1. Numbers in the form of $2^p - 1$, where p is a natural number, are called Mersenne numbers. How many Mersenne numbers less than 10000 are prime?
   1. 3   2. 4   3. 5   4. 6   5. 7

2. Four concyclic points A, B, C and D form the vertices of a trapezium with height 7.5 cm. Length of the parallel sides AB and DC are 2 and 8 cm respectively. If the centre of the circle circumscribing the trapezium ABCD lies inside the trapezium, then find the approximate length of the diameter of the circle circumscribing the trapezium ABCD.
   1. 4.9 cm   2. 8.6 cm   3. 9.7 cm   4. 10.2 cm   5. 11.4 cm

3. Find the number of integral solutions of the system of equations
   $$\left|\frac{x}{4} - 1\right| + \frac{1}{2} = y\left(\left|\frac{x}{8} - \frac{1}{4}\right|\right) \text{ and } |x| \leq 100.$$
   1. 98   2. 101   3. 102   4. 104   5. 107

4. S is a set containing all the integers that are less than 20000, which are the product of three consecutive prime numbers. N is a proper sub-set of S, where all the elements of N are relatively prime to each other. Find the number of elements in S, which are not common to N.
   1. 1   2. 2   3. 3   4. 4   5. 5

5. Mandeep has to create a password having 5 distinct characters using at least 2 digits (from 7 to 9) and at least 2 English vowels (from A, E, I, O and U). No character other than digits from 7 to 9 and vowels of English alphabets are allowed in that password. If the password starts with a digit it must end with an alphabet and if it starts with an alphabet it must end with a digit. Find the number of possible passwords that Mandeep can create.
   1. 1260   2. 4480   3. 3620   4. 2880   5. 1620

6. A man invested Rs.1000 at a rate of 15% per annum at S.I. He withdraws the final amount after 'T' years. He keeps half of the withdrawn amount with him and invests the remaining. This invested amount kept on reducing at simple rate of 12.5% per annum for a period 6 years. If the aggregate sum with the man after 'T + 6' years is Rs.1000, then find the value of 'T'.
   1. 3 years   2. 4 years   3. 5 years   4. 6 years   5. 7 years

7. S is a set of all the integral values of 'k' that satisfy $15 < |k^2 - 8k| < 33$. A quadratic equation in 'x' in the form of $ax^2 + bx + c = 0$ is formed such that a, b and c are distinct numbers belonging to the set S. If the discriminant of the equation such formed is maximum possible, then find the value of $\frac{ac}{b}$.
   1. –0.8   2. –1   3. –5   4. 12   5. 20

DIRECTIONS for Questions 8 and 9: Answer the questions on the basis of the information given below.

A natural number between 499 and 1233 is divisible by 4 such that all the digits of the number are distinct and non-zero.

8. How many such numbers are possible?
    1. 63   2. 65   3. 73   4. 90   5. 95

9. Find the probability that this number has 6 as the middle digit.

    1. $\dfrac{2}{19}$ 2. $\dfrac{1}{10}$ 3. $\dfrac{10}{73}$ 4. $\dfrac{2}{13}$ 5. $\dfrac{1}{9}$

10. The following figure shows the graph of a real function f(x) versus x. Two other real functions

    g(x) = f(f(x)) and h(x) = g(g(x)) are also defined. Find the value of $\dfrac{g(-2.5)\times g(-3.5)}{h(5.5)\times h(7.5)}$.
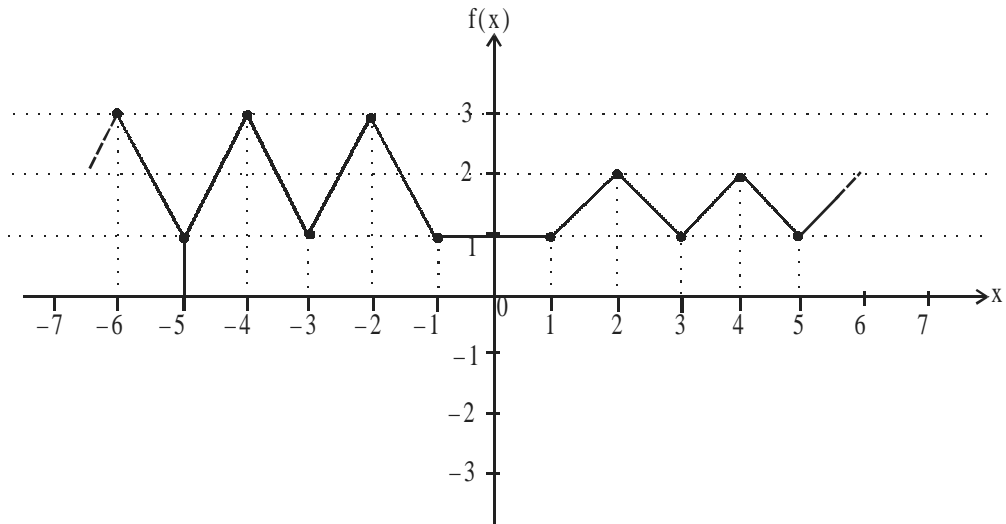
    1. $\dfrac{16}{9}$ 2. 1   3. $\dfrac{4}{9}$ 4. $\dfrac{9}{16}$ 5. $\dfrac{9}{4}$

11. In a triangle ABC right-angled at B, the bisector of the external angle CAF, when produced, intersects the base CB (extended) at E. If AB = 3 cm and AC = 5 cm, then find the length of the line segment AE.

    1. 5 cm   2. $4\sqrt{3}$ cm   3. $5\sqrt{2}$ cm   4. 6 cm   5. $3\sqrt{5}$ cm

12. Sudip studied the frequency of prime numbers between two numbers M and N (excluding both M and N). He observed that there are 10 prime numbers between M and N. The minimum and the maximum possible difference between two consecutive prime numbers in this range are 2 and 14 respectively. If sum of these 10 prime numbers is 1216, then find the minimum possible value of (M + N).
    1. 229   2. 247   3. 250   4. 270   5. 299

DIRECTIONS for Questions 13 and 14: Answer the questions on the basis of the information given below.

