VERBAL ABILITY AND READING COMPREHENSION

Passage 1
The passage below is accompanied by a set of questions. Choose the best answer to each question.

It's easy to forget that most of the world's languages are still transmitted orally with no widely established written form. While speech communities are increasingly involved in projects to protect their languages – in print, on air and online – orality is fragile and contributes to linguistic vulnerability. But indigenous languages are about much more than unusual words and intriguing grammar: They function as vehicles for the transmission of cultural traditions, environmental understandings and knowledge about medicinal plants, all at risk when elders die and livelihoods are disrupted.

Both push and pull factors lead to the decline of languages. Through war, famine and natural disasters, whole communities can be destroyed, taking their language with them to the grave, such as the indigenous populations of Tasmania who were wiped out by colonists. More commonly, speakers live on but abandon their language in favor of another vernacular, a widespread process that linguists refer to as "language shift" from which few languages are immune. Such trading up and out of a speech form occurs for complex political, cultural and economic reasons – sometimes voluntary for economic and educational reasons, although often amplified by state coercion or neglect. Welsh, long stigmatized and disparaged by the British state, has rebounded with vigor.

Many speakers of endangered, poorly documented languages have embraced new digital media with excitement. Speakers of previously exclusively oral tongues are turning to the web as a virtual space for languages to live on. Internet technology offers powerful ways for oral traditions and cultural practices to survive, even thrive, among increasingly mobile communities. I have watched as videos of traditional wedding ceremonies and songs are recorded on smartphones in London by Nepali migrants, then uploaded to YouTube and watched an hour later by relatives in remote Himalayan villages . . .

Globalization is regularly, and often uncritically, pilloried as a major threat to linguistic diversity. But in fact, globalization is as much process as it is ideology, certainly when it comes to language. The real forces behind cultural homogenization are unbending beliefs, exchanged through a globalized delivery system, reinforced by the historical monolingualism prevalent in much of the West.

Monolingualism – the condition of being able to speak only one language – is regularly accompanied by a deep-seated conviction in the value of that language over all others. Across the largest economies that make up the G8, being monolingual is still often the norm, with multilingualism appearing unusual and even somewhat exotic. The monolingual mindset stands in sharp contrast to the lived reality of most the world, which throughout its history has been more multilingual than unilingual. Monolingualism, then, not globalization, should be our primary concern.

Multilingualism can help us live in a more connected and more interdependent world. By widening access to technology, globalization can support indigenous and scholarly communities engaged in documenting and protecting our shared linguistic heritage. For the last 5,000 years, the rise and fall of languages was intimately tied to the plow, sword and book. In our digital age, the keyboard, screen and web will play a decisive role in shaping the future linguistic diversity of our species.

Q.1) The author mentions the Welsh language to show that:
a) efforts to integrate Welsh speakers in the English-speaking fold have been fruitless.
b) while often pilloried, globalisation can, in fact, support linguistic revival.
c) languages can revive even after their speakers have gone through a "language shift".
d) vulnerable languages can rebound with state effort.

Q.2) From the passage, we can infer that the author is in favour of:
a) "language shifts" across languages.
b) cultural homogenisation.
c) greater multilingualism.
d) an expanded state role in the preservation of languages.

Q.3) The author lists all of the following as reasons for the decline or disappearance of a language EXCEPT:
a) a catastrophic event that entirely eliminates a people and their culture.
b) people shifting away from their own language to study or work in another language.
c) the focus on only a few languages as a result of widespread internet use.
d) governments promoting certain languages over others.

Q.4) We can infer all of the following about indigenous languages from the passage EXCEPT that:
a) their vocabulary and grammatical constructs have been challenging to document.
b) they are repositories of traditional knowledge about the environment and culture.

c) people are increasingly working on documenting these languages.
d) they are in danger of being wiped out as most can only be transmitted orally.

Passage 2
The passage below is accompanied by a set of questions. Choose the best answer to each question.
I have elaborated . . . a framework for analyzing the contradictory pulls on [Indian] nationalist ideology in its struggle against the dominance of colonialism and the resolution it offered to those contradictions. Briefly, this resolution was built around a separation of the domain of culture into two spheres—the material and the spiritual. It was in the material sphere that the claims of Western civilization were the most powerful. Science, technology, rational forms of economic organization, modern methods of statecraft—these had given the European countries the strength to subjugate the non-European people . . . To overcome this domination, the colonized people had to learn those superior techniques of organizing material life and incorporate them within their own cultures. . . . But this could not mean the imitation of the West in every aspect of life, for then the very distinction between the West and the East would vanish—the self-identity of national culture would itself be threatened. . . .

The discourse of nationalism shows that the material/spiritual distinction was condensed into an analogous, but ideologically far more powerful, dichotomy: that between the outer and the inner. . . . Applying the inner/outer distinction to the matter of concrete day-to-day living separates the social space into ghar and bāhir, the home and the world. The world is the external, the domain of the material; the home represents one's inner spiritual self, one's true identity. The world is a treacherous terrain of the pursuit of material interests, where practical considerations reign supreme. It is also typically the domain of the male. The home in its essence must remain unaffected by the profane activities of the material world—and woman is its representation. And so one gets an identification of social roles by gender to correspond with the separation of the social space into ghar and bāhir. . . .

The colonial situation, and the ideological response of nationalism to the critique of Indian tradition, introduced an entirely new substance to [these dichotomies] and effected their transformation. The material/spiritual dichotomy, to which the terms world and home corresponded, had acquired . . . a very special significance in the nationalist mind. The world was where the European power had challenged the non-European peoples and, by virtue of its superior material culture, had subjugated them. But, the nationalists asserted, it had failed to colonize the inner, essential, identity of the East which lay in its distinctive, and superior,

spiritual culture. . . . [I]n the entire phase of the national struggle, the crucial need was to protect, preserve and strengthen the inner core of the national culture, its spiritual essence. . . .

Once we match this new meaning of the home/world dichotomy with the identification of social roles by gender, we get the ideological framework within which nationalism answered the women's question. It would be a grave error to see in this, as liberals are apt to in their despair at the many marks of social conservatism in nationalist practice, a total rejection of the West. Quite the contrary: the nationalist paradigm in fact supplied an ideological principle of selection.

Q.5) Which one of the following best describes the liberal perception of Indian nationalism?
a) Indian nationalism embraced the changes brought about by colonialism in Indian women's traditional gender roles.
b) Indian nationalism's sophistication resided in its distinction of the material from the spiritual spheres.
c) Indian nationalist discourses provided an ideological principle of selection.
d) Indian nationalist discourses reaffirmed traditional gender roles for Indian women.

Q.6) On the basis of the information in the passage, all of the following are true about the spiritual/material dichotomy of Indian nationalism EXCEPT that it:
a) constituted the premise of the ghar/bāhir dichotomy.
b) was not as ideologically powerful as the inner/outer dichotomy.
c) represented a continuation of age-old oppositions in Indian culture.
d) helped in safeguarding the identity of Indian nationalism.

Q.7) Which one of the following, if true, would weaken the author's claims in the passage?
a) Indian nationalists rejected the cause of English education for women during the colonial period.
b) Forces of colonial modernity played an important role in shaping anti-colonial Indian nationalism.
c) The colonial period saw the hybridisation of Indian culture in all realms as it came in contact with British/European culture.
d) The Industrial Revolution played a crucial role in shaping the economic prowess of Britain in the eighteenth century.

