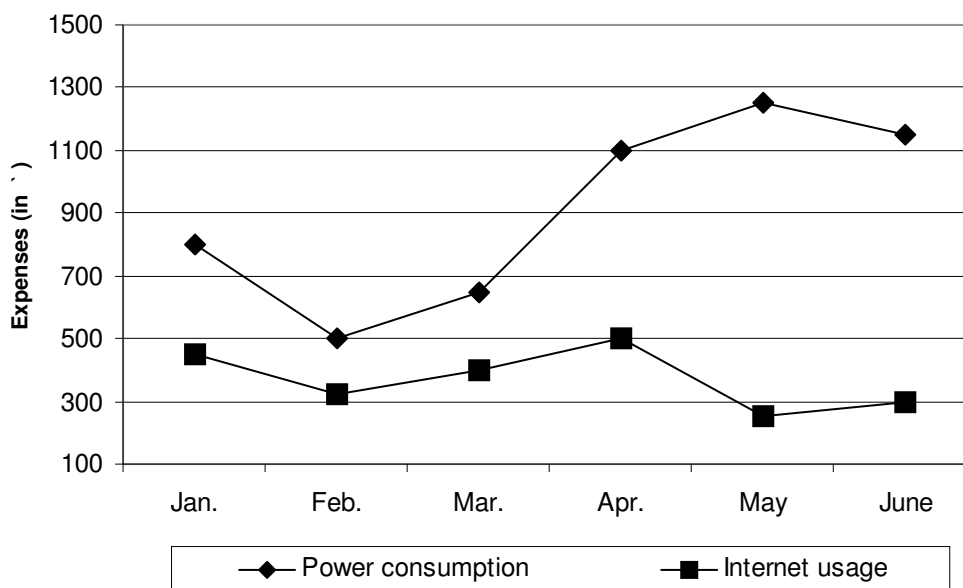


# CMAT Sample Paper - 1

## Section – I : Quantitative Techniques & Data Interpretation

- Ram invested ₹ 2,500 each in two investment schemes viz. Compound Interest Scheme, interest being compounded annually and Simple Interest Scheme. If the difference between the CI and SI is ₹ 100 after 2 years, what is the rate of interest per annum, if it is same for both the schemes?  
(a) 20% (b) 18% (c) 10% (d) 5%
- Three parts of 32%  $H_2SO_4$  is mixed with 'n' parts of 20%  $H_2SO_4$  to form a 24.5%  $H_2SO_4$  solution. What is the value of 'n'?  
(a) 5 (b) 3 (c) 8 (d) 4
- A family consists of father, mother, son and daughter. Ratio of the weight of the father to the weight of the son is 3 : 2. Ratio of the weight of the son to the weight of the mother is 5 : 6. If the weight of the daughter is 35 kg, half the weight of the father, find the weight of the mother.  
(a) 42 kg (b) 56 kg (c) 46.6 kg (d) Cannot be determined
- The following graph shows the expenses (in ₹) incurred by a family on power consumption and Internet usage for a period of six months.



- What is the approximate average monthly expenses of the family for the given period on power consumption?
- (a) ₹ 856 (b) ₹ 872 (c) ₹ 924 (d) ₹ 908
- A shopkeeper marks the price of an article such that if two successive discounts of 20% are offered, he incurs a loss of 4%. What maximum discount can he offer such that he doesn't incur any loss?  
(a) 33.33% (b) 36% (c) 25% (d) 20%

6. Outside a temple, there is a shoe-keeping shelf with 9 blocks. The blocks are numbered 1 to 9 in a random order. A man wishes to place his shoes in two different blocks of the shelf, such that the product of the two numbers on the blocks should not be a perfect square. In how many ways can he place his shoes?  
(a) 30 (b) 31 (c) 32 (d) 33
7. A train on its way took 10 seconds to cross a 50 m long bridge and 20 seconds to cross a 250 m long platform. How much time does the train require to cross a stationary man?  
(a) 6 seconds (b) 7.5 seconds (c) 9 seconds (d) 5 seconds
8. The question given below is followed by two statements, I and II. Mark the answer using the following instructions:  
(a) If the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.  
(b) If the question can be answered by using both the statements together, but cannot be answered by using either statement alone.  
(c) If the question can be answered by using either statement alone.  
(d) If the question cannot be answered even by using both the statements together.
- Q.** Is  $x > y$ ?  
I.  $|x - 5| > 5$  and  $y = 0$   
II.  $|x - y| > 5$
9. Amit started a job alone and Bob joined him after a few days. The work got completed in 8 days. Amit would have required 2 more days to complete the work alone whereas Bob could have completed the work alone in 25 days. For how many days did Bob work?  
(a) 3 (b) 2 (c) 6 (d) 5
10. Runs scored by a batsman from the first to the sixth innings in an ODI series were in increasing arithmetic progression. What is the average of the runs scored by him in the last five innings?  
(a) Average of the runs scored in 3rd and 4th innings  
(b) Runs scored in the 3rd innings  
(c) Runs scored in the 4th innings  
(d) Cannot be determined
11. The HCF and LCM of two numbers are 42 and 630 respectively. If one of the numbers is 210, find the other number.  
(a) 126 (b) 84 (c) 105 (d) 189
12. How many numbers from 100 to 200 (including both) have 2 as exactly one of its digits and leave a remainder of 2 when divided by 6?  
(a) 3 (b) 2 (c) 5 (d) 4
13. What is the remainder when  $2^{41}$  is divided by 127?  
(a) 1 (b) 64 (c) 126 (d) 32

14. Five friends went for a movie and spent ₹ 1,000 on the movie tickets and 3 popcorn buckets. There was a scheme in which one movie ticket was free with 4 popcorn buckets, but even then they would have spent the same amount. What is the cost of a popcorn bucket?  
 (a) ₹ 250                      (b) ₹ 125                      (c) ₹ 100                      (d) ₹ 75

15. In a survey consisting of 1000 participants from Delhi, data was collected regarding the number of people using social networking websites. It was also found that a user used only one social networking website.

Gender \ Website	Facebook	Linked In	My Space	Orkut	Twitter
Male	140	55	15	35	100
Female	240	20	30	165	200

Among the participants of the survey, for which of the above mentioned websites the number of the male users as a percentage of the total number of users of the website was the highest?

- (a) Facebook                      (b) Linked In                      (c) My Space                      (d) Twitter
16. The first term and the common difference of an arithmetic progression are the same. If the tenth term of the arithmetic progression is 250, then find the sum of its first 10 terms.  
 (a) 1250                      (b) 2750                      (c) 1375                      (d) 625
17. Ratio of the 15th term to the 4th term of an arithmetic progression is 13 : 6. Find the respective ratio of its first term to the common difference.  
 (a) 7 : 39                      (b) 39 : 7                      (c) 7 : 45                      (d) 45 : 7
18. In an isosceles triangle ABC, AB = AC. The exterior angle made at vertex A is 140°. Find the angle opposite to the unequal side of the triangle.  
 (a) 100°                      (b) 70°                      (c) 40°                      (d) Cannot be determined
19. A circle is inscribed in a right-angled triangle with the length of the hypotenuse as 17 cm and the length of one of its side as 8 cm. Find the radius of the circle.  
 (a) 3 cm                      (b) 2 cm                      (c) 5 cm                      (d) 4 cm
20. Find the single discount equivalent to a series of successive discounts of 20%, 30% and 50%.  
 (a) 36%                      (b) 48%                      (c) 53%                      (d) 72%
21. In a group of 180 people, 120 like tea and 76 like coffee. If all of them like at least one drink, then find the number of people who like both tea and coffee.  
 (a) 10                      (b) 12                      (c) 14                      (d) 16
22. A and B start running simultaneously from the same point on a circular track with speeds 5 m/s and 15 m/s respectively. If they run in the opposite directions, find the ratio of the distances covered by them till their first meeting.  
 (a) 1 : 3                      (b) 2 : 5                      (c) 2 : 3                      (d) 1 : 2

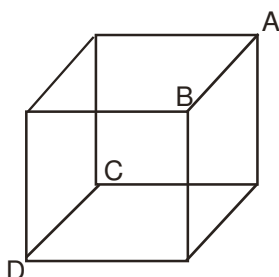
23. The question given below is followed by two statements, I and II. Mark the answer using the following instructions:
- (a) If the question can be answered by using either statement alone.
  - (b) If the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
  - (c) If the question cannot be answered even by using both the statements together.
  - (d) If the question can be answered by using both the statements together, but cannot be answered by using either statement alone.

