Directions of Test

Test Name	2016 Bull CAT 07	Total Questions	100	Total Time	180 Mins

Section Name	No. of Questions	Time limit	Marks per Question	Negative Marking
Verbal Ability	34	1:0(h:m)	3	1/3
DI & Reasoning	32	1:0(h:m)	3	1/3
Quantitative Ability	34	1:0(h:m)	3	1/3

Section : Verbal Ability

DIRECTIONS for the question: *Read the passage and answer the question based on it.*

Question No. : 1

Financial historians disagree as to how far the growth of banking after the seventeenth century can be credited with the acceleration of economic growth that began in Britain in the late eighteenth century and then spread to Western Europe and Europe's off shoots of large-scale settlement in North America and Austra lasia. It may in fact be futile to seek a simplistic causal relationship. It seems perfectly plausible that the two processes were interdependent and self-reinforcing. Both processes also exhibited a distinctly evolutionary character, with recurrent mutation, speciation and punctuated equilibrium.

A decisive difference between natural evolution and financial evolution is the role of what might be called 'intelligent design' though in this case the regulators are invariably human, rather than divine. Gradually, by a protracted process of trial and error, the Bank of England developed public functions, in return for the reaffirmation of its monopoly on note issue in 1826, establishing branches in the provinces and gradually taking over the country banks' note-issuing business. Increasingly, the Bank also came to play a pivotal role in inter-bank transactions.

In the 1840 s the position of the Governor, J. Horsley Palmer, was that the reserve should essentially be regulated by the volume of discounting business, so long as one third of it consisted of gold coin or bullion. The Prime Minister, Sir Robert Peel, was suspicious of this arrangement, believing that it ran the risk of excessive banknote creation and inflation. Peel's 1844 Bank Charter Act divided the Bank in two: a banking department, which would carry on the Bank's own commercial business, and an issue department, endowed with 14 million of securities and an unspecified amount of coin and bullion which would fluctuate according to the balance of trade between Britain and the rest of the world.

Economic theorists of the nineteenth century were not able to challenge the sacred principle that a pound sterling should be convertible into a fixed and immutable quantity of gold according to the rate of 3 17s 2d per ounce of gold. Had that principle been adhered to, and had the money supply of the British economy genuinely hinged on the quantity of gold coin and bullion in the Bank of England's reserve, the growth of the UK economy would have been altogether choked off, even allowing for the expansionary effects of new gold dis coveries in the nineteenth century.

Although there was variation, most advanced economies essen tially followed the British lead when it came to regulation through a monopolistic central bank operating the gold standard, and concentration of deposit-taking in a relatively few large insti tutions. In Britain, as on the Continent, there were marked tendencies towards concentration, exemplified by the decline in the number of country banks from a peak of 755 in 1809 to just seventeen in 1913.

Excerpted from The Ascent of Money by Niall Fergusson.

Why does the author consider it futile to seek a causal relationship between the industrial revolution and establishment of banking?

A) They were two independent happenings, which coincidentally happened around the same time and place.
B) Banking and industry were both daughters of innovation, which can be viewed to be the common cause
C) There is no certainty about which of the two, banking or industry, was the cause, and which was the effect.
D) None of these.

Question No. : 2

In the simile that the author uses between industrialization and evolution, all of the following can be the analogues of evolutionary behaviors by companies, except

A) Technical innovation. B) The creation of new kinds of firms.
C) The changing legal and political environment of the countries in the nineteenth century.
D) Crisis which would determine which firms would survive and which would die out.

Question No. : 3

Which of the following would represent a statement made by a typical Victorian era nineteenth century economist about the gold standard?

A) Practical men, who believe themselves to be quite exempt from any intellectual influences are usually the slaves of the gold standard.
B) 'Paper notes are money because they are representations of Metallic Money. Unless so, they are false and spurious pretenders.
C) Precious metal and deposits are interchangeable forms of money. Why worry about which is worth how much.
D) The problem with the gold standard is that it pretends to know the price of everything, but knows the value of nothing.

DIRECTIONS for the question: *Read the passage and answer the question based on it.*

Question No. : 4

The caste was and still is wider than the family, the village and the city. It had religious, functional, administrative and social moorings. Status put the individual in proper perspective with regard to the traditions which were handed down from generation to generation and interpreted either by the Brahmins whose disinterestedness was sought to be secured by their unusually high position or by the caste-panchayat which was often the guild-assembly. The importance of the social Meme was very much appreciated, rather over-valued. Caste was an insurance against unemployment, etc., where lack of skill did not arise, in which case the joint family and the village assembly came to the rescue. It tended to equalize wages. Such an artificial equalization was all the more necessary then, when the laws of demand and supply could not take advantage of an institution like the State, when their free play was interfered with by a lack of geographical mobility.

Status did not interfere with a vertical mobility of labor so much; the Vaisyas were not afraid of any competition from the upper or the lower classes. So, when value in exchange could not develop, the value of the commodities was determined by their social worth, and social worth was determined in the light of good life. The Brahmins without being economic producers remained at the top of the society, for they created new ideals and interpreted old ones in the light of new facts. The functional tie of the caste-system was not exclusive. The economics of the caste-system was primarily a Social Economy. Function, as has been already suggested, primarily depended upon capacity which was cultivated by a system of pupillary succession within the caste guild. In the normal individual, when capacity and individual gifts, are in direct line with needs and opportunities kept free from competition of other groups by status, the instinct of workmanship can grow. This is the secret of success in all ancient works of art in which we always miss the name of the Master-architect.

But occupations have always a bad habit of narrowing the vision. To cure this narrowness, an individual craftsman in ancient and mediaeval India had other groups to belong to. His family was there and his village community was there too. Without raising the problem of divided allegiance, the craftsman belonged to other associations which contributed to his complete development. By giving religious injunctions to preserve the social classifications, the caste-system secured society against what Aristotle called 'Stasis' to which every society must succumb if there is an improper understanding of the appropriate duties by a certain ambitious section of the society.

Excerpted from Personality and the Social Science by DP Mukherjee

Apart from caste, which of the below can be cited as an example of a human grouping that has stood the test of time?

A) Marriage B) Autocracy C) Class D) Family

Question No. : 5

What is implied about the reason for the formation of the caste system?

A) To give an individual an opportunity to imbibe useful traditions from an early age.
B) To create a religious order to ensure that society does not generate into chaos.
C) To create a system of slavery so that a certain set of persons could concentrate solely on intellectual tasks.
D) It started off as an interest group, which then got converted into a social group divided by wealth.

Question No. : 6

Why does the author consider the function of the caste system analogous to that of trade unions?

A) One uses religion and the other ideology in order to hard-sell their respective messages.
B) The caste-panchayats helped in wage negotiation by setting minimum wages which is also a function performed by trade unions in the modern day world.
C) Both of them have their origins in guilds.
D) They helped organize their members to fight against the exploitation by the vaisyas, in the same way that trade unions organize strikes and tool-downs in their fights against the capitalist class.

DIRECTIONS for the question: *Read the passage and answer the question based on it.*

Question No. : 7

Small beginnings can have great endings sometimes. As a case in point, note what came of the small, original effort of a self-trained back-country Quaker youth named John Dalton, who along towards the close of the eighteenth century became interested in the weather, and was led to construct and use a crude water-gauge to test the amount of the rainfall. The simple experiments thus inaugurated led to no fewer than two hundred thousand recorded observations regarding the weather, which formed the basis for some of the most epochal discoveries in meteorology, as we have seen. But this was only a beginning. The simple rain-gauge pointed the way to the most important generalization of the nineteenth century in a field of science with which, to the casual observer, it might seem to have no alliance whatever. The wonderful theory of atoms, on which the whole gigantic structure of modern chemistry is founded, was the logical outgrowth, in the mind of John Dalton, of those early studies in meteorology.

The way it happened was this: From studying the rainfall, Dalton turned naturally to the complementary process of evaporation. He was soon led to believe that vapor exists, in the atmosphere as an independent gas. But since two bodies cannot occupy the same space at the same time, this implies that the various atmospheric gases are really composed of discrete particles. These ultimate particles are so small that we cannot see them cannot, indeed, more than vaguely imagine them yet each particle of vapor, for example, is just as much a portion of water as if it were a drop out of the ocean, or, for that matter, the ocean itself. But, again, water is a compound substance, for it may be separated, as Cavendish has shown, into the two elementary substances hydrogen and oxygen. Hence the atom of water must be composed of two lesser atoms joined together. Imagine an atom of hydrogen and one of oxygen. Unite them, and we have an atom of water; sever them, and the water no longer exists; but whether united or separate the atoms of hydrogen and of oxygen remain hydrogen and oxygen and nothing else. Differently mixed together or united, atoms produce different gross substances; but the elementary atoms never change their chemical nature their distinct personality.

It was about the year 1803 that Dalton first gained a full grasp of the conception of the chemical atom. At once he saw that the hypothesis, if true, furnished a marvellous key to secrets of matter hitherto insoluble - questions relating to the relative proportions of the atoms themselves. It is known, for example, that a certain bulk of hydrogen gas unites with a certain bulk of oxygen gas to form water. If it be true that this combination consists essentially of the union of atoms one with another (each single atom of hydrogen united to a single atom of oxygen), then the relative weights of the original masses of hydrogen and of oxygen must be also the relative weights of each of their respective atoms. If one pound of hydrogen unites with five and one-half pounds of oxygen (as, according to Dalton's experiments, it did), then the weight of the oxygen atom must be five and one-half times that of the hydrogen atom. Other compounds may plainly be tested in the same way. Dalton made numerous tests before he published his theory. He found that hydrogen enters into compounds in smaller proportions than any other element known to him, and so, for convenience, determined to take the weight of the hydrogen atom as unity. The atomic weight of oxygen then becomes (as given in Dalton's first table of 1803) 5.5; that of water (hydrogen plus oxygen) being of course 6.5. The atomic weights of about a score of substances are given in Dalton's first paper, which was read before the Literary and Philosophical Society of Manchester, October 21, 1803. I wonder if Dalton himself, great and acute intellect though he had, suspected, when he read that paper, that he was inaugurating one of the most fertile movements ever entered on in the whole history of science?

The organisation of the passage can be identified as:

A) the origin of modern chemistry is highlighted B) the bedrock of chemistry is extrapolated
C) the core of chemistry is explained D) the role of a scientist and his place in the context of important findings.

Question No. : 8

Identify the statements that are correct as per the information given in the passage:

I. Atoms have their unique identity.
II. Dalton's theories have been proven to be incorrect over time.
III. Dalton used reverse analysis to form some of his early observations.

A) I & II B) II & III C) I & III D) All of the above

Question No. : 9

Identify the incorrect statements:

I. The core of Dalton's work is based on the assumption that atmospheric gases are made of discreet particles.
II. Dalton was meteorologist who discovered atoms accidently.
III. When atoms are mixed in different ratios, different substances, gases, etc. are produced.

A) I & II B) II & III C) I & III D) All of the above

Question No. : 10

It can be inferred from the passage that:

A) Dalton realized about the importance of his discoveries
B) Dalton may not have realized about the importance of his discoveries
C) Dalton did not realize about the importance of his discoveries
D) Dalton was told by others about the importance of his discoveries

Question No. : 11

An analogous situation that matches Dalton's discovery of theory of atoms is:

A) A cook accidently discovering a new recipe by virtue of dropping some spices in a dish
B) A writer by chance meets an interesting personality while travelling and uses him to write his bestseller
C) An environmentalist discovers new behaviour patterns in a certain type of monkeys and then extends his discovery to the whole species.
D) An attorney invokes a clause that most other lawyers don't use in order to win a case.

Question No. : 12

In the given context of the passage, the word 'epochal' means:

A) mind-boggling B) enigmatic C) momentous D) fitful

DIRECTIONS for the question : *Read the passage and answer the question based on it.*

Question No. : 13

Last fall, Toby Young did something ironic. Toby is the son of Michael Young, the British sociologist and Labour life peer whose 1958 satire The Rise of the Meritocracy has been credited with coining the term. In September, he published an 8,000-word reconsideration of his father s signature concept in an Australian monthly. The old man was right that meritocracy would gradually create a stratified and immobile society, he wrote, but wrong that abolishing selective education was the cure. Unlike my father, I m not an egalitarian, Young wrote. If meritocracy creates a new caste system, the answer is more meritocracy. To restore equality of opportunity, he suggested subsidies for intelligence-maximizing embryo selection for poor parents with below-average IQs. The irony lay in the implication that Young, because of who his father was, has special insight into the ideology that holds that it shouldn t matter who your father is.

His outlandish resort to eugenics suggests that Toby Young found himself at a loss for solutions, as all modern critics of meritocracy seem to do. The problems they describe are fundamental, but none of their remedies are more than tweaks to make the system more efficient or less prejudicial to the poor. For instance, in Excellent Sheep, William Deresiewicz accuses the Ivy League of imposing a malignant ruling class on the country, then meekly suggests that elite universities might solve the problem by giving greater weight in admissions to socioeconomic disadvantage and less to r sum -stuffing. In The Tyranny of the Meritocracy, Lani Guinier belies the harsh terms of her title by advising that we simply learn to reward democratic rather than testocratic merit. Christopher Hayes subtitled his debut book Twilight of the Elites America after Meritocracy, but the remedies he prescribes are all meant to preserve meritocracy by making it more effective. In his latest book, Our Kids, Robert Putnam proves that American social mobility is in crisis, then reposes his hopes in such predictable nostrums as housing vouchers and universal pre-kindergarten.

When an author caps two hundred pages of rhetorical fire with fifteen pages of platitudes or utopian fantasy, that is called the last chapter problem. When every author who takes up a question finds himself equally at a loss, that is something else. In this case, our authors fail as critics of meritocracy because they cannot get their heads outside of it. They are incapable of imagining what it would be like not to believe in it. They assume the validity of the very thing they should be questioning.

Meritocracy began by destroying an aristocracy; it has ended in creating a new one. Nearly every book in the American anti-

meritocracy literature makes this charge, in what is usually its most empirically reinforced chapter. But the solutions on offer never rise to the scale of the problem. Authors attack the meritocratic machine with screwdrivers, not sledgehammers, and differ only in which valve they want to adjust. Some think the solution is to tip more disadvantaged kids over the lip of the intake funnel, which would probably make things worse. If more people start competing for a finite number of slots, slim advantages like those that come from having grown up with two meritocrats for parents will only loom larger. Others favor the slightly more radical solution of redefining our idea of merit, usually in a way that downplays what Guinier calls pseudoscientific measures of excellence. She even has a replacement in mind, the Bial-Dale College Adaptability Index, the testing of which involves Legos. (Why are you laughing? It is backed by a study.)

My solution is quite different. The meritocracy is hardening into an aristocracy so let it. Every society in history has had an elite, and what is an aristocracy but an elite that has put some care into making itself presentable? Allow the social forces that created this aristocracy to continue their work, and embrace the label. By all means this caste should admit as many worthy newcomers as is compatible with their sense of continuity. New brains, like new money, have been necessary to every ruling class, meritocratic or not. If ethnic balance is important to meritocrats, they should engineer it into the system. If geographic diversity strikes them as important, they should ensure that it exists, ideally while keeping an eye on the danger of hoovering up all of the native talent from regional America. But they must give up any illusion that such tinkering will make them representative of the country over which they preside. They are separate, parochial in their values, unique in their responsibilities. That is what makes them aristocratic.

From the context of the passage, the meaning of the word 'meritocracy' can be derived to be:

A) a society governed by people with well-established links and pedigree
B) a society governed by people selected according to certain performance based attributes.
C) a society owned by those in power and whose functions are selectively determined by these same individuals.
D) a society driven by individual motivations that are a function of individual human potential and calibre.

Question No. : 14

What is ironic in Toby Young's solution for meritocracy?

A) he is countering the views of his own father. B) his suggestion counters the very system his family devised.
C) his insight is assumed significant irrespective its lack of logic.
D) he is speaking out against a position from the vantage point that was granted to him by the same system.

Question No. : 15

The one of the author of the passage can be said to be:

A) prejudiced as well as thoughtful B) unbiased as well as insightful C) objective as well as subjective
D) critical as well as analytical

Question No. : 16

According to the author of the passage, the last chapter problem implies:

A) that the author has probably suggested a solution that is practically not feasible.
B) that the author has probably indulged in bromides that actually don't account for much. C) both (1) and (2)
D) neither (1) nor (2)

Question No. : 17

According to the author of the passage:

I. the solutions posed the problems of meritocracy primarily suggest with tinkering with the system rather than abolishing it.
II. the solutions for the problems posed by meritocracy are not just not strong enough to question the very validity of the system and break its very foundations.
III. solutions for meritocracy, such as the one that involve re-defining merit, miss the mark by making suggestions that are laughable in themselves.