Q.8) Which one of the following explains the "contradictory pulls" on Indian nationalism?
a) Despite its fight against colonial domination, Indian nationalism had to borrow from the coloniser in the spiritual sphere.

b) Despite its spiritual superiority, Indian nationalism had to fight against colonial domination.

c) Despite its fight against colonial domination, Indian nationalism had to borrow from the coloniser in the material sphere.

d) Despite its scientific and technological inferiority, Indian nationalism had to fight against colonial domination.

Passage 3

The passage below is accompanied by a set of questions. Choose the best answer to each question.

It has been said that knowledge, or the problem of knowledge, is the scandal of philosophy. The scandal is philosophy's apparent inability to show how, when and why we can be sure that we know something or, indeed, that we know anything. Philosopher Michael Williams writes: 'Is it possible to obtain knowledge at all? This problem is pressing because there are powerful arguments, some very ancient, for the conclusion that it is not . . . Scepticism is the skeleton in Western rationalism's closet'. While it is not clear that the scandal matters to anyone but philosophers, philosophers point out that it should matter to everyone, at least given a certain conception of knowledge. For, they explain, unless we can ground our claims to knowledge as such, which is to say, distinguish it from mere opinion, superstition, fantasy, wishful thinking, ideology, illusion or delusion, then the actions we take on the basis of presumed knowledge – boarding an airplane, swallowing a pill, finding someone guilty of a crime – will be irrational and unjustifiable.

That is all quite serious-sounding but so also are the rattlings of the skeleton: that is, the sceptic's contention that we cannot be sure that we know anything – at least not if we think of knowledge as something like having a correct mental representation of reality, and not if we think of reality as something like things-as-they-are-in-themselves, independent of our perceptions, ideas or descriptions. For, the sceptic will note, since reality, under that conception of it, is outside our ken (we cannot catch a glimpse of things-in-themselves around the corner of our own eyes; we cannot form an idea of reality that floats above the processes of our conceiving it), we have no way to compare our mental representations with things-as-they-are-in-themselves and therefore no way to determine whether they are correct or incorrect. Thus the sceptic may repeat (rattling loudly), you cannot be sure you 'know' something or anything at all – at least not, he may add (rattling softly before disappearing), if that is the way you conceive 'knowledge'.

There are a number of ways to handle this situation. The most common is to ignore it. Most people outside the academy – and, indeed, most of us inside it – are unaware of or unperturbed by the philosophical scandal of knowledge and go about our lives without too

many epistemic anxieties. We hold our beliefs and presumptive knowledges more or less confidently, usually depending on how we acquired them (I saw it with my own eyes; I heard it on Fox News; a guy at the office told me) and how broadly and strenuously they seem to be shared or endorsed by various relevant people: experts and authorities, friends and family members, colleagues and associates. And we examine our convictions more or less closely, explain them more or less extensively, and defend them more or less vigorously, usually depending on what seems to be at stake for ourselves and/or other people and what resources are available for reassuring ourselves or making our beliefs credible to others (look, it's right here on the page; add up the figures yourself; I happen to be a heart specialist).

Q.9) ". . . we cannot catch a glimpse of things-in-themselves around the corner of our own eyes; we cannot form an idea of reality that floats above the processes of our conceiving it . . ." Which one of the following statements best reflects the argument being made in this sentence?
a) If the reality of things is independent of our perception, logically we cannot perceive that reality.
b) If the reality of things is independent of our eyesight, logically we cannot perceive our perception.
c) Our knowledge of reality floats above our subjective perception of it.
d) Our knowledge of reality cannot be merged with our process of conceiving it.

Q.10) According to the last paragraph of the passage, "We hold our beliefs and presumptive knowledges more or less confidently, usually depending on" something. Which one of the following most broadly captures what we depend on?
a) All of the options listed here.
b) Remaining outside the academy; ignoring epistemic anxieties.
c) How much of a stake we have in them; what resources there are to support them.
d) How we come to hold them; how widely they are held in our social circles.

Q.11) The author discusses all of the following arguments in the passage, EXCEPT:
a) philosophers maintain that the scandal of philosophy should be of concern to everyone.
b) sceptics believe that we can never fully know anything, if by "knowing" we mean knowledge of a reality that is independent of the knower.
c) the best way to deal with scepticism about the veracity of knowledge is to ignore it.
d) if we cannot distinguish knowledge from opinion or delusion, we will not be able to justify our actions.

Q.12) The author of the passage is most likely to support which one of the following statements?

a) The actions taken on the basis of presumed knowledge are rational and justifiable if we are confident that that knowledge is widely held.

b) The scandal of philosophy is that we might not know anything at all about reality if we think of reality as independent of our perceptions, ideas or descriptions.

c) For the sceptic, if we think of reality as independent of our perceptions, ideas or descriptions, we should aim to know that reality independently too.

d) The confidence with which we maintain something to be true is usually independent of the source of the alleged truth.

Passage 4
The passage below is accompanied by a set of questions. Choose the best answer to each question.

Many people believe that truth conveys power. . . . Hence sticking with the truth is the best strategy for gaining power. Unfortunately, this is just a comforting myth. In fact, truth and power have a far more complicated relationship, because in human society, power means two very different things.

On the one hand, power means having the ability to manipulate objective realities: to hunt animals, to construct bridges, to cure diseases, to build atom bombs. This kind of power is closely tied to truth. If you believe a false physical theory, you won't be able to build an atom bomb. On the other hand, power also means having the ability to manipulate human beliefs, thereby getting lots of people to cooperate effectively. Building atom bombs requires not just a good understanding of physics, but also the coordinated labor of millions of humans. Planet Earth was conquered by Homo sapiens rather than by chimpanzees or elephants, because we are the only mammals that can cooperate in very large numbers. And large-scale cooperation depends on believing common stories. But these stories need not be true. You can unite millions of people by making them believe in completely fictional stories about God, about race or about economics. The dual nature of power and truth results in the curious fact that we humans know many more truths than any other animal, but we also believe in much more nonsense. . . .

When it comes to uniting people around a common story, fiction actually enjoys three inherent advantages over the truth. First, whereas the truth is universal, fictions tend to be local. Consequently if we want to distinguish our tribe from foreigners, a fictional story will serve as a far better identity marker than a true story. . . . The second huge advantage of fiction over truth

has to do with the handicap principle, which says that reliable signals must be costly to the signaler. Otherwise, they can easily be faked by cheaters. . . . If political loyalty is signaled by believing a true story, anyone can fake it. But believing ridiculous and outlandish stories exacts greater cost, and is therefore a better signal of loyalty. . . . Third, and most important, the truth is often painful and disturbing. Hence if you stick to unalloyed reality, few people will follow you. An American presidential candidate who tells the American public the truth, the whole truth and nothing but the truth about American history has a 100 percent guarantee of losing the elections. . . . An uncompromising adherence to the truth is an admirable spiritual practice, but it is not a winning political strategy. . . .

