom Vilsack	5	2	11	30
Mark Warner	7	0	11	32

The following is the list of scores in the second round. From the first table above it is clear that the 5 top finishers are:

(a) Joe Biden(52 points)
(b) Hillary Clinton (45 points)
(c) John Kerry (44 points)
(d) Al Gore (44 points but is placed 4th because there is a tie in the number of raw votes and Al Gore has the lower number of delegate votes)
(e) John Edwards (35 points)

The table for the second round is drawn below:

Hillary Clinton (2nd to 4th)	*13*	*10*	*12*	*71*
Al Gore (4th to 2nd)	12	11	28	86
Joe Biden (1st to 5th)	8	11	24	70
John Kerry (3rd in both rounds)	9	13	31	84
John Edwards (5th in first round to 1st in second)	10	18	28	94

So the respective points for the final nomination (after weighted averages) are:
Joe Biden = 52 + 70 × 2 = 192
Hillary Clinton = 45 + 71 × 2 = 187
John Kerry = 44+84 × 2 = 212
Al Gore = 44 + 86 × 2 = 216
John Edwards = 35 + 94 × 2 = 223

25. From the first table it is clear that the correct answer is Russ Feingold(19 points), Bill Richardson (29) and Tom Vilsack (30). Hence, Option (b) is correct
26. John Edwards is the presidential nomination. Option (d) is correct.
27. Al Gore is the Veep and he scores 216 points. Option (b) is correct.
28. Al Gore is the Veep. Option (d) is correct
29. Only the third statement is true. Note that the first three statements are talking about the number of points scored in the second round. Only 84 point for John Kerry is correct. Joe Biden has scored 70 (and not 140) while Hillary Clinton has scored 71 (and not 142) in the second round of voting.
30. There were 2 delegates, 2 alternates and 1 official guest whose ballot paper was cancelled in the first round. Hence, there were 2 delegates. Option (b) is correct.

Solutions for Questions 31 & 32

In order to work through the information, it will be convenient to construct two different diagrams, one in which sequential information can be displayed in grid and the other in which attributes may be matched in roster form without regard to sequence.

Sequence

	1	2	3	4	5
(HHHCC)	H				H
(F, Ch)					
(g, w, r)					

roster

H	H	H	C	C
Ch	F	F	–	–
–	g/r	g/r	–	–

(if w → Ch)

The rule that "No ford is white" is a conditional constraint, and so all white cars must be Chevys.

31. Either the first or the fifth ca(or both) must be a Ford hardtop and must be either gray or red. Only statement (I) is true. Hence option (d) is the correct answer.
32. The two convertibles must both be Chevys. In order to prove option (d) as incorrect, the three Chevys would have to be first, third and fifth. Thus, hardtops could not appear both first and fifth. This result would violate one of the constraints and hence option (d) must be true. Hence option (d) is the correct answer.

Solutions to 33 to 35

The following table gives the points scored by 8 different athletes in seven events of a heptathlon contest:

	100 meters	*200 meters*	*Long Jump*	*High Jump*	*Discuss Throw*	*400 meters Chase*	*Steeple*	
India Soma Biswas	8-210	7-230	8-190	8-160	7-180	6-230	5-340	Low rung
USA Jackie	1-390	2-340	1-450	4-290	1-350	1-400	1-500	Super, top drawer,
Jorner Kersie								middle rung
Russia Svetlana	3-320	4-290	5-300	1-340	4-270	3-350	4-350	Super, world,
Kuznetsova								continental, top
								drawer
Brazil Mauli Diaz	7-220	8-210	7-240	2-330	8-160	8-210	7-280	Low rung
China Na Li	4-290	6-250	3-350	7-190	2-310	5-240	8-270	Top drawer
Argentina Gabriela	6-230	5-270	4-320	6-240	5-250	7-220	3-380	Top drawer, low
Hurst								rung
Canada	2-360	3-320	6-260	5-270	6-210	4-300	6-320	Top drawer
Simone Singh								
Australia Katy	5-260	1-380	2-370	3-310	3-280	2-360	2-450	Super, world,
Landis								continental, top
								drawer, middle
								rung,