All the positive integers in which sum of digits are equal to the number of digits in that number are said to be 'pure numbers'. For example 1, 11 and 20 are pure numbers.

13. How many four-digit pure numbers are divisible by 4?
    1. 4   2. 5   3. 6   4. 7   5. None of these

14. How many pure numbers have more than one digit but all the digits are distinct?
    1. 2   2. 3   3. 4   4. 5   5. Infinitely many

15. After offering P% discount on marked price, the trader makes P% profit. If he offers only (P – 10)% discount on marked price, he makes (P + 15)% profit. Find the percentage by which the marked price exceeds the cost price.
    1. 20%   2. 30%   3. 35%   4. 40%   5. 50%

16. The coefficients a, b and c in the quadratic equation $ax^2 + bx + c = 0$, are three consecutive terms of a geometric progression in that order. If $c = 9(b - 2a)$, then which of the following can be the product of the roots of this equation?
    1. 1   2. 4   3. 9   4. 16   5. 25

17. In the figure given below ABCD is a rectangle such that $AB:AD = \sqrt{3}:2.$ The measure of $\angle BAE$ as well as $\angle FEC = 30°$. If GO and OH are perpendicular bisectors of AD and EF respectively, then find the measure of $\angle DOF$.
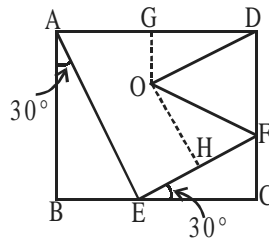
   1. 30°   2. 45°   3. 60°   4. 90°   5. Cannot be determined

18. If α and β are the roots of the equations $8x^2 - 10x + 3 = 0$ and $S_n = \alpha^n + \beta^n$, then find the sum of $S_1 + S_3 + S_5 + S_7 + ... + S_\infty$.

    1. $\dfrac{50}{21}$ 2. $\dfrac{6}{7}$ 3. $\dfrac{5}{7}$ 4. $\dfrac{4}{7}$ 5. $\dfrac{27}{28}$

DIRECTIONS for Questions 19 and 20: Answer the questions on the basis of the information given below.

Initially a spider is at the origin of the X-Y plane. The spider moves along the line 3x – 4y = 0 till it reaches a point P. From P it turns right and moves along the line 4x + 3y = 25 to reach the point M. From point M it again moves along a straight line parallel to x-axis to reach a point N having coordinates (0, –5). Finally the spider returns to the origin O(0,0) from the point N moving along the straight line ON.

19. Find the total distance travelled by the spider.
    1. 18 units   2. 22 units   3. 25 units   4. 30 units   5. 35 units

20. Find the area of the region bounded by the path followed by the spider.
    1. 55 square units   2. 50 square units   3. 45 square units

    4. 40 square units   5. 35 square units

21. The HCF of two natural numbers a, b is k, where k is an element of the set S of natural numbers given by {2,3,4,5…126,127}. If the product of a, b and their LCM is a perfect square, then how many maximum possible elements of S can k represent?
    1. 8   2. 9   3. 10   4. 11   5. 12

22. At a premier B-School, in a batch of 160, 75% students did not have any prior work experience. Out of the students who had prior work experience, 80% are engineers. The percentage of the number of commerce graduates as a percentage of the number of students in this batch who are not engineers is 50. If the number of engineers is greater than the number of commerce graduates, then find the minimum possible number of engineers in this batch who do not have prior work experience.
    1. 16   2. 18   3. 20   4. 22   5. 24

23. In an isosceles right angled triangle ABC, it is given that AB = BC. DE and GF are drawn parallel to BC and AB such that DE as well as FG divide the triangle ABC into two equal parts. BO when extended meets AC at the point H. Find the ratio BO:OH.
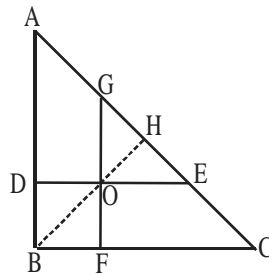
    1. 1 : 1   2. $1 : \sqrt{2}$ 3. $\sqrt{2} : 1$ 4. $\sqrt{2} - 1 : \sqrt{2}$ 5. $\sqrt{2} : \sqrt{2} - 1$

DIRECTIONS for Questions 24 and 25: Answer the questions on the basis of the information given below.

Singur, Nandigram and Kolkata are 3 villages on a straight road such that Singur is somewhere in between the other two villages. Distance of Kolkata from Singur is 10 km and the distance of Kolkata from Nandigram is 17 km. Buddha and Biman start running from Singur at 9:00 a.m. in opposite directions at 4 m/s and 3 m/s respectively. Mamta Starts from Nandigram in a car moving at 36 km/hr. towards Kolkata, but she started 10 minutes later than Buddha and Biman.

24. If the interval between the time when Mamta met Buddha and the time when Mamta met Biman is approximately $15\dfrac{10}{21}$ mins, then find the distance between Buddha and Biman when Mamta meets Biman.
    1. 10 km   2. 11 km   3. 12 km   4. 13 km   5. 14 km

25. Prakash started from Kolkata at 9:15 a.m. in his nuclear-powered car and met Buddha first on his way to Nandigram. If he meets Mamta at the same time Mamta meets Biman, find the speed of Prakash's car.
    1. 350 km/hr   2. 468 km/hr   3. 540 km/hr   4. 280 km/hr   5. 384 km/hr

Number of questions = 25

DIRECTIONS for Questions 26 to 40: Each of the three passages given below is followed by a set of questions. Choose the best answer to each question.