Even if we need to pay some price for deactivating our rational faculties, the advantages of increased social cohesion are often so big that fictional stories routinely triumph over the truth in human history. Scholars have known this for thousands of years, which is why scholars often had to decide whether they served the truth or social harmony. Should they aim to unite people by making sure everyone believes in the same fiction, or should they let people know the truth even at the price of disunity?

Q.13) The author implies that, like scholars, successful leaders:
a) today know how to create social cohesion better than in the past.
b) use myths to attain the first type of power.
c) know how to balance truth and social unity.
d) need to leverage both types of power to remain in office.

Q.14) The author would support none of the following statements about political power EXCEPT that:
a) there are definite advantages to promoting fiction, but there needs to be some limit to a pervasive belief in myths.
b) while unalloyed truth is not recommended, leaders should stay as close as possible to it.
c) manipulating people's beliefs is politically advantageous, but a leader who propagates only myths is likely to lose power.
d) people cannot handle the unvarnished truth, so leaders retain power by deviating from it.

Q.15) The central theme of the passage is about the choice between:
a) stories that unite people and those that distinguish groups from each other.
b) truth and power.
c) attaining social cohesion and propagating objective truth.
d) leaders who unknowingly spread fictions and those who intentionally do so.

Q.16) Regarding which one of the following quotes could we argue that the author overemphasises the importance of fiction?

a) "Hence sticking with the truth is the best strategy for gaining power. Unfortunately, this is just a comforting myth."

b) "On the one hand, power means having the ability to manipulate objective realities: to hunt animals, to construct bridges, to cure diseases, to build atom bombs."

c) ". . . scholars often had to decide whether they served the truth or social harmony. Should they aim to unite people by making sure everyone believes in the same fiction, or should they let people know the truth . . .?"

d) "In fact, truth and power have a far more complicated relationship, because in human society, power means two very different things."

Q.17) **The passage given below is followed by four alternate summaries. Choose the option that best captures the essence of the passage.**

The unlikely alliance of the incumbent industrialist and the distressed unemployed worker is especially powerful amid the debris of corporate bankruptcies and layoffs. In an economic downturn, the capitalist is more likely to focus on costs of the competition emanating from free markets than on the opportunities they create. And the unemployed worker will find many others in a similar condition and with anxieties similar to his, which will make it easier for them to organize together. Using the cover and the political organization provided by the distressed, the capitalist captures the political agenda.

a) An unlikely alliance of the industrialist and the unemployed happens during an economic downturn in which they come together to unite politically and capture the political agenda.

b) The purpose of an unlikely alliance between the industrialist and the unemployed during an economic downturn is to stifle competition in free markets.

c) An economic downturn creates competition because of which the capitalists capture the political agenda created by the political organisation provided by the unemployed.

d) In an economic downturn, the capitalists use the anxieties of the unemployed and their political organisation to set the political agenda to suit their economic interests.

Q.18) **The four sentences (labelled 1, 2, 3 and 4) below, when properly sequenced would yield a coherent paragraph. Decide on the proper sequencing of the order of the sentences and key in the sequence of the four numbers as your answer:**

1. Look forward a few decades to an invention which can end the energy crisis, change the global economy and curb climate change at a stroke: commercial fusion power.

2. To gain meaningful insights, logic has to be accompanied by asking probing questions of nature through controlled tests, precise observations and clever analysis.

3. The greatest of all inventions is the über-invention that has provided the insights on which others depend: the modern scientific method.

4. This invention is inconceivable without the scientific method; it will rest on the application of a diverse range of scientific insights, such as the process transforming hydrogen into helium to release

[TITA]

Q.19) **The passage given below is followed by four alternate summaries. Choose the option that best captures the essence of the passage.**

Creativity is now viewed as the engine of economic progress. Various organizations are devoted to its study and promotion; there are encyclopedias and handbooks surveying creativity research. But this proliferating success has tended to erode creativity's stable identity: it has become so invested with value that it has become impossible to police its meaning and the practices that supposedly identify and encourage it. Many people and organizations committed to producing original thoughts now feel that undue obsession with the idea of creativity gets in the way of real creativity.

a) Creativity has proliferated to the extent that is no longer a stable process, and its mutating identity has stifled the creative process.

b) The value assigned to creativity today has assumed such proportions that the concept itself has lost its real meaning and this is hampering the engendering of real creativity.

c) The obsession with original thought, how it can be promoted and researched, has made it impossible for people and organizations to define the concept anymore.

d) The industry that has built up around researching what comprises and encourages creativity has destroyed the creative process itself.

Q.20) **The four sentences (labelled 1, 2, 3 and 4) below, when properly sequenced would yield a coherent paragraph. Decide on the proper sequencing of the order of the sentences and key in the sequence of the four numbers as your answer:**

1. The US has long maintained that the Northwest Passage is an international strait through which its commercial and military vessels have the right to pass without seeking Canada's permission.

2. Canada, which officially acquired the group of islands forming the Northwest Passage in 1880, claims sovereignty over all the shipping routes through the Passage.

3. The dispute could be transitory, however, as scientists speculate that the entire Arctic Ocean will soon be ice-free in summer, so ship owners will not have to ask for permission to sail through any of the Northwest Passage routes.

4. The US and Canada have never legally settled the question of access through the Passage, but have an agreement whereby the US needs to seek Canada's consent for any transit.

Q.21) **The passage given below is followed by four alternate summaries. Choose the option that best captures the essence of the passage.**

Biologists who publish their research directly to the Web have been labelled as "rogue", but physicists have been routinely publishing research digitally ("preprints"), prior to submitting in a peer-reviewed journal. Advocates of preprints argue that quick and open dissemination of research speeds up scientific progress and allows for wider access to knowledge. But some journals still don't accept research previously published as a preprint. Even if the idea of preprints is gaining ground, one of the biggest barriers for biologists is how they would be viewed by members of their conservative research community.

a) Compared to biologists, physicists are less conservative in their acceptance of digital pre-publication of research papers, which allows for faster dissemination of knowledge.

b) Preprints of research are frowned on by some scientific fields as they do not undergo a rigourous reviewing process but are accepted among biologists as a quick way to disseminate information.

c) While digital publication of research is gaining popularity in many scientific disciplines, almost all peer-reviewed journals are reluctant to accept papers that have been published before.

d) One of the advantages of digital preprints of research is they hasten the dissemination process, but these are not accepted by most scientific communities.

Q.22) **Five jumbled up sentences, related to a topic, are given below. Four of them can be put together to form a coherent paragraph. Identify the odd one out and key in the number of the sentence as your answer:**

1. It has taken on a warm, fuzzy glow in the advertising world, where its potential is being widely discussed, and it is being claimed as the undeniable wave of the future.

2. There is little enthusiasm for this in the scientific arena; for them marketing is not a science, and only a handful of studies have been published in scientific journals.

3. The new, growing field of neuromarketing attempts to reveal the inner workings of consumer behaviour and is an extension of the study of how choices and decisions are made.

4. Some see neuromarketing as an attempt to make the "art" of advertising into a science, being used by marketing experts to back up their proposals with some form of real data.

5. The marketing gurus have already started drawing on psychology in developing tests and theories, and advertising people have borrowed the idea of the focus group from social scientists.