A) I & II B) II & III C) I & III D) All of the above

Question No. : 18

The author of the passage seems to suggest:

A) we should replace meritocracy with aristocracy.
B) we accept meritocracy as a form of aristocracy and learn to live with it.
C) we should replace meritocracy with aristocracy and stop tinkering with it. D) All of the above

DIRECTIONS for the question : *Read the passage and answer the question based on it.*

Question No. : 19

Where is your mind? Where does your thinking occur? Where are your beliefs? Ren Descartes thought that the mind was an immaterial soul, housed in the pineal gland near the centre of the brain. Nowadays, by contrast, we tend to identify the mind with the brain. We know that mental processes depend on brain processes, and that different brain regions are responsible for different functions. However, we still agree with Descartes on one thing: we still think of the mind as brainbound, locked away in the head, communicating with the body and wider world but separate from them. And this might be quite wrong. I m not suggesting that the mind is non-physical or doubting that the brain is central to it; but it could be that the mind extends beyond the brain.

To begin with, there is a strong case for thinking that many mental processes are essentially embodied. The brainbound view pictures the brain as a powerful executive, planning every aspect of behaviour and sending detailed instructions to the muscles. But, as work in robotics has illustrated, there are more efficient ways of doing things, which nature almost certainly employs. The more biologically realistic robots perform basic patterns of movement naturally, in virtue of their passive dynamics, without the use of motors and controllers. Intelligent, powered control is then achieved by continuously monitoring and tweaking these bodily processes, sharing the control task between brain and body. Similarly, rather than passively gathering information to construct a detailed internal model of the external world, it is more efficient for the control system to keep actively probing the world, gathering just enough information at each step to advance the task at hand. Such a strategy relies essentially on body activity.

As well as being embodied, mental processes can also be extended to incorporate external artefacts. Clark proposes what s since been called the Parity Principle, which says that if an external artefact performs a function that we would regard as mental if it occurred within the head, then the artefact is genuinely part of the user s mind. To illustrate this, Clark and Chalmers describe two people each trying to work out where various shapes fit in a puzzle. One does it in his head, forming and rotating mental images of the shapes, the other by pressing a button to rotate shapes on a screen. Since the first process counts as mental, the second should too, Clark and Chalmers argue. What matters is what the object does, not where it is located. The rationale is the same as that for identifying the mind with the brain rather than the soul; the mind is whatever performs mental functions.

The Parity Principle doesn t apply only to processes we can in fact perform in our heads. Think about doing a long division with pen and paper. Few of us can do this in our heads, holding all the stages in memory, but if we could, we would certainly regard it as a mental process, so applying the Parity Principle we should regard the pen-and-paper process as a mental one, too. An extension can also be an enhancement.

Language is a particularly powerful means of extension and enhancement, serving, in Clark s phrase, as scaffolding that allows the biological brain to achieve things it could not do on its own. Linguistic symbols provide new focuses of attention, enabling us to track features of the world we would otherwise have missed, and structured sentences highlight logical and semantic relations, allowing us to develop new, more abstract reasoning procedures. With pen or laptop, we can construct extended patterns of thought and reasoning that we could never formulate with our bare brains. In writing, we are not simply recording our thinking but doing the thinking. (As the physicist Richard Feynman once observed: I actually did the work on the paper.)

According to the author of the passage:

A) while writing, it is the process of writing which enables thinking in the brain.
B) during the process of writing, the act of writing itself contributes to the thinking of the mind.
C) during the process of writing, the act of writing is inconsequential as the mind is the one responsible for the complete process.
D) none of the above

Question No. : 20

Which, out of the following, is an example of the Parity Principle?

A) Solving a Sudoku puzzle. B) Solving a Rubik's cube. C) Both (1) and (2) D) Neither (1) nor (2)

Question No. : 21

Identify the statements that are not incorrect as per the views exhibited by the author of the passage.
I. Conventional wisdom regards the mind and the brain as the same.
II. The chances of the mind extending beyond the brain are next to nothing.
III. The brain is a powerful executive that plans every aspect of behaviour.

A) Only I B) Only II C) Only III D) Both II & III

Question No. : 22

Identify the statements that are incorrect as per the information given in the passage.
I. The brain employs the most efficient way of doing things and bodily functions cannot be of assistance in the same.
II. The role of external artefacts in mental processes is limited.
III. Language is a powerful means of extending the functions of the brain.

A) I & II B) II & III C) I & III D) All of the above

Question No. : 23

The approach of the author can be identified as:

A) one where he is explaining a pitfall to a certain line of thought
B) one where he is elucidating a particularly significant debate within the scientific community.
C) one where he is highlights an alternate way of understanding a certain human process. D) both (2) and (3)

Question No. : 24

An apt title for the passage is:

A) The mind transcends the body to encompass all B) The mind and the body are nothing but one
C) The mind is a device locked in the brain but acting through the body
D) The mind isn t locked in the brain but extends far beyond it

DIRECTIONS for the question: *In the sentence provided a part of the sentence is underlined. Beneath the sentence, four/five different ways of paraphrasing the underlined part are indicated. Choose the best alternative amongst the four/five.*

Question No. : 25

1. For most, it was taken to be what nowadays would be called a lifestyle , as exemplified by the habitu s of two famous Saint-Germain cafes, which are still going strong, though with fantastically inflated prices: the Flore and the nearby Deux Magots.
2. Much was made, for instance, of the singer Juliette Gr co, who, with her black polo-neck sweaters and long straight black hair, established the existentialist look .
3. And what a right royal time they had of it.
4. The popular fascination with existentialism in the two decades or so after the second World War was extremely peculiar, given that very few people, especially in the English-speaking world, knew what existentialism was.
5. But the reigning king and queen of the era were Jean-Paul Sartre and his lover and lifelong companion, Simone de Beauvoir.

A) 41253 B) C) D)

DIRECTIONS for the question: *Complete the sentence by filling in the appropriate blank/blanks from the options provided.*

Question No. : 26

1. When an American general arrived to confer with the papal nuncio, the U.S. Army blared music from loudspeakers to prevent journalists from eavesdropping.
2. Although the media delighted in the spectacle, President George H. W. Bush and General Colin Powell, then the chairman of the Joint Chiefs of Staff, took a dim view of it.
3. To escape capture, he took refuge in the Papal Nunciatura in Panama City.
4. In December, 1989, the Panamanian dictator Manuel Noriega was expelled from power by American forces.
5. Members of a psychological-operations unit then decided that non-stop music might aggravate Noriega into surrendering.

A) 2 B) C) D)

DIRECTIONS for the question: *Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.*

Question No. : 27

1. Weeds around the world are developing resistance to glyphosate one of the most common herbicides on the market and like bacteria and tumor cells, many plants can also withstand multiple other toxins, each with unique molecular targets.
2. Introduce a toxin to a system, and you inevitably select for resistant survivors.
3. For years, this general plot line made headlines in the fields of antibiotic resistance and cancer research.

4. These few individuals gain a reproductive advantage and multiply; sometimes they can t be stopped with even the most potent chemicals.
5. It s a story suited for a Hollywood horror film, yet it s also a tenet of evolutionary biology.

A) 52431 B) C) D)

DIRECTIONS for the question: *Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.*

Question No. : 28

1. The difference might arise because more members of a home group would be willing to protect their core territory and resources, but would be less inclined to risk a full-on scrap if the danger was not immediate.
2. Every seasoned punter knows to bear home-field advantage in mind when placing a bet.
3. However, regardless of size, the home team was always more likely to win a battle if it took place close to the centre of its home range.
4. It also turns out that monkeys also appreciate its value when they tangle over territory.
5. However the advantage evaporated if the home side strayed off their turf.
6. In a fair fight between troops one would expect the losing troop to be the smallest.

A) 246351 B) C) D)

DIRECTIONS for the question: *Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.*

Question No. : 29

1. The result of our system is that there is a great waste of ability: a boy or girl of wage-earning parents may be of first-rate capacity in mathematics, or music, or science, but it is very unlikely that he or she will have a chance to exercise this talent.
2. Higher education, at present, is mainly, though not entirely, confined to the children of the well-to do.
3. And since education is, in the main, controlled by the State, it has to defend the status quo, and therefore must, as far as possible, blunt the critical faculties of young people and preserve them from dangerous thoughts
4. Moreover, education, at least in England is still infected through and through with snobbery; in private and elementary schools consciousness of class is imbibed by the pupils at every moment of their life.
5. It sometimes happens, it is true, that working-class boys or girls reach the university by means of scholarships, but as a rule they have had to work so hard in the process that they are worn out and do not fulfill their early promise.

A) 25143 B) C) D)

DIRECTIONS for the question: *Identify the most appropriate summary for the paragraph.*

Question No. : 30

Thomas More s Utopia, a book that will be 500 years old next year, is astonishingly radical stuff. Not many lord chancellors of England have denounced private property, advocated a form of communism and described the current social order as a conspiracy of the rich . Such men, the book announces, are greedy, unscrupulous and useless . There are a great number of noblemen, More complains, who live like drones on the labour of others. Tenants are evicted so that one insatiable glutton and accursed plague of his native land may consolidate his fields. Monarchs, he argues, would do well to swear at their inauguration never to have more than 1,000lbs of gold in their coffers.

1. Thomas More's Utopia is driven by the appalling conditions is society and More is pained to see the state of society
2. Thomas More's Utopia is an uncommon work from a person of privilege who challenges society's way of working and protecting privilege
3. Thomas More's Utopia is rare as a work that takes up the cudgels against its own and leads the crusade for reform
4. Thomas More's Utopia is a rare work that advocates for the rights of the poor and is decidedly left-centric in its approach

A) 2 B) C) D)

DIRECTIONS for the question: *Identify the most appropriate summary for the paragraph.*

Question No. : 31

Primary school children participating in National Theatre (NT) drama schemes enjoy school more and have improved their speaking and listening skills, a three-year study has found. Through studying Shakespeare and Marlowe and acting out their plays using puppets and music, NT children have also experienced a marked increase in self-confidence in class, said the report, published today by the Social Science Research Unit at the Institute of Education. Jenny Harris, the NT's head of education, urged schools throughout the country to emulate the programme. "The key findings of this rigorous study raise critical considerations that we hope will inform the current debate about the role, and more importantly, the value of the arts," she said.

1. Drama and art are the solutions for improving the skills of students
2. Drama and art drive the performance of the student in school
3. Drama and art can be significant contributors for the skill development of students
4. Drama and art are the most valuable of art subjects and their value is exhibited by the role in student skill development

A) 3 B) C) D)

DIRECTIONS for the question: *Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.*

Question No. : 32

1. From stage settings to media management, everything was choreographed to perfection by the IAC.
2. The day for launching the anti-corruption agitation was carefully chosen to fall between the end of the cricket world cup and the beginning of the Indian Premier League.
3. What made the IAC particularly farcical was its deliberate theatrics and public relations stunts.
4. The IAC did not emerge as a natural coalition of different movements which had grown out of local struggles over months and years of mobilisations.

A) 4 B) C) D)

DIRECTIONS for the question: *Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.*

Question No. : 33

1. The anti-corruption agenda and the sledge hammer solutions demanded by the India against Corruption (IAC) movement spoke to the daily tyranny of corruption in every Indian citizen s life, and kept the movement open for people with different agendas to come together.
2. Corruption, as a public rallying point, has few parallels, at least in the Indian mindscape.
3. One may argue with the specific ways adopted by the IAC to put across its point, but it is an undeniable achievement of the movement that it was successful in bringing ordinary folk onto the streets.
4. Such single-point movements have hardly any parallels elsewhere but logic and experience suggest that it may have to go beyond its raison de tre to stay relevant.

A) 2 B) C) D)

DIRECTIONS for the question: *Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.*

Question No. : 34

1. For instance, while SHOT has drifted towards a predominance of contextualist approaches, this drift seems to be linked to the most recent generation of historians of technology, many of whom were trained as historians, not as technologists.
2. In view of the importance that technology education places on understanding technology in society, a contextualist history might appear to be the most appropriate approach.
3. Yet there are potential problems as can be learned from historians of technology.
4. These historians have benefited from many of the fine and extensive internalist histories of technology.

A) 4 B) C) D)

Section : DI & Reasoning

DIRECTIONS for the question: *The question below is followed by two statements marked A and B. Mark as your answer.*

Question No. : 35

A cistern is filled by three types of pipes F, G and H. All the three pipes are opened at 10 am. At what time will the tank be filled?

A. Pipe F supplies water at the rate of 12 liters per second which is double the rate of G.
B. Pipe H supplies water at the rate of 9 liters per second which is more than that of G. G alone can fill the tank in 3 hrs.

A) If the question can be answered by using the statement A alone or B alone, but not both
B) If the question can be answered by using either of the statements alone
C) If the question cannot be answered on the basis of the two statements
D) If the question can be answered by using both the statements together but not by either of the statements alone.

DIRECTIONS for the question: *Read the information given below and answer the question that follows.*

Question No. : 36

It is placement season. The hopes are high in all the B-Schools across the country. The best students from 5 of the colleges were asked to rate their B-Schools. After much deliberation, these 5 students came up with some significant results. 5 Colleges were rated as 1 being the least favored and 5 being the most favored.

The particulars are provided as follows:-

1. NMI (B-School) was rated one less than the B-School where person whose last name was Kapur studied.
2. Only one B-school was rated 2 while two B-schools were rated 3 and two were rated 4 in the study.
3. Ms. Goyal(Surname) and Mr. Ajay(First Name) both studied at colleges that were rated 3 in the study.
4. Ms. Pathak(Surname) studied in IMT(B-School). IMT was not rated 4.
5. GIM(B-School) was rated 4 in the study. Swati s last name was not Jindal.
6. Anirudh s last name was Gupta but he didn t study in GIM. Neha whose last name was not Kapur, studied at ISB.
7. ISB (B-school) was rated higher than Ms. Ishita s (First Name) college, the college rated 3 was not IIS(B-School).

Which of the following statements is true?

A) Gupta studied in IIS B) Ajay studied in GIM C) Swati studied in IMT D) ISB was rated 4 in the study

Question No. : 37

Which college was rated 2 in the study?

A) ISB B) GIM C) IMT D) IIS or GIM

Question No. : 38

Who studied in ISB?

A) Swati B) Ishita C) Ajay D) Neha

Question No. : 39

What is Pathak s first name?

A) Ishita B) Anirudh C) Ajay D) Swati

Question No. : 40

What is Neha s last name?

A) Jindal B) Pathak C) Gupta D) Goyal

DIRECTIONS for the question: *Go through the graph and the information given below and answer the question that follows.*

Question No. : 41

Mr. Mukherjee and his assistant were making a data table of GDP (simple average of the rate of all the sectors) of some years and plans given below. But due to a virus attack in the computer, some data was lost. His assistant remembers some data and tries to create the table:

	Rate of Growth of GDP at Factor Cost at 2000-2001 Prices							
	X Plan	2003-04	2004-05	2005-06	2006-07	2007-08	XI Plan	2008-09 (Revised Estimates)
Agriculture & Allied		7.2	10		5.9	3.8	2.5	4.5
Mining	4		3.1	7.2	4.9	5.7	7.1	4.7
Manufacturing	3.3	6.2	6.6	8.7		12	8.6	8.8
Electricity	4.8	4.7		8.9	4.7	6	7.6	6.3
Construction	7.1	7.9	12	16.5	16.5	12	12.9	9.8
Trade and hotels		6.9	10.1	7.7	9.4	8.5	8.5	12
Transport & Communication	8.9	14.1	15.3	15.6	14.6	16.6	12.3	0
Financing, Real Est., Housing	8		5.6	7.7	11.4	13.9	9.5	11.8
Community	7.7	3.9		7.9		6.9	6.8	7.3
GDP	5.97	7.52	8.1	8.96		9.48		7.24

C1: Rate of growth of Trade & Hotels is 3 times more than the rate of growth of Agriculture in the X plan. Also, the rate of growth of mining in 2003-04 is 20 % more than the rate of growth of Financing, Real Est., and Housing in 2003-04.

C2: Ratio of the Rate of growth of Electricity to the rate of growth of Community in 2004-05 is 8 : 9. The ratio of the rate of growth of Community in 2004-05 to rate of growth of Community in 2006-07 is 3: 4. Value of rate of growth of Manufacturing in 2006-07 is 9%. GDP rate is always calculated up to 2 decimal points, but rate of growth of all sectors is calculated up to only 1 decimal point.

What is the ratio of rate of growth of Agriculture in X Plan to the rate of growth of Agriculture in 2005-06?