33. (d)
    Gabriela Hurst is a Top Drawer as well as a low Rung athlete. Jackie Joyner Kersie is a super athlete but is not a continental class athlete, the third option is also not true.
    Svetlana Kuznetsova is a Super athlete but not middle rung. Hence, none of these is correct.
34. For 100 meters, there are 3 athletes below the average
    For Long Jump, there are 3 athletes below the average
    For 200 meters, there are 3 athletes below the average
    For 400 meters, there are 4 athletes below the average
    For high jump, there are only 2 athletes below the average
    Hence (d)
35. Athletes satisfying the conditions for Continental Class athletes would be Gabriela Hurst and Simone Singh. Hence, there will be no increase as the previous definition was also throwing up two such athletes. Hence (d)
36. In general, a year which is divisible by 4 is a leap year but, in case of century years it should be divisible by 400 to be leap year and not merely by 100. Hence the gap between the two leap years may be four or eight depending on the years. Using this information the question cannot be answered using either of the statements alone or together because we do not know whether A03 is a leap year or not. Hence option (d) is the correct answer.
37. Let there be x males and y females. If all the females are to be seated together, the number of ways of seating the students is $(x+1)!\, y!$. if all the males are to be seated together the number of ways of seating the students is $(x!\ (y+1)!$. Thus we have $(x+1)!\, y!/x!(y+1)! = 4/5$. Thus, $(x+1)/(y+1) = 45 \Rightarrow 5x + 1 = 4n$. the possible solutions can be substituted in the equation as $5(3) + 1 = 4(14)$, $5(7) + 1 = 4(9)$, and $5(11) + 1 = 4(14)$. Hence $x/y = 3/4$ or / 7/9 or 11/14 or .... Only ¾ is less than 55/72. Hence we need both statements to conclude that $x = 3$ and $y = 4$. Hence option (c) is the correct answer.
38. Statement (A) alone gives the number of commerce graduates as ≥ 200, which means non –commerce graduates ≤ 200. Statement (B) says non –commerce graduates ≥ 200. Neither statement alone is independently able to answer the problem. But using together we can answer the problem. Hence option (3) is the correct answer.

39. From statement (A) alone, $\alpha^2 + \beta^2 + 2\alpha\beta = 49 \Rightarrow \alpha + \beta = 7$. Unique value of the sum of the roots cannot be found. Hence statement (A) alone is insufficient. From statement (B) both roots are positive and using both statements together we have $\alpha + \beta = 7$. Hence option (c) is the correct answer.
40. Even if we use both the statements we cannot find the number of brothers and sisters each of Mee and Cee has. Hence option (d) is correct.
41. (b) the paragraph starts with a question and the subsequent lines ask about the futility of learning things that should no longer be relevant ,so the logical end of the paragraph should be in the form of a question further questioning the credibility of things that are being learnt by children in their curriculum as he gives his own example of having happily forgotten those things.
42. (d) since the aunt had choices given to her at the end, the paragraph here had to end with a refrain and exclamation about her final choice.
43. (a) options 3 and 4 are just same things being said in different ways and obviously out of context ,option 2 is irrelevant as it talks about something specific which has not been mentioned, option 5 clearly is not related at all to the general context in which the paragraph is framed. so it is option (a) which is a logical link to the last sentence
44. EABCD (c)
    E statement has to be the starting or the end statement and as *E* is followed clearly by *A*, so *E* has to start, followed by A and the last statement is clearly provided by *D*. So the right sequence is EABCD.
45. (a) DACB
    The link between statements *D* and *A* are clearly visible as *A* is explaining the logic of *D*. Statement *B* is the final conclusive statement of the given paragraph. So the answer is *DACB*.
46. (c) ABEDC
    Statement *EDC* are clearly following each other in a sequence. *B* is an explanation of the methodology mentioned in *A*. So the right sequence is ABEDC.
47. EDCBA (a)
    The statement *E* starts with a question, the answer to which is given by statement *D* and it gets further proved by the experiment in *C*. Statements *B* and *A* have to be together in the sequence *BA*. So the answer comes to be (a) EDCBA.
48. CABED (d)
    Statements *ED* clearly form the most logical conclusion. *A* quote starts in statement *C* and is completed in statement *A*. So when we get the staring as *CA* and end as *ED*, we just have one option left for e answer and that is *CABED*.
49. (b)
    The answer is clear from the paragraph itself that (i) cannot be included.
50. (c)
    Options (ii) and (iv) are clearly out of the purview of the question.
51. (c)
    Only the option iv is the clear best method as said by the author in the passage.
52. (d)
    The problem mentioned is not covered in any of the given options.
53. (c)
    It is clear from the passage that options i and ii are not covered in context of David Miliband.
54. (c) disaster
55. (d) only B
    As the friend was a socialist so he wanted to show his socialistic ideology through this symbolic representation.
56. (d)
    None of these is the answer here because the right answer is given in the 3rd paragraph in the following lines : Various grape varieties taste differently according to the glass used because they affect specific parts of the palate, so that if the wine is "thrown" towards a particular portion of the roof of the mouth, different taste sensations arise.
57. (b)
    The following lines from the passage clearly show that (b) clearly covers the purpose of the passage: "However, they now feel impelled to diversify in the desire to "expand the brand", perhaps aiming to cover all bases while consumers still have a jangle"
    " Help! Get me out of here! All I ever wanted was a sturdy pair of boots and a perfect glass for my Bordeaux—not some sort of lifestyle nightmare."
58. (c)
    The answer is choice c, byzantine, an adjective that means "highly complicated and intricate." Here, you are looking for a restatement of the clue words complicated and out-of-date,
59. (c)
    (c) Apocryphal (adj.) means of questionable authenticity or doubtful authority.
60. (d)
    A martyr (n.) is one who sacrifices something of supreme value, such as a life, for a cause or principle.