Q.23) **The four sentences (labelled 1, 2, 3, 4) below, when properly sequenced would yield a coherent paragraph. Decide on the proper sequencing of the order of the sentences and key in the sequence of the four numbers as your answer:**

1. But today there is an epochal challenge to rethink and reconstitute the vision and practice of development as a shared responsibility – a sharing which binds both the agent and the audience, the developed world and the developing, in a bond of shared destiny.
2. We are at a crossroads now in our vision and practice of development.
3. This calls for the cultivation of an appropriate ethical mode of being in our lives which enables us to realize this global and planetary situation of shared living and responsibility.
4. Half a century ago, development began as a hope for a better human possibility, but in the last fifty years, this hope has lost itself in the dreary desert of various kinds of hegemonic applications.
[TITA]

Q.24) **Five jumbled up sentences, related to a topic, are given below. Four of them can be put together to form a coherent paragraph. Identify the odd one out and key in the number of the sentence as your answer:**
1. The care with which philosophers examine arguments for and against forms of biotechnology makes this an excellent primer on formulating and assessing moral arguments.
2. Although most people find at least some forms of genetic engineering disquieting, it is not easy to articulate why: what is wrong with re-engineering our nature?
3. Breakthroughs in genetics present us with the promise that we will soon be able to prevent a host of debilitating diseases, and the predicament that our newfound genetic knowledge may enable us to enhance our genetic traits.
4. To grapple with the ethics of enhancement, we need to confront questions that verge on theology, which is why modern philosophers and political theorists tend to shrink from them.
5. One argument is that the drive for human perfection through genetics is objectionable as it represents a bid for mastery that fails to appreciate the gifts of human powers and achievements.
[TITA]

DATA INTERPRETATION AND LOGICAL REASONING

Set 1

Ravi works in an online food-delivery company. After each delivery, customers rate Ravi on each of four parameters – Behaviour, Packaging, Hygiene, and Timeliness, on a scale from 1 to 9. If the total of the four rating points is 25 or more, then Ravi gets a bonus of ₹20 for that delivery. Additionally, a customer may or may not give Ravi a tip. If the customer gives a tip, it is either ₹30 or ₹50.

One day, Ravi made four deliveries - one to each of Atal, Bihari, Chirag and Deepak, and received a total of ₹120 in bonus and tips. He did not get both a bonus and a tip from the same customer.

The following additional facts are also known.

1. In Timeliness, Ravi received a total of 21 points, and three of the customers gave him the same rating points in this parameter. Atal gave higher rating points than Bihari and Chirag in this parameter.

2. Ravi received distinct rating points in Packaging from the four customers adding up to 29 points. Similarly, Ravi received distinct rating points in Hygiene from the four customers adding up to 26 points.

3. Chirag gave the same rating points for Packaging and Hygiene.

4. Among the four customers, Bihari gave the highest rating points in Packaging, and Chirag gave the highest rating points in Hygiene.

5. Everyone rated Ravi between 5 and 7 in Behaviour. Unique maximum and minimum ratings in this parameter were given by Atal and Deepak respectively.

6. If the customers are ranked based on ratings given by them in individual parameters, then Atal's rank based on Packaging is the same as that based on Hygiene. This is also true for Deepak.

Q.1) What was the minimum rating that Ravi received from any customer in any parameter? [TITA]

Q.2) The COMPLETE list of customers who gave the maximum total rating points to Ravi is
a) Bihari
b) Bihari and Chirag
c) Atal and Bihari
d) Atal

Q.3) What rating did Atal give on Timeliness? [TITA]

Q.4) What BEST can be concluded about the tip amount given by Deepak?

a) Either ₹0 or ₹30 or ₹50

b) ₹30

c) ₹50

d) Either ₹30 or ₹50

Q.5) In which parameter did Atal give the maximum rating points to Ravi?

a) Behaviour

b) Packaging

c) Hygiene

d) Timeliness

Q.6) What rating did Deepak give on Packaging?

a) 8

b) 7

c) 6

d) 5

Set 2

The different bars in the diagram above provide information about different orders in various categories (Art, Binders, ….) that were booked in the first two weeks of September of a store for one client. The colour and pattern of a bar denotes the ship mode (First Class / Second Class / Standard Class). The left end point of a bar indicates the booking day of the order, while the right end point indicates the dispatch day of the order. The difference between the dispatch day and the booking day (measured in terms of the number of days) is called the processing time of the order. For the same category, an order is considered for booking only after the previous order of the same category is dispatched. No two consecutive orders of the same category had identical ship mode during this period.
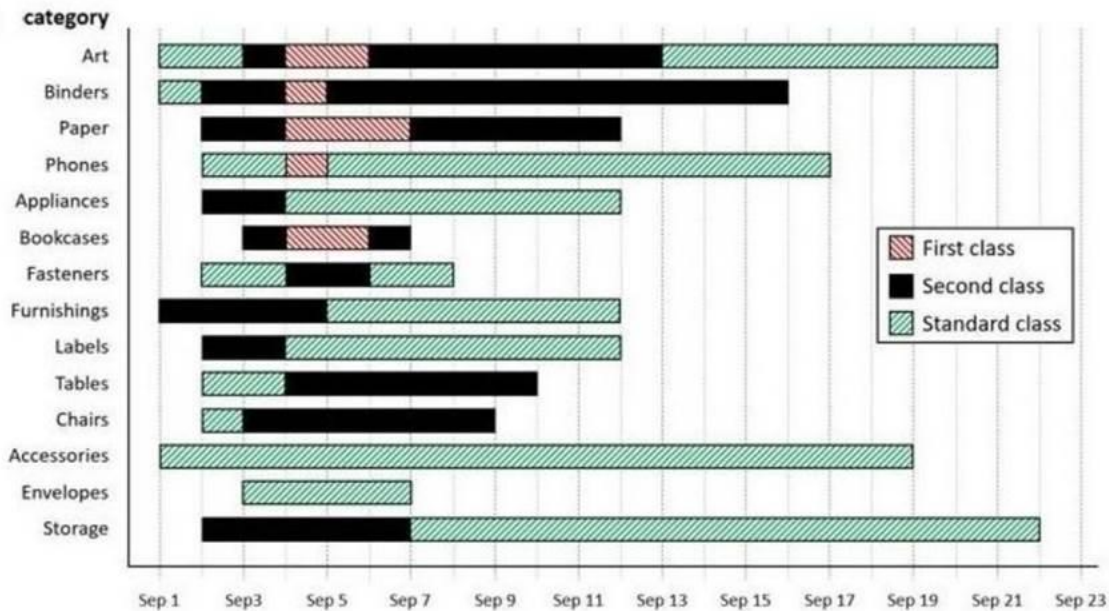
For example, there were only two orders in the furnishing category during this period. The first one was shipped in the Second Class. It was booked on Sep 1 and dispatched on Sep 5. The second order was shipped in the Standard class. It was booked on Sep 5 (although the order might have been placed before that) and dispatched on Sep 12. So the processing times were 4 and 7 days respectively for these orders.