**Q.** What is the radius of the circle inscribed in  $\triangle ABC$  ?

- I.  $\triangle ABC$  is an equilateral triangle of side 5 cm.
- II.  $\triangle ABC$  is a  $30^\circ - 60^\circ - 90^\circ$  triangle with its longest side as 10 cm.

24. If  $\alpha$  and  $\beta$  are the roots of the equation  $2x^2 - 3x + 4 = 0$ , find the sum of the roots of an equation whose roots are reciprocal of the roots of the given equation.
- (a)  $3/2$                       (b)  $3/4$                       (c)  $-3/2$                       (d)  $-3/4$

25. A cube of edge 4 cm as shown below is cut into two equal halves by cutting it diagonally along the edge AB towards the edge CD. Approximately by what percentage does its total surface area increase?

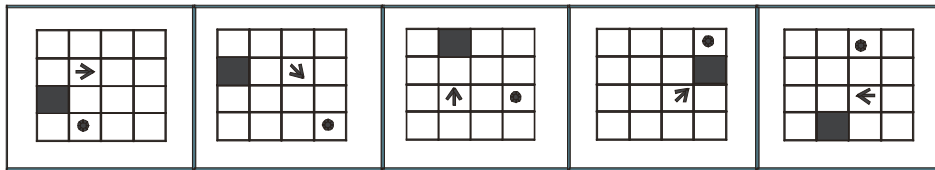


- (a) 47.14%                      (b) 39.84%                      (c) 23.56%                      (d) 79.68%

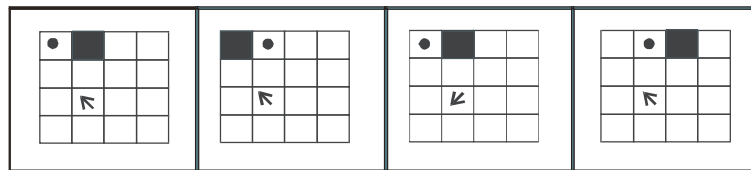
## Section – II : Logical Reasoning

26. In a marriage, Ram saw a girl and told his father that the girl was the granddaughter of the father of the only child of the lady whom he addressed as grandmother. How is the girl related to Ram?  
 (a) Aunt                      (b) Cousin                      (c) Sister                      (d) Cannot be determined
27. In a certain code language, CATALYST is coded as 242672615287, how will ENZYME be coded in the same code language?  
 (a) 5142625135              (b) 2213121422              (c) 2214121422              (d) 5142625145
28. Find the missing term in the following series.  
 61, 113, 181, ?, 365, 481  
 (a) 265                      (b) 255                      (c) 275                      (d) 245
29. In the question which one of the four answer figures should come after the problem figures, if the sequence was continued?

### Problem Figures

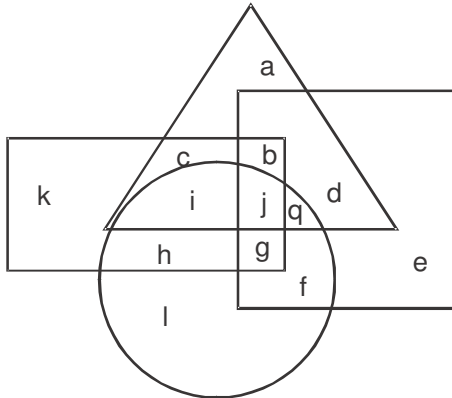


### Answer Figures

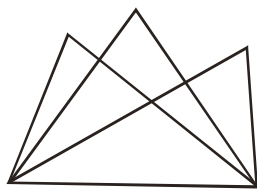


- (a)                      (b)                      (c)                      (d)
30. Find the odd one out.  
 (a) 2                      (b) 3                      (c) 4                      (d) 5
31. Ram and Shyam played a game in which Shyam was supposed to move in the direction opposite to that of Ram's movement covering the same distance. From a common starting point, Ram started moving Northwards and covered 3 km, he then took a right turn and covered 4 km, he then turned to North-west direction and covered  $4\sqrt{2}$  km, he finally turned to South direction and covered 4 km. What is the position of Shyam with respect to the starting point?  
 (a) 3 km, South              (b) 4 km, South              (c) 4 km, West              (d) 6 km, West

32. Five professionals are standing in a voting queue one behind the other. There are two persons between the professor and the doctor. The journalist is standing just behind the doctor. The banker and the photographer are not standing next to each other. Who among the five will vote first?  
 (a) Banker (b) Photographer (c) Doctor (d) Cannot be determined
33. Complete the series: AD, IP, YJ, WL, CV, ?  
 (a) PN (b) QN (c) RO (d) PQ
34. In the diagram given below, the square represents politicians, the circle represents educated people, the rectangle represents Indian population and the triangle represents MPs.



- Which region represents non-educated Indian politician MPs?  
 (a) c (b) j (c) b (d) i
35. Six friends – Aan, Bran, Chan, Dan, Eian and Fran – are sitting in a row such that all of them are facing in the same direction. Aan and Fran are friends and hence, are sitting together. Dan is sitting at one of the extreme ends. Chan is sitting to the immediate right of Bran. Eian is sitting next to Aan and Dan. Who among the following is sitting at the other extreme end?  
 (a) Bran (b) Chan (c) Aan (d) Cannot be determined
36. In a certain code language, RAMESH is coded as QBLFRI, how will VIKASH be coded in the same language?  
 (a) IVAKHS (b) HSAKIV (c) WHLZTG (d) UJJBRI
37. Four professors – Anu, Banu, Chanu and Danu – are sitting at a square table facing the center such that exactly one professor is sitting at one of the sides of the table. Anu is sitting to the immediate left of Banu. Chanu is sitting to the immediate right of Danu. Who is sitting opposite to Anu?  
 (a) Banu (b) Chanu (c) Danu (d) Either (a) or (b)
38. Find the number of triangles in the figure given below.



- (a) 14 (b) 10 (c) 12 (d) 16

39. Order of the last 15 letters of the English alphabetical series is reversed. Find the 20th letter from the beginning.  
 (a) Q (b) R (c) S (d) T
40. Among five friends – Ram, Raj, Rahul, Rakesh and Ramesh – Rakesh is neither the tallest nor the shortest; Ram is taller than Ramesh but shorter than Rakesh and two other friends. Who among them is the shortest?  
 (a) Raj (b) Rahul (c) Ramesh (d) Either (a) or (b)
41. In a cricket match, Rohit scored 16 runs on 6 balls with a different score on each ball. The maximum runs were scored on the 3rd ball and the minimum runs were scored on the 1st ball. Four runs were scored on third ball after the one on which 2 runs were scored. It is also known that ball on which 1 run was scored was neither the first nor the last. How many runs were scored on the last ball?  
 (a) 3 (b) 1 (c) 4 (d) Either (a) or (b)
42. Each of the five friends – A, B, C, D and E – has his/her birthday on a different day of a week from Monday to Friday. A will be celebrating his birthday on the day next to that of E's Birthday. B will be celebrating his birthday on Friday. D's Birthday is not on Monday. On which of the following days, C's birthday cannot fall?  
 (a) Monday (b) Tuesday (c) Wednesday (d) Thursday
43. In a family of 7 members – A, B, C, D, E, F and G – there are two married couples. A is the granddaughter of B, who is the father of C. D is the brother-in-law of F. E is the mother of G, who is the mother of A. C and F are siblings. How will A address C?  
 (a) Uncle (b) Aunt (c) Brother (d) Cannot be determined
44. Five different juices are kept on a table in a straight row such that Mango juice is not kept next to the Litchi juice; Orange juice and Mix fruit juice are kept next to each other; Guava juice is kept next to the Mango juice as well as the Mix fruit juice. Which of the following juices are kept at the extreme ends?  
 (a) Mango juice and Mix fruit juice (b) Litchi juice and Mix fruit juice  
 (c) Mango juice and Litchi Juice (d) Data inadequate
45. Find the next term in the following series.  
 $-3, -13, -31, -57, -91, ?$   
 (a)  $-123$  (b)  $-143$  (c)  $-133$  (d)  $-131$
46. The following question contains six statements followed by four options. Select the set where the third statement can be logically concluded from the preceding two.  
 A. Oranges are fruit. B. Some fruits are sour.  
 C. Oranges are sour. D. Some oranges are sour.  
 E. Some oranges are not sour. F. Some apples are sour.  
 (a) ADB (b) ACE (c) BFD (d) BAC