A) 1 : 2 B) 4 : 1 C) 5 : 1 D) None of these

Question No. : 42

If the rate of growth of Manufacturing in 2006 07 were equal to the simple average of the rates of growth of Manufacturing from 2003 04 to 2007 08 and the rate of growth of Community in 2004 05 and 2006 07 were both equal to the simple average of the rates of growth of Community from 2003 04 to 2007 08, what would be the GDP in 2006 07?

A) 8.66 B) 9.04 C) 8.82 D) 9.11

Question No. : 43

What is the ratio of the rate of growth of Community in 2006-07 to the rate of growth of Trade & Hotel in X plan?

A) 9/10 B) 24/25 C) 19/18 D) 19/23

Question No. : 44

If the values of the rates of growth of sectors which are missing from the table are increased by 10%, then the total would be approximately what percentage of the total GDP of 2008-09 (revised estimate)? (in percent, rounded to nearest integer)

A) 90 B) C) D)

DIRECTIONS for the question: *Read the information given below and answer the question that follows.*

Question No. : 45

The Medical Association conducted a research on the nutrient retention and utilization in the people. The research indicates that out of a total body weight gain in a week for a particular person, the contribution of fats is 12%, proteins contribute 6%

and minerals contribute 2% to body weight gain. Based on this, a quick diet plan was created, the result of which was the Diet Chart. It had all the protein, mineral and fat requirement of the body for a week. (Exactly 70% of body weight gain was due to carbohydrates but it wasn t included in the making of the Diet Chart)

For the next week, the research was continued; except for the change that Diet Chart was introduced in the diet plan of the patients. The five patients (M, N, O, P and R) on which the new study was conducted now show the follow result:

P has the highest body weight gain. N gained 15000 units of body weight more than M did, who scored least. The contribution of minerals in the body weight gain of O was second highest. The contribution of fats to body weight gains of the 5 patients were 3000, 4800, 7200, 4200 and 6000 units (in some order).

Who gained the lowest total weight?

A) M B) N C) R D) O

Question No. : 46

The Medical Association conducted a research on the nutrient retention and utilization in the people. The research indicates that out of a total body weight gain in a week for a particular person, the contribution of fats is 12%, proteins contribute 6% and minerals contribute 2% to body weight gain. Based on this, a quick diet plan was created, the result of which was the Diet Chart. It had all the protein, mineral and fat requirement of the body for a week. (Exactly 70% of body weight gain was due to carbohydrates but it wasn t included in the making of the Diet Chart)

For the next week, the research was continued; except for the change that Diet Chart was introduced in the diet plan of the patients. The five patients (M, N, O, P and R) on which the new study was conducted now show the follow result:

P has the highest body weight gain. N gained 15000 units of body weight more than M did, who scored least. The contribution of minerals in the body weight gain of O was second highest. The contribution of fats to body weight gains of the 5 patients were 3000, 4800, 7200, 4200 and 6000 units (in some order).

What was the contribution of fats to body weight growth in R? (in units)

A) 4200 B) C) D)

Question No. : 47

The Medical Association conducted a research on the nutrient retention and utilization in the people. The research indicates that out of a total body weight gain in a week for a particular person, the contribution of fats is 12%, proteins contribute 6% and minerals contribute 2% to body weight gain. Based on this, a quick diet plan was created, the result of which was the Diet Chart. It had all the protein, mineral and fat requirement of the body for a week. (Exactly 70% of body weight gain was due to carbohydrates but it wasn't included in the making of the Diet Chart)

For the next week, the research was continued; except for the change that Diet Chart was introduced in the diet plan of the patients. The five patients (M, N, O, P and R) on which the new study was conducted now show the follow result:

P has the highest body weight gain. N gained 15000 units of body weight more than M did, who scored least. The contribution of minerals in the body weight gain of O was second highest. The contribution of fats to body weight gains of the 5 patients were 3000, 4800, 7200, 4200 and 6000 units (in some order).

How many percent more did O gain over N in the Minerals contribution in total body weight gain? (in percentage)

A) 25 B) C) D)

Question No. : 48

The medical Association conducted a research on the nutrient retention and utilization in the people. The research indicates that out of a total body weight gain in a week for a particular person, the contribution of fats is 12%, proteins contribute 6% and minerals contribute 2% to body weight gain. Based on this, a quick diet plan was created, the result of which was the Diet Chart. It had all the protein, mineral and fat requirement of the body for a week. (Exactly 70% of body weight gain was due to carbohydrates but it wasn t included in the making of the Diet Chart)

For the next week, the research was continued; except for the change that Diet Chart was introduced in the diet plan of the patients. The five patients (M, N, O, P and R) on which the new study was conducted now show the follow result:

P has the highest body weight gain. N gained 15000 units of body weight more than M did, who scored least. The contribution of minerals in the body weight gain of O was second highest. The contribution of fats to body weight gains of the 5 patients

were 3000, 4800, 7200, 4200 and 6000 units (in some order).

What was the total contribution of Diet Chart to the body weight growth of the five patients? (in units)

A) 42000 B) C) D)

Question No. : 49

The Medical Association conducted a research on the nutrient retention and utilization in the people. The research indicates that out of a total body weight gain in a week for a particular person, the contribution of fats is 12%, proteins contribute 6% and minerals contribute 2% to body weight gain. Based on this, a quick diet plan was created, the result of which was the Diet Chart. It had all the protein, mineral and fat requirement of the body for a week. (Exactly 70% of body weight gain was due to carbohydrates but it wasn t included in the making of the Diet Chart)

For the next week, the research was continued; except for the change that Diet Chart was introduced in the diet plan of the patients. The five patients (M, N, O, P and R) on which the new study was conducted now show the follow result:

P has the highest body weight gain. N gained 15000 units of body weight more than M did, who scored least. The contribution of minerals in the body weight gain of O was second highest. The contribution of fats to body weight gains of the 5 patients were 3000, 4800, 7200, 4200 and 6000 units (in some order).

If the remaining body weight gain was from a combination of elements like roughage, vitamins, acids, etc collectively referred to as others then what was the contribution of this segment to the total body weight growth? (in units)

A) 21000 B) C) D)

DIRECTIONS for the question: *Go through the graph and the information given below and answer the question that follows.*

Question No. : 50

The Marketing head of XYZ company decided to change the price of 6 particular items to increase its sales. The price of all six items will change for the following months: November, December and January. They follow some rules to change the price of all these six items.

1. The price of an item in the month of December will decrease with respect to the marked price of the particular item in previous month.
2. The price of an item in the month of November will increase according to the marked price given in the table.
3. The price of the item in January changes with respect to the price of the item in the previous month.

The table below provides the information about the maximum and minimum possible selling price of each of the six items during each of the mentioned 3 months.

		Percentage change in Any month				
Items	Marked Price (in Rs.)	November	December	January	Minimum selling price in any month (In Rs.)	Maximum Selling Price any month (In Rs.)
Shirt	380	20	5	23	310	440
Sherwani	490	10	10	9	410	530
Trouser	400	5	10	8	350	415
T-Shirt	510	15	10	10	425	570
Shoes	620	20	4	10	585	670
Skirt	320	15	20	15	265	345

What could be the minimum selling price of Sherwani in month of January? (in Rs., rounded to nearest integer)

A) 434 B) C) D)

Question No. : 51

What could be the maximum selling price of a T-shirt in January?

A) Rs. 570 B) Rs. 580 C) Rs. 544 D) None of these

Question No. : 52

What is the ratio of price of Trouser in the month of December to the price of Skirt in the month of November?

A) 230: 249 B) 189: 184 C) 249: 230 D) None of these

DIRECTIONS for the question: *The question below is followed by two statements marked I and II. Mark as your answer.*

Question No. : 53

P and R are two distinct non-negative integers. If S = P R, is 2 the unit s digit of S?

I. R = P + 2.
II. P is an odd prime number.

A) if the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone,
B) if the question can be answered by using either statement alone,
C) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone, and,
D) if the question cannot be answered even by using both the statements together

DIRECTIONS for the question: *Read the information given below and answer the question that follows.*

Question No. : 54

Karishma, Leela, Madhuri, Nandini and Punita recently changed their agencies in a book market where they have worked for years. There are ten agencies in the market, five on each side of the road. Karishma, Leela, Madhuri, Nandini and Punita are the salesgirls of different book agencies. These book agencies are: R&W, JK, Veena, Himanshu and Twin brothers in that order, on the same side of the road. R & W is on the extreme left. All the sales girls left their agencies and joined new agencies on the other side of the road. Note that all the sales girls joined different agencies on the other side of the road.

1. Ramesh, Royal, Gaurav, Khushboo and Rajkamal are the five agencies - in that order on the opposite side of the road, in which all the girls are working now.
2. Ramesh agency is opposite R & W agency.
3. Leela now works in the Khushboo agency. The sales girl who used to work in Veena agency moved to Rajkamal agency.
4. The agency in which Karishma used to work was immediately between the agencies in which Madhuri and Nandini used to work.
5. Punita used to work in the agency directly opposite to the agency in which Nandini now works. Neither of these two used to work in the JK agency.
6. Madhuri works in the Gaurav agency. The sales girl who now works in the Royal agency, changed from R & W agency.
7. Karishma now works in the agency directly opposite to the agency in which Leela used to work.

Punita was not satisfied with the working environment in the newly joined agency. She decided to return to her old agency from where she had come here. In which agency will she go now?

A) Veena agency B) Twin Brothers C) JK agency D) R & W agency

Question No. : 55

Madhuri changed from .to ..

A) Veena agency, Rajkamal agency B) R & W agency, Gaurav agency C) JK agency, Gaurav agency
D) JK agency, Khushboo agency

Question No. : 56

Karishma joined Rajkamal from

A) Veena agency B) JK agency C) Himanshu agency D) R & W agency

DIRECTIONS for the question: *Read the information given below and answer the question that follows.*

Question No. : 57

The sugarcane arriving at a sugar factory is crushed to extract the juice. The crushed cane, which forms 25% of the weight of sugarcane, is termed as bagasse and is sold at Rs.2200 per quintal for use as a fuel. The juice is then processed to yield molasses and sugar. The molasses is sold at Rs.7000 per quintal for use in the liquor industry and sugar is sold at Rs.33 per kg. On an average, one tonne of sugarcane yields 150 kg of molasses and 120 kg of sugar.

Other than the cost of sugarcane, which is Rs.240 per quintal, the total expenses of the factory are made up of overheads, which are 30% of the revenue generated from the sale of bagasse, molasses and sugar. Profit is arrived at as the difference between revenue and expenses. The factory pays a tax of 40% on it profit to arrive at its net income.

On account of high demand, the factory is able to sell everything that it can process.

The factory processes x tonnes of sugar cane and earns net income of approximately Rs.437,500 from the sale of bagasse, molasses and sugar. Which of the following defines x?

A) $20 \le x \le 25$ B) $40 \le x \le 50$ C) $60 \le x \le 70$ D) $80 \le x \le 85$

Question No. : 58

The sugarcane arriving at a sugar factory is crushed to extract the juice. The crushed cane, which forms 25% of the weight of sugarcane, is termed as bagasse and is sold at Rs.2200 per quintal for use as a fuel. The juice is then processed to yield molasses and sugar. The molasses is sold at Rs.7000 per quintal for use in the liquor industry and sugar is sold at Rs.33 per kg. On an average, one tonne of sugarcane yields 150 kg of molasses and 120 kg of sugar.

Other than the cost of sugarcane, which is Rs.240 per quintal, the total expenses of the factory are made up of overheads, which are 30% of the revenue generated from the sale of bagasse, molasses and sugar. Profit is arrived at as the difference between revenue and expenses. The factory pays a tax of 40% on it profit to arrive at its net income.

On account of high demand, the factory is able to sell everything that it can process.

The factory is planning to implement a new method for processing the juice extracted from sugarcane. The advantage of this method is that it increases the yield of molasses by 20% without affecting the yield of any of the other products. What would be the change in the factory s net income from the sale of bagasse, molasses and sugar if they implement the new method for processing 100 tonnes of sugarcane? (in Rs.)

A) 88200 B) C) D)

DIRECTIONS for the question: *Read the information given below and answer the question that follows.*

Question No. : 59

A fortune teller has a unique way of predicting his customer's prognosis. He has three parrots kept in three different cages. Each cage also has three cards with a single digit non-zero number inscribed on every card. No two cards have the same number and no cage contains two cards with digits totalling ten. Further, the total of three cards in the first cage is greater by two than the second and by four than the third. When a customer asks for his prognosis, the fortune teller lets out the three parrots which randomly pick one card out of their respective cages. Before the prognosis is made, the fortune teller totals the digits on the three cards picked out and charges the customer the same number of rupees as the total of the cards. One day a customer paid Rs.7 for his prognosis.

If 8 and 3 are the numbers on two cards in the same cage, which of the following numbers is printed on a card in the cage with the least total?

A) 7 B) 4 C) 9 D) 6

Question No. : 60

A fortune teller has a unique way of predicting his customer's prognosis. He has three parrots kept in three different cages. Each cage also has three cards with a single digit non-zero number inscribed on every card. No two cards have the same number and no cage contains two cards with digits totalling ten. Further, the total of three cards in the first cage is greater by two than the second and by four than the third. When a customer asks for his prognosis, the fortune teller lets out the three parrots which randomly pick one card out of their respective cages. Before the prognosis is made, the fortune teller totals the

digits on the three cards picked out and charges the customer the same number of rupees as the total of the cards. One day a customer paid Rs.7 for his prognosis.

If one of the parrots selects the card with the number 9 printed on it, what is the difference between the maximum and the minimum amount that a customer would have to pay for a prognosis? (in Rs.)

A) 11 B) C) D)

Question No. : 61

A fortune teller has a unique way of predicting his customer's prognosis. He has three parrots kept in three different cages. Each cage also has three cards with a single digit non-zero number inscribed on every card. No two cards have the same number and no cage contains two cards with digits totalling ten. Further, the total of three cards in the first cage is greater by two than the second and by four than the third. When a customer asks for his prognosis, the fortune teller lets out the three parrots which randomly pick one card out of their respective cages. Before the prognosis is made, the fortune teller totals the digits on the three cards picked out and charges the customer the same number of rupees as the total of the cards. One day a customer paid Rs.7 for his prognosis.

Which of the following amounts can the fortune teller not charge for a prognosis?

A) Rs.10 B) Rs.16 C) Rs.15 D) Rs.8

DIRECTIONS for the question: *Analyse the graph/s given below and answer the question that follows.*

Question No. : 62

Data given in one question can be used as additional information in all subsequent questions.

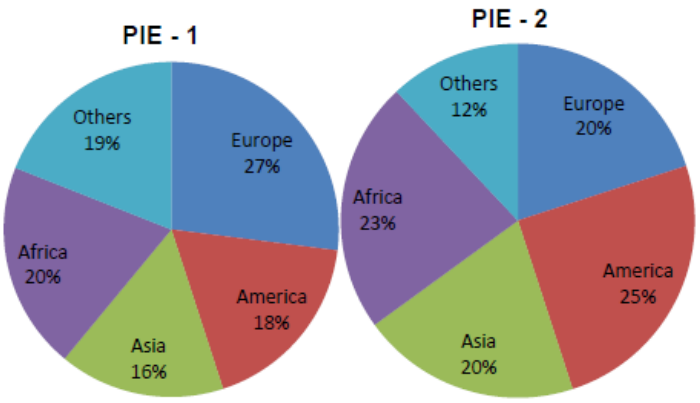
Colt Arms is a leading provider of advanced weapons and defense systems with an active interest in selling cutting-edge aggressive and defensive weaponry to countries. They are not Rightist or Leftist when it comes to selling their weapons; they call themselves the Opportunists. They sell their weapons to the Leftists, Rightists and the Pacifists, though Pacifists are not their regular customers.

In the 1990s, this company had offices in many countries and sold their latest technologies in continents like Europe, America, Asia, Africa and Others. They also have development centers in most technologically rich countries.

Below is a table that shows the percentage share of their various development centers located in different countries for the sale of defensive and aggressive Weaponry and Technology (Tech) to some major continents:

	Europe		America		Asia		Africa		Others	
	Weaponry	Tech	Weaponry	Tech	Weaponry	Tech	Weaponry	Tech	Weaponry	Tech
India	16	21	11	30	7	17	13	19	17	8
China	12	25	18	14	13	23	8	26	18	7
Russia	20	6	14	16	18	10	16	15	16	25
Iraq	14	13	13	8	32	20	11	12	17	20
Pakistan	18	19	20	10	15	12	23	13	21	23
Japan	20	16	24	22	15	18	29	15	11	17

Given below is the percentage distribution of the total sales of Weapons (PIE 1) and Technology (PIE 2) to different continents by Colt Arms:



The total sale of Weaponry by Colt Arms is 30 lakh units and that of Technology is 40 lakh units

Which of the following development centres sells the highest number of Weaponry units all across the continents shown above?