PASSAGE – 1

Social scientists, in general, have argued vigorously for the autonomy of their field of study and have mostly looked askance at the attempts that have tended to show the social phenomena to be entirely determined by non – sociological factors. In their own turn, however they have been extremely antagonistic to the idea that there may be other phenomena which stand in the same relation to sociological phenomena as these do themselves to biological and physical phenomena. Sociologists, like most other scientists, seem to think that all that occurs in the field of human affairs is completely determined by factors which pertain to their own field of study. They are extremely averse to the admission of immanent causality within the field of supra- sociological phenomena.

There seems, however, no reason to believe that the emergence of autonomous realms with their immanent causality ceases at the sociological level. It would be as much a piece of blindness on the part of the sociologists to deny this as it would be in the case of those biologists or physicists who would deny autonomy and immanent causality to social phenomena. The mistake in the case of the latter is clearly visible to every sociologist, yet he immediately seems to develop a psychic scotoma when he himself commits it.

The supra-sociological phenomena are indeed dependent on sociological phenomena for their very existence, but this should in no way lead to the conclusion drawn by most sociologists that they are "determined" by them. If the logic of the argument were true in such a case, then we would inevitably be pushed further to the conclusion that the real determinants of any phenomenon are physical and not biological or sociological or supra-sociological in nature. The sociological phenomena, in fact, permit the existence of supra-sociological phenomena but do not determine them, in any way, in their specific nature. The large numbers of studies that have delineated the "determination" of cultural phenomena by sociological factors are vitiated, therefore, at their very core by this central fallacy.

26. Which of the following is true as per the passage ?
    1. Studies, suggesting that the determinant factors for any kind of phenomena are entirely non- sociological factors, are ineffective and based on false ideas.
    2. The determinant factors of any phenomena can be physical, biological, sociological or non-sociological by nature.
    3. Supra-sociological phenomena are determined by sociological phenomena.
    4. Scientists have no reason to believe in the existence of immanent causality in the field of supra-sociological phenomena.
    5. Most sociologists ignore the idea that suggests the presence of autonomous realms with their immanent causality at the sociological level.

27. According to the passage, we can infer that:
1. Social scientists possess a dubious attitude towards the origin of determinant factors ascertaining supra-sociological phenomena.
2. Social phenomena are entirely determined by non-sociological factors.
3. Supra-sociological phenomena are a result of social phenomena.
4. Factors determining any sociological phenomena can be physical or biological but not sociological.
5. Biologists and physicists do not propose the idea of autonomy and immanent causality to social phenomena.

28. Sociologists turn a blind eye towards:
1. Biologists and Physicists, who deny autonomy and immanent causality to social phenomena.
2. Studies that determine any cultural phenomena through sociological factors.
3. Reasons that define the determination of human affairs through factors limited to their respective field of study.
4. The misconception that the real determinants of any phenomena are only physical.
5. None of the above.

29. According to the passage all of the following are true, EXCEPT:
1. Sociologists tend to disapprove of the possibilities that determine social phenomena as a result of physical and biological factors.
2. The presence of supra-sociological phenomena is not entirely ascertained by sociological phenomena.
3. The idea of "autonomy" and "immanent causality" only pertains to physical and biological phenomena.
4. Autonomy, in the field of social science, has been a major demand of social scientists.
5. None of the above.

30. Which of the following is the most suitable title for the passage?
1. Sociological versus supra-sociological phenomena.
2. Social Sciences in a different light.
3. Social Scientists' central dilemma.
4. A central fallacy of Social scientists.
5. Scientific belief and attitude towards sociological phenomena.

PASSAGE – 2

To give an account of one's reading is in some sort to give an account of one's life; and I hope that I shall not offend those who follow me in these papers, if I cannot help speaking of myself in speaking of the authors I must call my masters: my masters not because they taught me this or that directly, but because I had such delight in them that I could not fail to teach myself from them whatever I was capable of learning. I do not know whether I have been what people call a great reader; I cannot claim even to have been a very wise reader; but I have always been conscious of a high purpose to read much more, and more discreetly, than I have ever really done, and probably it is from the vantage-ground of this good intention that I shall sometimes be found writing here rather than from the facts of the case.

But I am pretty sure that I began right, and that if I had always kept the lofty level which I struck at the outset I should have the right to use authority in these reminiscences without a bad conscience. I shall try not to use authority, however, and I do not expect to speak here of all my reading,

whether it has been much or little, but only of those books, or of those authors that I have felt a genuine passion for. I have known such passions at every period of my life, but it is mainly of the loves of my youth that I shall write, and I shall write all the more frankly because my own youth now seems to me rather more alien than that of any other person.

I think that I came of a reading race, which has always loved literature in a way, and in spite of varying fortunes and many changes. From a letter of my great-grandmother's written to a stubborn daughter upon some unfilial behavior, like running away to be married, I suspect that she was fond of the high-colored fiction of her day, for she tells the willful child that she has "planted a dagger in her mother's heart," and I should not be surprised if it were from this fine-languaged lady that my grandfather derived his taste for poetry rather than from his father, who was of a worldly wiser mind. To be sure, he became a Friend by Convincement as the Quakers say, and so I cannot imagine that he was altogether worldly; but he had an eye to the main chance: he founded the industry of making flannels in the little Welsh town where he lived, and he seems to have grown richer, for his day and place, than any of us have since grown for ours. My grandfather, indeed, was concerned chiefly in getting away from the world and its wickedness. He came to this country early in the nineteenth century and settled his family in a log cabin in the Ohio woods, that they might be safe from the sinister influences of the village where he was managing some woollen-mills. But he kept his affection for certain poets of the graver, not to say gloomier sort, and he must have suffered his children to read them, pending that great question of their souls' salvation which was a lifelong trouble to him.