47. The following question contains six statements followed by four options. Select the set where the third statement can be logically concluded from the preceding two.

- |                           |                             |
|---------------------------|-----------------------------|
| A. Aardwarks need sleep.  | B. All animals need sleep.  |
| C. Dogs are animals.      | D. Some dogs need sleep.    |
| E. Aardwarks are animals. | F. Some Aardwarks are dogs. |
- (a) BDC                      (b) CEF                      (c) BEA                      (d) BAE

48. The following question has a statement followed by two assumptions I and II. Consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement.

**Mark your answer as:**

- (a) If neither assumption I nor II is implicit
- (b) If only assumption II is implicit
- (c) If only assumption I is implicit
- (d) If both assumptions I and II are implicit

**Statement:** Incentives must be given to motivate the employees.

**Assumptions:**

- I. Incentives are expected to motivate the employees.
- II. Employees at present are not motivated.

49. The following question has a statement, followed by two arguments I and II. Decide which of the arguments is a 'strong' argument and which is a 'weak' argument.

**Mark your answer as:**

- (a) If neither argument I nor II is strong
- (b) If only argument II is strong
- (c) If only argument I is strong
- (d) If both arguments I and II are strong

Should judiciary be independent of the executive?

**Arguments:**

- I. Yes, this would help curb the unlawful activities of the executive.
- II. No, the executive would not be able to take bold measures.

50. The following question has a statement, followed by two arguments I and II. Decide which of the arguments is a 'strong' argument and which is a 'weak' argument.

**Mark your answer as:**

- (a) If neither argument I nor II is strong
- (b) If only argument II is strong
- (c) If only argument I is strong
- (d) If both arguments I and II are strong

Should open book system be introduced in examinations?

**Arguments:**

- I. Yes, because it will avoid mass copying.
- II. No, because then all students will get good marks.



### Section – III : Language Comprehension

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51. The following question has a group of sentences marked A, B, C, D and E. Arrange these to form a logical sequence.
- A. India's security apparatus responds well when beset by crisis.
  - B. Potential targets must be secured as if terror strikes were imminent.
  - C. Here the Indian system's record is appalling.
  - D. Despite years of painful experience, sensitive government installations in New Delhi, including the headquarters of some of India's key military organizations and covert services, are defended in a manner that would be considered unconscionably negligent in many parts of the world.
  - E. However, successful security depends not on crisis-time creativity but on the disciplined and effective implementation of mundane, everyday protocols.

(a) ABDEC                      (b) AEBCD                      (c) ADECB                      (d) ABEDC

52. The following question has a group of sentences marked A, B, C, D and E. Arrange these to form a logical sequence.
- A. On the Republican side, the Iowa results have left the picture somewhat murkier.
  - B. Mike Huckabee beat the putative front-runner, Mitt Romney, by a margin of 34.4 percent to 25.4 percent, but is not expected to carry the momentum forward into New Hampshire.
  - C. Mr. Huckabee's victory is attributable largely to the strong support he got from evangelical Christians who are estimated to make up as much as 60 percent of the caucus-goers.
  - D. Social and religious conservatives will constitute only small proportion of voters, in which national security and fiscal concerns are expected to be the main issues.
  - E. However, while Mr. Romney might be free of a Huckabee challenge in New Hampshire, he might be hard pressed to fend off John McCain and Rudolph Guiliani, both of whom largely stayed out of the Iowa campaign.

(a) ABCDE                      (b) AEBCD                      (c) ACDEB                      (d) ABCED

53. Identify the best way of writing the given sentence ensuring that the message being conveyed remains the same.

When one reads the Hindi literature of the twentieth century, you find a striking contrast between the writings of Munshi Premchand and later day writers of popular Hindi fiction.

- (a) When you read the Hindi literature of the twentieth century, one finds a striking contrast between the writings of popular Hindi fiction.
- (b) When one reads the Hindi literature of the twentieth century, you find a striking contrast between the writings of Munshi Premchand and later day writers of popular Hindi fiction.
- (c) When one reads the Hindi literature of the twentieth century, one finds a striking contrast between the writings of Munshi Premchand and later day writers of popular Hindi fiction.
- (d) If one reads the Hindi literature of the twentieth century, you find a striking contrast between the writings of Munshi Premchand and later day writers of popular Hindi fiction.

54. Identify the best way of writing the given sentence ensuring that the message being conveyed remains the same:

The entire cast and crew of the film, enjoyed splashing in the pool, bathing in the ocean, and, particularly, to sun bathe on the shore.

- (a) The entire cast and crew of the film, enjoyed splashing in the pool; to have a bath in the ocean, and, particularly to sun bathe on the shore.
- (b) The entire cast and crew of the film, enjoyed splashing in the pool, bathing in the ocean, and, particularly, to sun bathe on the shore.
- (c) The entire cast and crew of the film, enjoyed swimming in the pool, to bathe in the ocean, and, particularly sun bathing on the shore.
- (d) The entire cast and crew of the film, enjoyed splashing in the pool, bathing in the ocean, and, particularly, sun bathing on the shore.

55. Identify the best way of writing the given sentence ensuring that the message being conveyed remains the same.

Entertainment being recognized as an important factor in improving mental and physical health and thereby reducing human misery and poverty.

- (a) Recognizing entertainment as an important factor in improving mental and physical health and thereby reducing human misery and poverty.
- (b) Entertainment being recognized as an important factor in improving mental and physical health and thereby reducing human misery and poverty.
- (c) Recognition of it being an important factor in improving mental and physical health entertainment reduces human misery and poverty.
- (d) Entertainment is recognized as an important factor in improving mental and physical health and thereby reducing human misery and poverty.

56. Identify the best way of writing the given sentence ensuring that the message being conveyed remains the same.

Liberalization has gone hand in hand and has offered incentives for such things as personal initiative, ambition, loyalty, hard work, and resourcefulness.

- (a) Liberalization has gone hand in hand with and has offered incentives for such things as personal initiative, ambition, loyalty, hard work and resourcefulness.
- (b) Liberalization has gone hand in hand and has offered incentives for such things as personal initiative, ambition, loyalty, hard work, and resourcefulness.
- (c) Liberalization has gone hand in hand with and has offered incentives for such things as personal initiative and ambition, loyalty, hard work, and resourcefulness.
- (d) Liberalization has gone hand in hand and is offering incentives for such things as personal initiative, ambition, loyalty, hard work, and resourcefulness.