A) Russia B) India C) Japan D) Pakistan

Question No. : 63

Which of the following statements is true?

A) If Canada is one of the countries in the Others category, then Russia s contribution in weaponry units to Canada is definitely more than Russia s contribution in Weaponry units to Asia
B) India s sale of Weaponry units is more than that of its Technology units
C) China sells lesser units of Weaponry than that of Technology to America
D) Pakistan s sales of Weaponry units to Europe and Asia together are more than the sales of Technology units to America and Africa together

Question No. : 64

How many more units of Weaponry than that of Technology were sold by India, Russia and Pakistan together to Europe?

A) 69400 units B) 37400 units C) 74200 units D) 45600 units

Question No. : 65

Sri Lanka is one of the major trading regions in the Others category and 3% of the total sales of Weaponry units to the Others category is sold to Sri Lanka. If only India and Russia are able to sell to Sri Lanka in the ratio of 7 : 8 for Weaponry, then the number of Weaponry units India selling to Sri Lanka as a percentage of India s total sales of weaponry units is? (approx).

A) 4.25% B) 3.5% C) 2% D) 2.75%

Question No. : 66

According to the UN s decree Colt Arms has to stop selling its Weaponry units produced in development center of Iraq to Asia. What is the percentage loss to Colt Arms (with respect to total weaponry units sold), if all the unsold stock gets caught by a UN team, rendering it unavailable to the organization?

A) 2.7% B) 3.6% C) 4.5% D) 5.12%

Section : Quantitative Ability

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 67

Rs. 7500 is borrowed at compound interest at the rate of 2% for the first year, 4% for the second year and 5% for the third year. The amount paid after 3 years will be

A) Rs. 8353.80 B) Rs. 8432 C) Rs. 8235 D) Rs. 8520.20

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 68

There are two drums of petrol of different prices, their volumes being 220 litres and 180 litres. Equal quantities are drawn from the two drums, and the petrol drawn from the first drum is poured into the second, and the petrol drawn from the second is poured into the first. Now the price of petrol per litre in both drums becomes the same. How much is drawn from each drum?

A) 109 litres B) 99 litres C) 89 litres D) None of these

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 69

In a race of 500 meters, R beats S by 20 m and N by 50 m. If S and N are running a race of 1200 m with S running exactly at the same speed as before and N increases his speed by 20 %, then who wins the race and by how many meters? (write the answer key)

1. N, 233.34 m 2. S, 116.64 m 3. N, 133.34 m 4. The race ends in a dead heat.

A) 3 B) C) D)

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 70

Atul travelled to his office at 25 kmph and reached 20 minutes late. When he travelled at 40 kmph, he reached 20 minutes early. Find the approx. speed at which he travelled if he reached his office 10 minutes early. (in kmph, rounded to nearest integer)

A) 35 B) C) D)

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 71

Given that j is a positive number such that $[j \quad 3/4]\ [j + 3/4]$ = prime; $[j]$ denotes the greatest integer function.
The solution to this equation belongs to the range -

A) $1.75 \quad j < 2.75$ B) $0.25 \quad j < 1.25$ C) $1.75 \quad j < 2.25$ D) Both options 2 and 3

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 72

If the cost of 1 pen, 2 erasers and 8 copies is 780 and cost of 6 pens, 12 erasers and 11 copies is Rs. 980, then what is the cost of 6 copies? (in Rs.)

A) 600 B) C) D)

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 73

What is the percentage profit on the sale of a tablet at Rs.11000, after discount?

(i) The margin percentage on sales price is 10%.
(ii) A discount of 20% was offered on the market price.
(iii) Mark-up percentage was 50% over the cost price.

Question can be answered by

A) Statement (i) only B) Combining statements (ii) and (iii) C) Statement (ii) only
D) Statement (i) or by combining statements (ii) and (iii)

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 74

A beaker has capacity of 150 liters. It is filled to the brim with milk and water in the ratio 1: 4. Marbles of the volume 0.25 dm^3 each are dropped into the beaker. As a result, some of the solution overflows. Now, the marbles are removed and milk is added to replace the solution that had over flown. On analysis, the new solution is found to have 50 % milk. Then what was the number of marbles dropped (1litre = $1dm^3$)? (in numerical value)

A) 225 B) C) D)

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 75

From Bulls Eye Panchkula center, a number of students appear for one of the papers of the Online Cat test series. The paper consists of 100 questions. For each correct answer the candidate is awarded 1 mark and for each wrong answer $1/5^{th}$ of the marks are deducted. No marks are deducted for not attempting a question. Exactly 20% of the students scored exactly 50 marks but no two attempted the same number of questions. Find the total number of students who appeared for the test?

A) 65 B) 45 C) 55 D) Cannot be determined

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 76

There are an infinite number of pipes attached to a very big tank. Performance of a pipe is the amount of water filled in the tank in equal time. The pipes are numbered P_1, P_2, P_3..... and so on. The performance of every subsequent pipe is 90% that of the earlier pipe, i.e. the performance of P_2 is 90% the performance of P_1, and so on. When all the pipes are working together, the tank gets filled in 4 hours. Working alone, how many pipes can fill the tank within 50 hours (in numerical value)?

A) 3 B) C) D)

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 77

A vertical pole of height 5 6 meters, standing at the center of a square park, subtends an angle of 60^O at one of the corners of the park. What is the area of the path on the outside of this park which is 2m wide uniformly in all sides of the square park?

A) 96 m^2 B) 192 m^2 C) 100 m^2 D) None of these

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 78

Let $p(x)$ = max (1 + 9x, 67 13x), where x is a real number. Find the maximum possible value of $p(x)$.

A) 5 B) 20 C) 28 D) Cannot be determined

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 79

Three friends, Ranjeet, Sahil and Tarun, have different sums of money with them. If Ranjeet gives away half of his sum to the other two equally then Sahil and Tarun together would have 8 times as much money as Ranjeet. If Sahil gives away a third of his sum to the other two equally then the Ranjeet and Tarun together would have 3 times as much money as Sahil. If Tarun gives away a fourth of his sum to the other two equally then the Ranjeet and Sahil together would have twice as much money as Tarun. If all the sums involved are an integral number of rupees, which of the following cannot be the sums with Ranjeet, Sahil and Tarun respectively?

A) 638, 957, 1276 B) 200, 300, 400 C) 426, 636, 848 D) 346, 519, 692

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 80

A total of 625 people visit a camp. There are several tents having different capacity. It is observed that people can sleep in the group of not less than 4 and not more than 7 in a tent according to the space available in the tent. Also, the number of tents having a capacity of exactly 4 people is less than the number of tents having capacity of exactly 5 people and so on. It is also given that the number of tents in which 5 people sleep is 21. There is at least one tent of each type. What is the maximum number of people living in the tents with the capacity for exactly 6 people? (in numerical value)

A) 38 B) C) D)

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 81

Manoj and Akhilesh are two non-identical twins. Both of them own plots of square shape in the *Peer Moshalla* Colony. Manoj's house has a land area double in size to that of Akhilesh's house. Manoj's house is designed as a cubical house with the roof in the shape of a square Pyramid having slant height 9 m. Akhilesh built his house in the shape of a cylinder of height 8 m topped up by a right circular conical roof of diameter 10 m. What is the height of Manoj s house (Given each person covers the maximum possible land area while building house)?

A) 31 m B) 8 + 2 14 m C) 10 2 + 31 m D) Cannot be determined

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 82

Find the number of ordered pairs (x, y), where both x and y are integers such that, $x + 1/y = x/y - 1$ (in numerical value)

A) 3 B) C) D)

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 83

A group of 4 workers can make a wall in 25 days. This group starts the work and after every two days, one additional worker joins the group. Assume that the capacity of each worker is the same. On which day will the work get completed?

A) 14th day B) 13th day C) 18th day D) None of these

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 84

A flask had some milk in it. One third of the milk was taken out and replaced with water. Then one-third of the resultant mixture was again taken out and replaced with water. This procedure was repeated 6 times. The volume of mixture in the flask after 2^{nd} time was 81 liters. Find the milk left in the flask after 6^{th} time?

A) 7.11 liters B) 8.5 liters C) 11.11 liters D) Cannot be determined

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 85

An insurance company earns Rs. 250 per person as annual premium for MEDICLAIM insurance that covers hospitalization bill up to Rs. 18,900 at the rate of 80% of actual bills. It is estimated that only 1 out of every 100 insured persons would incur the hospitalization bill of Rs.15, 000. This scheme costs the insurance company 10% of the revenue as administrative cost. How much would the company earn as profit per person? (in Rs.)

A) 105 B) C) D)

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 86

Nidhi has a rectangular piece of paper measuring 2 m 3 m. She cut the paper to get the largest square piece. She then cut that square to get the largest rectangle similar to the original one. Every time she cuts a square or a rectangle, she measures the perimeter of the left-out piece of paper. Had the process been repeated infinitely, what would have been the sum of the perimeters she measured each time? (Note that each time Nidhi cut the paper, the cut was parallel to one of the sides of the paper.)

A) 17m B) 34m C) 24m D) 10m

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 87

Find the number of isosceles triangles with perimeter 17 m, such that the length of each of the sides is an integral value (in m) (in numerical value).

A) 4 B) C) D)

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 88

A student was asked to find the average of the first n natural numbers. By mistake he forgot to add one number somewhere in between. He found the average of the remaining numbers as $30\frac{5}{29}$. Find the number he forgot to add.

A) 14 B) 16 C) 18 D) None of these

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 89

What is the highest power of 5 in 10! 100! 1000! 10000!? (in numerical value)

A) 2774 B) C) D)

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 90

In a race A finished 12 m ahead of B and 18 m ahead of C. After that B finished 8 m ahead of C. What was the length of the race track?

A) 960 m B) 1000 m C) 100 m D) None of these

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 91

How many numbers greater than 3456 can be formed by using the digits 2, 3, 4, 5 and 6, such that the digits are not repeated?

A) 192 B) 84 C) 204 D) None of these

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 92

How many factors of 1800 are divisible by 10? (in numerical value)

A) 18 B) C) D)

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 93

Aman has 9 friends (4 boys and 5 girls). In how many ways can he invite them, if there have to be exactly 3 girls in the invitees? (in numerical value)

A) 160 B) C) D)

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 94

The ratio of the ages of a husband and his wife when they got married was 6 : 5. 4 years and 6 years after their marriage they had their 1^{st} and 2^{nd} children. The sum of the present ages of the husband and wife is 6.4 times the sum of the present ages of their children. The average age of the family at present is 18.5 years. Find the ratio of the ages of the husband and wife when their second child was born.

A) 7 : 6 B) 15 : 13 C) 6 : 7 D) None of these

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 95

121 is a palindrome. Find the number of palindromes between 1,000,000 and 9,999,999 which when divided by 4 leave 1 as the remainder. (in numerical value)

A) 2500 B) C) D)

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 96

A page is torn from a booklet. After this is done, the sum of the page numbers on the remaining pages is 1000. What are the page numbers on the page which was torn?

A) 17 and 18 B) 18 and 19 C) 41 and 42 D) 42 and 43

DIRECTIONS for the question *: Solve the following question and mark the best possible option.*

Question No. : 97

$log_3 [log_9 (x^{3/2}$ 7271)] = 1. What is the value of x? (in numerical value)

A) 400 B) C) D)

DIRECTIONS for the question *: Solve the following question and mark the best possible option.*

Question No. : 98

Find the number of digits in 1001^{101}. (in numerical value)

A) 304 B) C) D)

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 99

P, Q, R, S are four stations in order on a railway; the single fare, third class, is Rs. 10 a km., but the company issues week-end return tickets between any two of these stations at the single fare and a third; the week-end tickets, third class, between P and R, Q and S, P and S, cost Rs. 3,600, Rs. 3,200 and Rs. 4,800 respectively; how many kms is R distant from Q?

A) 250 km B) 200 km C) 100 km D) 150 km

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 100

An ice cream company makes a popular brand of ice cream in a rectangular shaped bar 6 cm long, 5 cm wide and 2 cm thick. To cut costs, the company has decided to reduce the volume of the bar by 20 %. The thickness will remain the same, but the length and width will be decreased by the same proportion. The new length *L* will satisfy which of the following relationships?

A) $5.5 < L < 6$ B) $5 < L < 5.4$ C) $4.5 < L < 5$ D) $4 < L < 4.5$

QNo:- 1 ,Correct Answer:- *C*

Explanation:-
Option C is the answer.
In the beginning of the passage line 5, the author states that some financial historians disagree that the growth of banking led to economic growth. The author feels - It may in fact be futile to seek a simplistic causal relationship. In fact he thinks that banking and economic growth may have complemented each other. So it is difficult to decide which is the cause and which is the effect.

A- It is stated in the first paragraph that both were interdependent

B- Is not implied anywhere in the passage

QNo:- 2 ,Correct Answer:- *C*

Explanation:-
Option C
We are looking at evolutionary behavior of companies - so some kind of parallels about how businesses changed to adjust to changing environments, survive and grow. 3 talks only of the environment, not the behavior of the firms themselves.

A - Innovation can be compared to how a species picks up new tricks and trains its offspring to use them. For example the use of tools by monkeys etc.

B - Creation of new kind of firms is similar to creation of new species

D - Is a basic tenet of 'the survival of the fittest'

QNo:- 3 ,Correct Answer:- *B*

Explanation:-
Option B
The passage states that economic theorists of the nineteenth century were not able to challenge the sacred principle that a pound sterling should be convertible into a fixed and immutable quantity of gold. It further states that if this had been adhered to then the growth of UK economy would not have been possible. Thus according to these economists paper money was valueless unless it was a representative of the gold it was valued at.

A - Is derisive of the gold standard

C - Is neutral about the gold standard

D - goes against the gold standard

QNo:- 4 ,Correct Answer:- *C*

Explanation:-
Option 3.
Lower, middle and upper class still exist today and have for years.

The other three cannot be said to be in the same category as class and caste. Families have disintegrated, marriages are dissolving and autocracy no more exists in totality.

QNo:- 5 ,Correct Answer:- *A*

Explanation:-
Option 1.

The caste had religious, functional, administrative and social moorings and put the individual in proper perspective with regard to the traditions which were handed down from generation to generation.
Hence option 1.

It was not only about religion, hence option 2 is incorrect.

There is no mention or implication of slavery in the passage.Hence option 3 is incorrect.

It was not related to wealth. Hence option 4 is incorrect.

***QNo:- 6 ,Correct Answer:-** B*

Explanation:-
Option B.
Just as the trade unions fight for a minimum wages for the workers, irrespective of the lack of skill of some workers, the caste-pachayats too did the same for the different castes. Hence, option B is the best answer.

Option A: Neither needs to hard sell because in both the cases, the involved parties are the one who are benefited.

Option C: Trade unions are only between two - management and workers. Hence, no guilds.

Option D: Caste system never intended to fight against vaisyas, as people are not meant to fight between castes.

***QNo:- 7 ,Correct Answer:-** D*

Explanation:-
Option a is rejected as the passage is not about modern chemistry.
Option c is rejected as the core of chemistry is not explained.
Options b and d are the close ones. We select option d as the primary subject of the author of the passage is Dalton and the focus is on his role and not the core concepts of chemistry

***QNo:- 8 ,Correct Answer:-** C*

Explanation:-
Statement I can be derived from the lines: Differently mixed together or united, atoms produce different gross substances; but the elementary atoms never change their chemical nature their distinct personality.
Statement II has not been mentioned in the passage.
Statement III can be derived from the lines: He was soon led to believe that vapor exists, in the atmosphere as an independent gas. But since two bodies cannot occupy the same space at the same time, this implies that the various atmospheric gases are really composed of discrete particles.

***QNo:- 9 ,Correct Answer:-** A*

Explanation:-
*Statement I is actually incorrect. It should be: The core of Dalton's work is based on the assumption that atmospheric gases are made of **discrete** particles.*
Discrete means "individually separate and distinct"
Discreet means "careful and prudent in one's speech or actions; guarded"
Statement II is incorrect as the passage does not say that Dalton was a meteorologist.
Statement III is correct as per the information given in the passage.

***QNo:- 10 ,Correct Answer:-** B*

Explanation:-
Refer to the lines: I wonder if Dalton himself, great and acute intellect though he had, suspected, when he read that paper, that he was inaugurating one of the most fertile movements ever entered on in the whole history of science?

The author of the passage implies that Dalton may not have known the importance of his discoveries, though he is not sure.

