CAT Sample Paper 6

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Quantitative Ability

DIRECTIONS *for questions 1 to 19:* Answer the questions independently of each other.

Q 1. Each of four girls, A, B, C and D, had a few chocolates with her. A first gave 1/3rd of the chocolates with her to B, B gave 1/4th of what she then had to C and C gave 1/5th of what she then had to D. Finally, all the four girls had an equal number of chocolates. If A had 80 chocolates more than B initially, find the difference between the number of chocolates that C and D initially had.

(1) 20
(2) 30
(3) 15
(4) Cannot be determined

Q 2. In a survey conducted to find out the readership of three newspapers A, B and C, it was found that the number of people who read newspaper A is at least 20 and at most 40, the number of people who read newspaper B is at least 50 and at most 70, the number of people who read newspaper C is at least 70 and at most 83. It was also found that 8 people read all the three newspapers and 85 people read at least two of the three newspapers. Find the minimum number of people who read both A and B but not C.

(1) 1
(2) 2
(3) 3
(4) 0

Q 3. There are twenty-five identical marbles to be divided among four brothers such that each of them gets no less than three marbles. In how many ways can the marbles be divided among the four brothers?

(1) 286
(2) 364
(3) 455
(4) 560

Q 4. Several identical cuboids of dimensions 4 cm □3 cm □2 cm are put together to form a large cube. What is the least possible volume (in cu.cm) of such a cube?

(1) 216
(2) 1728
(3) 5832
(4) 13824
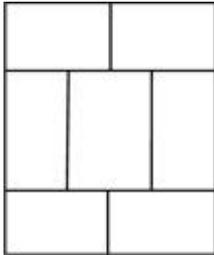
Q 5.

In the figure above, seven congruent rectangles are assembled together perfectly to form a bigger rectangle of perimeter 130 cm. Find the area (in sq.cm) of the bigger rectangle.

(1) 1000
(2) 1056
(3) 750
(4) 1050

Q 6. Three filling pipes R, S and T together, can fill an empty tank in 2 hours, S can fill the tank four times faster than T. Initially R alone is opened and after x hours, it is closed and immediately S and T are opened together. The tank is full after another y hours. If the tank was filled in a total of 4 hours, and $x \neq y$, find the time (in hours) that T alone would take to fill the tank.

(1) 6
(2) 12
(3) 20
(4) 24
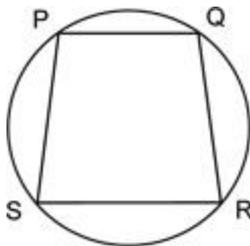
Q 7.

In the figure above, PQRS is a cyclic quadrilateral, where PQ = p cm, QR = q cm, RS = r cm and PS = s cm. If (PQ) (QR) = 3(PS) (RS) and ∠PQR = 120°, then s =

(1) $P + R - Q$
(2) $Q + R - P$

(3) $P + Q - R$

(4) $\dfrac{p+q+r}{3}$

Find the value of $\dfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\ldots}}}}$.

Q 8.

(1) $\dfrac{\sqrt{5}-1}{2}$

(2) $\dfrac{\sqrt{3}-1}{2}$

(3) $\dfrac{\sqrt{2}+1}{2}$

(4) $\dfrac{\sqrt{5}+1}{2}$

Q 9. Vivek found the product, P, of two two-digit natural numbers, M and N. He then reversed the digits of each of M and N and found the product of the resultant numbers. Interestingly, he found both products to be the same. If the product of the tens digit of M and the tens digit of N is prime, find the sum of all the possible values of P that Vivek could have obtained.

(1) 2604

(2) 2712

(3) 2627

(1) 4684

(2) 4664

Q 10. Three circles of equal radii have been drawn inside an equilateral triangle, of side *a*, such that each circle touches the other two circles as well as two sides of the triangle. Then, the radius of each circle is

(1) $\dfrac{a}{2(\sqrt{3}+1)}$

(2) $\dfrac{a}{2(\sqrt{3}-1)}$

(3) $\dfrac{a}{\sqrt{3}+1}$

(4) $\dfrac{a}{\sqrt{3}-1}$

(5) $\dfrac{a}{4(\sqrt{3}-1)}$

Q 11. What is the minimum value of the expression $2x^2 + 3y^2 - 4x - 12y + 18$?

i.   18

ii. 10

iii. 4

iv. 0

v. -10

Q 12. Vibhu and Jayant are comp1eting in a 100 m race. Initially, Ramu runs at twice Jayant's speed for the first fifty metres. After the 50 m mark, Vibhu runs at $1/4^{th}$ his initial speed while Jayant continues to run at his original speed. If Jayant catches up with Vibhu at a distance of '*x*' metres from the finish line, then find *x*.

(1) 37.5
(2) 25
(3) 75
(4) 42.5
(5) Somu will never catch up with Ramu

Q 13. When the curves $y = 10^x$ and $xy = 1$ are drawn in the X-Y plane, how many times do they intersect for values of $y^3 2$?

(1) Never
(2) Once
(3) Twice
(4) Thrice
(5) More than thrice

Q 14. Thirty-six equally spaced points - P_1 through P_{36} - are plotted on a circle, and some of these points are joined successively to form a regular polygon. How many distinct such regular polygons are possible?

(1) 7
(2) 23
(3) 37
(4) 27
(5) None of these

Q 15. If $l + m + n$ ¹ 0, which of the following conditions must *l*, *m* and *n* satisfy so that the system of simultaneous linear equations $x + 3y - 4z = l$, $2x - y - z = m$, $x + y - 2z = n$ has at least one?

(1) $3l - 2m + 7n = 0$
(2) $3l - 2m - 7n = 0$
(3) $3l + 2m - 7n = 0$
(4) $2l + 3m + 7n = 0$
(5) $2l + 3m - 7n = 0$

Q 16. There are *n* terms in an arithmetic progression. The *n* terms of

The arithmetic progression are now distributed into eight sub-series - S_1, S_2 >>and S_8 - as follows. The 1st, 9th, 17th terms and so on go into S_1; the 2nd, 10th, 18th terms and so on go into S_2; the 3st, 11th, 19th terms and so on go into S_3, and so on for S_4 till S_8. If for exactly three of the eight sub-series, the average of the sub-series is a term of the same sub-series, which of the following could be a possible value of *n*?

(1) 37
(2) 53
(3) 49
(4) 50
(5) 51

Q 17. One day the king summoned all the soldiers in his army and made them stand in a queue. To the first soldier, he gave three gold coins and to every subsequent soldier, he gave four gold coins more than what he gave to the previous soldier. Then the king ordered each soldier to distribute all the coins that he received among the peasants, if and only if it is possible to distribute the coins such that each peasant to whom the soldier distributes gets as many coins as the number of peasants to whom the soldier distributes the coins. If no two soldiers were allowed to distribute coins to the same peasant and there were a total of 4000 soldiers in the king's army, how many peasants received at least one gold coin?

(1) 386
(2) 284
(3) 576
(4) 4000
(5) None of these

Q 18. Two cyclists, Arjun and Bhim, started towards O from P and Q respectively, along the path shown below, in opposite directions. They met for the first time at 9:00 a.m. at O. At this moment, they reversed their directions but maintained their respective initial speeds and met for the second time at 10:30 a.m., following which

Arjun reached O for the second time 75 minutes after Bhim reached O for the second time. What is the ratio of the speeds of Arjun and Bhim?
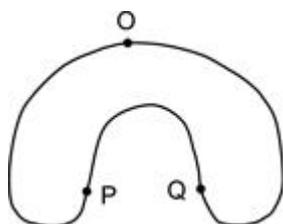
(1) 1 : 2
(2) 2 : 3

(3) 3 : 4
(4) 1 : 3
(5) Cannot be determined

Q 19. Which of the following is NOT a possible number of regions into which three straight lines (of infinite extent) can divide a plane?

(1) 7
(2) 6
(3) 5
(4) 4
(5) None of these

DIRECTIONS *for questions 20 and 21:* Answer the questions on the basis of the information given below.

The people of an island named Tingo use the number system to the base 5. The students of that island had recently taken an exam called BAT, a management entrance test, to gain admissions into their top B-schools. Answer the following two questions that appeared in that exam.

Q 20. The number N, expressed to the base five is 2323……23 upto a total of hundred digits. The remainder when N^{4231} is divided by 4 is

(1) 0
(2) 1
(3) 2
(4) 4

Q 21. A number written to the base five is called an *oven* number, if it is exactly divisible by 3. Which of the following is not an *oven* number?