Q.7) How many days between Sep 1 and Sep 14 (both inclusive) had no booking from this client considering all the above categories? [TITA]

Q.8) What was the average processing time of all orders in the categories which had only one type of ship mode? [TITA]

Q.9) The sequence of categories -- Art, Binders, Paper and Phones -- in decreasing order of average processing time of their orders in this period is:
a) Art, Binders, Paper, Phones
b) Phones, Binders, Art, Paper
c) Phones, Art, Binders, Paper
d) Paper, Binders, Art, Phones

Q.10) Approximately what percentage of orders had a processing time of one day during the period Sep 1 to Sep 22 (both dates inclusive)?
a) 16%
b) 22%

c) 20%

d) 25%

SET 3

The game of Chango is a game where two people play against each other; one of them wins and the other loses, i.e., there are no drawn Chango games. 12 players participated in a Chango championship. They were divided into four groups: Group A consisted of Aruna, Azul, and Arif; Group B consisted of Brinda, Brij, and Biju; Group C consisted of Chitra, Chetan, and Chhavi; and Group D consisted of Dipen, Donna, and Deb.

Players within each group had a distinct rank going into the championship. The players have NOT been listed necessarily according to their ranks. In the group stage of the game, the second and third ranked players play against each other, and the winner of that game plays against the first ranked player of the group. The winner of this second game is considered as the winner of the group and enters a semi-final.

The winners from Groups A and B play against each other in one semi-final, while the winners from Groups C and D play against each other in the other semi-final. The winners of the two semi-finals play against each other in the final to decide the winner of the championship.

It is known that:

1. Chitra did not win the championship.

2. Aruna did not play against Arif. Brij did not play against Brinda.

3. Aruna, Biju, Chitra, and Dipen played three games each, Azul and Chetan played two games each, and the remaining players played one game each.

Q.11) Who among the following was DEFINITELY NOT ranked first in his/her group?

a) Dipen

b) Brij

c) Chitra

d) Aruna

Q.12) Which of the following pairs must have played against each other in the championship?

a) Donna, Chetan

b) Deb, Donna

c) Chitra, Dipen

d) Azul, Biju

Q.13) Who won the championship?

a) Brij

b) Chitra

c) Aruna

d) Cannot be determined

Q.14) Who among the following did NOT play against Chitra in the championship?

a) Biju

b) Aruna

c) Chetan

d) Dipen

SET 4

Ten objects o1, o2, …, o10 were distributed among Amar, Barat, Charles, Disha, and Elise. Each item went to exactly one person. Each person got exactly two of the items, and this pair of objects is called her/his bundle.

The following table shows how each person values each object.

	o1	o2	o3	o4	o5	o6	o7	o8	o9	o10
Amar	4	9	9	3	7	3	8	7	9	5
Barat	5	9	7	5	5	3	6	8	10	8
Charles	8	8	8	3	6	4	5	8	9	6
Disha	8	8	8	5	5	3	6	4	9	8
Elise	6	8	9	5	6	5	6	3	7	10

The value of any bundle by a person is the sum of that person's values of the objects in that bundle. A person X envies another person Y if X values Y's bundle more than X's own bundle. For example, hypothetically suppose Amar's bundle consists of o1 and o2, and Barat's bundle consists of o3 and o4. Then Amar values his own bundle at 4 + 9 = 13 and Barat's bundle at 9 + 3 = 12. Hence Amar does not envy Barat. On the other hand, Barat values his own bundle at 7 + 5 = 12 and Amar's bundle at 5 + 9 = 14. Hence Barat envies Amar.

The following facts are known about the actual distribution of the objects among the five people.

1. If someone's value for an object is 10, then she/he received that object.

2. Objects o1, o2, and o3 were given to three different people.

3. Objects o1 and o8 were given to different people.

4. Three people value their own bundles at 16. No one values her/his own bundle at a number higher than 16.

5. Disha values her own bundle at an odd number. All others value their own bundles at an even number.

6. Some people who value their own bundles less than 16 envy some other people who value their own bundle at 16. No one else envies others.

Q.15) What BEST can be said about object o8?
a) o8 was given to Charles or Disha
b) o8 was given to Disha
c) o8 was given to Amar, Charles, or Disha
d) o8 was given to Charles

Q.16) Who among the following envies someone else?
a) Amar
b) Elise
c) Charles
d) Barat

Q.17) What is Amar's value for his own bundle? [TITA]

Q.18) Object o4 was given to
a) Barat
b) Charles
c) Disha
d) Elise

Q.19) Object o5 was given to
a) Elise
b) Amar
c) Disha
d) Charles

Q.20) What BEST can be said about the distribution of object o1?
a) o1 was given to Disha
b) o1 was given to Charles, Disha, or Elise
c) o1 was given to Charles
d) o1 was given to Charles or Disha

QUALITATIVE ABILITY

Q.1) A person buys tea of three different qualities at ₹ 800, ₹ 500, and ₹ 300 per kg, respectively, and the amounts bought are in the proportion 2 : 3 : 5. She mixes all the tea and sells one-sixth of the mixture at ₹ 700 per kg. The price, in INR per kg, at which she should sell the remaining tea, to make an overall profit of 50%, is
a) 675
b) 692
c) 688
d) 653

Q.2) Consider the pair of equation: $x^2 - xy - x = 22$ and $y^2 - xy + y = 34$. If x>y, then x-y equals
a) 6
b) 7
c) 4
d) 8

Q.3) Let D and E be points on sides AB and AC, respectively, of a triangle ABC, such that AD : BD = 2 : 1 and AE : CE = 2 : 3. If the area of the triangle ADE is 8 sq cm, then the area of the triangle ABC, in sq cm, is
[TITA]

Q.4) A box has 450 balls, each either white or black, there being as many metallic white balls as metallic black balls. If 40% of the white balls and 50% of the black balls are metallic, then the number of non-metallic balls in the box is
[TITA]

Q.5) If $\log_2[3 + \log_3\{4 + \log_4(x-1)\}] - 2 = 0$ then 4x equals
[TITA]

Q.6) From a container filled with milk, 9 litres of milk are drawn and replaced with water. Next, from the same container, 9 litres are drawn and again replaced with water. If the volumes of milk and water in the container are now in the ratio of 16 : 9, then the capacity of the container, in litres, is
[TITA]

Q.7) For all possible integers n satisfying $2.25 \leq 2 + 2^{n+2} \leq 202$, the number of integer values of $3 + 3^{n+1}$ is

[TITA]