My father, at any rate, had such a decided bent in the direction of literature, that he was not content in any of his several economical experiments till he became the editor of a newspaper, which was then the sole means of satisfying a literary passion. His paper, at the date when I began to know him, was a living, comfortable and decent, but without the least promise of wealth in it, or the hope even of a much better condition. I think now that he was wise not to care for the advancement which most of us have our hearts set upon, and that it was one of his finest qualities that he was content with a lot in life where he was not exempt from work with his hands, and yet where he was not so pressed by need but he could give himself at will not only to the things of the spirit, but the things of the mind too. After a season of scepticism he had become a religious man, like the rest of his race, but in his own fashion, which was not at all the fashion of my grandfather: a Friend who had married out of Meeting, and had ended a perfervid Methodist. My father, who could never get himself converted at any of the camp-meetings where my grandfather often led the forces of prayer to his support, and had at last to be given up in despair, fell in with the writings of Emanuel Swedenborg, and embraced the doctrine of that philosopher with a content that has lasted him all the days of his many years. Ever since I can remember, the works of Swedenborg formed a large part of his library; he read them much himself, and much to my mother, and occasionally a "Memorable Relation" from them to us children. But he did not force them upon our notice, nor urge us to read them, and I think this was very well. I suppose his conscience and his reason kept him from doing so. But in regard to other books, his fondness was too much for him, and when I began to show a liking for literature he was eager to guide my choice.

His own choice was for poetry, and the most of our library, which was not given to theology, was given to poetry. I call it the library now, but then we called it the bookcase, and that was what literally it was, because I believe that whatever we had called our modest collection of books, it was a larger private collection than any other in the town where we lived. Still it was all held, and shut with glass doors, in a case of very few shelves. It was not considerably enlarged during my childhood, for few books came to my father as editor, and he indulged himself in buying them even more rarely.

31. Which of the following facts get admitted indirectly by the author?
    1. To give an account of one's reading is in some sort to give an account of one's life.
    2. The author is reasonably sure that someone will get offended by his writing.
    3. The author is afraid that people will take offence at his writing.
    4. The author is conscious of the fact that his learning capability may be limited
    5. His masters are not masters because they have taught him.

32. The author writes because
    1. he wants to add substance to the facts of the case.
    2. he considers himself to be a great reader and hence a writer.
    3. he is inspired by a higher purpose to read more.
    4. he feels that writing is a well-intended process.
    5. he has a desire to be regarded as a wise reader.

33. Which of the following statements is not in sync with the characteristics of the writer's father?
    1. The paper where he worked enabled him to lead a decent and comfortable life.
    2. He took up a job as an editor as this was the sole means of satisfying his literary passion.
    3. He did not have to work with his hands and was not so much pressed by need.
    4. He could devote time to things of the spirit and mind.
    5. He turned religious but the way in which he turned religious was different.

34. What seems to be the primary purpose of the author in writing the passage?
    1. The author is trying to justify his passion for literature.
    2. The author is trying to provide evidence for his passion for literature.
    3. The author wants to talk about his passion for reading.
    4. The author wants to pay homage to the masters who inspired him.
    5. The author wants to illustrate the influences which guided him into reading.

35. Which of the following statements is not true as per the passage?
    1. The writer's family had faced bad times in the past.
    2. The library in the writer's place was the largest collection of books in the town.
    3. The books in the library in the writer's place were enclosed in shelves with glass doors.
    4. Most of the books in the library were of poetry.
    5. None of the above.

PASSAGE – 3

Some companies forget to record their losses or record them as loans extended to specially created subsidiaries. Other companies just happen to slip in normal expenses as capital expenses, thereby removing them from the profit and loss account. In some instances, important flows of finance are simply not recorded at all and just disappear from the balance sheets. In other cases, accounting discrepancies include understatement of interest payments, fictitious investments and simply taking cash out of employees' pensions and social security funds.

In most of these cases, the numbers involved are not small and usually amount to several billion dollars. And the indications are that these malpractices are not just one off mistakes, but have been going on for some years – suggesting that auditors have been negligent or even complicit. Quite often, there is no mention of these practices in the companies' books, making it difficult to trace what exactly has been going on.

The biggest and most public scam of recent times was that concerning the energy trading multinational giant Enron which was earlier seen as the most effective symbol of the swashbuckling, new globalized capitalism of the 1990's. However it now turns out that the case of Enron – huge and dramatic as it was – was just the tip of the iceberg in terms of shady and ultimately unsustainable business practices in the international corporate world.

Obviously the story is not going to end here and many more such cases will probably emerge in the near future. What exactly is going on? What explains this sudden flurry of unsavory revelations and the apparent collapse of even minimal corporate accounting norms that these cases are bringing to light?

Forget for a moment the issues of morality, corporate ethics and all that. Forget even the interests of the unfortunate shareholders of all these companies, which include not just get-rich-quick financiers but also workers' pension fund mangers and other presumably worthy groups. The real question is what all this tells us about the current phase of international capitalism and what implications there are for the near future.

The first point to note is that such scams are not new or unexpected, in fact they are part of capitalism's normal functioning. Only the most naïve of interpretations of the history of capitalism would leave out the crucial role played by fraud, deceit and skullduggery In the accumulation of capital and its subsequent use. The notion that the new capitalism is somehow more open, accountable and democratic is a false illusion purveyed by media which also have major stakes in the system.

The second point is that such scams typically emerge at the end of a boom or when it is beginning to peter out. It is not that the scams cause the financial or economic collapse, rather they are symptoms of the turning point, when companies find that profit expectations are not being met and try to prevent or delay the anticipated downturn with whatever means they possess, including fraud. Thus while many of the financial malpractices have been going on for several years, they have been exposed only recently as the economic slowdown and the stock market bear trend have fed into each other. This is characteristic of the revulsion phase of financial cycle.