QNo:- 11 ,Correct Answer:- *C*

Explanation:-
In this case, there are a few things that you need to keep in mind:
1. the author does not imply that Dalton was lucky in his discovery; he clearly implies that Dalton put in a lot of thought in his work and his work was an outcome of logic.
2. the wider application of his ideas is discussed.
Both these parameters are present in option c.

QNo:- 12 ,Correct Answer:- *A*

Explanation:- *The word 'epoch' means ' uniquely or highly significant'. The meanings of the options are:*
1. Mind-boggling: Intellectually or emotionally overwhelming
2. Enigmatic: Having an un-obvious or mysterious meaning; hard to understand
3. Momentous: Of very great significance
4. Fitful: Occurring in spells and often abruptly

QNo:- 13 ,Correct Answer:- *B*

Explanation:- *A meritocracy is defined as: a society governed by people selected according to merit.*
In the given context, option 2 is closest to the given meaning.

QNo:- 14 ,Correct Answer:- *D*

Explanation:- *Refer to the lines: The irony lay in the implication that Young, because of who his father was, has special insight into the ideology that holds that it shouldn t matter who your father is.*
Why is Toby Young making the suggestion he is? Because he is the son of Michael Young. He is the product of meritocracy and yet, he is suggesting against the same. This is the irony being pointed out in the given case.

QNo:- 15 ,Correct Answer:- *D*

Explanation:- *In the given passage, the author of the passage adopts a critical approach with regards to other authors and researchers, especially with respect to their views on Meritocracy. He then goes on to provide his own analysis and solution for the same problem. This approach of the author is best represented by option 4.*

QNo:- 16 ,Correct Answer:- *C*

Explanation:- *Refer to the lines: When an author caps two hundred pages of rhetorical fire with fifteen pages of platitudes or utopian fantasy, that is called the last chapter problem.*
Utopia refers to an imagined place or state of things in which everything is perfect.
Bromides means platitudes (which, in turn, means a trite or obvious remark).
Using this information, we can see that option 3 is the correct answer.

QNo:- 17 ,Correct Answer:- *D*

Explanation:- *Each of the statements can be derived from the lines: But the solutions on offer never rise to the scale of the problem. Authors attack the meritocratic machine with screwdrivers, not sledgehammers, and differ only in which valve they want to adjust.....Others favor the slightly more radical solution of redefining our idea of merit, usually in a way that downplays what Guinier calls pseudoscientific measures of excellence. She even has a replacement in mind, the Bial-Dale College Adaptability Index, the testing of which involves Legos. (Why are you laughing? It is backed by a study.)*

QNo:- 18 ,Correct Answer:- *B*

Explanation:- *In the given case, the author of the passage simply recommends that we accept the transition of meritocracy into an aristocracy of a certain kind. He believes that system can be accepted and improved upon. Also, we should stop trying to assume that meritocracy can become the default norm for all and become all-inclusive.*

QNo:- 19 ,Correct Answer:- *B*

Explanation:- *The answer to this question can be derived from the lines: With pen or laptop, we can construct extended patterns of thought and reasoning that we could never formulate with our bare brains. In writing, we are not simply recording our thinking but doing the thinking. (As the physicist Richard Feynman once observed: I actually did the work on the paper.)*
Remember, we can say that writing contributes to thinking but we cannot use the extreme sentiment presented in option 1, which implies that writing leads to thinking.

QNo:- 20 ,Correct Answer:- *C*

Explanation:- *Refer to the lines: As well as being embodied, mental processes can also be extended to incorporate external artefacts. Clark and fellow philosopher of mind David Chalmers propose what s since been called the Parity Principle, which says that if an external artefact performs a function that we would regard as mental if it occurred within the head, then the artefact is (for the time being) genuinely part of the user s mind.*
Remember, anything that can be done within the head without actually using the physical means falls in line with this principle. In fact, these two examples are simply a continuation of the puzzle example provided in the passage.

QNo:- 21 ,Correct Answer:- *A*

Explanation:- *The key thing in this question is to understand the direction itself: Identify the statements that are not incorrect as per the views exhibited by the author of the passage.*
This means we need to identify the statements that are correct.
Statement I is correct and can be derived from the lines: Nowadays, by contrast, we tend to identify the mind with the brain.
Statement II is incorrect and it goes against the information given in the passage.
Statement III is incorrect. It goes against the views of the author. Remember, the question asks you to identify the statements which are correct as per the author of the passage.

QNo:- 22 ,Correct Answer:- *A*

Explanation:- *Remember, the last question stated 'not incorrect'. This question states 'incorrect'. Keep this in mind while answering the question.*

Statement I is incorrect. Refer to the lines: The brainbound view pictures the brain as a powerful executive, planning every aspect of behaviour and sending detailed instructions to the muscles. But, as work in robotics has illustrated, there are more efficient ways of doing things, which nature almost certainly employs.

Statement II is incorrect. Refer to the lines: As well as being embodied, mental processes can also be extended to incorporate external artefacts.

Statement III is correct. Refer to the lines: Language is a particularly powerful means of extension and enhancement, serving, in Clark s phrase, as scaffolding that allows the biological brain to achieve things it could not do on its own.

QNo:- 23 ,Correct Answer:- *C*

Explanation:- *Option 1 is clearly incorrect as the author does not highlight any pitfall.*
Option 2 is incorrect as there is no way to determine whether the topic of discussion is a significant debate within the scientific community.
Option 3 is the best answer in the given case as the author highlights how there has to be a change in understanding how the mind works.

QNo:- 24 ,Correct Answer:- *D*

Explanation:- *For title questions, the most important thing is to identify the central idea of the passage. The passage in this case*

clearly points out that the mind is not something that is limited to the brain but other our physical functions also contribute to it.
Keeping this sentiment in mind, we can see that option 4 is the best answer in the given case.
Option 1 is outside the scope of the passage.
Option 2 is too extreme in the given case. The author does not say that the mind and the body are the same.
Option 3 is incorrect as the author clearly states that we cannot treat the mind as something locked in the brain.

QNo:- 25 ,Correct Answer:- *41253*

Explanation:- *In the given case, statement 4 is the opening sentence of the paragraph as it clearly introduces the subject of the paragraph, existentialism.*
Statement 1 then takes this forward and provides further details for the same. Statement 2 provides an example for the topic of statement 2. Statement 5 introduces a contradiction and statement 3 wraps up the given context.

QNo:- 26 ,Correct Answer:- *2*

Explanation:- *The connected set of statements is: 4-3-1-5. These form set of introductory sentences that provide us the details about the incidence. Statement 2 is not connected to the descriptive nature of the other statements.*

QNo:- 27 ,Correct Answer:- *52431*

Explanation:-
Sentence E is the introductory sentence and the tenet is mentioned in sentence B. 'These few individuals' in sentence D refers to 'resistant survivors' in sentence B.
The concluding sentence is A as it sums up the entire para
Hence, the correct sequence would be EBDCA.
In this question AEBDC would sound as the right answer but it can be rejected as C can not be the concluding sentence.

QNo:- 28 ,Correct Answer:- *246351*

Explanation:-
The paragraph talks about home-field advantage which is introduced in sentence B. BD is a pair.
F states that we expect the smallest, however the home advantage can play a major role which is stated in C.

QNo:- 29 ,Correct Answer:- *25143*

Explanation:-
The paragraph is talking about the higher education and children from differing income levels.
B is a good introductory sentence.
E states that not always working class children also reach university which is a further thought to what is mentioned in B.
Hence BE is a pair.

QNo:- 30 ,Correct Answer:- *2*

Explanation:-
In the given question, there is a very important line that you need to focus on: Not many lord chancellors of England have denounced private property, advocated a form of communism and described the current social order as a conspiracy of the rich .
In this line, the author highlights his surprise that someone rich and powerful is critical ofthe rich. This sentiment is best expressed and captured by option b. Option a comes close but then it misses out on this point.

QNo:- 31 ,Correct Answer:- *3*

Explanation:-
In the given case, each of options a, b and d are far-fetched in nature and do not do justice to the given paragraph. The paragraph only highlights the positive role of drama and art in student development (which is highlight by option c).The other options are too strong in the given case.

QNo:- 32 ,Correct Answer:- *4*

Explanation:-
Only line D speaks of how the IAC originated while the rest focus on its theatrics and farcical ways of working.

QNo:- 33 ,Correct Answer:- *2*

Explanation:-
Except line B, which talks of corruption in general terms, the rest focus on the anti-corruption movement called the IAC.

QNo:- 34 ,Correct Answer:- *4*

Explanation:-
The lines B-C-A form a logical combination here while line D is off tangent and talks of a different issue.

QNo:- 35 ,Correct Answer:- *D*

Explanation:-
Statement A:
As for calculating the total time we need to know the rate of each pipe, hence we cannot calculate the answer from statement A, alone as rate of flow of H is not known.

Statement B:
Here rate of flow of F and G is not known; hence Statement B alone is not sufficient to calculate the answer.

But combining two we get that G can fill the tank in 3 hrs at the rate of 6 liters/sec. Hence the capacity of the cistern = 3 60 60 6 = 64800 liters. Hence time required = 64800/(12+9+6) = 2400 seconds = 40 min. So tank will be filled at 10:40 am.

Hence both statements are required.

QNo:- 36 ,Correct Answer:- *A*

Explanation:-
If we assume that NMI was rated 2, then IMT would be rated 3. Kapur, from statement 1, must be studying in IIS. Thereby, IIS would be rated 3. But note that we already know that Ms. Goyal and Ajay both studied in colleges that were rated 3. Thus, our premise is incorrect. NMI cannot be rated 2. This leads us to the conclusion that IMT was rated 2 while NMI was rated 3.
We can thus, obtain the following table:

Rating	B School	First Name	Last Name
3	NMI	Ajay	Jindal
4	GIM	Swati	Kapur
2	IMT	Ishita	Pathak
4	IIS	Anirudh	Gupta
3	ISB	Neha	Goyal

Hence Gupta studied in IIS.

QNo:- 37 ,Correct Answer:- *C*

Explanation:-
If we assume that NMI was rated 2, then IMT would be rated 3. Kapur, from statement 1, must be studying in IIS. Thereby, IIS would be rated 3. But note that we already know that Ms. Goyal and Ajay both studied in colleges that were rated 3. Thus, our premise is incorrect. NMI cannot be rated 2. This leads us to the conclusion that IMT was rated 2 while NMI was rated 3.
We can thus, obtain the following table:

Rating	B School	First Name	Last Name
3	NMI	Ajay	Jindal
4	GIM	Swati	Kapur
2	IMT	Ishita	Pathak
4	IIS	Anirudh	Gupta
3	ISB	Neha	Goyal

Hence IMT was rated 2 in the study.

QNo:- 38 ,Correct Answer:- *D*

Explanation:-
If we assume that NMI was rated 2, then IMT would be rated 3. Kapur, from statement 1, must be studying in IIS. Thereby, IIS would be rated 3. But note that we already know that Ms. Goyal and Ajay both studied in colleges that were rated 3. Thus, our premise is incorrect. NMI cannot be rated 2. This leads us to the conclusion that IMT was rated 2 while NMI was rated 3.
We can thus, obtain the following table:

Rating	B School	First Name	Last Name
3	NMI	Ajay	Jindal
4	GIM	Swati	Kapur
2	IMT	Ishita	Pathak
4	IIS	Anirudh	Gupta
3	ISB	Neha	Goyal

Hence Neha studied in ISB.

QNo:- 39 ,Correct Answer:- *A*

Explanation:-
If we assume that NMI was rated 2, then IMT would be rated 3. Kapur, from statement 1, must be studying in IIS. Thereby, IIS would be rated 3. But note that we already know that Ms. Goyal and Ajay both studied in colleges that were rated 3. Thus, our premise is incorrect. NMI cannot be rated 2. This leads us to the conclusion that IMT was rated 2 while NMI was rated 3.
We can thus, obtain the following table:

Rating	B School	First Name	Last Name
3	NMI	Ajay	Jindal
4	GIM	Swati	Kapur
2	IMT	Ishita	Pathak
4	IIS	Anirudh	Gupta
3	ISB	Neha	Goyal

Hence Pathak s first name is Ishita.

QNo:- 40 ,Correct Answer:- *D*

Explanation:-
If we assume that NMI was rated 2, then IMT would be rated 3. Kapur, from statement 1, must be studying in IIS. Thereby, IIS would be rated 3. But note that we already know that Ms. Goyal and Ajay both studied in colleges that were rated 3. Thus, our premise is incorrect. NMI cannot be rated 2. This leads us to the conclusion that IMT was rated 2 while NMI was rated 3.
We can thus, obtain the following table:

Rating	B School	First Name	Last Name
3	NMI	Ajay	Jindal
4	GIM	Swati	Kapur
2	IMT	Ishita	Pathak
4	IIS	Anirudh	Gupta
3	ISB	Neha	Goyal

Hence Neha s last name is Goyal.

***QNo:- 41 ,Correct Answer:-** C*

Explanation:-
In 2005-06
Total sum of the rates of growth of all the sectors = 7.2 + 8.7 + 8.9 + 16.5 + 7.7 + 15.6 + 7.7 + 7.9 = 80.2 %
Given that, GDP = Average of the sum of rates growth of all sectors.
So, sum of the rate of growth of all the sectors = 8.96 9 = 80.64
So, rate of growth of Agriculture & Allied in 2005-06 = 0.44 or 0.4
(Because rate of all the sectors is always calculated up to 1 decimal point)
In XI Plan, GDP = (2.5 + 7.1 + 8.6 + 7.6 + 12.9 + 8.5 + 12.3 + 9.5 + 6.8)/9 = (75.8)/9 = 8.42 %
In X Plan, sum of the rates of growth of all the sectors = 5.97 9 = 53.73 or 53.7
Given that , the rate of growth of Trade & Hotels is 3 times more than the rate of growth of Agriculture in the X Plan, so let the value of Rate of growth of agriculture be a,
Rate of Trade & Hotels = 4a
The total sum of rates of growth of all the sectors in X Plan = a + 4 + 3.3 + 4.8 + 7.1 + 4a + 8.9 + 8 + 7.7
= 43.8 + 5a = 53.7
So a = 1.98 or 2.0
Hence, 4a = 8.0

In 2003-04
Sum of the rate of growth of all sectors = 7.52 9 = 67.68 or 67.7
Let s assume the rate of growth of financing, Real Est, Housing be b
So the rate of growth of Mining = 1.2b
The total sum of rate of growth of all the sectors is X plan = 7.2 + 1.2b + 6.2 + 4.7 + 7.9 + 6.9 + 14.1 + b + 3.9
= 50.9 + 2.2b
Now, 50.9 + 2.2b = 67.7
Or, b = 7.63 or 7.6
1.2b = 9.12 or 9.1

In 2004-05, sum of the rate of growth of all the sectors = 8.1 9 = 72.9
Given that the ratio of the rate of growth of Electricity to Community in 2004-05 is 8:9
So let s assume the value of rate of growth of Electricity = 8c and value of rate of growth of Community = 9c
Now the total sum of rate of growth of all the sectors = 10 + 3.1 + 6.6 + 8c + 12 + 10.1 + 15.3 + 5.6 + 9c = 62.7 + 17c
So, 62.7 + 17c = 72.9
c = 0.6
So, the value of rate of growth of Electricity = 8 0.6 = 4.8%
The value of rate of growth of Community = 9 0.6 = 5.4%

In 2006-07
Given that the ratio of the rate of growth of Community in 2004-05 to 2006-07 is 3:4
Value of rate of growth of Community in 2004-05 = 5.4%
So, the value of Community in 2006-07 = (5.4 4)/3 = 1.8 4 = 7.2
Now, the total sum of the rate of growth of all the sectors in 2006-07 = 5.9 + 4.9 + 9 + 4.7 + 16.5 + 9.4 + 14.6 + 11.4 + 7.2
= 83.6
So the GDP growth rate = 83.6/9 = 9.28%

	Rate of Growth of GDP at Factor Cost at 2000-2001 Prices						
	X Plans	2003-04	2004-05	2005-06	2006-07	2007-08	XI Plan	2008-09 (Revised Estimates)

Agriculture & Allied	2.0	7.2	10	0.4	5.9	3.8	2.5	4.5
Mining	4	9.1	3.1	7.2	4.9	5.7	7.1	4.7
Manufacturing	3.3	6.2	6.6	8.7	9	12	8.6	8.8
Electricity	4.8	4.7	4.8	8.9	4.7	6	7.6	6.3
Construction	7.1	7.9	12	16.5	16.5	12	12.9	9.8
Trade and hotels	8.0	6.9	10.1	7.7	9.4	8.5	8.5	12
Transport & Communication	8.9	14.1	15.3	15.6	14.6	16.6	12.3	0
Financing, Real Est., Housing	8	7.6	5.6	7.7	11.4	13.9	9.5	11.8
Community	7.7	3.9	5.4	7.9	7.2	6.9	6.8	7.3
GDP	5.97	7.52	8.1	8.96	9.28	9.48	8.42	7.24

Rate of growth of agriculture in X Plan = 2.0 %
Rate of growth of agriculture in 2005-06 = 0.4 %
The required ratio = 2: 0.4 = 5: 1

QNo:- 42 ,Correct Answer:- *D*

Explanation:-
Suppose the simple average of the rates of growth of Manufacturing from 2003 04 to 2007 08 were x.
Then, (6.2 + 6.6 + 8.7 + x + 12)/5 = x
5x = x + 33.5
4x = 33.5
x = 8.375 8.4.
So the growth rate of Manufacturing in 2006 07 would be 8.4.