(1) $(4213)^{2143}$
(2) $(1423)^{2143}$
(3) $(1243)^{2143}$
(4) $(3421)^{2143}$

Q 22. In the figure below, PX = 12 cm, YZ = 7 cm and the perimeter of PXY is 27 cm. Find the perimeter of PXZ.
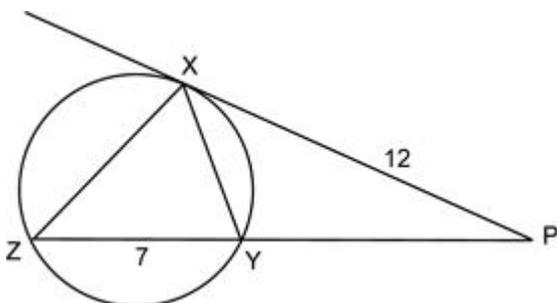
(1) 36 cm

(2) 27 cm

(3) 22.5 cm

(4) 31.5 cm

Q 23. If a four-digit natural number is 7083 more than the number formed by reversing the order of its digits, then how many such natural numbers are possible?

(1) 18

(2) 24

(3) 27

(4) 36

Q 24. Two trains, T_1 and T_2, simultaneously pass through a station on two parallel tracks without stopping at the station. The platform P_2 passed by the train T_2 is 50% more in length than the platform P_1 passed by train T_1. The train T_1 runs at a speed of 72 kmph, while the other train is 25% slower and 50% longer. What is the ratio of the times taken by the trains T_1 and T_2 in passing the platforms P_1 and P_2 respectively?

(1) 4 : 3

(2) 3 : 1

(3) 1 : 2

(4) Cannot be determined

Q 25. P is a point outside the circle with centre O. If a straight line drawn through P intersects the circle at points A and B such that $AB = 4\sqrt{6}$ cm and $90° < \angle AOB < 120°$, which of the following could be the radius (in cm) of the circle?

(1) 4

(2) 5

(3) 6

(4) 7

Q 26. Find the total number of ways in which a black square and a white square can be selected from a chessboard such that both the squares lie either in the same row or in the same column.

(1) 256

(2) 512

(3) 128

(4) 64
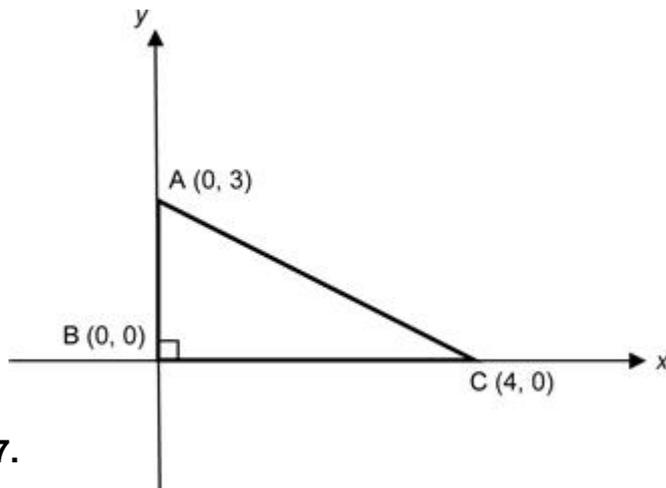
Q 27.

In the above triangle ABC, find the co-ordinates of the foot of the perpendicular drawn from B to AC.

(1) $\left(\dfrac{4}{5}, \dfrac{3}{5}\right)$

(2) $\left(\dfrac{32}{25}, \dfrac{24}{25}\right)$

(3) $\left(\dfrac{4}{5}, \dfrac{12}{5}\right)$

(4) $\left(\dfrac{36}{25}, \dfrac{48}{25}\right)$

Q 28. If $4^{[\log_2 \log_3 (4x+1)]} - \log_3 (4x+1)^6 + 8 = 0$ **and** $x > 4$**, find** $\log_4 (x - 4)$.

(1) 2
(2) 3
(3) 4
(4) 6

Q 29. Ours is a big family. I have thrice as many brothers as sisters and my sister Bharathi has four times as many brothers as sisters. How many children do my parents have?

(1) 15
(2) 16
(3) 21
(4) 20

Q 30. A and B have written an entrance exam and scored 55 marks and 85 marks respectively. Every question answered correctly fetches one mark but the negative marks per wrong answer for the first twenty wrong answers is different from that for the remaining wrong answers. A and B attempted 160 and 150 questions respectively. If A and B correctly answered 50% and of the questions that they attempted respectively, find the negative mark for each wrong answer beyond the first twenty wrong answers.

(1) 1/2

(2) 1/3

(3) 1/4

(4) 2/3

Q 31. A certain sum is invested at simple interest. If the sum becomes *k* times itself in 16 years and 2*k* times itself in 40 years, in how many years will it become 4*k* times itself?

(1) 96 years

(2) 88 years

(3) 80 years

(4) 64 years

DIRECTIONS *for questions 32 to 34:* Answer the questions independently of each other.

Q 32. This year, during the months of January and February, every day Ramu went to a fruit shop and bought three varieties of fruits, such that when any two days are considered, he bought at least one variety of fruit on one of the days that was different from what he bought on the other day. What is the minimum number of different varieties of fruits he could have bought during that period?

(1) 9

(2) 8

(3) 18

(4) 60

(5) 14

Q 33. Little Euclid was playing with a cuboidal box, with a square base, and 14 identical wooden spheres. He observed that he could snugly and perfectly arrange exactly nine of the fourteen spheres at the bottom of the box in a single layer comprising three rows and three columns. He then placed another layer of four spheres, stably and symmetrically on top of the bottom layer (i.e., such that each sphere in the second layer touched exactly four spheres of the bottom layer). Finally he placed the last sphere, stably and symmetrically, on top of the second layer and observed that he could then just close the lid of the box. Find the ratio of the height of the box to the radius of each sphere.

(1) $2\left(2\sqrt{3}-1\right)$

(2) $2\left(\sqrt{2}+1\right)$

(3) $2\left(\sqrt{3}+1\right)$

(4) $3\left(2\sqrt{2}-1\right)$

(5) None of these

Q 34. In a triangle ABC, AB = AC, BC = 6 cm and BE and CF are the medians drawn to AC and AB respectively. If BE ^ CF, then find AC (in cm).

(1) $3\sqrt{10}$

(2) $6\sqrt{5}$

(3) $4\sqrt{10}$

(4) $8\sqrt{5}$

(5) Cannot be determined

Logical & Data Interpretation

DIRECTIONS *for questions 35 to 38:* **Answer the questions on the basis of the information given below.**

Details regarding the Performance of a few top companies during the Financial Year 2003-04

Name of the company	ET500 Rank	Sales (Rs.Cr)	Change in Sales (%)	PAT (Rs.Cr)	Change in PAT (%)	PE	DIV YIELD (%)	EPS (Rs)	Dividend (%)
Dr. Reddy's Laboratories	35	1667.9	11.0	392.0	4.9	19.0	0.5	51.2	100.0
Sun Pharmaceuticals Industries	40	934.0	16.0	265.4	34.3	22.8	0.8	28.6	100.0
Tata Iron and Steel Corporation	17	10166.9	27.6	1586.4	138.3	8.9	2.1	43.0	80.0
Jindal Steel and Power	110	1241.9	43.9	203.2	29.5	7.7	1.2	66.0	125.0
Madras Cements	139	671.7	8.7	33.3	139.7	31.5	0.8	24.6	60.0
Gammon India	209	1014.1	56.9	27.2	21.4	22.2	0.6	19.8	25.0
Hero Honda Motors	28	5381.5	4.7	666.0	14.0	14.7	3.7	33.4	900.0
TVS Motor Company	88	2762.4	5.5	134.1	18.4	14.8	1.4	5.8	120.0
Oil and Natural Gas Corporation	1	36175.8	27.5	10356.5	21.9	11.6	3.6	72.6	300.0
Hindustan Petroleum Corporation Ltd.	13	56680.5	13.9	2011.0	51.4	8.6	3.9	59.3	200.0
Satyam Computer Services	26	2359.3	21.4	379.0	–9.3	24.5	1.0	12.0	150.0
HCL Technologies	34	998.3	28.2	360.9	8.6	21.4	1.6	11.6	200.0
HCL Infosystems	86	1756.4	–0.3	112.7	241.6	20.8	1.5	31.9	100.0
Hughes Software	91	321.7	49.9	69.9	89.9	25.0	0.4	20.8	40.0
Hinduja TMT	150	148.5	58.8	75.6	21.3	11.0	3.4	18.5	70.0

Note:

- Change in Sales (%) = Change in sales from 2002-03 to 2003-04 as a percentage of sales in 2002-03.
- Change in PAT (%) = Change in PAT from 2002-03 to 2003-04 as a percentage of PAT in 2002-03.
- $PE = \dfrac{\text{Market value per share (in Rs.)}}{\text{EPS (in Rs.)}}$
- DIV YIELD (%) = Dividend per share (in Rs.) as a percentage of market value per share.
- Dividend (%) = Dividend per share (in Rs.) as a percentage of par value per share.
- NPM (%) = PAT as percentage of sales.