The third point has to do with the specific nature of U.S. capitalism, which is capital market based rather than bank based. After the financial crisis in Japan and South Korea, Bank based systems came in for a lot of criticism internationally for being opaque and prone to crony behaviour and clientelism. The current spate of scandals in the U.S. shows that capital market based systems can be even more problematic. Not only do they allow and even encourage creative accounting, they are prone to the worst forms of insider excesses.

36. Which of the following best describes the organization of the passage?
   1. While in the first part the author merely reports the instances of unsavory revelations involving the corporate world, in the second part he goes on to point out the likely implications of these on the future of the capitalist society.
   2. Based on instances of unsavory financial dealings the author builds a very strong case for more stringent accounting norms if capitalism in its present form is to have any future.
   3. In the first part the author gives an in-depth analysis of what went wrong with Enron and in the second part uses Enron as an example to show how other corporates are following similar means.
   4. The ripple effect of the Enron episode signals the end of the boom and the beginning of a financial downturn - this is the process that the author analyses in the course of this passage.
   5. Both (2) and (4)

37. The shady and unsustainable accounting practices followed by some of the corporate giants show that
    1. Inflating earnings and hiding debt improperly are routine as far as some companies are concerned
    2. The apparent collapse of even minimal ethical accounting norms has spelt doom for international capitalism
    3. Whatever regulations have so far been in place have proved rather inadequate in monitoring and regulating accounting practices
    4. All of the above
    5. Both (2) and (3)

38. The revulsion phase of the financial cycle is usually accompanied by
    1. a boom followed by a downturn
    2. scams such as Enron
    3. exposure of malpractices that have been going on undetected for years
    4. capital market based economy rather than a bank based economy
    5. increase in financial malpractices

39. The phrase 'creative accounting' used in the last sentence of the last paragraph is used
    1. sarcastically   2. melodramatically   3. critically
    4. to suggest horror   5. to suggest doom

40. What is the theme of the passage?
    1. It is clear that a slowdown in the economy is likely to trigger off financial scams that shake investor confidence and spell doom for the future of the capital market based economy.
    2. A sudden flurry of revelations of apparent collapse of minimal accounting norms brought to light by companies like Enron point to the current rot in international capitalism and has several implications for the future.
    3. Companies like Enron which were seen as potent symbols of aggressive capitalism in past decade are now symbolic of breakdown of international capitalism thanks to the sudden flurry of revelations involving mass manipulation of accounting books.
    4. New capitalism is as bad as its predecessor. The claims that it is more open and accountable and democratic have been completely washed away by the emergence and exposure of massive accounting and financial scams in corporations which were symbolic of the new capitalism.
    5. Capitalism needs to be treated with disdain.

DIRECTIONS for Questions 41 to 45: 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.

41. Have you ever complained about how much mechanics charge when they service your car? With the hourly rate so high and with even the smallest fault often taking far longer to fix than you'd imagined, the answer is more than likely a resounding yes _____ .
    1. To begin with the mechanics will take a bare chassis, pre-painted in the team's livery but without the sponsorship stickers, and fit all the required wiring.
    2. Now imagine how big the bill would be if your car needed to be completely re-assembled - with more than a week's labour involved, undoubtedly in most cases you'd be better off buying a new car!
    3. With all the car's sensors, electrovalves and connectors requiring a cable each, it is a huge task.

4. In Formula One racing, however, cars have to be routinely rebuilt from scratch at the track in next to no time at all.

5. This initial part of the assembly process takes about two and a half hours.

42. So, how come existence? At the end of the day, all the approaches I have discussed are likely to prove unsatisfactory. In fact, in reviewing them they all seem to me to be either ridiculous or hopelessly inadequate: a unique universe which just happens to permit life by a fluke; a stupendous number of alternative parallel universes which exist for no reason; a pre-existing God who is somehow self-explanatory; or a self-creating, self-explaining, self-understanding universe-with observers, entailing backward causation and teleology _____ .

1. Our minds are the products of genes and memes.

2. Both religion and science draw their methodology from ancient modes of thought honed by many millennia of evolutionary and cultural pressures.

3. Perhaps we have reached a fundamental impasse dictated by the limitations of the human intellect.

4. The whole paraphernalia of gods and laws, of space, time and matter, of purpose and design, rationality and absurdity, meaning and mystery, may yet be swept away and replaced by revelations as yet undreamt of.

5. We are free of Darwinian evolution and able to create our own real and virtual worlds.

43. We don't usually think of what we eat as a matter of morality - that our decisions about food might be morally right or morally reprehensible. Stealing, lying, hurting people - these acts are clearly related to our moral character. But EATING - that essential part of life in which everyone participates? Yet today organic foods are the fastest growing section of the food industry, and it is estimated that vegans are now almost as common as vegetarians _____ .

1. Some people think that factory farming is necessary to feed the growing population of our planet.

2. Evidently we are concerned.

3. Can our individual decisions about food contribute to a sustainable future?

4. The argument is that, despite obvious differences we share a capacity to suffer, and this means that they, like us, have interests.

5. Veal consumption in the US has fallen by more than 75% since 1975, and in the UK, sales of free-range eggs have now passed sales of eggs from caged hens in value.

44. The most cherished goal in physics, as in bad romance novels, is unification. To bring together two things previously understood as different and recognize them as aspects of a single entity - when we can do it - is the biggest thrill in science. The only sane response to a proposed unification is surprise. The sun is just another star - and the stars are just suns that happen to be very far away! Imagine the reaction of a late-sixteenth century blacksmith or actor on hearing this wild idea of Giordano Bruno's. What could be more absurd than to unify the sun with the stars? People had been taught that the sun was a great fire created by God to warm the earth, while the stars were pinholes in the celestial sphere that let in the light of heaven _____ .

1. Unification instantly turns your world upside down. What you used to believe becomes impossible. 2. God created the world by the power of his word.