Q.8) If a rhombus has area 12 sq cm and side length 5 cm, then the length, in cm, of its longer diagonal is

a) $\sqrt{37} + \sqrt{13}$

b) $(\sqrt{13} + \sqrt{12})/2$

c) $\sqrt{13} + \sqrt{12}$

d) $(\sqrt{37} + \sqrt{13})/2$

Q.9) Two pipes A and B are attached to an empty water tank. Pipe A fills the tank while pipe B drains it. If pipe A is opened at 2 pm and pipe B is opened at 3 pm, then the tank becomes full at 10 pm. Instead, if pipe A is opened at 2 pm and pipe B is opened at 4 pm, then the tank becomes full at 6 pm. If pipe B is not opened at all, then the time, in minutes, taken to fill the tank is

a) 120

b) 140

c) 144

d) 264

Q.10) Anil can paint a house in 60 days while Bimal can paint it in 84 days. Anil starts painting and after 10 days, Bimal and Charu join him. Together, they complete the painting in 14 more days. If they are paid a total of ₹ 21000 for the job, then the share of Charu, in INR, proportionate to the work done by him, is

a) 9200

b) 9100

c) 9000

d) 9150

Q.11) Three positive integers x, y and z are in arithmetic progression. If y − x > 2 and xyz = 5(x + y + z), then z − x equals

a) 12

b) 8

c) 14

d) 10

Q.12) For a real number x the condition |3x-20| + |3x-40| = 20 necessarily holds if

a) 9 < x < 14

b) 7 < x < 12

c) 6 < x < 11

d) 10 < x < 15

Q.13) Two trains A and B were moving in opposite directions, their speeds being in the ratio 5 : 3. The front end of A crossed the rear end of B 46 seconds after the front ends of the trains had crossed each other. It took another 69 seconds for the rear ends of the trains to cross each other. The ratio of length of train A to that of train B is

a) 2 : 1

b) 5 : 3

c) 3 : 2

d) 2 : 3

Q.14) Suppose one of the roots of the equation $ax^2 - bx + c = 0$ is $2 + \sqrt{3}$, where a, b and c are rational numbers and $a \neq 0$. If $b = c^3$ then $|a|$ equals

a) 1

b) 3

c) 4

d) 2

Q.15) For a 4-digit number, the sum of its digits in the thousands, hundreds and tens places is 14, the sum of its digits in the hundreds, tens and units places is 15, and the tens place digit is 4 more than the units place digit. Then the highest possible 4-digit number satisfying the above conditions is

[TITA]

Q.16) Anil, Bobby and Chintu jointly invest in a business and agree to share the overall profit in proportion to their investments. Anil's share of investment is 70%. His share of profit decreases by ₹ 420 if the overall profit goes down from 18% to 15%. Chintu's share of profit increases by ₹ 80 if the overall profit goes up from 15% to 17%. The amount, in INR, invested by Bobby is

a) 2200

b) 2400

c) 1800

d) 2000

Q.17) The sides AB and CD of a trapezium ABCD are parallel, with AB being the smaller side. P is the midpoint of CD and ABPD is a parallelogram. If the difference between the areas of the

parallelogram ABPD and the triangle BPC is 10 sq. cm, then the area, in sq. cm, of the trapezium ABCD is

a) 30

b) 25

c) 40

d) 20

Q.18) For a sequence of real numbers $x_1, x_2, …, x_n$, if $x_1 − x_2 + x_3 - … + (-1)^{n+1} x_n = n^2 + 2n$ for all natural numbers n, then the sum $x_{49} + x_{50}$

a) -2

b) 200

c) -200

d) 2

Q.19) The number of ways of distributing 15 identical balloons, 6 identical pencils and 3 identical erasers among 3 children, such that each child gets at least four balloons and one pencil, is
[TITA]

Q.20) In a football tournament, a player has played a certain number of matches and 10 more matches are to be played. If he scores a total of one goal over the next 10 matches, his overall average will be 0.15 goals per match. On the other hand, if he scores a total of two goals over the next 10 matches, his overall average will be 0.2 goals per match. The number of matches he has played is
[TITA]

Q.21) Raj invested ₹ 10000 in a fund. At the end of first year, he incurred a loss but his balance was more than ₹ 5000. This balance, when invested for another year, grew and the percentage of growth in the second year was five times the percentage of loss in the first year. If the gain of Raj from the initial investment over the two-year period is 35%, then the percentage of loss in the first year is

a) 10

b) 70

c) 15

d) 5

Q.22) For all real values of x, the range of the function $f(x) = \dfrac{x^2+2x+4}{2x^2+4x+9}$ is

a) [3/7, 8/9)
b) [3/7, 1/2)
c) (3/7, 1/2)
d) [4/9, 8/9]

SOLUTIONS

VERBAL ABILITY AND READING COMPREHENSION

Q.1) Answer – C
Explanation:
Let us refer to the passage
"More commonly, speakers live on but abandon their language in favor of another vernacular, a widespread process that linguists refer to as "language shift" from which few languages are immune. Such trading up and out of a speech form occurs for complex political, cultural and economic reasons – sometimes voluntary for economic and educational reasons, although often amplified by state coercion or neglect. **Welsh, long stigmatized and disparaged by the British state, has rebounded with vigour**."
The passage talks about how speakers of oral languages live on but undergo a 'language shift' in favour of another vernacular due to multiple reasons as political, cultural, economic, educational and these reasons are often multiplied by state coercion or neglect of these languages. The Welsh language speakers were stigmatized and were considered of little worth by the British state and even after going through a language shift, they have rebounded and revived their Welsh tongue with vigour.
The above-mentioned excerpt and explanation are best captured in option C. Hence, this option is correct.

Q.2) Answer – C
Explanation:
Let us refer to the passage
"**Across the largest economies that make up the G8, being monolingual is still often the norm, with multilingualism appearing unusual and even somewhat exotic.** The monolingual mindset stands in sharp contrast to the lived reality of most the world, which throughout its history has been more multilingual than unilingual. **Monolingualism, then, not globalization, should be our primary concern.**

Multilingualism can help us live in a more connected and more interdependent world. By widening access to technology, globalization can support indigenous and scholarly communities engaged in documenting and protecting our shared linguistic heritage. For the last 5,000 years, the rise and fall of languages was intimately tied to the plow, sword and book. In our digital age, the keyboard, screen and web will play a decisive role in shaping the future linguistic diversity of our species."

From the above-mentioned excerpt we can understand that the author calls out monolingualism to be the primary concern we must solve and promote multilingualism as it can help us live in a more connected and more interdependent world, thus enabling us to protect and share linguistic heritage.

This is perfectly captured in Option C, hence it is the correct answer.

Q.3) Answer – C

Explanation:

"Both push and pull factors lead to the decline of languages. **Through war, famine and natural disasters, whole communities can be destroyed, taking their language with them to the grave, such as the indigenous populations of Tasmania who were wiped out by colonists.** More commonly, speakers live on but abandon their language in favor of another vernacular, a widespread process that linguists refer to as **"language shift"** from which few languages are immune. Such trading up and out of a speech form occurs for complex political, cultural and economic reasons – sometimes voluntary for economic and educational reasons, **although often amplified by state coercion or neglect.**"

Based on the above-mentioned excerpt we can identify option A, B & D as reasons for the decline in languages.

"**Internet technology offers powerful ways for oral traditions and cultural practices to survive, even thrive, among increasingly mobile communities.** I have watched as videos of traditional wedding ceremonies and songs are recorded on smartphones in London by Nepali migrants, then uploaded to YouTube and watched an hour later by relatives in remote Himalayan villages . . ."

The author mentions Digital media as a way of saving oral traditions and not as a reason for the decline or disappearance of a language.

Hence, Option C is the correct answer.

Q.4) Answer – A

Explanation:

Let us refer to the passage

"It's easy to forget that most of the world's languages are **still transmitted orally** with no widely

established written form. **While speech communities are increasingly involved in projects to protect their languages – in print, on air and online – orality is fragile and contributes to linguistic vulnerability.** But indigenous languages are about much more than unusual words and intriguing grammar: **They function as vehicles for the transmission of cultural traditions, environmental understandings and knowledge about medicinal plants**, all at risk when elders die and livelihoods are disrupted."