Q 35. For how many of the companies given above, is the market value per share greater than Rs.500 but less than Rs.1,000?

(1) 4
(2) 6
(3) 7
(4) 8

Q 36. For how many of the companies given above, is the dividend per share more than Rs.10?

(1) 2
(2) 3
(3) 4
(4) 6

Q 37. Which of the following companies has the highest NPM% in the year 2003-04?

(1) Hinduja TMT
(2) Oil and Natural Gas Corporation
(3) HCL Technologies
(4) Jindal Steel and Power

Q 38. Which company experienced the maximum growth in sales in 2003-04 over that in 2002-03?

(1) Jindal Steel and Power Ltd.
(2) Hindustan Petroleum Corporation Ltd.
(3) Oil and Natural Gas Corporation
(4) Hinduja TMT

DIRECTIONS for questions 39 to 42: Answer the questions on the basis of the information given below.

In Rangeela land, there are only three types of people: Lalpilas, Pilharas and Haralals. Lalpilas always get confused between red and yellow (i.e. they see yellow as red and vice versa.) and can see any other colour properly. Pilharas always get confused between yellow and green and can see any other colour properly and Haralals always get confused between red and green and can see any other colour properly.

Q 39. Three persons Amar, Akbar and Anthony, who belong to Rangeela land made the following statements.

Amar : Gabbar Singh is wearing a green shirt. Akbar : Gabbar Singh is not wearing a yellow shirt. Anthony : Gabbar Singh is wearing a red shirt.

If none of them is a Haralal, then what is the colour of Gabbar Singh's shirt?

(1) Red

(2) Yellow

(3) Green

(4) Cannot be determined

Q 40. Two persons - Dhiraj and Suraj, of Rangeela land made the following statements.

Dhiraj : Feroz is wearing a red hat. Feroz is wearing a yellow shirt.
Suraj : Feroz is wearing a red hat. Feroz is wearing a green shirt.
Suraj is a

(1) Lalpila

(2) Pilhara

(3) Haralal

(4) Such a conversation is not possible.

Q 41. Veeru is a

(1) Lalpila

(2) Pilhara

(3) Haralal

(4) Cannot be determined

Q 42. What is the colour of Basanti's saree?

(1) Green

(2) Red

(3) Yellow

(4) Cannot be determined

DIRECTIONS *for questions 43 to 46:* **Answer the questions on the basis of the information given below.**

The table gives some information about the points scored by Arjun in AHC (All Hastin Championship), in five different mind games - Dice, Dance, Dupe, Digit and Dynasty.

Game	Total Problems	Problems Attempted	Successful Attempts	Failures	Net Score
Dice	35	29			
Dance	30				
Dupe	35	17		6	
Digit	40				11
Dynasty	45		30		

It is also known that,

vi.   For every successful attempt Arjun gets one point and for every unattempted problem he loses 1/6th of a point and for every failure he loses 1/3rd of a point.

vii.   Arjun scored a total of 67 points and attempted 125 problems.
viii.   The number of failures of Arjun in Digit is 1/6th of his total failures and is double of that in Dance.
ix. Arjun's net score in Dance is double that in Dupe.

Q 43. What is the total number of failures of Arjun in the competition?

(1) 24
(2) 30
(3) 36
(4) 42

Q 44. In which of the following mind games does Arjun have the maximum number of failures?

(1) Dice
(2) Dupe
(3) Digit
(4) Dynasty

Q 45. What is the number of problems attempted by Arjun in Dance?

(1) 12
(2) 15
(3) 18
(4) 21

Q 46. What is the net score of Arjun in Dynasty?

(1) 21
(2) 22
(3) 24
(4) 26

DIRECTIONS *for questions 47 to 50:* **Answer the questions independently of each other.**

Q 47. Each of companies A, B and C - have a tradition of rewarding their employees with a bonus, once every year, during Ramzan, Christmas or Deepavali. For each company every year the bonus is paid during the same time. Use the clues below to answer the following question.

(a) For no two companies is either the amount of bonus paid or the time of the year when bonus is paid the same

(b) Company B distributes bonus during Deepavali.

(c) The company that gives Rs.5,000 as bonus is in the manufacturing sector.

(d) Company, A distributes bonus during Christmas.

(e) The company that gives a bonus of Rs.10,000 is not in the IT sector.

(f) The company that gives bonus for Ramzan gives Rs.5,000.

(g) The company that gives bonus for Christmas gives Rs.12,000 as bonus.

Which of the following is true?

(1) Company A gives a bonus of Rs.12,000 for Christmas, company B gives a bonus of Rs.5,000 for Deepavali and Company C gives a bonus of Rs.10,000 and is in the IT sector.

(2) Company B gives a bonus of Rs.10,000 and is in the finance sector. Company C gives a bonus of Rs.5,000 during Ramzan and company A gives a bonus of Rs.12,000 and is in the manufacturing sector.

(3) Company A gives a bonus of Rs.12,000 and is in the finance sector. Company B gives a bonus of Rs.5,000 during Deepavali and company C gives a bonus of Rs.10,000 and is in the IT sector.

(4) Company B gives a bonus of Rs.10,000 for Deepavali. Company C gives a bonus of Rs.5,000 and is in the manufacturing sector. Company A gives a bonus of Rs.12,000 and is in the IT sector.

Q 48. Seven people, A through G, sit in a row (not necessarily in the same order). Exactly three people sit between A and G, while exactly three people sit between B and E. Exactly four people sit between C and E, while exactly four people sit between D and G. Exactly two people sit between B and D, while exactly two people sit between C and A. Given that either B or A sits to the immediate right of D, then who sits exactly at the middle of the row?

(1) C
(2) B
(3) F
(4) Cannot be determined

Q 49. According to probability theory, when a normal dice is thrown a large number of times, the probability of each number turning up will be 1/6. A group of friends decided to try this and got the following results after 50 tries:
All numbers were obtained at least once.
The number of 1's obtained was an even number.

The number of 2's obtained was equal to the number of 5's obtained. The number of 3's obtained was five times the number of 1's obtained. Exactly six 4's were obtained.

The number of six's obtained was twenty-two, which was the highest among all the numbers obtained.
What was the total number of odd numbers obtained?

(1) 22
(2) 17
(3) 25
(4) 18

Q 50. Four friends Ashwath, Charan, Karthik and Srinivas are nicknamed Essi, KK, Kit and Maha, not necessarily in that order.
(i) Karthik is stronger than Essi but can't run as fast as Kit.
(ii) Essi is stronger than Ashwath but weaker than KK.
(iii) Srinivas is faster than Karthik and slower than Maha but weaker than Essi.
Who is nicknamed Maha?

(1) Karthik

(2) Ashwath

(3) Charan

(4) Srinivas

DIRECTIONS *for questions 51 to 54:* **The questions given below are followed by two statements, I and II. Study the information given in the two statements and assess whether the statements are sufficient to answer the questions and choose the appropriate option from among the choices given below.**

Q 51. Did more than 50 employees leave Company A in the year 2002? I. At the start of 2002, the difference between the number of male and female employees in company A is 90.
II. By the end of 2002, the total number of employees in company A is 50.

(1) Statement I alone is sufficient and statement II alone is not sufficient to answer the question.

(2) Statement II alone is sufficient and statement I alone is not sufficient to answer the question.

(3) Statements I and II together are sufficient but neither statement alone is sufficient to answer the question.

(4) Both statements I and II together are not sufficient to answer the question and additional data, specific to the problem, is needed.

Q 52. Six persons - Irfan, Jagan, Karan, Lala, Manoj and Niran - participated in a race in which every participant finished in a different time. At least two persons finished before Jagan. The number of persons who finished before Lala is same as the number of persons who finished after Niran. Irfan finished before Manoj. Who finished the race in second position?

I.   Manoj finished the race in third position.
II.   Only Lala finished the race after Karan.

(1) Statement I alone is sufficient and statement II alone is not sufficient to answer the question.