57. Select the pair of words which exhibit the same relationship between each other as the capitalized pair of words.

BEWILDERMENT : CONFUSION :

- (a) Fantod : Nervousness
- (b) Bewitched : Alliteration
- (c) Bursa : Sack
- (d) Coracle : Iodestar

58. There are two blanks in the following sentence. From the pairs of words given, choose the one that fills the blanks most appropriately. The first word in the pair should fill the first blank.  
Because of its tendency to \_\_\_\_\_, most Indian art is \_\_\_\_\_ Japanese art, where symbols have been minimized and meaning has been conveyed by using the method of the merest suggestion.  
(a) overdraw, similar to (b) understate, reminiscent of  
(c) imitate, superior to (d) sentimentalise, supportive of
59. There are two blanks in the following sentence. From the pairs of words given, choose the one that fills the blanks most appropriately. The first word in the pair should fill the first blank.  
Indian poetry \_\_\_\_\_ monsoon season as the most romantic, when \_\_\_\_\_ lovers meet, and dark clouds carry the message of love.  
(a) discerns, disturbed (b) visualizes, parted  
(c) perceives, united (d) considers, disturbed
60. The idiom given below is followed by four alternatives. Choose the option which best expresses its meaning.  
Get down to brass tacks  
(a) To begin to talk in plain, straightforward terms  
(b) To begin to discuss secret matters  
(c) To start unraveling the mystery  
(d) To get into the thick of a problem
61. The idiom given below is followed by four alternatives. Choose the option which best expresses its meaning.  
Ride hell for leather  
(a) To work hard for a small accomplishment (b) To adopt false means to succeed  
(c) To ride with furious speed (d) To earn money by all means
62. In the following question, a related pair of words is followed by four pairs of words. Select the pair that best expresses a relationship similar to that expressed in the original pair.  
MOSAIC : TILE ::  
(a) Document : Author (b) Portrait : Paint  
(c) Fabric : Tapestry (d) Coverlet : Cloth
63. In the following question four sentences A, B, C and D are given. You have to arrange them in a logical order to make a sensible paragraph.  
A. Still, Sophie might need open-heart surgery later in life and would be more prone to respiratory infections.  
B. But with the news that his infant daughter Sophie has a hole in her heart, he appears quite vulnerable.  
C. While the condition sounds bad, it is not life threatening, and frequently corrects itself.  
D. Sylvester Stallone has made millions and built a thriving career out of looking invincible.  
(a) DCAB (b) DBAC (c) DBCA (d) DCBA

64. Choose the option that fills the blanks in the sentence below most appropriately.

In the absence of native predators to stop the spread of their population, the imported goats \_\_\_\_\_ to such an inordinate degree that they over-grazed the countryside and \_\_\_\_\_ the native vegetation.

- (a) suffered, abandoned  
(b) propagated, cultivated  
(c) thrived, threatened  
(d) dwindled, eliminated

65. Choose the option that fills the blanks in the sentence below most appropriately.

Carried away by the \_\_\_\_\_ effects of the experimental medication, the patient \_\_\_\_\_ his desire to continue as a subject for as long as he could.

- (a) noxious, proclaimed  
(b) supplementary, announced  
(c) frantic, repeated  
(d) salutary, reiterated

66. An incomplete argument is followed by four statements labelled (a), (b), (c) and (d). Select the one which strengthens or completes the argument without importing any fallacy.

It is a shame to say it, but apparently mankind thrives on conflict.

- (a) A nation is never as alert and alive as when it is a nation at war.  
(b) Actually, life originated in conflict.  
(c) Peace is an interval between two wars.  
(d) Wars in many subtle ways have contributed to the betterment of human life.

67. An incomplete argument is followed by four statements labelled (a), (b), (c) and (d). Select the one which strengthens or completes the argument without importing any fallacy.

In old age the arteries in the head as well as the heart are likely to become atherosclerotic.

- (a) As a result the brain, deprived of adequate blood, becomes starved for oxygen, begins to falter and forget.  
(b) As a result it is only the old who become vulnerable to cardiac diseases and the diseases affecting the brain.  
(c) As a result one can predict that people with atherosclerotic afflictions are usually old.  
(d) As a result both these organs, as one grows old need more medical attention.

68. An incomplete argument is followed by four statements labelled (a), (b), (c) and (d). Select the one which strengthens or completes the argument without importing any fallacy.

It is true that more books than ever are being published.

- (a) But the literacy rate remaining stagnant, there is no significant increase in readership.  
(b) But these are brought out in esoteric languages local people can't read.  
(c) But reading is not among our most passionate pleasures.  
(d) But the writing style in which many modern publications are couched is singularly abstruse.

69. Read the following argument and answer the question that follows:  
Intravenous drug users who likely contracted the virus that causes AIDS from contaminated needles have accounted for more than 40 percent of the state's more than 73,000 cases of people living with H.I.V. or AIDS. The New Jersey State Assembly made a sensible, life-saving decision this month when it approved a bill that allows pharmacies to sell a limited number of syringes to individuals without prescriptions. The bill will allow pharmacies to sell to adults as many as 10 syringes at a time without a prescription. The pharmacies would also be required to provide these customers with instructions for safe needle disposal and information on treatment programs.

Which of the following is a valid assumption?

- (a) HIV infected addicts will benefit from the decision.
  - (b) A lot of addicts want to buy clean needles in bulk.
  - (c) Infected needles were the reason for some of the drug-addicts acquiring HIV infection.
  - (d) Giving addicts access to clean needles can reduce the spread of infection.
70. Read the following argument and answer the question that follows:  
Imagine developing a detailed and accurate three-dimensional model from a single two-dimensional photograph. That is the promise of ankylography, a technique that, according to its creators, could reveal the structure of scientifically important subjects such as complex proteins that can be glimpsed only once before they are destroyed by the high-powered lasers used to image them. But rather than sparking a revolution in imaging, the idea has raised objections from researchers who say that it amounts to pulling a three-dimensional rabbit out of a two-dimensional hat.

Which of the following principles would strengthen the view of the researchers?

- (a) Complete three-dimensional information cannot be obtained from a single flat picture.
  - (b) Complex proteins are so complex that their accurate structure cannot be determined.
  - (c) Many possible three-dimensional structures generate the same image.
  - (d) None of these
71. Read the following argument and answer the question that follows:

**Nancy:** In the U.S., affirmative action is an acceptable way of "levelling the playing field". Historic wrongs against aboriginal peoples have created a cycle of poverty, under-education and unemployment. Aboriginal peoples may have lower test scores or missed job opportunities because of this history so, quotas for them may be helpful.

**Roma:** Differential protection for aboriginals is "affirmative action". Affirmative action, either in an employment or educational setting, does not necessarily lead to advancement for the affected group. Further, it can create resentment amongst the majority. Aboriginal peoples should not be told that their historical hardship justifies lower standards and automatic acceptance.

Which of the following most accurately expresses the issue between Nancy and Roma?

- (a) Whether affirmative action to uplift the aborigines is justified.
- (b) Whether aboriginal people need the help of the state.
- (c) Whether historical hardships justify the need of affirmative action.
- (d) Whether there should be reservation/quota for aboriginals in colleges.

72. Read the following argument carefully and answer the questions that follow.

Postmodernists do not simply support aesthetic 'isms', or avant-garde movements, such as minimalism or conceptualism. They have a distinct way of seeing the world as a whole, and use a set of philosophical ideas that not only support an aesthetic but also analyze a 'late capitalist' cultural condition of 'postmodernity'. This condition is supposed to affect us all, not just through avant-garde art, but also at a more fundamental level, through the influence of that huge growth in media communication by electronic means which Marshall McLuhan in the 1960s called the 'electronic village'. And yet in our new 'information society', paradoxically enough, most information is apparently to be distrusted, as being more of a contribution to the manipulative image-making of those in power than to the advancement of knowledge.

Postmodernists are most likely to agree with which of the following?

1. Most of the new information contributes to the image making of those in power.
2. Avant-garde movements like minimalism etc should to be supported.