3. Darwin distorted biology more than any other scientist.

4. Nothing is really impossible for a maverick mind.

5. Science and religion are often at loggerheads with respect to each other.

45. In the last decade, cable television has arrived in remote Indian villages, bringing with it commercial television programming which is heavy on game shows and Indian soap operas. Before you laugh, consider that the most popular Indian serials take place in urban settings. Their emancipated female characters are well-educated, work outside the home, control their own money, and have fewer children than rural women. One of the most popular shows in 2007, called *Because a Mother-in-Law Was Once a Daughter-in-Law,* also describes the life of a wealthy Mumbai family and features plots revolving around family and gender _____ .
1. Hence cable television has immensely motivated the rural women to change their approach towards life.
2. Therefore, women protagonists in soap operas are really admired by the rural people.
3. This popular show has given a new way of visualizing the life of the remote villages.
4. So, does the arrival of these shows change attitudes in ways that improve women's lives?
5. It proves that soap operas become more famous by focusing on wealthy Indian family lives.

DIRECTIONS for Questions 46 to 50: Each question has a set of four sequentially ordered statements. Each statement can be classified as one of the following:

- Facts, 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').
- Inferences, which are conclusions drawn about the unknown, on the basis of the known (the answer option indicates such a statement with an 'I').
- Judgements, 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 four statements.

46. 1. Yuvraj Singh's 6 sixes in an over in the match against England in the twenty 20 world cup helped him score the fastest 50 in any form of cricket.
    2. India would have lost the game against England if Yuvraj had not played.
    3. Yuvraj's innings propelled India to a score which would have otherwise been difficult to reach.
    4. Yuvraj Singh won the man of the match award for his outstanding performance in India's match against England.
    1. FIIF   2. IJIF   3. FJJF   4. FIJF   5. FIIJ

47. 1. Reddys are now on the defensive since it has been established beyond doubt that the community was behind the attacks launched on the Dalit community of the state.
    2. From the report submitted by the investigating agency it appears that the preplanned attack against the Dalits was another futile attempt by the Reddys to reassert their age old authority which had seen fissures with the growing assertion of the Dalits.
    3. Twenty one of the accused have been given life imprisonment while thirty five of the accused have been asked to serve one year rigorous imprisonment.
    4. A coalition of Dalit organizations has been pressing the government to file a petition in the upper court to challenge the acquittal.
    1. JFFF   2. IFFF   3. JJFF   4. IIFJ   5. JIFF

48. 1. Sebi has given an 'informal guidance' to Insilco on the buy back of Non Convertible Debentures.
    2. This move could serve as a useful guide for other companies who may have similar plans.
    3. The debentures are due for redemption in three annual installments.
    4. Insilco may go ahead with early redemption since Sebi has clarified the process.
    1. FIII   2. FJJI   3. FJFI   4. JJJI   5. FJFJ

49. 1. It is really sad that the opposition to organized retail has claimed its first victim.
    2. Reliance Retail is likely to handover termination letters to its employees in UP as it prepares to formally exit the state.
    3. At present the company operates 20 stores in NOIDA and Ghaziabad.
    4. Reliance is in fact resorting to pressure tactics on the government.
    1. JIFJ   2. IIIJ   3. FIFJ   4. JIFI   5. FFFI

50. 1. Vegetable oil prices are likely to come down next year with an expected slow down in bio diesel production according to economic consultancy company LMC.
    2. There has been an increase in palm oil production and the prices of vegetable oil are rising.
    3. Palm oil prices have been rising as the oil is diverted in making bio diesel.
    4. Local bio diesel producers without export subsidies will lose money and in turn slow down the bio diesel production.
    1. JJJJ   2. JFIJ   3. JJIJ   4. FFIJ   5. FJIJ

DIRECTIONS for Question 51 to 55: Answer the questions on the basis of the information given below.

Five contestants, viz. Pooja, Payal, Priti, Priyanka and Poonam were vying for the title of Miss India in the year 2006. The top three contestants were to be honoured with the titles of Miss India Universe, Miss India World and Miss India Earth in that order. The competition was being judged by 11 eminent personalities and the three rounds of the final phase were to be conducted as follows:

A. In the first round, only the panel consisting of 11 Judges would vote.
B. The second and the third round would also be judged by the CEO of Pantaloon in addition to the panel of judges.
C. In case, any of the five participants received '0' votes in any round, then she will be out of competition and therefore allowed to vote in the subsequent round(s).
D. The participant who received the maximum total votes in the three rounds put together, would be declared as winner. In case of a tie at the end of three rounds for any of the titles, the candidate who has scored more in the final round would be declared as the winner. In such a case, the next available title would be given to the other participant.

The following table provides partial information regarding the number of vote received by the candidates in the three rounds and their cities of origin.

	Pooja	**Payal**	**Priti**	**Priyanka**	**Poonam**
City of Origin	Bangalore	Delhi	Bangalore		
Round 1		4			
Round 2			1		
Round 3					

The following additional information was available:

I. In round 1, two of the five contestants received the same number of votes which is the minimum among all the participants. Also, every contestant received at least 1 vote in the first round.
II. Fifty percent of the judges who voted for Payal in round 1, voted for Pooja in round 2. The judge who voted for Poonam in round 1, voted for Payal in round 2. In round 2, all the other judges continued to vote for the same person as in Round 1.
III. Mr. Biyani, the CEO of Pantaloon, voted for Priyanka in round 2, which made her the joint second with another contestant in this round.
IV. The total votes received by the two girls from Bangalore in round 3 was 1 more than that received by the two girls from Delhi put together.
V. One of the contestants got '0' vote in round 2.

51. If Priyanka received the same number of votes in round 3 as in round 1, while Pooja received 4 votes in round 3, how many votes did Payal receive in round 3?
1. 2   2. 3   3. 4   4. 1   5. Cannot be determined.