(2) Statement II alone is sufficient and statement I alone is not sufficient to answer the question.

(3) Statements I and II together are sufficient but neither statement alone is sufficient to answer the question.

(4) Both statements I and II together are not sufficient to answer the question and additional data, specific to the problem, is needed.

Q 53. M and N are the father and mother of P respectively. P has four uncles and three aunts. None of the siblings of M and N are married. N has two siblings. How many sisters does M have?
I. N has two brothers.
II. M has a total of 5 siblings.

(1) Statement I alone is sufficient and statement II alone is not sufficient to answer the question.

(2) Statement II alone is sufficient and statement I alone is not sufficient to answer the question.

(3) Statements I and II together are sufficient but neither statement alone is sufficient to answer the question.

(4) Both statements I and II together are not sufficient to answer the question and additional data, specific to the problem, is needed.

Q 54. When J and K run a race, J beats K by 20 seconds. When K and L run the same race, K beats L by 40 seconds. Find the speed of K (in m/s).
I. J beats L by 250 m.
II. The length of the race track is 1 km.

(1) Statement I alone is sufficient and statement II alone is not sufficient to answer the question.

(2) Statement II alone is sufficient and statement I alone is not sufficient to answer the question.

(3) Statements I and II together are sufficient but neither statement alone is sufficient to answer the question.

(4) Both statements I and II together are not sufficient to answer the question and additional data, specific to the problem, is needed.

DIRECTIONS *for questions 55 to 57:* **Answer the questions on the basis of the information given below.**

The table below gives details of all the models of cars at a car rental agency.

Model	Manufacturer	Classification	Engine Capacity (in cc.)	Plus Points of the Car	Minus Points of the Car
M800	Maruti	Entry Level	< 1000	Price, Fuel efficiency	Comforts, Space
Zen	Maruti	Small	1000 – 1300	Service, Fuel efficiency	Comforts, Space
Santro	Hyundai	Small	1000 – 1300	Price, Fuel efficiency	Design, Space
Ikon	Ford	Mid Size	1301 – 1500	Technology, Comforts	Service, Fuel efficiency
City	Honda	Mid Size	1301 – 1500	Technology, Comforts	Design, Price
Optra	General Motors	Executive	1501 – 1800	Comforts, Price	Engine, Fuel efficiency
Corolla	Toyota	Executive	1501 – 1800	Engine, Comforts	Design, Price
Accord	Honda	Luxury	1800+	Price, Space	Design, Fuel efficiency
C-Class	Mercedes	Luxury	1800+	Technology, Safety	Space, Price
Swift	Maruti	Mid Size	1301 – 1500	Design, Technology	Space, Price
Octavia	Skoda	Executive	1501 – 1800	Fuel efficiency, Price	Space, Service
Lancer	Mitsubshi	Executive	1501 – 1800	Price, Service	Technology, Comforts
Wagon R	Maruti	Small	1000 – 1300	Technology, Service	Design, Space
Camry	Toyota	Luxury	1800+	Space, Technology	Price, Fuel efficiency
Alto	Maruti	Entry Level	< 1000	Price, Fuel efficiency	Space, Comforts
Fiesta	Ford	Mid Size	1301 – 1500	Technology, Price	Space, Comforts
E-Class	Mercedes	Luxury	1800+	Technology, Comforts	Price, Fuel efficiency
Vectra	General Motors	Luxury	1800+	Technology, Comforts	Design, Space
Mondeo	Ford	Luxury	1800+	Engine, Comforts	Price, Service
Baleno	Maruti	Executive	1501 – 1800	Price, Service	Design, Comforts

The agency has three major clients - companies A, B and C - which regularly source cars from the agency. The specifications of cars required by each company are given below.

Company A: *Any car with an engine capacity of more than 1300 cc. and with comforts or space as one of the plus points.*

Company B: *All cars with a classification up to executive level (i.e., entry level, small, mid size and executive level) with good fuel efficiency (i.e., fuel efficiency must be one of the plus points of the car).*

Company C: *Any car for which space or fuel efficiency is not one of its minus points.*

Q 55. If the agency has only one car of each model and Honda City and Toyota Corolla have already been sent to company A, then which of the following models of cars can be sent to company C?

(1) Lancer
(2) Mondeo
(3) Baleno
(4) All of the above
(5) None of the above

Q 56. Which of the following models of cars cannot be sent to any of the three companies?

(1) M800, Ikon, C-class, Wagon R
(2) Swift, Wagon R, C-class, Fiesta
(3) Swift, Alto, Fiesta, Baleno
(4) Zen, Santro, Wagon R, Fiesta
(5) Wagon R, Fiesta, Alto, Baleno

Q 57. How many different models of cars can be sent to more than one of the three companies?

(1) 5
(2) 4
(3) 6
(4) 2
(5) 3

At the finals of the "Gaana Sunao" contest, which was conducted all over India, five contestants - C_1, C_2, C_3, C_4 and C_5 - participated. Before the announcement of the results, six mischievous persons - Azad, Bose, Chand, Dev, Ehsaan and Fardeen - managed to get hold of the result sheet, which contained the scores of each of the five participants. Each of the six persons then decided to announce the sum of the final scores of exactly four contestants. So, Azad, Bose, Chand, Dev, Ehsaan and Fardeen announced their sums as 220, 260, 230, 240, 210 and 250 points respectively. However, one of them made a mistake in adding the scores. Also, the organizers of the contest decided to award an amount of Rs.10,000 for each point that a contestant scored. The score of each contestant is an integral value.

Q 58. If the exact scores of the contestants C_1, C_2, C_3, C_4 and C_5 are *a, b, c, d* and *e*, in no particular order, then how many of these five scores can be determined?

(1) 0
(2) 1
(3) 2
(4) 3
(5) 4

Q 59. What is the highest possible amount that any of the five contestants can be eligible for?

(1) Rs.7 lakh
(2) Rs.7.5 lakh
(3) Rs.8 lakh
(4) Rs.8.5 lakh
(5) Rs.9 lakh

Q 60. If one of the contestants is eligible for Rs.5 lakh, then what is the total amount that the organizers have to give away to all the five contestants put together?

(1) Rs.30 lakh
(2) Rs.29.5 lakh
(3) Rs.29 lakh
(4) Rs.28.5 lakh
(5) Cannot be determined

Q 61. If two of the contestants put together are eligible to receive exactly Rs.15 lakh, then who among the following could have made the mistake while adding the scores?

(1) Bose
(2) Chand
(3) Dev
(4) Ehsaan
(5) None of these

DIRECTIONS *for questions 62 to 64:* Answer the questions on the basis of the information given below.

DETAILS OF STUDENTS OF FOUR COLLEGES

Name of the college	Number of boys as a percentage of number of girls passed	Percentage of boys	Percentage of students who passed	Number of students failed	Number of sportsper as a percentage sportsmen
A	60%	50%	80%	200	$112\frac{1}{2}\%$
B	75%	60%	60%	280	125%
C	100%	55%	70%	240	$133\frac{1}{3}\%$
D	140%	60%	50%	300	100%

Q 62. For how many colleges is the number of students passing more than the average number of students passing from all the colleges?

(1) 0
(2) 1
(3) 2
(4) 3
(5) 4

Q 63. In the college C, if there are 30 girls who are sportspersons, what percentage of the students are not sportspersons?

(1) 60%
(2) 75%
(3) 85%
(4) 80%
(5) Cannot be determined

Q 64. In which institute is the number of sportspersons the least?

(1) A
(2) C
(3) D
(4) B
(5) Cannot be determined

DIRECTIONS *for questions 65 and 66:* **Answer the questions on the basis of the information given below.**

(A) Each of the eight students Akash, Balu, Chakri, Diren, Ehsaan, Fatima, Giri and Hari, is of a different height. All of them are standing in a row in the increasing order of their heights such that the shortest person is at the extreme left. Three of them are from 1st standard, three from 2nd standard and two from 3rd standard.

(B) Akash, the second tallest, is not from 1st standard and Balu, who is the fourth tallest is from 2nd standard.
(C) Ehsaan is from 2nd standard but Chakri is not from 3rd standard.
(D) Hari is taller than Giri but shorter than Balu, while Diren is shorter than Akash.
(E) Chakri is shorter than Giri but taller than Fatima.
(F) Neither the shortest nor the second shortest is from 1st standard.

Q 65. Which of the following statements is definitely true?

(1) Each 2nd standard student is next to at least one 3rd standard student.
(2) Each 3rd standard student is next to at least one 2nd standard student.
(3) No two students of the same standard are adjacent to each other.
(4) All the above
(5) None of the above

Q 66. Which two students from the same standard are adjacent to each other?