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

73. Read the following argument carefully and answer the questions that follow.

Postmodernists do not simply support aesthetic 'isms', or avant-garde movements, such as minimalism or conceptualism. They have a distinct way of seeing the world as a whole, and use a set of philosophical ideas that not only support an aesthetic but also analyze a 'late capitalist' cultural condition of 'postmodernity'. This condition is supposed to affect us all, not just through avant-garde art, but also at a more fundamental level, through the influence of that huge growth in media communication by electronic means which Marshall McLuhan in the 1960s called the 'electronic village'. And yet in our new 'information society', paradoxically enough, most information is apparently to be distrusted, as being more of a contribution to the manipulative image-making of those in power than to the advancement of knowledge.

The author is most likely to agree with which of the following?

1. The effect of postmodernity is not limited.
2. Postmodernists do not have a parochial view of the world.
3. Postmodernism is based on strong philosophical ideas.

(a) Only 1 and 2                      (b) 1,2 and 3                      (c) Only 2 and 3                      (d) Only 1

74. In the question below, four alternative summaries are given below the text. Choose the option that best captures the essence of the text.

Although, almost all climate scientists agree that the Earth is gradually warming, they have long been of two minds about the process of rapid climate shifts within larger periods of change. Some have speculated that the process works like a giant oven or freezer, warming or cooling the whole planet at the same time. Others think that shifts occur on opposing schedules in the Northern and Southern Hemisphere, like exaggerated seasons. Recent research in Germany examining climate patterns in the Southern Hemisphere at the end of the last Ice Age strengthens the idea that warming and cooling occurs at alternate times in two hemispheres. A more definitive answer to this debate will allow scientists to better predict when and how quickly the next climate shift will happen.

- (a) Research in Germany will help scientists find a definitive answer about warming and cooling of the Earth and predict climate shifts in the future in a better manner.
  - (b) Scientists have been unsure whether rapid shifts in the Earth's climate happen all at once or on opposing schedules in different hemispheres; finding a definitive answer will help them better predict climate shifts in future.
  - (c) Scientists have been unsure whether rapid shifts in the Earth's climate happen all at once or on opposing schedules in different hemispheres : research will help find a definitive answer and better predict climate shifts in future.
  - (d) More research rather than debates on warming or cooling of the Earth and exaggerated seasons in its hemispheres, will help scientists in Germany predict climate changes better in future.
75. In the question below, four alternative summaries are given below the text. Choose the option that best captures the essence of the text.

Local communities have been often in conflict with agents trying to exploit resources, at a faster pace for an expanding commercial-industrial economy. More often than not, such agents of resource-intensification are given preferential treatment by the state, through the grant of generous long leases over mineral or fish stocks, for example, or the provision of raw material at an enormously subsidized price. With the injustice so compounded, local communities at the receiving end of this process, have no recourse except direct action, resisting both the state and outside exploiters through a variety of protest techniques. These struggles might perhaps be seen as a manifestation of a new kind of class conflict.

- (a) Preferential treatment given by the state to agents of resource-intensification for an expanding commercial industrial economy exacerbates injustice to local communities and leads to direct protests from them, resulting in a new type of class conflict.
- (b) The grant of long lease to agents of resource-intensification for an expanding commercial industrial economy leads to direct protests from the local community, which sees it as unfair.
- (c) A new kind of class conflict arises from preferential treatment given to agents of resource-intensification by the state, which the local community sees as unfair.
- (d) Local communities have no option but to protest against agents of resource-intensification and create a new type of class conflict when they are given raw material at subsidized prices for an expanding commercial-industrial economy.

## Section – IV : General Awareness

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76. Who among the following has been recently appointed as the Chairman of Central Board of Direct Taxes (CBDT)?  
(a) Poonam Kishore Saxena (b) B.K. Chaturvedi  
(c) Raghuram Rajan (d) M C Joshi
77. Name the famous footwear retailer, who has set up a new retail format to sell affordable fashion footwear and accessories targeted at young adults under 'Footin' brand?  
(a) Adidas (b) Reebok (c) Bata (d) Nike
78. Which of the following board, recently has entered into a partnership with a private foreign education company, Pearson?  
(a) Board of Secondary Education, Delhi  
(b) Indian Council for Secondary Education  
(c) Jammu and Kashmir State Board for school Education  
(d) Central Board of Secondary Education
79. The Bhilai steel plant was recently in news, for mining at which of the following disputed iron-ore mine, after Dalli-Rajhara, to continue the plant?  
(a) Bailadila (b) Mahamaya-Dulki (c) Sinshi Gaval (d) Rowghat
80. India's first financial super market aimed at cross-selling non-standard banking products recently has been opened in which of the following city?  
(a) Bengaluru (b) Jaipur (c) Mumbai (d) New Delhi
81. India Post has chosen which of the following company as its technology and consulting partner, to integrate its delivery of financial products across the country, ?  
(a) Mahindra Satyam (b) Wipro  
(c) Infosys (d) TCS
82. G. Ananthapadmanabhan, is the Chief Executive, in India, of which of the following organisations?  
(a) World Bank (b) United Nations Refugee Agency  
(c) Amnesty International (d) International Monetary Fund
83. Biju Kolaru Veettil, an Indian was recently in news to be released by a militant group Abu Sayyaf group in-  
(a) Philippines (b) Malaysia (c) Indonesia (d) Myanmar
84. Which of the following, Asia's largest fresh water lake, was recently in news to be encroached upon over the past century reducing it from 217 sq km to just 125 sq km?  
(a) Van Sea (b) Wullar Lake (c) Caspian Sea (d) Kolleru Lake
85. The Dokdo island is disputed between which of the following countries?  
(a) North Korea and South Korea (b) China and Taiwan  
(c) South Korea and Japan (d) Australia and New Zealand



86. The Global Nutrition Event, was recently held in-  
(a) Berlin (b) France (c) Istanbul (d) London
87. Green-on-blue attacks is related to which of the following countries?  
(a) Pakistan (b) Syria (c) Afghanistan (d) Egypt
88. During the second week of August, which of the following country faced two strong earthquakes that caused death of at least 50 people and injury of hundreds?  
(a) Iran (b) Japan (c) Mongolia (d) Taiwan
89. Guor Marial, shared Olympic in London as a refugee. He belongs to which of the following country?  
(a) Sierra Leone (b) Burkina Faso (c) Sudan (d) Libya
90. The women sprint relay team of which of the following country drew a new world record of 40.82 seconds at the London Olympic?  
(a) Russia (b) United States of America  
(c) Ghana (d) Kenya
91. Find out, from among the following, the first Vice-President of India to get second consecutive tenure?  
(a) Zakir Hussain (b) Fakhruddin Ali Ahmed  
(c) G.S. Pathak (d) S. Radhakrishnan
92. Well-known litterateur and 2011 Kendra Sahitya Akademi award winner, Samala Sadasiva recently passed away at the age of 85. He writes in which of the following languages?  
(a) Assamese (b) Telugu (c) Malayalam (d) Tamil
93. Who among the following cabinet ministers was recently conferred with the Gujar Mal Modi Award for Innovation?  
(a) P. Chidambaram (b) Sharad Pawar  
(c) Ambika Soni (d) Renuka Chowdhury
94. Being a global tourist destination during last over two decades, which of the following state recently bagged the Best State for Adventure Tourism Destination Award?  
(a) Kerala (b) Sikkim (c) Himachal Pradesh (d) Uttarakhand
95. Name the state, which started Platinum Jubilee celebration of its Legislative Assembly from 13<sup>th</sup> of August, 2012?  
(a) Bihar (b) West Bengal (c) Maharashtra (d) Tamilnadu
96. According to a report of the Drug Controller-General of India, during January 2008- January 2012, which of the following states has recorded the maximum number of deaths due to drug trials?  
(a) West Bengal (b) Andhra Pradesh (c) Kerala (d) Maharashtra
97. Miss World 2012, Yu Wenxia belongs to which of the following countries?  
(a) Mongolia (b) China (c) Vietnam (d) South Korea