Based on above-mentioned excerpt we can infer Option B, C & D.

Thus by the method of option elimination we can see that Option A is the correct answer.

Q.5) Answer – D

Explanation:

Let us refer to the passage

"**Once we match this new meaning of the home/world dichotomy with the identification of social roles by gender, we get the ideological framework within which nationalism answered the women's question. It would be a grave error to see in this, as liberals are apt to in their despair at the many marks of social conservatism in nationalist practice, a total rejection of the West.** Quite the contrary: the nationalist paradigm in fact supplied an ideological principle of selection."

In the matching of the world dichotomy with gender-based social roles, the liberals are apt to (likely to), according to the author, see a total rejection of the West by Indian nationalists.

The above-mentioned excerpt and explanation are best captured in option D. Hence, this option is correct.

Q.6) Answer – C

Explanation:

Option A – "Applying the inner/outer distinction to the matter of concrete day-to-day living separates the social space into ghar and bahir, the home and the world"

Based on the above-mentioned excerpt we can understand this option to be true. Hence, this option is incorrect.

Option B – "The discourse of nationalism shows that the material/spiritual distinction was condensed into an analogous, but ideologically far more powerful, dichotomy: that between the outer and the inner. . ."

Based on the above-mentioned excerpt we can understand this option to be true. Hence, this option is incorrect.

Option C – The aspect of the spiritual/material dichotomy was a 'continuation of age-old oppositions in Indian culture' is not discussed in the passage by the author. Hence, this option is out of context and the correct answer.

Option D – the author elaborates on how the material/spiritual dichotomy acquired 'a very

special significance in the nationalist mind', as the nationalists asserted that the West 'had failed to colonize the inner, essential, identity of the East which lay in its distinctive, and superior, spiritual culture'. In other words, the spiritual/material dichotomy helped in safeguarding the identity of Indian nationalism. Hence, this option is incorrect.

Q.7) Answer – C
Explanation:
Option A – "It would be a grave error to see in this, as liberals are apt to in their despair at the many marks of social conservatism in nationalist practice, a total rejection of the West. Quite the contrary: the nationalist paradigm in fact supplied an ideological principle of selection."
The above-mentioned excerpt implies the nationalists embraced some aspects of the West and rejected some aspects, selectively. If this option were true and Indian nationalists rejected the cause of English education for women, that would really not weaken the author's claims. Hence, this option is incorrect.
Option B – "Science, technology, rational forms of economic organization, modern methods of statecraft—these had given the European countries the strength to subjugate the non-European people . . . To overcome this domination, the colonized people had to learn those superior techniques of organizing material life and incorporate them within their own cultures. . . . But this could not mean the imitation of the West in every aspect of life, for then the very distinction between the West and the East would vanish—the self-identity of national culture would itself be threatened. . . ."
The above-mentioned excerpt implies that the colonised people were trying to overcome the domination, thus the option is strengthening the authors viewpoint. Hence, this option is incorrect.
Option C – "The world was where the European power had challenged the non-European peoples and, by virtue of its superior material culture, had subjugated them. **But, the nationalists asserted, it had failed to colonize the inner, essential, identity of the East which lay in its distinctive, and superior, spiritual culture. . . .** [I]n the entire phase of the national struggle, the crucial need was to protect, preserve and strengthen the inner core of the national culture, its spiritual essence. . . ."
The above-mentioned excerpt shows us that the East were not colonised in terms of their identity and spirituality, if we assume this option to be correct in terms of hybridisation then that would weaken the authors viewpoints. Hence, this option is correct.
Option D – "Science, technology, rational forms of economic organization, modern methods of statecraft—these had given the European countries the strength to subjugate the non-European people . . ."
From the above-mentioned excerpt we can understand that the option will strengthen the authors viewpoints. Hence, this option is incorrect.

Q.8) Answer – C
Explanation:
Let us refer to the passage
"I have elaborated . . . a framework for **analyzing the contradictory pulls** on [Indian] nationalist ideology in its struggle against the dominance of colonialism and the resolution it offered to those contradictions. Briefly, this resolution was built around a separation of the domain of culture into two spheres—**the material and the spiritual**. **It was in the material sphere that the claims of Western civilization were the most powerful. Science, technology, rational forms of economic organization, modern methods of statecraft**—these had given the European countries the strength to subjugate the non-European people . . . **To overcome this domination, the colonized people had to learn those superior techniques of organizing material life and incorporate them within their own cultures**. . . . **But this could not mean the imitation of the West in every aspect of life**"

In the above-mentioned excerpt we can understand that the domain of culture was divided into the material and spiritual. The west was most powerful in the material sphere and the east had to learn those superior material related things and incorporate them into their culture to overcome west domination. This is best captured in Option C. Hence, this option is correct.

Q.9) Answer – A
Explanation:
Let us refer to the passage
"For**, the sceptic will note, since reality, under that conception of it, is outside our ken (we cannot catch a glimpse of things-in-themselves around the corner of our own eyes; we cannot form an idea of reality that floats above the processes of our conceiving it), we have no way to compare our mental representations with things-as-they-are-in-themselves and therefore no way to determine whether they are correct or incorrect.** Thus the sceptic may repeat (rattling loudly), you cannot be sure you 'know' something or anything at all – at least not, he may add (rattling softly before disappearing), if that is the way you conceive 'knowledge'."
From the above-mentioned excerpt we can understand that the sceptic will note that reality is independent of our perceptions, thus we can assume that it is clearly out of our scope of understanding, as it exists outside our ability to understand it. The explanation is perfectly captured in Option A. Hence, it is the correct option

Q.10) Answer – D
Explanation:
Let us refer to the passage
"We hold our beliefs and presumptive knowledges more or less confidently, usually depending

on how we acquired them **(I saw it with my own eyes; I heard it on Fox News; a guy at the office told me) and how broadly and strenuously they seem to be shared or endorsed by various relevant people**: experts and authorities, friends and family members, colleagues and associates."

From the above-mentioned excerpt we can understand the factors which examine and defend the convictions one holds. It is best captured on Option D. Hence, it is the correct answer.

Q.11) Answer – C
Explanation:
Option A – "While it is not clear that the scandal matters to anyone but philosophers, philosophers point out that it should matter to everyone, at least given a certain conception of knowledge."
From the above-mentioned excerpt we can determine that this option is mentioned in the passage by the author. Hence, this option is incorrect.
Option B – "Thus the sceptic may repeat (rattling loudly), you cannot be sure you 'know' something or anything at all – at least not, he may add (rattling softly before disappearing), if that is the way you conceive' 'knowledge''
From the above-mentioned excerpt we can determine that this option is mentioned in the passage by the author. Hence, this option is incorrect.
Option C – "There are a number of ways to handle this situation. The most common is to ignore it."
The author states that the most common way to handle sceptics is to ignore them while the option talks about it being the best way which is a mismatch. Hence, this option is correct.
Option D – "For, they explain, unless we can ground our claims to knowledge as such, which is to say, distinguish it from mere opinion, superstition, fantasy, wishful thinking, ideology, illusion or delusion, then the actions we take on the basis of presumed knowledge – boarding an airplane, swallowing a pill, finding someone guilty of a crime – will be irrational and unjustifiable."
From the above-mentioned excerpt we can determine that this option is mentioned in the passage by the author. Hence, this option is incorrect.