(1) Hari and Balu
(2) Balu and Giri
(3) Giri and Hari
(4) Chakri and Balu
(5) None of these

Verbal Ability

DIRECTIONS *for questions 67 to 71:* Read the following passage and answer the questions that follow it.

We all know boys who love trains, fire trucks, tools of all kinds, throwing balls, catching balls, spinning until they fall down, chasing cats, tackling dogs, emptying the kitchen drawers of their contents, riding a tricycle, riding a carousel, pretending to be a farmer, pretending to be a cow, dancing, drumming, digging, hiding, seeking, jumping, shouting, and collapsing exhausted into bed wearing Spiderman pajamas after watching a Spiderman cartoon feature.

That doesn't make them unusual; in fact, in many ways, they couldn't be more typical. Which may be why we hear people say "He's definitely all boy." It's a statement that sounds reasonable enough until you think about it. What does "all boy" mean? Masculine? Straight? Something else? Are there partial boys? And what of the fondness some boys have for sunsets and flowers and butterflies?

These are the kinds of questions asked by anxious parents and, increasingly, academic researchers. Much of the focus so far has been on boys falling behind academically, paired with the notion that school is not conducive to the way boys learn. What motivates boys, one argument goes, is different from what motivates girls, and society should adjust accordingly. Others argue that such stereotypical thinking miscasts boys as victims and ignores the very real problems faced by girls. This debate is far from settled and has, in fact given rise to a host of deeper, more philosophical issues, all of which can be boiled down, more or less, to a single question: Just what are boys, anyway?

One of the first so-called boys' books is Michael Gurian's The Wonder of Boys. Since its publication in 1996 it has sold more than half-a-million copies, and Gurian, who has a master's degree in writing and has worked as a family counsellor, has become a prominent speaker and consultant on boys' issues. Drawing on neuroscience research done by others, Gurian argues that boy brains and girl brains are fundamentally dissimilar, and that boys are hard-wired to desire a sense of mission. In the nature versus nurture debate, Gurian comes down squarely on the side of the former, and advises that parents and teachers need to understand "boy biology" if they want to help young men succeed. He catches flak in various quarters, however, for supposedly over interpreting neuroscience data to comport with his theories – such as the one that female brains are active even when they're bored, while male brains tend to "shut down". Gurian counters that his work has been misrepresented and that the success of his programs backs up his scientific claims.

Close on Gurian's heels was Real Boys, by William Pollack, an associate clinical professor of psychology at Harvard Medical School. He writes that behind their facade of toughness, boys are

vulnerable and desperate for emotional connection, but are more likely to express empathy and affection through an activity, like playing together, than having a heart-to-heart talk. Pollack's view of what makes boys the way they are is less rooted in biology than Gurian's. "What neuroscientists will tell you is that nature and nurture are bonded," says Pollack. "How we nurture from the beginning has an effect."

The following year, Raising Cain, by Dan Kindlon, an adjunct lecturer in Harvard's School of Public Health, and Michael Thompson, a psychologist in private practice, was published. Their book ends with seven recommendations for dealing with boys, including "recognize and accept the high activity level of boys and give them safe boy places to express it." The book is partially about interacting with boys on their own terms, but it also encourages adults to help them develop "emotional literacy" and to counter the "culture of cruelty" among older boys. It goes beyond academic performance, dealing with issues like suicide, bullying, and romance.

Perhaps the most provocative book of the bunch is The War Against Boys: How Misguided Feminism Is Harming Our Young Men, by Christina Hoff Sommers. As the subtitle suggests, Sommers believes that she's found the villain in this story, making the case that it's boys, not girls, who are being short-changed and that they need significant help if they're going to close the distance academically. But that does not mean, according to Sommers, that they "need to be rescued from their masculinity."

Those books were best sellers and continue to attract readers and prompt spirited debate. While the authors disagree on the details, they share at least two broad conclusions: (1) Boys are not girls, and (2) Boys are in trouble. Why and how they're different from girls, what's behind their trouble, and what if anything to do about it-all that depends on whom you read.

Q 67. In this passage, the author raises questions and goes on to

(1) indicate that we will never really know the answers.
(2) analyse the answers that different writers provide.
(3) bring out the shortcomings in the answers that different writers provide.
(4) present the answers that different writers provide.

Q 68. The author presents, at the end of paragraphs 2 and 3 respectively, 2 questions - "And what of...." and "Just what are...". Which of the following questions would these 2 questions originate from?

(1) Are interests gender specific?
(2) Are boys predictable?
(3) How should boys be dealt with as they grow?
(4) How are boys different from girls?

Q 69. In the passage, who, among the 4 writers, implies or makes suggestions on how to deal with boys?

(1) All four
(2) Sommers, Gurian and Kindlon
(3) Kindlon and Gurian
(4) Pollack and Gurian

Q 70. Which of the following statements appropriately represents information or thoughts provided in the passage?

(1) Pollack and Sommers both feel that the inherent nature of boys must be taken into account as we help them develop.
(2) While Pollack feels that the way boys are brought up contributes to the way they are, Kindlon feels that they should be dealt with as they are.
(3) Pollack and Kindlon both feel that boys lack emotional understanding.
(4) While Gurian feels that boys should be dealt with as they are, Sommers feels that everything depends on the way they're brought up.

Q 71. Which one of the following is NOT representative of a hypothesis that is referred to in the passage?

(1) Though seemingly tough, boys do seek to connect with others emotionally, particularly through activities such as play.
(2) The level of mental activity in boys is directly related to their perception of external situations and circumstances.
(3) Boys have naturally high activity levels, and can make use of and display these in all circumstances.
(4) Excessive attention to girls can mean that boys do not get as much as they need.

DIRECTIONS *for questions 72 to 76:* **Each question has a set of sequentially ordered statements. Each statement can be classified as one of the following.**

 - <u>Facts</u>, **which deal with pieces of information that one has heard, seen or read, and which are open to discovery or verification (the answer option indicates such a statement with an 'F').**

- <u>Inferences</u>, **which are conclusions drawn about the unknown, on the basis of the known (the answer option indicates such a statement with an 'I').**

- <u>Judgements</u>, **which are opinions that imply approval or disapproval of persons, objects, situations and occurrences in the past, the present or the future (the answer option indicates such a statement with a 'J').**

Select the answer option that best describes the set of statements.

Q 72. (A) The present government has avowed goals to reduce poverty and stimulate development.

(B) The Prime Minister has acknowledged the need for focussed investment in science and technology by announcing a doubling of related spend in terms of percentage of GDP over the next couple of years.

(C) Parliament's approval for the creation of a National Science and Engineering Research Board, responsible for funding and furthering scientific research, is laudable and a significant step in the right direction.

(D) The Human Resource Development Ministry's efforts to improve the higher education system and the establishment of five new Indian Institutes of Science Education and Research in the past three years should provide a vital boost to the cause of scientific research in India.

(1) FFJI

(2) FIJI

(3) FIII

(4) JFFJ

Q 73. (A) During the 1990s, there was a spurt in demand in areas that suited the economic reforms and a tendentious turn towards professional employment in the spheres of medical and engineering education, business and hotel management, housing, tourism etc.

(B) Inevitably, higher education became part of industrial growth - hence an industry in itself.

(C) The demands began multiplying and government agencies were hard put to respond to such needs.

(D) The deemed universities became the "ready to respond" tools to such demands and their growth increased.

(E) It was not an organized and wholesome growth, the focus was on quantity and not quality.

(1) FJIIJ

(2) FIFJJ

(3) JFJFJ

(4) FJFFJ

Q 74. (A) As cinema screens open every other month in malls across the country, cinema hall owners have to offer more than just movies to set them apart.

(G) When PVR Cinemas opened its first multiplex in Delhi, it revolutionised the way we watched movies.

(H) About a decade later, while single-screen theatres in the nation's capital are all but extinct, multiplexes have opened in virtually every major
shopping mall.

(1) Clearly, the future of movie-watching is multiplexes.

(2) With the number of multiplex chains steadily increasing, the age-old question of product differentiation is becoming essential to the business.

(1) IJFJI

(2) IFFJI

(3) FJIFJ

(4) IJFFJ

Q 75. (A) In the run-up to every general election it has become a ritual for Labour and the Tories to try and outdo each other in courting the sensation-mongering *Sun.*

(B) On the eve of 1997 elections, Tony Blair famously flew half way round the world to meet media-baron Rupert Murdoch to seek his blessings.