Suppose the simple average of the rates of growth of Community from 2003 04 to 2007 08 were y.
Then, (3.9 + y + 7.9 + y + 6.9)/5 = y
5y = 2y + 18.7
3y = 18.7
y = 6.233 6.2.
So the growth rate of Community in 2004 05 and 2006 07 would both be 6.2.

Using these values, the GDP in 2006 07 would be (5.9 + 4.9 + 8.4 + 4.7 + 16.5 + 9.4 + 14.6 + 11.4 + 6.2)/9 = 82/9 = 9.11

QNo:- 43 ,Correct Answer:- *A*

Explanation:-
In 2005-06
Total sum of the rates of growth of all the sectors = 7.2 + 8.7 + 8.9 + 16.5 + 7.7 + 15.6 + 7.7 + 7.9 = 80.2 %
Given that, GDP = Average of the sum of rates growth of all sectors.
So, sum of the rate of growth of all the sectors = 8.96 9 = 80.64
So, rate of growth of Agriculture & Allied in 2005-06 = 0.44 or 0.4
(Because rate of all the sectors is always calculated up to 1 decimal point)
In XI Plan, GDP = (2.5 + 7.1 + 8.6 + 7.6 + 12.9 + 8.5 + 12.3 + 9.5 + 6.8)/9 = (75.8)/9 = 8.42 %
In X Plan, sum of the rates of growth of all the sectors = 5.97 9 = 53.73 or 53.7
Given that , the rate of growth of Trade & Hotels is 3 times more than the rate of growth of Agriculture in the X Plan, so let the value of Rate of growth of agriculture be a,
Rate of Trade & Hotels = 4a
The total sum of rates of growth of all the sectors in X Plan = a + 4 + 3.3 + 4.8 + 7.1 + 4a + 8.9 + 8 + 7.7
= 43.8 + 5a = 53.7
So a = 1.98 or 2.0
Hence, 4a = 8.0

In 2003-04

Sum of the rate of growth of all sectors = 7.52 9 = 67.68 or 67.7
Let s assume the rate of growth of financing, Real Est, Housing be b
So the rate of growth of Mining = 1.2b
The total sum of rate of growth of all the sectors is X plan = 7.2 + 1.2b + 6.2 + 4.7 + 7.9 + 6.9 + 14.1 + b + 3.9 = 50.9 + 2.2b
Now, 50.9 + 2.2b = 67.7
Or, b = 7.63 or 7.6
1.2b = 9.12 or 9.1

In 2004-05, sum of the rate of growth of all the sectors = 8.1 9 = 72.9
Given that the ratio of the rate of growth of Electricity to Community in 2004-05 is 8:9
So let s assume the value of rate of growth of Electricity = 8c and value of rate of growth of Community = 9c
Now the total sum of rate of growth of all the sectors = 10 + 3.1 + 6.6 + 8c + 12 + 10.1 + 15.3 + 5.6 + 9c = 62.1 + 17c
So, 62.1 + 17c = 72.9
c = 0.63 or 0.6
So, the value of rate of growth of Electricity = 8 0.6 = 4.8%
The value of rate of growth of Community = 9 0.6 = 5.4%

In 2006-07
Given that the ratio of the rate of growth of Community in 2004-05 to 2006-07 is 3:4
Value of rate of growth of Community in 2004-05 = 5.4%
So, the value of Community in 2006-07 = (5.4 4)/3 = 1.8 4 = 7.2
Now, the total sum of the rate of growth of all the sectors in 2006-07 = 5.9 + 4.9 + 9 + 4.7 + 16.5 + 9.4 + 14.6 + 11.4 + 7.2 = 83.6
So the GDP growth rate = 83.6/9 = 9.28%

	Rate of Growth of GDP at Factor Cost at 2000-2001 Prices							
	X Plans	2003-04	2004-05	2005-06	2006-07	2007-08	XI Plan	2008-09 (Revised Estimates)
Agriculture & Allied	2.0	7.2	10	0.4	5.9	3.8	2.5	4.5
Mining	4	9.1	3.1	7.2	4.9	5.7	7.1	4.7
Manufacturing	3.3	6.2	6.6	8.7	9	12	8.6	8.8
Electricity	4.8	4.7	4.8	8.9	4.7	6	7.6	6.3
Construction	7.1	7.9	12	16.5	16.5	12	12.9	9.8
Trade and hotels	8.0	6.9	10.1	7.7	9.4	8.5	8.5	12
Transport & Communication	8.9	14.1	15.3	15.6	14.6	16.6	12.3	0
Financing, Real Est., Housing	8	7.6	5.6	7.7	11.4	13.9	9.5	11.8
Community	7.7	3.9	5.4	7.9	7.2	6.9	6.8	7.3
GDP	5.97	7.52	8.1	8.96	9.28	9.48	8.42	7.24

Rate of growth of Community in 2006-07 = 7.2 %
Rate of growth of Trade & Hotels in X plan = 8.0%
So, the required answer = 7.2/8.0 = 9/10

QNo:- 44 ,Correct Answer:- *90*

Explanation:-
Rates which are not given in the table are

1. *Rate of growth of Agriculture & Allied in 2005-06 = 0.4%*
2. *Rate of growth of Agriculture in X Plan = 2.0%*
3. *Rate of growth of Trade and Hotels in X Plan = 8.0 %*
4. *Rate of growth of Mining in 2003-04 = 9.1%*

5. Rate of growth of Financing , Real Est., Housing in 2003-04 = 7.6%
6. Rate of growth of Electricity in 2004-05 = 4.8%
7. Rate of growth of Community in 2004-05 = 5.4%
8. Rate of growth of Community in 2006-07 = 7.2%
9. Rate of growth of Manufacturing in 2006-07 = 9%

Total sum = 53.5%
Increasing this by 10% = (110 53.5)/100 = 58.85
Total GDP of 2008-09 (revised estimate) = 7.24 9 = 65.16
Required percentage = (58.85 100)/65.16 = 90.3% or 90%

QNo:- 45 ,Correct Answer:- *A*

Explanation:-
Given the contribution from fats to body weight growth, we can calculate the increase in total weight as:
If the fat contribution was 3000 units, then total body weight gain was (3000/12) multiplied by 100, i.e. 25000 units. In this case, Mineral contribution becomes (25000/100 2) = 500 units and Protein contribution becomes (25000/100 6) = 1500 units.

Similarly, the table can be filled up. Note that the others category is 10% (100 70 12 6 2) of the Total Weight gained.

Patient	Fats	Proteins	Minerals	Diet Chart Contribution	Carbohydrates	Others	Total Body weight Gain
M	3000	1500	500	5000	17500	2500	25000
N	4800	2400	800	8000	28000	4000	40000
O	6000	3000	1000	10000	35000	5000	50000
P	7200	3600	1200	12000	42000	6000	60000
R	4200	2100	700	7000	24500	3500	35000
Total	25200	12600	4200	42000	147000	21000	210000

Hence M gained the lowest total weight.

QNo:- 46 ,Correct Answer:- *4200*

Explanation:-
Given the contribution from fats to body weight growth, we can calculate the increase in total weight as:

If the fat contribution was 3000 units, then total body weight gain was (3000/12) multiplied by 100, i.e. 25000 units. In this case, Mineral contribution becomes (25000/100 2) = 500 units and Protein contribution becomes (25000/100 6) = 1500 units.

Similarly, the table can be filled up. Note that the others category is 10% (100 70 12 6 2) of the Total Weight gained.

Patient	Fats	Proteins	Minerals	Diet Chart Contribution	Carbohydrates	Others	Total Body weight Gain
M	3000	1500	500	5000	17500	2500	25000
N	4800	2400	800	8000	28000	4000	40000
O	6000	3000	1000	10000	35000	5000	50000
P	7200	3600	1200	12000	42000	6000	60000
R	4200	2100	700	7000	24500	3500	35000
Total	25200	12600	4200	42000	147000	21000	210000

Hence contribution of fats to body weight growth in R is 4200 units.

QNo:- 47 ,Correct Answer:- *25*

Explanation:-
Given the contribution from fats to body weight growth, we can calculate the increase in total weight as:
If the fat contribution was 3000 units, then total body weight gain was (3000/12) multiplied by 100, i.e. 25000 units.
In this case, Mineral contribution becomes (25000/100 2) = 500 units and Protein contribution becomes (25000/100 6) = 1500 units.

Similarly, the table can be filled up. Note that the others category is 10% (100 70 12 6 2) of the Total Weight gained.

Patient	Fats	Proteins	Minerals	Diet Chart Contribution	Carbohydrates	Others	Total Body weight Gain
M	3000	1500	500	5000	17500	2500	25000
N	4800	2400	800	8000	28000	4000	40000
O	6000	3000	1000	10000	35000	5000	50000
P	7200	3600	1200	12000	42000	6000	60000
R	4200	2100	700	7000	24500	3500	35000
Total	25200	12600	4200	42000	147000	21000	210000

The absolute gain is (1000 800) =200
Hence required %age = 200/800 100 =25%

QNo:- 48 ,Correct Answer:- *42000*

Explanation:-
Given the contribution from fats to body weight growth, we can calculate the increase in total weight as:
If the fat contribution was 3000 units, then total body weight gain was (3000/12) multiplied by 100, i.e. 25000 units.
In this case, Mineral contribution becomes (25000/100 2) = 500 units and Protein contribution becomes (25000/100 6) = 1500 units.

Similarly, the table can be filled up. Note that the others category is 10% (100 70 12 6 2) of the Total Weight gained.

Patient	Fats	Proteins	Minerals	Diet Chart Contribution	Carbohydrates	Others	Total Body weight Gain
M	3000	1500	500	5000	17500	2500	25000
N	4800	2400	800	8000	28000	4000	40000
O	6000	3000	1000	10000	35000	5000	50000
P	7200	3600	1200	12000	42000	6000	60000
R	4200	2100	700	7000	24500	3500	35000
Total	25200	12600	4200	42000	147000	21000	210000

Hence the total contribution of Diet Chart to the body weight growth of the five patients is 42000 units.

QNo:- 49 ,Correct Answer:- *21000*

Explanation:-
Given the contribution from fats to body weight growth, we can calculate the increase in total weight as:
If the fat contribution was 3000 units, then total body weight gain was (3000/12) multiplied by 100, i.e. 25000 units.
In this case, Mineral contribution becomes (25000/100 2) = 500 units and Protein contribution becomes (25000/100 6) = 1500 units.

Similarly, the table can be filled up. Note that the others category is 10% (100 70 12 6 2) of the Total Weight gained.

Patient	Fats	Proteins	Minerals	Diet Chart Contribution	Carbohydrates	Others	Total Body weight Gain
M	3000	1500	500	5000	17500	2500	25000
N	4800	2400	800	8000	28000	4000	40000
O	6000	3000	1000	10000	35000	5000	50000
P	7200	3600	1200	12000	42000	6000	60000
R	4200	2100	700	7000	24500	3500	35000
Total	25200	12600	4200	42000	147000	21000	210000

Hence the contribution of "others" segment to the total body weight growth is 21000 units.

QNo:- 50 ,Correct Answer:- *434*

Explanation:-
The Marked price of Sherwani = 490.
Price in November = 490 1.1 = 539.
Price in December = 539 0.9 = 485.1 is the value that you think but the Maximum selling price can not exceed 530.
Thus, price in December = 530 0.9 = 477.
So to find the minimum price of Sherwani, we have to decrease its price in January by 9%.
So price in January is = 477 0.91 = Rs. 434.

QNo:- 51 ,Correct Answer:- *D*

Explanation:-
The marked price of T-Shirt = 510.
Price in November = 510 1.15 = 586.5 but the price cannot exceed 570.
Thus, price in December = 570 0.9 = 513
So to find the maximum price of T-Shirt, we have to increase its price in January by 10 %.
So price in January is = 513 1.1 = Rs. 564.3 or Rs. 564.
Hence answer is option 4.

QNo:- 52 ,Correct Answer:- *C*

Explanation:-
Price of Trouser in the month of November = 400 1.05 = 420 but it cannot exceed 415.
Thus, Price of Trouser in December = 415 0.9 = 373.5 .
Price of Skirt in the month of November = 320 1.15 = 368 but it cannot be more than 345.
So required ratio = 373.5 : 345 = 747 : 690 = 249 : 230.

QNo:- 53 ,Correct Answer:- *A*

Explanation:-
From statement A alone, R = P + 2 So P and R are either both odd or both even. If both are odd then last digit of S cannot be 2. If both are even then their last digits can be of the form (P,R) = (0,2), (2,4), (4,6), (6,8) or (8,0). For none of these pairs will the last digit of S be 2. So Statement A alone is sufficient to answer the question. From statement B alone, P is an odd prime number. But we do not know anything about R. So, we cannot determine whether the last digit of S is 2 or not. Thus, the question can be answered with the help of statement A alone.

QNo:- 54 ,Correct Answer:- *D*

Explanation:-
Madhuri now works in Gaurav agency (clue 6). Leela works in Khushboo agency (clue 3).
Leela s old agency was not R & W (clue 6), so Karishma s present agency is not Ramesh agency (clue 7).
Karishma s old agency was not R & W agency (clue 4), so her present agency was not Royal agency (clue 6).
Karishma is in the Rajkamal agency; she was in Veena agency before it (clue 3).
Leela was in Twin Brothers agency (clue 7).
Punita was in R & W agency and Nandani is in Ramesh agency (clue 5).
Punita is in Royal agency (clue 6).
Nandani was in Himanshu agency (clue 5).
Madhuri was in JK agency.

Person	***Old Agency***	***New Agency***
Karishma	*Veena*	*Rajkamal*
Leela	*Twin Brothers*	*Khushboo*
Madhuri	*JK*	*Gaurav*
Nandani	*Himanshu*	*Ramesh*
Punita	*R & W*	*Royal*

Ramesh ...Royal .....Gaurav ..Khushboo Rajkamal

R&W ...JK ..Veena Himanshu Twin Brothers
Punita will return to the R & W agency.

QNo:- 55 ,Correct Answer:- *C*

Explanation:-
Madhuri now works in Gaurav agency (clue 6). Leela works in Khushboo agency (clue 3).
Leela s old agency was not R & W (clue 6), so Karishma s present agency is not Ramesh agency (clue 7).
Karishma s old agency was not R & W agency (clue 4), so her present agency was not Royal agency (clue 6).
Karishma is in the Rajkamal agency; she was in Veena agency before it (clue 3).
Leela was in Twin Brothers agency (clue 7).
Punita was in R & W agency and Nandani is in Ramesh agency (clue 5).
Punita is in Royal agency (clue 6).
Nandani was in Himanshu agency (clue 5).
Madhuri was in JK agency.

Person	***Old Agency***	***New Agency***
Karishma	*Veena*	*Rajkamal*
Leela	*Twin Brothers*	*Khushboo*
Madhuri	*JK*	*Gaurav*
Nandani	*Himanshu*	*Ramesh*
Punita	*R & W*	*Royal*

Ramesh ...Royal .....Gaurav ..Khushboo Rajkamal

R&W ...JK ..Veena Himanshu Twin Brothers
Madhuri changed from JK to the Gaurav agency.

QNo:- 56 ,Correct Answer:- *A*

Explanation:-
Madhuri now works in Gaurav agency (clue 6). Leela works in Khushboo agency (clue 3).
Leela s old agency was not R & W (clue 6), so Karishma s present agency is not Ramesh agency (clue 7).
Karishma s old agency was not R & W agency (clue 4), so her present agency was not Royal agency (clue 6).
Karishma is in the Rajkamal agency; she was in Veena agency before it (clue 3).
Leela was in Twin Brothers agency (clue 7).
Punita was in R & W agency and Nandani is in Ramesh agency (clue 5).
Punita is in Royal agency (clue 6).
Nandani was in Himanshu agency (clue 5).
Madhuri was in JK agency.