52. Who was the person with the highest number of votes cumulatively at the end of round 2?
1. Pooja   2. Poonam   3. Payal   4. Priyanka   5. Priti

53. If Priti received 3 votes in round 3, while Payal received 50% of the remaining votes, which of the following is definitely true?
1. Pooja received 3 votes in round 3.
2. Priyanka received the minimum number of votes in round 3.
3. Payal and Pooja received the same number of votes in round 3.
4. Payal would receive the title of Miss India Earth.
5. Priyanka would receive the title of Miss India World.

54. Which contestant(s) received the minimum number of votes in round 1?
    1. Poonam   2. Poonam and Priyanka
    3. Priti   4. Priti and Poonam   5. Priyanka

55. If Priti received one additional vote in round 3 as compared to round 2, then which of the following is definitely false?
    1. Payal received the lowest number of votes in round 3.
    2. Priyanka received the highest number of votes in round 3.
    3. Priti was crowned Miss India Earth.
    4. Payal received the title of Miss India World.
    5. Payal received the highest number of votes in round 3.

DIRECTIONS for Question 56 to 60: Answer the questions on the basis of the information given below.

The following table provides information about the marks obtained by 30 students in three different sections namely QA, LRDI and VA in MOCK Test 10. The total marks obtained by the students in MOCK Test 10 is the sum of the marks obtained by the student in the mentioned three sections. It also provides information about the center at which the student is enrolled. The students belong to either one of the five centers namely I, II, III, IV and V. Each student is enrolled at only one center.

Each student is given only one rank from 1 to 30 based on the marks obtained by him/her in the MOCK Test 10. This rank is called 'overall rank'. A student A (assume) is given a numerically lesser rank than the other student B (assume) if the total marks obtained by A is greater then the total marks obtained by B. If the total marks obtained by A is same as that by B, then the student having obtained more marks in VA section is given a numerically lesser rank. If marks obtained by two students in VA section are also same, then the student having obtained more marks in LRDI section is given a numerically lesser rank.

NAME	Gender	Center	QA	LRDI	VA	NAME	Gender	Center	QA	LRDI	VA
Dennis	M	IV	9	10	21	**Sagarika**	F	I	7	11	23
Preeti	F	V	8	12	16	**Manish**	M	IV	19	10	15
Anurag	M	IV	6	9	23	**Nitya**	F	V	13	6	14
Pronab	M	IV	13	8	29	**Aditi**	F	III	11	8	19
Abishek	M	III	14	7	31	**Avni**	F	II	21	21	4
Shefali	F	II	11	8	17	**Anshul**	M	I	5	20	14
Reema	F	I	5	16	6	**Sachin**	M	II	22	6	6
Rahul	M	V	21	13	19	**Nidhi**	F	III	7	9	17
Rohit	M	IV	11	11	22	**Saurav**	M	III	4	8	31
Jeevika	F	III	7	19	23	**Anya**	M	IV	16	17	10
Sharanya	F	II	16	4	22	**Gaurav**	M	V	10	5	7
Arjun	M	V	19	5	29	**Sunil**	F	IV	9	19	9
Akshay	M	V	3	13	31	**Deepali**	F	V	1	13	14
Vidya	F	III	4	21	30	**Salim**	M	III	21	15	11
Tarun	M	I	2	17	35	**Sanjay**	M	II	18	11	9

56. Find the rank of Nidhi.
    1. 24   2. 25   3. 26   4. 27   5. 28

57. How many male students got more marks in VA than the marks obtained by Deepali in VA but less marks in QA than the marks obtained by Avni in QA?
    1. 12   2. 11   3. 10   4. 9   5. 8

58. Find the number of female students who obtained more total marks than at most five female students and more total marks than at least two male students.
    1. 1   2. 2   3. 3   4. 4   5. 5

59. If the criterion for ranking the students is followed by each center to rank the students enrolled there, then find the difference between the 'overall rank' and the 'center rank' of Rohit. (Overall rank is the rank when all the 30 students are taken into consideration and 'center rank' is the rank when only the students of that particular center is taken into consideration.)
    1. 13   2. 12   3. 11   4. 10   5. 9

60. From which center, the maximum possible number of students obtained a total of at least 40 marks and at most a total of 54 marks?
    1. IV   2. III   3. V
    4. Both IV and V   5. Both III and V

DIRECTIONS for Question 61 to 65: Answer the questions on the basis of the information given below.

Six different varieties of toffees viz, Pan Pasand, Mango Bite, Eclairs, Minto Fresh, Coffee Bite and Candy Man were distributed among six friends namely A, B, C, D, E and F. A total of 60 toffees, consising of an equal number of each variety, were distributed in such a manner that each friend received exactly 10 toffees. Each friend received atmost four toffees of a single variety. Further, the following information is available:

I.   Among the six friends, only three friends received a toffee of each variety; E and A are among them.
II.   F received an equal number of Mango Bite, Eclairs and Minto Fresh but did not receive any variety of toffee starting with the letter 'C'.
III.   C did not receive any Minto Fresh but got 4 Coffee Bite.
IV.   A received 3 Eclairs and a Pan Pasand.
V.   Every friend received atleast a Pan Pasand and an Eclairs.
VI.   Four Candy Man were given to D but he did not receive any Mango Bite.
VII.   Sum of the number of Pan Pasand received by A, B, C and the sum of number of Mango Bite received by C, E, F is a perfect number. A perfect number is defined as an integer which is the sum of its proper positive divisors.
VIII. Total number of Minto Fresh, Coffee Bite and Candy Man received by each of B and E is equal to 6.
IX.   B, C and D never received 3 toffees of any variety.