(C) And, lo and behold, within days the Sun was shining on him - switching support from the Tories to New Labour enabling the paper, later, to claim credit for the party's landslide victory.

(D) In return for its backing, Mr. Blair effectively hypothecated his government's policies to the Murdoch press.

(E) Much of his Europe agenda, especially the decision to drop the election pledge of a referendum on joining the euro, was driven by his deal with Mr. Murdoch.

(1) JJJJJ

(2) JFIJJ

(3) FIIJJ

(4) JJJFF

Q 76. (A) Just like last year, India has ranked abysmally low in the 2009 gender gap survey conducted by the World Economic Forum.

(B) Indeed, India slipped one position to 114 out of 134 countries, with most indicators, suggesting that conditions for women have worsened rather than improved over the past year.

(C) High economic growth and an increased level of development should have improved the lot of women.

(D) The educational attainment sub-index makes for depressing reading, with almost a quarter of a billion Indian women lacking the basic capacity to read and write.

(E) India ranks remarkably high in the political empowerment sub-index, a result perhaps of a record number of women politicians having been elected to the current Lok Sabha.

(1) FFJJI

(2) JIFFI

(3) FFJJJ

(4) FFJII

On August 23, 1989, officials from the newly reformed and soon-to-be-renamed Communist Party of Hungary ceased policing the country's militarised border with Austria. Some 13,000 East Germans, many of whom had been vacationing at nearby Lake Balaton, fled across the frontier to the free world. It was the largest breach of the Iron Curtain in a generation, and it kicked off a remarkable chain of events that ended 11 weeks later with the righteous citizen dismantling of the Berlin Wall.

Twenty years later, the anniversary of that historic border crossing was noted in exactly four American newspapers, according to the Nexis database, and all four mentions were in reprints of a single syndicated column. August anniversaries receiving more media play in the U.S. included the 400th anniversary of Galileo building his telescope, the 150th anniversary of the first oil well, and the 25th anniversary of Teenage Mutant Ninja Turtles. A Google News search of "anniversary" and "freedom" on August 23, 2009, turned up scores of Woodstock references before the first mention of Hungary.

Get used to it, if you haven't already. November 1989 was the most liberating month of arguably the most liberating year in human history, yet two decades later the country that led the Cold War coalition against communism seems less interested than ever in commemorating, let alone processing the lessons from, the collapse of its longtime foe. At a time that fairly cries out for historical perspective about the follies of central planning, Americans are ignoring the fundamental conflict of the postwar world.

The consensus Year of Revolution for most of our lifetimes has been 1968, with its political assassinations, its Parisian protests, and a youth-culture rebellion that the baby boomers will never tire of telling us about. But as the pre-eminent modern Central European historian Timothy Garton Ash wrote in a 2008 essay, 1989 "ended communism in Europe, the Soviet empire, the division of Germany, and an ideological and geopolitical struggle…that had shaped world politics for half a century." Without the superpower conflict to animate and arm scores of proxy civil wars and brutal governments, authoritarians gave way to democrats in Johannesburg and Santiago, endless war was replaced by enduring peace in Central America, and nations that had never enjoyed self-determination found themselves independent, prosperous, and integrated into the West. "It was", continues Garton, "in its geopolitical results, as big as 1945 or 1914. By comparison, '68 was a molehill." Perhaps '68 still gets all the headlines
because it happened to more people in the West.

There was much more that changed. The abject failure of top-down central planning as an economic organizing model had a profound impact even on the few communist governments that survived the '90s. Vietnam, while maintaining a one-party grip on power, launched radical market reforms in 1990, resulting in some of the

world's highest economic growth in the last two decades. Cuba, economically desperate after the Soviet spigot was cut off, legalized foreign investment and private commerce. And in perhaps the single most dramatic geopolitical story in recent years, China, the country that most symbolized state repression in 1989 has used capitalism to pull off history's most successful anti-poverty campaign.

Perhaps the least appreciated benefits of the Cold War's end have been those enjoyed (if not always consciously) by the side that won. Up until 1989, mainstream Western European political thought included a large and unhealthy appetite for governments owning the means of production. For instance, French President Francois Mitterand nationalized wide swaths of France's economy upon taking office in 1981. By the time the Berlin Wall fell, it was the rule, not the exception, that Western European governments would own all their country's major airlines, phone companies, television stations, gas companies, and much more.

No longer. In the long fight between Karl Marx and Milton Friedman, even the democratic socialists of Europe had to admit that Friedman won in a landslide. Although media attention was rightly focused on the dramatic economic changes transforming Asia and the former East Bloc, fully half of the world's privatisation in the first dozen years after the Cold War, as measured by revenue, took place in Western Europe. European political and monetary integration has turned out to be one of the biggest engines for economic liberty in modern history. It was no accident that, in the midst of Washington's illegal and ill-fated bailout of U.S. automakers, Swedish Enterprise Minister Maud Olofsson, when asked about the fate of struggling Saab, tersely announced, "The Swedish state is not prepared to own car factories."

With no Cold War to prod it, the United States, at least as represented by its elected officials and their economic policies, is no longer leading the global fight for democratic capitalism as the most proven path to human liberation. You are more likely to see entitlement reform in Rome than in Washington (where, against the global grain, the federal government is trying to extend its role) Ironically, the one consistent lesson U.S. officials claim to have learned about the Cold War is the one that has the least applicability outside the erstwhile East Bloc: that aggressive and even violent confrontation with evil regimes will lead to various springtimes for democracy. It is telling that the victors of an epic economic and spiritual struggle take away conclusions that are primarily military. Telling, and tragic.

Q 77. We can infer, when the author tells us that the 20th anniversary of the Hungarian border crossing was paid less attention than various other anniversaries, that he feels

(1) that it wasn't as significant an event as it first seemed.

(2) that the telescope, the oil well, Ninja Turtles and Woodstock, are more relevant to life today than that crossing was.

(3) that the west is gradually forgetting the Cold War.

(4) that the west is forgetting the significance of the end of the Cold War.

Q 78. Which one of the following is NOT among Garton's thoughts about 1989?

(1) It was a year when a long-running conflict between credos ended.
(2) It was a year when a nation was re-united with its neighbour.
(3) It was a year as important 1914 and 1945.
(4) It was a year when Soviet power was dismantled.

Q 79. Which of the following does the author feel is a post-Cold War lesson that America may have learnt?

(1) That, under certain circumstances, democracy can be born out of aggression.
(2) That democratic capitalism is the most proven path to human liberation.
(3) That the State must play a greater role in the support of private enterprise.
(4) That without superpower conflict, the world is actually more peaceful.

Q 80. Which of the following does the author feel is a post-Cold War lesson that America has not learnt?

(1) That the capitalist method can be applied even in rigidly controlled economies.
(2) That radical economic reform can result in spectacular growth rate.
(3) That there are inadequacies in the system of central planning.
(4) That State ownership of enterprise is fraught with risk.

Q 81. The author uses the word 'telling' twice, towards the end of the last paragraph, in describing a situation. What does he mean to convey with the use of this word?

(1) The situation is indicative of the priorities of the U.S. administration.

(2) The U.S. administration and its officials have not looked beyond the situation that was apparent to them.

(3) The U.S. administration recognised that the situation was relevant only to the erstwhile East bloc.

(4) That political and military strength are the priorities of the U.S. administration.

DIRECTIONS *for questions 82 to 86:* **Each of the following questions has a paragraph from which the last sentence has been deleted. From the given options, choose the one that completes the paragraph in the most _appropriate_ way.**

Q 82. The possibilities are truly unimaginable especially because we do not yet really understand the mysterious, boundless quality of this unique form of power. Knowledge inhabits a more ethereal realm with principles we are only now coming to grasp and

purposes we can only imagine. Unlike other resources we are accustomed to, information is a fluid that constantly alters as it moves, increasing as it interacts and overflows as it crosses boundaries. Unlike other raw materials, knowledge can't be used up.

(1) Strangely, the more you dispense, the more you generate.

(2) Not surprisingly, it dazzles our imagination and taps talent that is limitless and especially powerful.

(3) Predictably, the more you give, the more you get.

(4) Therefore, forced by the necessity to cope with a complex new era, countries will become a storehouse of knowledge.

Q 83. Meat grown in a petri dish? Sounds like science fiction, but it isn't. Scientists at Windhaven University in the Netherlands have grown invitro meat using cells from a live pig to replicate growth in a petri dish. They haven't been able to actually taste the pork they have grown because of lab rules. Nevertheless, there's potential here for some huge benefits.