Person	***Old Agency***	***New Agency***

Karishma Veena Rajkamal
Leela Twin Brothers Khushboo
Madhuri JK Gaurav
Nandani Himanshu Ramesh
Punita R & W Royal

Ramesh ...Royal .....Gaurav ..Khushboo Rajkamal

R&W ...JK ..Veena Himanshu Twin Brothers
Karishma joined Rajkamal from the Veena Agency.

QNo:- 57 ,Correct Answer:- *C*

Explanation:-
1 tonne or 1000 kg of sugar cane will yield 250 kg of bagasse, 150 kg of molasses and 120 kg of sugar. 250 kg or 2.5 quintals of bagasse will earn 2.5 2200 = Rs. 5,500. 150 kg or 1.5 quintals of molasses will earn 1.5 7000 = Rs. 10,500. 120 kg of sugar will earn 120 33 = Rs. 3,960. So, the revenue from the sale of bagasse, molasses and sugar is 5500 + 10500 + 3960 = Rs. 19,960. The cost of 1 tonne or 10 quintals of sugarcane is 10 240 = Rs. 2400 and the overheads amount to 30% of 19960 = Rs. 5988. So the total expenses are 2400 + 5988 = Rs. 8388. The profit is 19960 8388 = Rs. 11,572. The factory pays a tax of 40% of 11572 = Rs. 4628.8 and has a net income of 11572 4628.8 = Rs. 6943.2. So, the factory has a net income of approximately Rs. 7000 when 1 tonne of sugarcane is processed. If the factory processes 60 tonnes of sugar cane, the net income will be 60 7000 = Rs. 420,000. Since the factory has a net income of Rs. 437,500, the quantity of sugarcane processed must be greater than 60 tonnes, but less than 70 tonnes. Thus, 60 x 70.

QNo:- 58 ,Correct Answer:- *88200*

Explanation:-
If the new method is implemented when processing 1 tonne of sugarcane, the yield of molasses will go up by 20% from 150 kg to 180 kg. So, the net income will change only on account of the sale of these additional 30 kg of molasses. 30 kg of molasses can be sold for 30 70 = Rs.2100. Of this, overheads will account for 30%, i.e., Rs.630. So the profit is 2100 630 = Rs.1470. The factory will pay a tax of 40% on 1470, i.e., Rs.588 and the net income will be 1470 588 = Rs.882. Thus, if 100 tonnes of sugarcane is processed using the new method, the net income will increase by 882 100 = Rs.88,200.

QNo:- 59 ,Correct Answer:- *A*

Explanation:-
Suppose the cages are A, B and C, where the total of the cards in cage A is 2 more than the total of the cards in cage B and 4 more than the total of the cards in cage C.
If we assume the total of the cards in cage B as x, then the total of the cards in cages A and C will be (x + 2) and (x - 2) respectively.
We know that the total of all the nine cards in the 3 cages is 45; so, (x + 2) + x + (x - 2) = 45 x = 15.
Thus, the totals of the cards in cages A, B and C are 17, 15 and 13 respectively.
Since a customer paid Rs.7 for his prognosis, we know that the 3 cards adding up to 7 must be in 3 different cages.
Using three cards, we can obtain a total of 7 only as 1 + 2 + 4; these 3 numbers must be 3 different cages.
Considering different arrangements of these 3 numbers and the fact that the 3 cages have cards summing up to 17, 15 and 13, we can consider the following possibilities for the numbers on the cards:

		Case 1	**Case 2**	**Case 3**	**Case 4**	**Case 5**	**Case 6**	**Case 7**	**Case 8**	**Case 9**
Cage A	Sum = 17	(1,7,9)	(1,7,9)	(1,7,9)	(2,7,8)	(2,7,8)	(2,6,9)	(4,6,7)	(4,6,7)	(4,5,8)
Cage B	Sum = 15	(2,5,8)	(4,5,6)	(3,4,8)	(1,5,9)	(4,5,6)	(3,4,8)	(1,5,9)	(2,5,8)	(2,6,7)
Cage C	Sum = 13	(3,4,6)	(2,3,8)	(2,5,6)	(3,4,6)	(1,3,9)	(1,5,7)	(2,3,8)	(1,3,9)	(1,3,9)

Since the sum of any two cards in any cage cannot be 10, Case 6 is the only possible combination of cards.

Cage C, with the cards 1, 5 and 7 has the least total.

QNo:- 60 ,Correct Answer:- *11*

Explanation:-
Suppose the cages are A, B and C, where the total of the cards in cage A is 2 more than the total of the cards in cage B and 4 more than the total of the cards in cage C.
If we assume the total of the cards in cage B as x, then the total of the cards in cages A and C will be (x + 2) and (x - 2) respectively.
We know that the total of all the nine cards in the 3 cages is 45; so, (x + 2) + x + (x - 2) = 45 ? x = 15.
Thus, the totals of the cards in cages A, B and C are 17, 15 and 13 respectively.
Since a customer paid Rs.7 for his prognosis, we know that the 3 cards adding up to 7 must be in 3 different cages.
Using three cards, we can obtain a total of 7 only as 1 + 2 + 4; these 3 numbers must be 3 different cages.
Considering different arrangements of these 3 numbers and the fact that the 3 cages have cards summing up to 17, 15 and 13, we can consider the following possibilities for the numbers on the cards:

		Case 1	**Case 2**	**Case 3**	**Case 4**	**Case 5**	**Case 6**	**Case 7**	**Case 8**	**Case 9**
Cage A	Sum = 17	(1,7,9)	(1,7,9)	(1,7,9)	(2,7,8)	(2,7,8)	(2,6,9)	(4,6,7)	(4,6,7)	(4,5,8)
Cage B	Sum = 15	(2,5,8)	(4,5,6)	(3,4,8)	(1,5,9)	(4,5,6)	(3,4,8)	(1,5,9)	(2,5,8)	(2,6,7)
Cage C	Sum = 13	(3,4,6)	(2,3,8)	(2,5,6)	(3,4,6)	(1,3,9)	(1,5,7)	(2,3,8)	(1,3,9)	(1,3,9)

Since the sum of any two cards in any cage cannot be 10, Case 6 is the only possible combination of cards.

If a parrot selects the card with the number 9 on it, this card must be selected from cage A.
The cards selected from cages B and C must bear the numbers 8 and 7 so that the maximum possible payment for a prognosis would be 9 + 8 + 7 = Rs.24.

The cards selected from cages B and C must bear the numbers 3 and 1 so that the minimum possible payment for a prognosis would be 9 + 3 + 1 = Rs.13.

The required difference is 24 - 13 = Rs.11.

QNo:- 61 ,Correct Answer:- *D*

Explanation:-
Suppose the cages are A, B and C, where the total of the cards in cage A is 2 more than the total of the cards in cage B and 4 more than the total of the cards in cage C.
If we assume the total of the cards in cage B as x, then the total of the cards in cages A and C will be (x + 2) and (x - 2) respectively.
We know that the total of all the nine cards in the 3 cages is 45; so, (x + 2) + x + (x - 2) = 45 x = 15.
Thus, the totals of the cards in cages A, B and C are 17, 15 and 13 respectively.
Since a customer paid Rs.7 for his prognosis, we know that the 3 cards adding up to 7 must be in 3 different cages.
Using three cards, we can obtain a total of 7 only as 1 + 2 + 4; these 3 numbers must be 3 different cages.
Considering different arrangements of these 3 numbers and the fact that the 3 cages have cards summing up to 17, 15 and 13, we can consider the following possibilities for the numbers on the cards:

		Case 1	**Case 2**	**Case 3**	**Case 4**	**Case 5**	**Case 6**	**Case 7**	**Case 8**	**Case 9**
Cage A	Sum = 17	(1,7,9)	(1,7,9)	(1,7,9)	(2,7,8)	(2,7,8)	(2,6,9)	(4,6,7)	(4,6,7)	(4,5,8)
Cage B	Sum = 15	(2,5,8)	(4,5,6)	(3,4,8)	(1,5,9)	(4,5,6)	(3,4,8)	(1,5,9)	(2,5,8)	(2,6,7)
Cage C	Sum = 13	(3,4,6)	(2,3,8)	(2,5,6)	(3,4,6)	(1,3,9)	(1,5,7)	(2,3,8)	(1,3,9)	(1,3,9)

Since the sum of any two cards in any cage cannot be 10, Case 6 is the only possible combination of cards.

Working with different combinations of a card from each of the cases, we can verify that we cannot get a sum of 8.
So, the fortune teller cannot charge Rs.8 for a prognosis.

QNo:- 62 ,Correct Answer:- *C*

Explanation:-
This question should be solved by comparing the percentage values of the different centres and by approximation. If India is compared with Russia, column by column in weaponry, it is noticed that Russia must have sold a greater amount of weaponry

units than India. Similarly, when China is compared to Japan, it is clear that Japan sold a greater amount of weaponry units than what China did. Likewise, when we compare Russia with Japan, we see that Japan has definitely sold a greater number of weaponry units than Russia.
As for the remaining ones, the percentage share of total is,

Japan: (0.27 0.20) + (0.18 0.24) + (0.16 0.15) + (0.20 0.29) + (0.19 0.11) = 0.2001
Pakistan: (0.27 0.18) + (0.18 0.20) + (0.16 0.15) + (0.20 0.23) + (0.19 0.21) = 0.1945

***QNo:- 63 ,Correct Answer:-** C*

Explanation:-
Statement 1: Russia s sales of weaponry units to Asia is 0.16 0.18 3000000 = 86400units.
Suppose Canada is the only country in the Others category, then Russia s sale of weaponry to Canada is 0.19 0.16 3000000 = 91200 units to Canada is definitely more than Russia s contribution of Weaponry units to Asia. Therefore, statement is not necessarily true.
Statement 2: India s contribution to the sales of Weaponry units:
[(0.27 0.16) + (0.18 0.11) + (0.16 0.07) + (0.20 0.13) + (0.19 0.17)] 3000000units = 397500units
India s contribution to sales of Technology units:
[(0.20 0.21) + (0.25 0.30) + (0.20 0.17) + (0.23 0.19) + (0.12 0.08) 4000000units = 817200units
Therefore, the statement is false.
Statement 3: China s sales of weaponry unit to America is (0.18 0.18) 3000000units = 97200units
China s sales of technology units to America is (0.25 0.14) 4000000 units = 140000 units.
Therefore, the statement is true.
Statement 4: Pakistan s sales of Weaponry units to Europe and Asia together is
[(0.27 0.18) + (0.16 0.15)] 3000000 = 217800units
Pakistan s sales of Technology units to America and Africa together is
[(0.25 0.10) + (0.23 0.13)] 4000000 = 219600 units
Therefore, the statement is false.

***QNo:- 64 ,Correct Answer:-** A*

Explanation:-
Weaponry units sold by India, Russia and Pakistan together to Europe is
[0.27 (0.16+0.20+0.18)] 3000000 = 437400
Technology units sold by India, Russia and Pakistan together to Europe is
[0.20 (0.21+0.06+0.19)] 4000000 = 368000
Therefore, difference between the two sales = 437400 - 368000 = 69400 units.

***QNo:- 65 ,Correct Answer:-** C*

Explanation:-
India s contribution to Sri Lanka s Weaponry units.
(3/100) (19/100) 3000000 (7/15) = 7980 units.
India s contribution to the World s Weaponry units;
[(0.27 0.16) + (0.18 0.11) + (0.16 0.07) + (0.20 0.13) + (0.19 0.17)] 3000000 = 397500 units or in percentage terms,
(7980/397500) 100 = 2% (approx).

***QNo:- 66 ,Correct Answer:-** D*

Explanation:-
Contribution of development center at Iraq to Asian Market
(0.16 0.32 3000000) = 153600 units
Total sales of weaponry units by Colt Arms = 3000000
Percentage loss = (153600/3000000) 100 = 5.12%.

***QNo:- 67 ,Correct Answer:-** A*

Explanation:-

Principal = Rs 7500 and 1st year rate = 2 %
Using formula,
A = P(1+R/100)^t
A = 7500(1+2/100)
A = Rs 7650
Now, this amount will be used as the principal for 2nd year
A = 7650(1+4/100)
A = Rs 7956
Now this amount will be used as the principal for 3rd year
A = 7956 (1+5/100)
A = Rs 8353.80
Therefore, amount paid after 3 years will be Rs 8353.80.

QNo:- 68 ,Correct Answer:- *B*

Explanation:-

	Drum 1	Drum II
Contents	220 litres	180 litres
Cost/litre	Rs. a	Rs. b
Total Cost	Rs. 220a	Rs. 180b
Removed c from each drum and its cost will be	Rs. ca	Rs. cb
Cost of what is left	220a - ca	180b - cb
New contents cost	220a - ca + cb	180b - cb + ca
Cost/litre	$\frac{220a-ca+cb}{220}$	$\frac{180b-cb+ca}{180}$

$a - \frac{c(a-b)}{200} = b + \frac{c(a-b)}{180}$

$(a-b) = c(a-b)\left(\frac{1}{180}+\frac{1}{220}\right) \therefore 1 = c\left(\frac{220+180}{180\times 220}\right)$ $(\because a \neq b)$.

Hence, $c = \frac{180\times 220}{400} = 99$ litres.

QNo:- 69 ,Correct Answer:- *3*

Explanation:-

When R runs 500 meters, S runs 480 m and N runs 450 m.
In a 1200 m race, if they continue with the same pace then:
When S has run 1200 m, then N runs 1200 450/480 = 1125 m
But N runs at 20% more than his previous speed, thus he would cover = 1125 6/5 = 1350 m
Hence, when N runs 1350 m, then S runs 1200 m.
When N runs 1200 m, S runs 1200/1350 1200 = 1066.66 m.
Hence, N wins the race by 133.34 meters.

QNo:- 70 ,Correct Answer:- *35*

Explanation:-

Let the distance between Atul s office and his home be d km. Thus, d/25 d/40 = 40/60 or d = 400/9 km.
Thus time taken at speed of 40 kmph = 400/9 1/40 60 = 200/3 = 66.66 minutes.
Thus, if he reaches 10 minutes early i.e. if he takes 76.66 minutes to reach his office, then his speed = 400/9 60/76.66 35 kmph.

QNo:- 71 ,Correct Answer:- *A*

Explanation:-
Since the product is a prime number, one of the numbers must be 1 and the other number must be a prime.
The prime value which can be used in is 2 or 3.

If [j 3/4] = 1 and [j + 3/4] = 2, then 1 j 3/4 < 2and 2 j + 3/4 < 3
Hence 1.75 j < 2.75 and 1.25 j < 2.25
Combining the two, we get the range as 1.75 j < 2.25

Similarly, if [j 3/4] = 1 and [j + 3/4] = 3, then 1 j 3/4 < 2and 3 j + 3/4 < 4
Hence 1.75 j < 2.75 and 2.25 j < 3.25
Combining the two, we get the range as 2.25 j < 2.75

Thus, from the above two ranges, we get the final range as 1.75 j < 2.75
Hence 1.

QNo:- 72 ,Correct Answer:- *600*

Explanation:-
Let the cost of 1 Pen, 1 Eraser and 1 Copy be P, E and C respectively.
1P +2E+ 8C =780 (1)
6P + 12E + 11C = 980 (2)
Multiply (1) by 6 and subtract the result from (2)
37C = 3700
C = 100
Thus, cost of 6 Copies is 100 6 = 600.

QNo:- 73 ,Correct Answer:- *D*

Explanation:-
Statement (i):
Since we can find the cost price as 9900 or [11000-(11000x10/100)]
Percentage profit= 1100/9900 x 100 = 11.11 %
So, Statement (i) alone is sufficient.

Statement (ii):
Since we cannot find the cost price, so statement (ii) alone is not sufficient.
But from this we can find MP = 11000/0.8 = 13750

Statement (iii):
Since we can not find the cost price, so statement (iii) alone is not sufficient.
But if we combine it with statement (ii), we get CP = 13750/1.5 = Rs. 9166.67
So Profit percentage = (11000 9166.67)/9166.67 100 = 20%

QNo:- 74 ,Correct Answer:- *225*

Explanation:-

	Initial	Overflow	Replaced	Final
Milk	30	*x*	5*x*	75
Water	120	4*x*		75

The ratio of milk to water overflow will be 1:4.
Now, 30 x + 5x =75, gives x = 11.25
Volume of marbles = volume of overflowed solution.
Number of marbles volume of 1 marble = 5x
Number of marbles = 5 11.25/0.25 = 225 marbles. (1 Litre = 1 dm^3)

QNo:- 75 ,Correct Answer:- *D*

Explanation:-
Let the number of right answers be R and Let the number of wrong answers be W.
20% students scored exactly 50 marks.
So, R (1/5) W = 50
The value of R and W are unique for all the students who scored 50 marks.
R = 50 + (W/5)
Hence, W can be 0, 5, 10, 15, 20 40.
And correspondingly R can be 50, 51, 52 58.
So, maximum 9 students can score exactly 50 marks with a unique combination of correct, incorrect and un-attempted questions.
But the question does not ask about the maximum number of students possible. So, for finding the exact number of students some more information is needed. So, answer is cannot be determined.