61. If the number of Minto Fresh with D is greater than the number of Coffee Bite, then which among the following is definitely true?
    1. Number of Minto Fresh with B as well as number of Candy Man with E is equal to 3.
    2. Total number of Coffee Bite with B, C, D and E is 8.
    3. Total number of Pan Pasand with A, B and C is 1 more than the total number of Minto Fresh, Coffee Bite and Candy Man with C.
    4. B, C, D and E have equal number of Eclairs with them.
    5. All of the above

62. What is the sum of number of Pan Pasand with C and number of Mango Bite with A?
   1. 5   2. 6   3. 4   4. 7   5. Cannot be determined

63. What is the difference between the number of Pan Pasand with E to the number of Coffee Bite with A?
   1. 0   2. 1   3. 2   4. 3   5. Cannot be determined

64. What is the difference between the number of Coffee Bite with C to the total number of Candy Man with B and E?
   1. 0   2. 1   3. 2   4. 4   5. Cannot be determined

65. Which of the following is definitely true?
   1. Total number of Pan Pasand with C and D is 1 more than total number of Coffee Bite with B and E.
   2. Total number of Mango Bite with E is greater than total number of Pan Pasand with B.
   3. B and E have equal number of Minto Fresh with them.
   4. E cannot have more than 1 Candy Man with him.
   5. Number of Pan Pasand with F is 4.

DIRECTIONS for Questions 66 to 70: Answer the questions on the basis of the information given below.

Five sharp shooters viz.Raghav, Mayank, Satpal, Anant and Tanveer, are summoned to form a special task force to accomplish a secret mission. The shooters are specialised in one of the following guns viz. TAC - 50 Rifle, Multi-barreled Pistol, Revolver, AR - 15 and Sniper.

The shooters belonged to different academies namely Romeo Academy, Mike Academy, Sierra Academy, Alpha Academy and Tango Academy, but the initial letter of the name of no shooter matched with the initial letter of the name of the academy he belonged to. Also, the name of the guns, the shooters specialised in, did not have the same initial letter as their names and the names of the academy they belong to.

The following information is also available:
I.   The shooter who is specialised in Multi-barreled pistol does not belong to Alpha Academy.
II.   Mayank specialises neither in Revolver nor in AR-15, nor does he belong to Alpha or Tango Academy.
III. Tanveer belongs to Sierra Academy and specialises neither Multi-barreled Pistol nor Revolver.
IV.   Raghav has never heard of Mike Academy, nor has Satpal.
V.   Satpal does not specialise either in Multi-barreled Pistol or the TAC-50 Rifle.
VI.   The Sniper specialist does not belong to Romeo Academy.

66. Satpal belongs to
   1. Romeo Academy   2. Mike Academy   3. Sierra Academy
   4. Tango Academy   5. Alpha Academy

67. Mayank spcialises in
   1. TAC-50 Rifle   2. AR-15   3. Multi-barreled Pistol
   4. Revolver   5. Sniper

68. The person who specialises in Revolver is
   1. Raghav   2. Tanveer   3. Anant
   4. Satpal   5. Mayank

69. The person from Tango Academy specialises in
   1. TAC-50 Rifle   2. AR-15   3. Multi-barreled Pistol
   4. Revolver   5. Sniper

70. Who among the following specialises in Sniper?
   1. Raghav   2. Anant   3. Tanveer
   4. Satpal   5. Mayank

DIRECTIONS for Questions 71 to 75: Answer the questions on the basis of the information given below.

Rinku goes to Dehi Food fair held at Pitampura last Sunday. He takes an entry ticket to the sweet and namkeen section of the fair. This section of the fair had four stalls namely Hi-Mirchi, Mircheez, Mirch Masala and Mirchi Rasoi. These four stalls had 16 sweet and namkeen itmes among them to sell. There were a total of 9 Sweets and 7 namkeens in the offering.

Namkeen items available in the fair were K, L, M, N, O, P and Q and the sweet items were R, S, T, U, V, W, X, Y and Z. The following information is also available:

I.   From each stall Rinku purchased different number of sweets and namkeens combined.
II.   P is the only Namkeen item available at a particular stall. The same is true for Q also.
III.   Mirchi Rasoi had more namkeens to offer than Hi-Mirchi, which did not have any sweet to offer.
IV.   Mirch Masala had only V, Y and Z to sell.
V.   The number of stalls selling sweets was less than the number of stalls selling namkeen.
VI.   P is not sold at the stall, which had maximum items to offer.
VII.   Rinku purchases all the 16 items by the end of the day and each item is available only at one stall in one single piece.
VIII. Further it is also known that the items K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y and Z had prices in rupees equal to 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 respectively.

71. At a certain instant, if Rinku had purchased four items at random, collectively from Mircheez and Mirchi Rasoi, then which of the following cannot be the amount he has to pay for those four items?
     1. Rs. 24   2. Rs. 33   3. Rs. 38   4. Rs. 25   5. None of these

72. The payment made at Mirchi Rasoi and Hi-Mirchi as a percentage of payment made at Mircheez is how much more than the payment made at Mirchi Rasoi as a percentage of payment made at Mircheez and Mirch Masala?
     1. 14.23%   2. 15.94%   3. 16.12%   4. 16.96%   5. 15.81%

73. Rinku has already purchased all items of Mirchi Rasoi, Hi-Mirchi and Mirch Masala and the two cheapest items of Mircheez when he runs out of money. He rushes to his friend to get the balance amount required to purchase the remaining items. The amount that his friend lends him as a percentage of the amount Rinku had already spent is
     1. 69.63%   2. 72.15%   3. 77.33%   4. 80.1%   5. 82%

74. The fare organising committee decides to give offers wherein if someone purchases any two items from a particular stall, he gets one more item of his own choice from that stall as a free gift, irrespective of the price of that item. What should be the minimum amount Rinku should carry to the fare so that he can purchase all the 16 items?

    1. Rs. 84   2. Rs. 92   3. Rs. 88   4. Rs. 81   5. Rs. 90

75. If the absolute difference between the number of items sold at any two shops be D, then the absolute difference between the maximum and minimum distinct pair of stalls for which D has the same value is

    1. 1   2. 2   3. 3   4. 4   5. 5