(1) It would not only lead to a ban on killing animals for food, but strengthen the measures to fight poaching.

(2) If meat can be grown in the lab rather than in farms, then people need not make sacrifices for the sake of Mother Earth.

(3) They can, so to say, have their rack of lamb and eat it too.

(4) It could mean not only an end to killing animals for food, but also a significant saving of energy on maintaining abattoirs.

Q 84. The question of economic growth is thrown into further confusion by the methods used to measure it. Fundamentally, economics is myopic. It measures reality by its current market price. The intrinsic value of real things, their essential character which remains unchanged even when their price on the market fluctuates, is not an issue to the economist. He is like Oscar Wild's cynic.

(1) Someone who is consigned permanently to the present, spurring both the past and the future.

(2) Someone, who knows the price of everything and value of nothing.

(3) Someone, who basks in the glories of growth unmindful of the cost.

(4) Someone, who worships price and assumes that 10% richer in monetary terms is 10% richer in happiness.

Q 85. Recent studies show exploratory play - the restless, unstoppable drive to push every button and pull every string- helps children discover how the physical world works. Their equally unstoppable "pretend" play - the parade of alternate identities, imaginary friends and wild fantasies - helps them work out all the possible ways that people would be. The picture that emerges from this research is that babies and young children are not so much defective as different from adults. They have equally

complex and powerful, but very different minds and brains, suited to their distinctive evolutionary role. Babies are brilliant learners but terrible planners. They have fantastically creative and visionary imaginations, but absolutely no executive capacity.

(1) So, human development is more like reverse metamorphosis than simple growth.

(2) Little wonder then, that they make adults dance to their tunes.

(3) They are the R & D guys and adults are the CEOs.

(4) So, child indeed is the father of man.

Q 86. How different our lives are when we really know what is deeply important to us, and keeping that picture in mind, we manage ourselves each day by the way we want to be and do what really matters most. If the ladder is not leaning against the right wall, every step we take just gets us to the wrong place faster. We may be very busy. We may be very efficient.

(1) But we will be truly effective only when we begin with the end in mind.

(2) And we may gain new perspectives.

(3) Perhaps fame, achievement, money, or some of the other things we strive for are not part of the wall.

(4) But, if we are not focussed, success will always elude us.

DIRECTIONS *for questions 87 to 91:* **Read the following passage and answer the questions that follow it.**

Even though the individual members of every race may be much the same, human societies differ considerably in their levels of technology and organization. Some societies, like those of New Guinea, are just emerging from the Stone Age cultures, while others, like those of Finland or Taiwan, are highly educated and lead in manufacturing sophisticated goods for the global economy. Is the difference solely because New Guineans were dealt a bad hand in items of geography and resources, or could there be some genetic difference, may be in the nature of sociality, that helped keep New Guineans and others in the Stone Age while propelling other peoples on a quite different trajectory?

Jared Diamond of the University of California, Los Angeles, has advocated a geographical answer to this question. In his book Guns, Germs, and Steel he argues that because more domesticable species of plant and animal existed in Eurasia, agriculture got started there first, giving Europeans a head start in economic development. Accustomed to living in crowded environments, Europeans built up immunity to many diseases, including those contracted from their domestic animals, such as influenza, measles and smallpox, and these diseases were devastating to non-urban peoples on other continents.

In Diamond's view it was the economic head start and the germs, not any inherent difference in abilities, that enabled Europeans to conquer other peoples. "History", he says, "followed different

courses for different peoples because of difference among peoples' environments, not because of biological differences among peoples themselves".

As Diamond explains, having spent many years studying the birds of New Guinea, he came to know the inhabitants well and was impressed with their evident intelligence. New Guineans, in Diamond's view, are probably more intelligent than Westerners, and the reason, he says, is genetic. The chief selective pressure on Westerners was the need to acquire resistance to the disease rampant in their crowded communities, whereas in New Guinea, where the chief cause of death is war, murder or starvation, one needed one's wits to survive; "in mental ability New Guineans are probably genetically superior to Westerners."

But if the New Guineans had the smarts, why was it the dumber, disease ridden Westerners who figured out how to escape from the deadening cycle of Stone Age tribalism and perpetual warfare, a problem the New Guineans never cracked? Because Westerners lucked out in their geography, Diamond argues. Eurasia had a greater absolute number of plant and animal species and more of them proved suitable for domestication.

The Chinese lost their technological edge, also for a geographical reason, in Diamond's view: the connectedness of the Chinese mainland allowed one ruler to dominate and make irreversible errors, like destroying the Chinese fleet, whereas in Europe, with its balkanisation and competing statelets, diversity thrived and the best had a better chance of winning out. By colonial times, this left Europeans as the winners, thanks to their superior geography.

Single cause explanations generally make historians roll their eyes but the boldness and ingenuity of Diamond's thesis certainly puts geography more on the map than it was before. Yet, does genetics have no role at all in shaping human history?

Many readers who like the political implications of Diamond's thesis that Western dominance is an accident of geography and therefore no race is better than any other - may skip over his premise of New Guinean genetic superiority. But if New Guineans adapted genetically by developing the intellectual skills to survive in their particular environment, as Diamond says is the case, why should not other populations have done exactly the same?

In attributing western advance solely to geography, while tacitly excluding the genetic explanation invoked for the New Guineans, Diamond focuses on the development of agriculture. But archaeologists now believe that in the Near East sedentism came long before agriculture: first people settled down, abandoning the foraging way of life. Then they took to cultivating wild plants. Then, probably by accident, they developed domestic varieties of plant and animal species. The critical step was not domestication, but sedentism. This finding would seem to undercut an important part of Diamond's case because, unlike the case with agriculture, it's harder to see any geographical reason why sedentism should have risen in one society and not another. Given that the human form

was undergoing another genetically driven change around this time, the gracilisation of the skull and skeleton, a genetic explanation for sedentism would not be so implausible. People such as the Nutufians perhaps responded to their environment with a different kind of sociality that enabled them to abandon the foraging way of life and settle down in fixed communities.

If sedentism was indeed prompted by an evolutionary change, it was one that may have occurred independently in different populations, as has happened with properties like pygmy stature, lactose tolerance and doubtless many others.

Such genetic adaptations, if they occurred, could not spread through the world's population like wildfire, since it can take many generations for gene frequencies in a population to change. Instead, they would take place at different rates in different populations. This wide spread in start times for the forager-settler transition could help explain why human societies throughout the world have attained such different levels of development.

Q 87. Jared Diamond's thesis that geography determines the progress of a nation is borne out by all of the following EXCEPT

(1) The technological superiority of Taiwan and the progress made by that nation.

(2) The stagnation in the once technologically advanced China.

(3) The superior intelligence of New Guineans who had to outwit their enemies in order to survive

(4) The climatic conditions of Eurasia that helped agriculture thrive there.

Q 88. The passage

(1) strengthens Diamond's thesis of geography being the sole cause for the progress of nations.

(2) examines the possible roles genes and geography could have played in shaping human history.

(3) offers an alternative theory to negate Diamond's thesis.

(4) finds an answer to the question, "What caused different countries to grow at different rates?"

Q 89. The inconsistency in Jared Diamond's argument is that:

(1) He wants to rule out racial difference and so is ready to accept any other explanation.

(2) He looks at different aspects of development while comparing different countries.

(3) The inherent abilities of the population is not taken into account.

(4) He uses genetics to explain one country's development while excluding it in another context.

Q 90. What, according to the passage, could be an explanation for different rates of development in different parts of the world?

(1) The genes of the native population that propels the country on a particular course.

(2) Geographical features and economic resources that a country is blessed with.

(3) The fact that sedentism preceded the development of agriculture.

(4) Evolutionary changes that led to genetic adaptation took place at different rates in different populations.

Q 91. As understood from the passage, which of the following statements is/are NOT true?
A. Diversity enables the best to survive while uniformity hampers progress.
B. Survival instinct forced the New Guineans to become sharper mentally.
C. Genetics could not have led to sedentism.
D. **Jared Diamond sees agriculture as the reason for the greater progress made by Europeans**

(1) Only C
(2) B and C
(3) A and D
(4) B and D

DIRECTIONS *for questions 92 to 94:* **In each question, there are five sentences. Each sentence has pairs of words/phrases that are italicised and highlighted. From the italicised and highlighted word(s)/phrase(s), select the most appropriate word(s)/phrase(s) to form correct sentences. Then, from the options given, choose the best one.**

Q 92. (i) According to media reports the accident *occurred* **(A) /** *happened* **(B) at about 11:30 a.m.**
(5) Caution should be exercised while handling *electric* **(A) /** *electrical* **(B) equipment.**
(6) Abdul is a carpenter by *trade* **(A) /** *profession* **(B).**
(7) Apart from the brilliant storyline, the excellent sound and *light* **(A) /** *lighting* **(B) effects of the movie made it worth watching.**
(8) He produced a brilliant *feint* **(A) /** *faint* **(B) and thrust the ball into the net.**

(1) BABBA
(2) AABBA
(3) ABBAA
(4) ABABA
(5) BABAB

Q 93. (i) The *rapid* (A) / *swift* (B) action taken by the local police in nabbing the notorious burglar was widely appreciated.