98. The current head of the 15-member committee, to select the Rajiv Gandhi Khel Ratna Awardee and Arjun Award winners is-
- (a) P. Gopichand (b) Dhanaraj Pillai  
(c) Vishvanathan Anand (d) Rajyavardhan Singh Rathore
99. The global house price index survey by property consultants Knight Frank shows recently that Indian property prices increased by 12%, propelling it to third position among 53 countries. Which among the following countries has recorded the strongest annual growth (23.5%) in the past year in property prices?
- (a) Estonia (b) Brazil (c) UAE (d) South Africa
100. Which among the following power companies is the world's fifth largest wind turbine manufacturer?
- (a) Suzlon Energy (b) Gamesa (c) Siemens (d) None of the above

## Answers

1	a	2	a	3	b	4	d	5	a	6	c	7	b	8	d	9	d	10	c
11	a	12	d	13	b	14	b	15	b	16	c	17	d	18	c	19	a	20	d
21	d	22	a	23	a	24	b	25	a	26	c	27	b	28	a	29	a	30	c
31	a	32	d	33	b	34	c	35	d	36	d	37	c	38	a	39	b	40	c
41	a	42	b	43	d	44	c	45	c	46	a	47	c	48	c	49	d	50	b
51	b	52	a	53	c	54	d	55	d	56	a	57	a	58	a	59	b	60	d
61	c	62	b	63	c	64	c	65	d	66	d	67	a	68	c	69	d	70	a
71	a	72	b	73	a	74	b	75	a	76	a	77	c	78	d	79	d	80	b
81	c	82	c	83	a	84	b	85	a	86	d	87	c	88	a	89	c	90	b
91	d	92	b	93	a	94	c	95	b	96	d	97	b	98	d	99	b	100	a

1. a The difference between CI and SI for two years is given by:

$$CI - SI = P \left[ \left( 1 + \frac{r}{100} \right)^2 - 1 - \frac{2r}{100} \right],$$

where,

'P' is the sum invested

'r' is the rate of interest per annum.

Putting all the values, we get

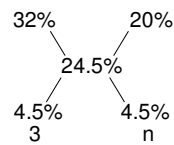
$$\Rightarrow 100 = 2500 \left( \frac{r}{100} \right)^2 \Rightarrow r = 20\%.$$

2. a It is clear that 32%  $H_2SO_4$  is mixed with 20%  $H_2SO_4$  in the ratio of 3 : n to get a 24.5%  $H_2SO_4$  solution.

$$\Rightarrow 3 \times \frac{32}{100} + n \times \frac{20}{100} = 3 \times \frac{24.5}{100} + n \times \frac{24.5}{100}$$

$$\Rightarrow 3 \times 7.5 = n \times 4.5 \text{ or } n = 5.$$

**Alternate solution:**



$$\therefore \frac{4.5}{7.5} = \frac{3}{n}$$

$$\Rightarrow n = 5.$$

3. b Let the weights (in kg) of the father, the son and the mother be x, y and z respectively.

According to the question,

$$x : y = 3 : 2 \text{ and } y : z = 5 : 6$$

$$\text{Therefore, } x : y : z = 15 : 10 : 12$$

$$\text{Weight of the father} = 2 \times 35 = 70 \text{ kg}$$

$$\text{Weight of the mother} = \frac{12}{15} \times 70 = 56 \text{ kg.}$$

4. d Average expenses on power consumption

$$= \frac{800 + 500 + 650 + 1100 + 1250 + 1150}{6}$$

$$= \frac{5450}{6} \approx \text{`}908.$$

5. a Let the MP (in `) of the article be x. SP after two successive discounts =  $0.8 \times 0.8 \times x = \text{`}0.64x$

$$\therefore 4 = \frac{CP - 0.64x}{CP} \times 100 \Rightarrow CP = \frac{2}{3}x$$

$$\therefore \text{CP of the article} = \text{`} \frac{2}{3}x$$

Hence, the maximum discount the shopkeeper can

offer is  $\text{`} \frac{1}{3}x$  or 33.33%.

6. c The man can select the two blocks in  ${}^9C_2$  ways i.e. 36 ways.

Out of this, the following combinations are against his wish: (1,4); (1,9); (2,8) and (4,9).

Hence, he can place the shoes in 32 possible ways.

7. b Let the length of the train be 'L' m and speed of the train be x m/s.

$$\therefore \text{Speed of the train} = \frac{L + 50}{10} = \frac{L + 250}{20}$$

From the above equation, we get

$$L = 150 \text{ m and } x = 20 \text{ m/s}$$

$\therefore$  Time required to cross a stationary man

$$= \frac{150}{20} = 7.5 \text{ seconds.}$$

8. d **From statement I:**

$$x > 10; x < 0 \text{ and } y = 0.$$

Clearly, statement I alone is not sufficient to answer the question.

**From statement II:**

$$x - y > 5 \text{ and } x - y < -5.$$

Again, we see that this statement alone is not sufficient to answer the question.

Combining statements I and II, we get

$$x > 10, x < -5.$$

Hence, both the statements together are also not sufficient to answer the question.

9. d While working alone, Amit requires 10 days and Bob requires 25 days to complete the same work.

Suppose, Bob worked with Amit for x days. Then,

$$\frac{8}{10} + \frac{x}{25} = 1 \Rightarrow x = 5$$

Hence, Bob worked with Amit for 5 days.

10. c From 2nd to 6th innings, total number of innings is odd. Runs scored from 2nd to 6th innings are in increasing A.P., so the required average will be the middle term, i.e. the 4th innings.

11. a Let the other number be n.

$$LCM \times HCF = \text{Product of the two numbers}$$

$$\Rightarrow 210 \times n = 42 \times 630 \Rightarrow n = 126.$$

12. d The numbers from 100 to 200 that have 2 as one of its digits are 102, 112, 120, 121, 123, 124, 125, 126, 127, 128, 129, 132, 142, 152, 162, 172, 182, 192 and 200. Out of these numbers, only 128, 152, 182 and 200 leave a remainder of 2 when divided by 6, i.e., there are 4 such numbers.

13. b  $\frac{2^{41}}{127} = \frac{(2^7)^5 \times 2^6}{127}$

Remainder when  $(2^7)^5$  is divided by 127 = 1

Remainder when  $2^6$  is divided by 127 = 64  
 $\therefore$  Required remainder =  $1 \times 64 = 64$ .

14. b Let the price (in `) of a ticket be  $x$  and that of a popcorn bucket be  $y$ .  
 $5x + 3y = 1000$  ... (i)  
 $4x + 4y = 1000$  ... (ii)  
 On solving (i) and (ii), we get,  $x = 125$  and  $y = 125$ .  
 Hence, cost of a popcorn bucket is `125.

15. b Required percentage is the highest for Linked In and it is equal to  $\frac{55}{75} \times 100$  i.e. 73.33%.

16. c In arithmetic progression,  $l = a + (n - 1)d$ , where,  
 'l' is the last term,  
 'a' is the first term,  
 'n' is the number of terms,  
 'd' is the common difference.

Now,  $250 = a + 9d$  or  $a = d = 25$  (Since,  $a = d$ )  
 Sum of the first 10 terms of the A.P.

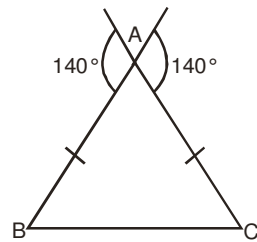
$$= (a + l) \times \frac{n}{2} = (25 + 250) \times \frac{10}{2} = 1375.$$

17. d Let the first term and the common difference of the A.P. be 'a' and 'd' respectively.  
 15th term =  $a + 14d$  ... (i)  
 4th term =  $a + 3d$  ... (ii)

According to the question,

$$\frac{a + 14d}{a + 3d} = \frac{13}{6} \Rightarrow a : d = 45 : 7.$$

18. c



From the figure above, it is clear that sum of  $\angle B$  and  $\angle C$  is  $140^\circ$ .