QNo:- 76 ,Correct Answer:- *3*

Explanation:-
Let the performance of the first pipe be t hrs.
Then P_2 pipe can fill the tank in t x 100/90= 10t/9 hrs
Similarly, P_3 pipe can fill the tank in 10t/9 x 10/9 = 100t/81hrs.
P_1 can fill 1/t part in 1 hr,
P_2 can fill 9/10t part in 1 hr,
P_3 can fill 81/100t part in 1 hr,
.....
.....
According to the question

$$\frac{1}{t}+\frac{9}{10t}+\frac{81}{100t}+\ \ldots\ldots=\frac{1}{4}$$

$$\frac{1}{t}\left(1+\frac{9}{10}+\frac{81}{100}+\ \ldots\ldots\right)=\frac{1}{4}$$

$\frac{1}{t}\left(\frac{1}{1-\frac{9}{10}}\right)=\frac{1}{4}$, gives t = 40 hours.

P_1 can fill the tank alone in 40 hrs, P_2 can fill the tank alone in 10/9 × 40 = 400/9 hours = 44.44 hours
P_3 can fill the tank alone in 100/81 × 40 = 49.38 hours
But P_4 will fill the tank in more than 50 hrs.

So, 3 pipes can fill the tank within 50 hours.

QNo:- 77 ,Correct Answer:- *A*

Explanation:-
Let d be half the length of the diagonal.
Tan 60^0 = 5 6/d
Gives, d = 5 2. So diagonal of that square will be 2 5 2 = 10 2m.
So side of the square , S = 10m.
So required area = (14 14)-(10 10) = 96m^2.

QNo:- 78 ,Correct Answer:- *D*

Explanation:-
The first temptation is to solve this equation: 1 + 9x = 67 13x
The solution is x = 3.
So we substitute and get 1 + 9x = 67 13x = 28.
This however is not the answer.
This represents the minimum, not the maximum.
Just to check, put x = 1, you get max (10, 54) = 54.
Also as x keeps on increasing beyond 28, the max function will keep on increasing.
We cannot find the maximum value of max of function p(x).

Hence answer is cannot be determined.

QNo:- 79 ,Correct Answer:- *C*

Explanation:-
Since Ranjeet gives 1/2 of his sum to other two, Sahil gives 1/3 of his sum to the other two and Tarun gives 1/4 of his sum to the other two, so let us assume that Ranjeet, Sahil and Tarun have 2x, 3x and 4x respectively.
If Ranjeet gives away $^1/_2$ 2x = x, to the other two, their total will be 8x and Ranjeet would have x.
If Sahil gives away $^1/_3$ 3x = x, to the other two, their total will be 7x and Sahil would have 2x.
If Tarun gives away $^1/_4$ 4x = x, to the other two, their total will be 6x and Tarun would have 3x.
Since all conditions have been satisfied, we can safely say that the sums of money with them must be in the ratio 2 : 3 : 4.
Only option C does not satisfy this ratio and thus cannot be the sums of money with the three friends.
ALTERNATIVELY
We can just pick options and check whether they satisfy the given conditions or not..

QNo:- 80 ,Correct Answer:- *38*

Explanation:-
Let T4, T5, T6, T7 be the number of tents having the capacity for exactly 4, 5, 6 and 7 people.
Now, given that T5 = 21.
Now, for maximum T6, T4 must be minimum which is 1.
Since, T4 = 1, for maximum value of T6, the values need to be as close as possible.

Let T6 = x, T7 = x + 1
Hence, 6(x) +7(x + 1) = 625 - 5(21) - 4
= 516
=> 13x = 509, which is not possible.

Let T6 = x, T7 = x + 2
6(x) + 7(x + 2) = 516
13x = 502, which is not possible.

Let T6 = x, T7 = x + 3
13x = 495, which is not possible.

Now as we are not getting any solution, let us take the value of T4 as 2.
Taking T6 = x, T7 = x + 1.
13x = 505, not possible.

Now as we are not getting any solution, let us take the value of T4 as 3.
Let T6 = x, T7 = x + 2
13x = 494, x = 38. which will become your answer..

Otherwise continuing with T4 = 1
Let T6 = x, T7 = x + 5
6(x) +7(x + 5) = 516, gives x = 37.

Thus the maximum value will be 38.

QNo:- 81 ,Correct Answer:- *C*

Explanation:-
The diameter of Akhilesh's house is the same as the plot size.
So we can say that Akhilesh's plot is 10 m 10 m.
Since Manoj's plot is double the area of Akhilesh, so his plot size would be 10 2 m 10 2 m
Now Manoj's house is a cube, so the basic house shape will also have a height of 10 2 m.

Take a cross section of the roof, and you get a right triangle whose height is the roof height.

Its base will be 10 2/2 = 5 2 m and the slant height of 9 m is its hypotenuse.
Using Pythagora's theorem, we get the height as (9^2 (5 2)^2) = 31 m

The house height is 10 2 + 31 m.

QNo:- 82 ,Correct Answer:- *3*

Explanation:-
Given that, x + 1/y = x/y 1, xy = x y 1
xy x + y + 1 = 0 (1)
Add (-2) on both sides we get xy x + y 1 = - 2
OR (x + 1)(y 1) = 2.
The only possibility is (-1) 2 = -2 or 1 (-2) = -2
(x, y) = (-2, 3), (1, 0), (0, -1), (-3, 2)

But (1,0) is rejected because the value of y cannot be equal to 0.
Hence there are 3 ordered pairs.

QNo:- 83 ,Correct Answer:- *D*

Explanation:-
As 4 workers require 25 days to complete the work, so it requires 100 man-days.
In first 2 days 4 2 = 8 units, in next two days 5 2 = 10 units, then 6 2 = 12 units, then 7 2 = 14 units, then 8 2 = 16 units, then 9 2 = 18 units, then 10 2 = 20 units , total = 98 units.
So, 98 units are completed in 14 days.
Note that on the 14th day the work is still not complete.
On the 15th day 11 workers will complete the remaining 2 units of work.

Hence, None of these.

QNo:- 84 ,Correct Answer:- *A*

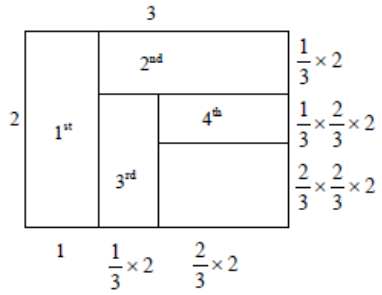
Explanation:-
Let a be the initial quantity of milk and b be the quantity of milk or mixture replaced each time. the volume of mixture left after 2n (or nth)operation is equal to the initial quantity of milk in the flask as every time, the quantity taken out and replaced is the same.
Thus milk left after 6th operation:initial milk = (a-b/a)^n = 64/729
Now, here n = 6 and a = 81. on solving-Milk left after 6th operation = 64/729 81 = 7.11 litres .

QNo:- 85 ,Correct Answer:- *105*

Explanation:-
Let the no. of persons insured be 100
So annual premium earned = 250 100 = Rs. 25000
Given that 1 out of every 100 will incur the hospitalization bill of Rs. 15,000
It is also given that insurance cover will be 80% of hospitalization bill, subject to upper limit of Rs. 18,900
Thus the person incurring a bill of ₹ 15000 will get
$(15000 \times \frac{80}{100}) = ₹12000$ from insurance company.
Also, the insurance to incur an administrative cost of
10% of the revenue 10/100 of (25000) =
Since total cost of the firm = 12000 + 2500 = 14500
Hence net revenue of the insurance firm
= 25000 – 14500 = 10500
Therefore Profit per person = 10500/100 = 105

QNo:- 86 ,Correct Answer:- *B*

Explanation:-



Then sides of the original rectangle are 2 m and 3 m. The largest possible square that can be cut from the rectangle will measure 2m × 2m. Thus, the perimeter of the first left out rectangle = 2 × (1 + 2) m; At every stop, the left out place will be a rectangle. Then, the perimeter of the 2nd left out rectangle $=2\times\left(\frac{2}{3}+2\right)$m;

The, the perimeter of the 3rd left out rectangle $=2\times\left(\frac{2}{3}+\frac{4}{3}\right)$m; Then, the perimeter of the 4th left out rectangle $=2\times\left(\frac{4}{9}+\frac{4}{3}\right)$m; Then, the perimeter of the 5th left out rectangle. $=2\times\left(\frac{4}{9}+\frac{8}{9}\right)$m; and so on. Thus, the sum of the perimeters $=2\times((1+2)+\left(\frac{2}{3}+2\right)+\left(\frac{2}{3}+\frac{4}{3}\right)+\left(\frac{4}{9}+\frac{4}{3}\right)+\left(\frac{4}{9}+\frac{8}{9}\right)+\left(\frac{8}{9}+\frac{8}{27}\right)+.....)=2\times\left\{1+2\times\left[2+\frac{2}{3}+\frac{4}{3}+\frac{4}{9}+\frac{8}{9}+\frac{8}{27}+...\right]\right\}$

$=2\times\left\{1+2\times\left[2+\frac{2}{3}+\frac{4}{3}+\frac{4}{9}+\frac{8}{9}+\frac{8}{27}+...\right]\right\}$

$=2\times\left\{1+2\times\left[\frac{2}{1-\frac{2}{3}}+\frac{\frac{2}{3}}{1-\frac{2}{3}}\right]\right\}=2\times\{(1+2\times(6+2]\}=2\times 17=34$ m.

QNo:- 87 ,Correct Answer:- *4*

Explanation:-

Let the length of the sides of the isosceles triangle be a, a and b, then 2a + b = 17. Since a and b are integers, the possible values of a are 1, 2, 3, 4, 5, 6, 7 and 8 the corresponding values of b are 15, 13, 11, 9, 7, 5, 3 and 1. (1,1,15), (2, 2, 13), (3, 3, 11), (4, 4, 9) are not possible as the sum of two sides of a triangle should be greater than the third side. Thus the only possibilities are: (5, 5, 7), (6, 6, 5), (7, 7, 3) and (8, 8, 1).

QNo:- 88 ,Correct Answer:- *D*

Explanation:-

The average of (n 1) numbers is calculated as 30.17. Since we are calculating the average of the 1st n natural numbers, we know that the average will be the middle number if n is odd and the average will be the average of the middle 2 numbers if n is even. So, the average of n numbers is either 30 or 30.5.

If the average is 30, $n = 59$ and if the average is 30.5, $n = 60$. If $n = 59$ and the missing number is x, then $\frac{\frac{59\times 60}{2}-x}{58}=\frac{875}{29}$. Solving this equation gives $x = 20$. If $n = 60$ and the missing number is x, then $\frac{\frac{60\times 61}{2}-x}{59}=\frac{875}{29}$.

Solving this equation gives x = 49.82. Since x is a natural number, the missing number is 20.

QNo:- 89 ,Correct Answer:- *2774*

Explanation:-

Using successive division by 5, 10! has 2 zeroes. 100! has 20 + 4 = 24 zeroes. 1000! has 200 + 40 + 8 + 1 = 249 zeroes. 10000! has 2000 + 400 + 80 + 16 + 3 = 2499 zeroes. Thus the total number of zeroes is 2 + 24 + 249 + 2499 = 2774.

QNo:- 90 ,Correct Answer:- *D*

Explanation:-

When A finishes the race, B still has to run 12 m and C still has to run 18 m. When B finishes the race, C still has to run 8 m. So, in the same time, the distances run by B and C are 12 m and 10 m respectively. Suppose the length of the race track is x m. When A finishes the race, in the same time, B and C run (x 12) m and (x 18) m respectively.

Since they are running at uniform speeds, $\frac{(x-12)}{x-18}=\frac{12}{10}$. Solving this equation yields $x = 48$ m.

QNo:- 91 ,Correct Answer:- *D*

Explanation:-
If the 1st two digits of the 4-digit integer are 3 and 4, the only 2 possibilities are 3462 and 3465. If the 4-digit integer starts with 3, the remaining 3 digits can be chosen in 2 3 2 = 12 ways. So, there are 12 such integers. If the 1st digit of the 4-digit integer is 4, 5 or 6, the remaining 3 digits can be chosen in 4 3 2 = 24 ways. So, there are 3 24 = 72 such integers. Also, all the 5! = 120 five-digit integers will be greater than 3456. Thus the required answer is 2 + 12 + 72 + 120 = 206. The best answer is option 4.

QNo:- 92 ,Correct Answer:- *18*

Explanation:-
1800 = 2^3 3^2 5^2 = 10(2^2 3^2 5^1). Now, 10 multiplied by any number of factors of (2^2 3^2 5^1) will always be divisible by 10. Since (2^2 3^2 5^1) has (2 + 1) (2 + 1) (1 + 1) = 18 factors, we can conclude that 18 factors of 1800 are divisible by 10.

QNo:- 93 ,Correct Answer:- *160*

Explanation:-
The 3 girls can be chosen in $^5C_3$ = 10 ways. Of the 4 boys, he has a choice of inviting any number from 0 to all 4 in 2^4 ways. Thus the total number of choices is 10 2^4 = 160.

QNo:- 94 ,Correct Answer:- *B*

Explanation:-
The sum of the present ages of the 4 members in the family is 18.5 4 = 74. Since the sum of the present ages of the husband and wife is 6.4 times the sum of the present ages of their children, the sum of the ages of the husband and wife must be 64 while the sum of the ages of the children must be 10. Since one child is 2 years older than the other one, the present ages of the children are 4 and 6. Since the 2nd child was born 4 years ago, the sum of the ages of the husband and wife then was 64 8 = 56. Since the 2nd child was born 6 years after marriage, the sum of the ages of the husband and wife when they got married was 56 12 = 44 and their ages were in the ratio 6 : 5 their ages were 24 and 20. When the 2nd child was born, their ages had increased by 6 years each, i.e., their ages were 30 and 26. Thus the required ratio is 15 : 13.

QNo:- 95 ,Correct Answer:- *2500*

Explanation:-
abcxcba is palindrome ba can have 25 values from 01 to 97, in steps of 4. c can have 10 values and x also can have 10 values.
total no of palindromes = 25 10 10 = 2500.

QNo:- 96 ,Correct Answer:- *A*

Explanation:-
Lets find out for which value of n we get a number just above 1000 in the expression n(n + 1)/2 i.e. sum of page number of book. For n = 45 it is 1035, and 35 is the sum of two consecutive numbers i.e. 17 and 18. Hence page numbers which are torn are 17 and 18.

QNo:- 97 ,Correct Answer:- *400*

Explanation:-
$\log_3[\log_9(x^{3/2}-7271] = 1$
$\log_9 (x^{3/2} - 7271) = 3$
$x^{3/2}-7271 = 9^3$
$x^{3/2}-7271=729$
$x^{3/2} = 8000$
$(x^{1/2})^3 = 8000$

$x^{1/2} = 20$
$x = 400$

QNo:- 98 ,Correct Answer:- *304*

Explanation:-
$\log_{10} 1001^{101} = 101$
$\log_{10} 1001 \quad 101 \quad 3 = 303.$
So, the number of digits in 1001^{101} *is 304 as number of digits = characteristic + 1*
303 + 1 = 304

QNo:- 99 ,Correct Answer:- *D*

Explanation:-
Let the distance from P to Q, Q to R and R to S be X, Y and Z km. Then 10 (X + Y) (4 / 3) = 3600...(i),
10 (Y + Z) (4 / 3) = 3200.....(ii)
10 (X + Y + Z) (4 / 3) = 4800..... (iii).
On solving, we get X = 120, Y = 150 & Z = 90 km, i.e., the distance of R from Q is 150 km.

QNo:- 100 ,Correct Answer:- *B*

Explanation:-
Present volume of the bar = l w t = 6 5 2 = 60 cm^3.
If the volume is to be cut by 20 %, i.e., to 48 cm^3 *and thickness to remain the same viz., at 2 cm, it means that lw = 24* cm^2.
A cut of 10 % in the length and width of the bar would lead to l w = 5.4 4.5 = 24.3 i.e. the cut should be a bit more than 10 % in each of the length and width, which would lead to the new length being 5 < L < 5.4.