(5) He categorically stated that no *further* (A) / *farther* (B) discussion would be entertained on the matter.

(6) Today's women prefer a modern kitchen with all the latest *gadgets* (A) / *appliances* (B).

(7) I am not *averse* (A) / *adverse* (B) to working extra hours.

(8) He vowed to *avenge* (A) / *revenge* (B) his sister's death.

(1) AAAAA

(2) AABAB

(3) BAAAA

(4) ABABA

(5) BABAA

Q 94.

I. The *venal* (A) / *venial* (B) official's corrupt deeds were exposed by the media.

II. The *imminent* (A) / *eminent* (B) threat of a civil war looms large in the country.

III. Mahatma Gandhi was an *apostate* (A) / *apostle* (B) of non-violence.

IV. John is a very *gregarious* (A) / *egregious* (B) person, quite the opposite of his reclusive brother.

V. It is believed that the new government might *abnegate* (A) / *abrogate* (B) the treaty.

(1) AAAAA

(2) AAABA

(3) AABAB

(4) AAAAB

(5) BAAAA

DIRECTIONS *for questions 95 to 97:* Read the following passage and answer the questions that follow it.

Where does morality come from? The modern consensus on this question lies close to the position laid out by the eighteenth century Scottish philosopher David Hume. He thought moral reason to be "the slave of the passions". Hume's view is supported by studies that suggest that our judgments of good and evil are influenced by emotional reactions such as empathy and disgust. And it fits nicely with the discovery that a rudimentary moral sense is universal and emerges early. Babies as young as six months judge individuals on the way that they treat others and even one year olds engage in spontaneous altruism.

All this leaves little room for rational deliberation in shaping our moral outlook. Indeed, many psychologists think that the reasoned arguments we make about why we have certain beliefs are mostly post-hoc justifications for gut reactions. As the social psychologist Jonathan Haidt puts it, although we like to think of ourselves as

judges, reasoning through cases according to deeply held principles, in reality we are more like lawyers, making arguments for positions that have already been established. This implies we have little conscious control over our sense of right and wrong.

I predict that this theory of morality will be proved wrong in its wholesale rejection of reason. Emotional responses alone cannot explain one of the most interesting aspects of human nature: that morals evolve. The extent of the average person's sympathies has grown substantially and continues to do so. Contemporary readers of 'Nature', for example, have different beliefs about the rights of women, racial minorities and homosexuals compared with readers in the late 1800s, and different intuitions about the morality of practices such as slavery, child labour and the abuse of animals for public entertainment. Rational deliberation and debate have played a large part in this development.

Emotional and non-rational processes are plainly relevant to moral change. Indeed, one of the main drivers of moral change is human contact. When we associate with other people and share common goals, we extend to them our affection. Increases in travel and access to information as well as political and economic interdependence mean that we associate with many more people than our grandparents and even our parents. As our social circle widens, so does our 'moral circle'.

But this 'contact hypothesis' explanation is limited. It doesn't explain the shifts in opinions on issues such as slavery and animal rights. Contact cannot explain the birth of new moral ideas, such as the immorality of sexism or the value of democracy. It doesn't account for how our moral attitudes can change towards those with whom we never directly associate, for example, why some of us give money and even blood to people with whom we have no contact and little in common. There have been attempts to explain such long distance charity through mechanisms such as indirect reciprocity and sexual selection, which suggest that individuals gain reproductive benefit from building a reputation for being good or helpful. But this begs the question of why such acts are now seen as good when they were not in the past.

What is missing, I believe, is an understanding of the role of deliberate persuasion. Language is an effective tool for motivating sympathy towards others. For example, Harriet Beecher Stowe's 1852 novel Uncle Tom's Cabin helped to end slavery in the United States, and descriptions of animal suffering in Peter Singer's Animal Liberation (1975) and elsewhere have been powerful catalysts for the animal rights movement. Stories can be morally corrosive too: if we are encouraged to imagine people doing things that anger or disgust us, we are quick to evict them from our moral circle. Examples of this are all too familiar, such as Adolf Hitler's propaganda against the Jews in Nazi Germany, or the negative depictions of homosexuals put out by anti-gay campaigners in many countries today.

Stories emerge because people arrive at certain views and strive to convey them to others. It is this generative capacity that

contemporary psychologists have typically ignored. Moral psychology in particular focuses nearly exclusively on studies in which volunteers are exposed to artificial moral dilemmas that have been thought up by other people, such as situations in which one must choose whether to kill one person to save five.

Proponents of the view that we are prisoners of our emotions might argue that moral deliberation and creativity are rare, perhaps restricted to people who spend their lives thinking about these issues, such as theologians and philosophers. Yet most people are regularly forced to ponder dilemmas such as the proper balance of work and family. Even though few of us write novels or produce films, humans are natural storytellers, and use narrative to influence others, particularly their own children.

It would be a mistake as scientists - and as politically and socially engaged citizens - to dismiss the importance of this reflective process in shaping our morality and, consequently, world in which we live. Research might focus more on how children and adults deal with everyday moral problems, looking closely at cases in which their judgements diverge from those of people around them. Examples of work in this area include the studies by Robert Coles, a child psychiatrist at Harvard University in Cambridge, Massachusetts, on how black and white children dealt with racial desegregation and forced school integration during the U.S. civil rights movement, and the ongoing research by the psychologists Karen Hussar and Paul Harris at the Harvard Graduate School of Education on why some children raised in non-vegetarian households choose not to eat meat.

Psychologists have correctly emphasized that moral views make their impact by being translated into emotion. A complete theory must explain where these views come from in the first place.

Q 95. The question raised at the beginning of the passage

(1) poses a dilemma to the author and the readers alike.

(2) is relevant only to philosophers and theologians

(3) becomes irrelevant by the end of the passage.

(4) has been analysed by the author but there appears to be no answer to it yet.

(5) has been given several and conflicting answers in the passage.

Q 96. All of the following can be attributed to the author EXCEPT:

(1) Morality is instinctive but we seek to rationalize our position.

(2) That morals change is evidence of the influence of reason.

(3) The traditional views regarding morals offer no scope for a rational analysis.

(4) Our views regarding races, gender and discrimination have changed for the better over time.

(5) Both reason and sentiments affect our moral viewpoint.

Q 97. The contact hypothesis

A. explains why acts that were not considered good are now regarded highly.

B. finds self interest to be at the core of altruism and apparently selfless behaviour.

C. fails to explain the changes in moral outlook over a period of time.

D. accounts for changed perceptions regarding slavery, animal rights etc.

E. fails to account for altruism and selfless behaviour towards strangers.

(1) A and D

(2) B and E

(3) C and E

(4) A and C

(5) B and D

DIRECTIONS *for questions 98 to 100:* **In each of the following questions, the word at the top is used in five different ways, numbered 1 to 5. Choose the option in which the usage of the word is INCORRECT or INAPPROPRIATE.**

Q 98. AIR

(1) Open the windows and let the fresh air in.

(2) It takes two hours by air to reach Chennai from Hyderabad.

(3) The appetizing aroma wafting through air stirred up our appetite.

(4) Her colleagues resent her as she always puts on airs.

(5) The management never gives an opportunity to the employees to air their grievances.

Q 99. BACK

(1) He intends to purchase a house in a non-descript village in the back of beyond.

(2) As she hurt her back falling off a horse, she was advised bed rest for a couple of weeks.

(3) A true friend never turns his back from you when you need his help.

(4) We decided to keep the plan on the back burner due to paucity of funds.

(5) She is not the sort to back away from responsibilities.

Q 100. GET

(1) She is forever under the impression that everybody is out to get him.
(2) You must get into the habit of maintaining a record of the money spent.
(3) He is finding it difficult to get by on his meagre income.
(4) He managed to get round his father to give him some extra pocket money.
(5) The students were eagerly waiting to get over the exams.