Hence,  $\angle A = 40^\circ$ .

19. a Let the length of the third side be 'x' cm.  
 Using Pythagoras' Theorem, we get

$$x^2 + 8^2 = 17^2 \text{ or } x = 15 \text{ cm.}$$

Area of the triangle = radius (r)  $\times$  semi perimeter

$$\left[ \because r = \frac{\Delta}{s} \right]$$

$$\frac{1}{2} \times 8 \times 15 = \frac{8 + 15 + 17}{2} \times r \Rightarrow r = 3 \text{ cm.}$$

20. d Equivalent discount to a series of successive discounts of 20%, 30% and 50% .  
 $= 100 - (0.8 \times 0.7 \times 0.5 \times 100) = 72\%$ .

21. d  $n(A \cap B) = n(A) + n(B) - n(A \cup B)$   
 $= 120 + 76 - 180 = 16$ .

22. a Required ratio =  $5 : 15 = 1 : 3$   
 (Since the time taken by both of them is same, distance covered will be directly proportional to their respective speeds.)

23. a Radius of incircle (r) =  $\frac{\text{Area of triangle(a)}}{\text{Semi perimeter(s)}}$

**From statement I:**

$$\text{Area of the triangle} = \frac{\sqrt{3}}{4} (5)^2 = \frac{25\sqrt{3}}{4} \text{ cm}^2$$

$$\text{Semi perimeter} = \frac{5 \times 3}{2} = \frac{15}{2} \text{ cm}$$

Hence, the question can be answered by using the statement I alone.

**From statement II:**

The triangle is a right-angled triangle.

Sides of the triangle are 5 cm,  $5\sqrt{3}$  cm and 10 cm.

$$\text{Area} = \frac{1}{2} \times 5 \times 5\sqrt{3} = \frac{25\sqrt{3}}{2} \text{ cm}^2$$

$$\text{Semi perimeter} = \frac{15 + 5\sqrt{3}}{2} \text{ cm}$$

Hence, the question can also be answered by using the statement II alone.

24. b From the given question,

$$\text{Sum of the roots} = \alpha + \beta = -\frac{b}{a} = \frac{3}{2}$$

$$\text{Product of the roots} = \alpha\beta = \frac{c}{a} = 2$$

$$\text{Roots of the new equation are } \frac{1}{\alpha} \text{ and } \frac{1}{\beta}.$$

$$\therefore \text{Sum of the roots} = \frac{1}{\alpha} + \frac{1}{\beta} = \frac{\alpha + \beta}{\alpha\beta}$$

$$\therefore \frac{\alpha + \beta}{\alpha\beta} = \frac{3/2}{2} = \frac{3}{4}.$$

25. a Total surface area of cube =  $6 \times 4^2 = 96 \text{ cm}^2$   
 Area of the region exposed after cutting  
 (Increase in total surface area after cutting)  
 $= 2 \times 4 \times 4\sqrt{2} = 32\sqrt{2} \text{ cm}^2$   
 $\therefore$  Required percentage increase  
 $= \frac{32\sqrt{2}}{96} \times 100 \approx 47.13\%$ .

26. c One of the parents of Ram is the only child of the grandmother of the girl. Hence, the girl is the sister of Ram.

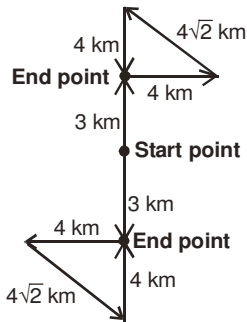
27. b The coding pattern follows the pattern:  
 $Z = 1, Y = 2, X = 3$  and so on.  
 Hence, the code for ENZYME will be 2213121422.

28. a The series is:  
 $5^2 + 6^2 = 61$   
 $7^2 + 8^2 = 113$   
 $9^2 + 10^2 = 181$   
 and so on.  
 Required term is  $11^2 + 12^2 = 265$ .

29. a The shaded portion moves 1, 2, 3, ... steps in CW direction respectively in subsequent steps.  
 Dot moves two steps and one step in ACW direction alternately.  
 The arrow rotates in the sequence  $45^\circ, 225^\circ, 45^\circ, 225^\circ$  CW and so on. It also moves 1, 2, 3, ... steps only among the middle four squares respectively in subsequent steps.

30. c All the numbers are prime a except 4.

31. a The upper half of the figure represents the movement of Ram whereas the lower half of the figure represents the movement of Shyam.



Hence, position of Shyam with respect to his starting point is 3 km in South.

32. d Since the Journalist is standing behind the Doctor, possible combinations are:

Case	First to Last				
I	Professor	Banker/ Photographer	Banker/ Photographer	Doctor	Jorunalist
II	Banker/ Photographer	Doctor	Jorunalist	Banker/ Photographer	Professor
III	Doctor	Jorunalist	Banker/ Photographer	Professor	Banker/ Photographer

Now, the Banker and Photographer are not next to each other, which cancels out case I. According to case III, Doctor will vote first and according to case II either Banker or Photographer will vote first. Hence, the answer cannot be determined.

33. b The series is:  
 $A, D = 1^2, 2^2$   
 $I, P = 3^2, 4^2$   
 $Y, J = 5^2, 6^2(26 + 10)$   
 and so on.  
 Required term is Q, N  
 $= 11^2(26 \times 4 + 17), 12^2(26 \times 5 + 14)$ .

34. c Non-educated Indian politician MPs will be the common region lying in the triangle, square and rectangle, but outside the circle. Hence, 'b' is the correct region.

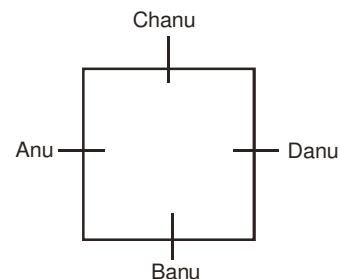
35. d The two possible cases are:

First to last (left to right)						
<b>Case I:</b>	Chan	Bran	Fran	Aan	Eian	Dan
<b>Case II:</b>	Dan	Eian	Aan	Fran	Chan	Bran

In the above cases, either Chan or Bran is sitting at the other extreme end.

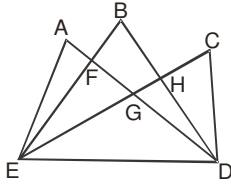
36. d The coding follows the pattern:  
 $R(18) - 1 = Q(17)$   
 $A(01) + 1 = B(02)$   
 $M(13) - 1 = L(12)$   
 $E(05) + 1 = F(06)$   
 $S(19) - 1 = R(18)$   
 $H(08) + 1 = I(09)$   
 Hence, the code for VIKASH will be UJJBRI.

37. c



Hence, Danu is sitting opposite to Anu.

38. a



There are 14 triangles in the figure and these are  $\triangle AFE$ ,  $\triangle EFG$ ,  $\triangle EGD$ ,  $\triangle AEG$ ,  $\triangle EFD$ ,  $\triangle AED$ ,  $\triangle GHD$ ,  $\triangle HCD$ ,  $\triangle EHD$ ,  $\triangle CDG$ ,  $\triangle CED$ ,  $\triangle BHE$ ,  $\triangle BFD$  and  $\triangle BDE$ .

39. b On reversing the order of the last 15 letters, we get the series as:  
A, B, C, D, E, F, G, H, I, J, K, Z, Y, X, W, V, U, T, S, R, Q, P, O, N, M, L  
Hence, the required letter is R.

40. c Let heights of Ram, Raj, Rahul, Rakesh and Ramesh be represented as R1, R2, R3, R4 and R5 respectively. Therefore,  $— > — > — > R1 > R5$   
Hence, Ramesh is the shortest.

41. a The given conditions can be shown with the help of table below.

Ball	First	Second	Third	Fourth	Fifth	Sixth
Runs Scored	0	2	6	1	4	3

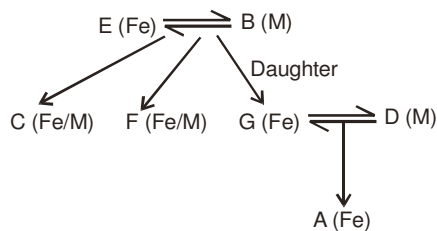
Hence, 3 runs were scored on the last ball.

42. b The three possible cases are:

Monday	Tuesday	Wednesday	Thursday	Friday
E	A	C/D	D/C	B
C	E	A	D	B
C	D	E	A	B

In all the three cases, C's birthday cannot be on Tuesday.

43. d



**Note:** 'Fe' represents female and 'M' represents male. E and B represent a couple and G and D represent the second couple.

Since gender of C is not known, can either be uncle or aunt of A.

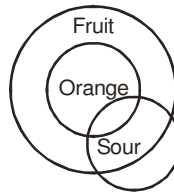
44. c The two possible arrangements are:

First to last (left to right)				
<b>Case I:</b>	Mango	Guava	Mix Fruit	Litchi
<b>Case II:</b>	Litchi	Orange	Mix Fruit	Mango

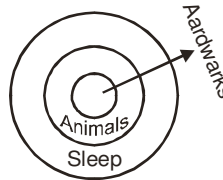
Hence, Mango juice and Litchi juice are kept at the extreme ends.

45. c The series is:  
 $1 - 2^2 = -3$   
 $3 - 4^2 = -13$   
 $5 - 6^2 = -31$   
and so on.  
Required term is  $11 - 12^2 = -133$ .

46. a



47. c



48. c Only assumption I is implicit because incentives are expected to motivate people. Assumption II cannot be assumed because no information has been given regarding the employees' current status.

49. d There are two stands but both are strong arguments because the working of both the bodies should be independent of each other at times and at times they need to cooperate.

50. b Argument I is not a strong argument as there can be better ways to curb mass copying. Argument II is strong because if everybody will be able to obtain good marks, it would kill the spirit of competition and would hamper the 'selection/rejection test' nature of the exam.

51. b 'E' is a contrary statement to 'A' hence, 'AE' is a mandatory pair.
52. a We start with 'A', followed by BC as it is a mandatory pair, followed by DE.
53. c The sentence begins with "When one reads", hence according to the Subject-pronoun agreement the latter part of the sentence should be "one finds a striking contrast". Hence, option (c) is the correct answer.
54. d The sentence refers to 'splashing in the pool, bathing in the ocean', in order to maintain parallelism "sun bathing on the shore" should be used. Hence, option (d) is the correct choice.
55. d Option (a), (b) and (c) are incomplete sentences as they do not convey a full meaning of the sentence. Option (d) is both grammatically correct and conveys complete meaning. Hence, option (d) is the correct answer.
56. a "Hand in Hand" is to be followed by 'with', hence, option (b) and (d) are negated. Option (c) has a wrongly placed conjunction between 'personal initiative' and 'ambition'. Hence, option (a) is the correct answer.
57. a 'Bewilderment' means the same as 'confusion', similarly, 'fantod' means the same as 'nervousness'.
58. a 'Reminiscent' means to recollect past experience, 'overdraw' means to take out more than something contains. Only option (a) fits in the given sentence.
59. b As for poetry, 'visualizes is the best word, in the second blank 'parted' also fits properly.
60. d To 'get down to brass tacks' means to start talking about important things or basic facts of a situation e.g. Let us get down to brass tacks. Who is paying for all this?
61. c 'Ride hell for leather' means to ride with furious speed.
62. b 'Mosaic' is a pattern or picture using many small pieces of coloured stone or tiles, in the same way, 'portrait' is a representation of something using paint.
63. c D is the introductory sentence, B tells us that he may look invincible but he appears quite vulnerable as his daughter Sophie has a hole in her heart, C re-assures that it is not life threatening, and A ends by stating that Sophie might need open-heart surgery later in life.
64. c The population of goats increased in absence of predators, hence, 'thrive' fits appropriately and the vegetation was destroyed by the goats so, 'threatened' is also apt in this context. Hence, option (c) is the correct answer.
65. d The sentence tells that the good effect of medication makes the patient desirous of continuing as a subject. Hence, option (d) is the correct answer.
66. d Option (d) supports the argument by providing an example of wars that have contributed towards making human life better. (a) is incorrect because alertness of a nation does not ensure its prosperity. So it does not strengthen the argument. Options (b) and (d) are beyond the scope of the argument. Hence, (d) is correct.
67. a Option (a) completes the argument by further stating the effects of atherosclerosis on the brain. Options (b), (c) and (d) can be negated because it cannot be inferred from the argument that **only old people** are prone to atherosclerosis. The argument only talks about a high probability, but it can happen in young age as well.
68. c The argument emphasizes on the fact that more books are being published than ever. Option (c) completes the argument by stating that even though there is an increase in the number of books being published, but passion for reading is still not in the list of things that give us utmost happiness. Option (a) can be ruled out because it connects literacy rate to readership. 'Literacy' means the ability to read and write whereas reading is just a hobby for people. There exists no link between the two statements in option (a). Option (b) is also incorrect. '**Esoteric**' means intended for or understood by only a **particular group**. These esoteric groups may exist among locals as well. So, we cannot say that locals do not understand esoteric languages. Esoteric group is a subset whereas locals are a superset. Option (d) can be negated because the argument does not talk about the writing style. Hence, (c) is correct.
69. d The idea of providing needles in bulk has been proposed to check the spread of HIV infection. Hence, it can be safely assumed that provision of clean needles can check the spread of the infection.
70. a Ankylography promises of developing an accurate three dimensional model from a single two dimensional picture. The researchers doubt the accuracy of the method. Option (a) strengthens the argument of the researchers by mentioning the principle that states that such a structure cannot be accurate. (b) talks only about proteins whereas the argument focuses on the accuracy of ankylography as a method. Thus, (b) is negated.
71. a Option (a) expresses the issue effectively. (b) talks about the needs of the aborigines whereas Roma's argument does not discuss their needs. Her argument talks about advantages and disadvantages of the state's help to aborigines. (c) misses the mention of aborigines whereas the argument specifically deals



with the affirmative action for aborigines. (d) deals only with the issue of reservation in colleges and fails to express the full issue. Thus, option (a) is the correct choice.

72. b 1 is the opinion of the author and not of the postmodernists. 2 is correct because postmodernists offer more than just support to the avant-garde movements so they will definitely agree that these movements should be supported.

73. a 1 can be inferred from the line 'This condition is supposed to affect us all'. 2 can be inferred from the line 'They have a distinct way of seeing the world as a whole'. The lines "They have a distinct way of seeing the world as a whole, and use a set of philosophical ideas that not only support an aesthetic but also analyze a 'late capitalist' cultural condition of postmodernity" do not imply that postmodernism is based on strong philosophical ideas. Thus, 1 and 2 are correct.

74. b The research which has been done in Germany only strengthens the idea that warming and cooling occurs at alternative times, it does not provide a definitive answer towards it. Hence options (a) and (c) cannot be taken as good summaries. Option (d) is making an unnecessary comparison which was not hinted at in the paragraph.

75. a The paragraph conveys that the injustice is done to the local community. Option (b) merely talks about the opinion of the local community and distorts the meaning. In option (c) class conflict has been given too much importance and option (d) says that local communities protest when they are given raw materials at subsidized prices which is completely contradictory to the paragraph.

76. a 77. c 78. d 79. d 80. b 81. c 82. c

83. a 84. b 85. a 86. d 87. c 88. a 89. c

90. b 91. d 92. b 93. a 94. c 95. b 96. d

97. b 98. d 99. b 100. a