Q.12) Answer – B
Explanation:
Option A – "While it is not clear that the scandal matters to anyone but philosophers, philosophers point out that it should matter to everyone, at least given a certain conception of knowledge. For, they explain, unless we can ground our claims to knowledge as such, which is to say, distinguish it from mere opinion, superstition, fantasy, wishful thinking, ideology, illusion or delusion, then the actions we take on the basis of presumed knowledge – boarding an

airplane, swallowing a pill, finding someone guilty of a crime – will be irrational and unjustifiable."

The passage states exactly opposite of what the option states, we need to distinguish knowledge from opinion to be able to take justifiable actions. Hence, this option is incorrect.

Option B – "For, the sceptic will note, since reality, under that conception of it, is outside our ken (we cannot catch a glimpse of things-in-themselves around the corner of our own eyes; we cannot form an idea of reality that floats above the processes of our conceiving it), we have no way to compare our mental representations with things-as-they-are-in-themselves and therefore no way to determine whether they are correct or incorrect."

The option perfectly captures the above-mentioned excerpt and agrees with the authors viewpoints. Hence, this option is correct.

Option C – "For, the sceptic will note, since reality, under that conception of it, is outside our ken (we cannot catch a glimpse of things-in-themselves around the corner of our own eyes; we cannot form an idea of reality that floats above the processes of our conceiving it), we have no way to compare our mental representations with things-as-they-are-in-themselves and therefore no way to determine whether they are correct or incorrect."

The Option states that the sceptic would advocate knowing reality independently which is not in line with the authors viewpoint. Hence, this option is incorrect.

Option D – "And we examine our convictions more or less closely, explain them more or less extensively, and defend them more or less vigorously, usually depending on what seems to be at stake for ourselves and/or other people and what resources are available for reassuring ourselves or making our beliefs credible to others (look, it's right here on the page; add up the figures yourself; I happen to be a heart specialist)."

From the above-mentioned excerpt we can understand that the option states a viewpoint which is opposite to what is presented in the passage. Hence, this option is incorrect.

Q.13) Answer – C
Explanation:
Let us refer to the passage
"An American presidential candidate who tells the American public the truth, the whole truth and nothing but the truth about American history has a 100 percent guarantee of losing the elections. . . . An uncompromising adherence to the truth is an admirable spiritual practice, but it is not a winning political strategy. . . .

Even if we need to pay some price for deactivating our rational faculties, the advantages of increased social cohesion are often so big that fictional stories routinely triumph over the truth in human history. Scholars have known this for thousands of years, which is why scholars often had to decide whether they served the truth or social harmony. Should they aim to unite people by making sure everyone believes in the same fiction, or should they let people know

the truth even at the price of disunity?"

The above-mentioned excerpt from the passage shows us that the scholar understands when they need to serve the truth and when they need to serve social harmony similarly a successful leader must understand the same to be successful and maintain harmony between people. This is best captured in Option C. Hence, it is the correct answer.

Q.14) Answer – D

Explanation:

Let us refer to the passage

"Third, and most important, the truth is often painful and disturbing. Hence if you stick to unalloyed reality, few people will follow you. An American presidential candidate who tells the American public the truth, the whole truth and nothing but the truth about American history has a 100 percent guarantee of losing the elections. . . . **An uncompromising adherence to the truth is an admirable spiritual practice, but it is not a winning political strategy. . . .**"

The question essentially means which one of the options the author would support.

If we see the excerpt mentioned above it clearly states an example that an aspiring American president cannot win the elections if he tells the absolute truth thus a leader will retain power if he diverts from the absolute truth which is mentioned in Option D. Hence, it is the correct answer.

Q.15) Answer – C

Explanation:

"When it comes to uniting people around a common story, fiction actually enjoys three inherent advantages over the truth. First, whereas the truth is universal, fictions tend to be local.

The second huge advantage of fiction over truth has to do with the handicap principle, which says that reliable signals must be costly to the signaler. Otherwise, they can easily be faked by cheaters

Third, and most important, the truth is often painful and disturbing.

Even if we need to pay some price for deactivating our rational faculties, the advantages of increased social cohesion are often so big that fictional stories routinely triumph over the truth in human history"

From the above-mentioned excerpts we can see that the author is presenting a case as to how fiction has advantages above truth to achieve social cohesion.

This reasoning is best captured in option C; hence it is the correct answer.

Q.16) Answer – C

Explanation:

". . . scholars often had to decide whether they served the truth or social harmony. Should they aim to unite people by making sure everyone believes in the same fiction, or should they let people know the truth . . .?"

We have to focus on the option in which the author overemphasises the importance of fiction. In the above-mentioned option we see that the author says that the scholars had to take on call on what do they intend to serve, whether it is truth or the social harmony. This essentially means that to unite people and avoid distress they had to build up a fiction rather than tell the truth.

This captures the essence of the question perfectly. Hence Option C is the correct answer.

Q.17) Answer – D

Explanation:

"The unlikely alliance of the incumbent industrialist and the distressed unemployed worker is especially powerful amid the debris of corporate bankruptcies and layoffs. In an **economic downturn**, the capitalist is more likely to focus on costs of the competition emanating from free markets than on the opportunities they create. **And the unemployed worker will find many others in a similar condition and with anxieties similar to his, which will make it easier for them to organize together**. Using the **cover and the political organization** provided by the distressed, the **capitalist captures the political agenda**."

The passage talks about the situation of an economic downturn where unemployed workers are in distress and they unite together as a political organisation. The incumbent industrialist takes advantage of this situation and unites with the organised distressed employees to achieve their own goals which is their personal political agenda.

This explanation is perfectly captured in Option D, hence it is the correct answer.

Q.18) Answer – 3214

Explanation:

Statement 3 introduces us to the topic of the modern scientific method which is being termed as the greatest of all inventions that has provided the insights on which others depend.

Statement 2 continues statement 3 by talking about how to gain meaningful insights, it can be done when logic is complemented with probing questions via controlled tests, precise observations and clever analysis. Statement 1 gives an example of an invention the commercial fusion power and statement 4 explains as to how this invention cannot be conceived without the scientific method thereby proving the points made in statement 3 and 2. Hence, the final order is 3-2-1-4.

Q.19) Answer – B

Explanation:

Creativity is now viewed as the engine of economic progress. Various organizations are devoted to its study and promotion; there are encyclopedias and handbooks surveying creativity research. **But this proliferating success has tended to erode creativity's stable identity**: it has become so invested with value that it has become impossible to police its meaning and the practices that supposedly identify and encourage it. **Many people and organizations committed to producing original thoughts now feel that undue obsession with the idea of creativity gets in the way of real creativity.**

The passage is essentially trying to convey that due to extensive research which is going into identifying creativity and producing creative solutions is eroding the very origin of creative thought and endangering it. This is perfectly captured in Option B. Hence, it is the correct answer.

Q.20) Answer – 2143
Explanation:
Statement 2 introduces us to the topic of how Canada claims sovereignty over all the shipping routes through the Northwest Passage which it had captured in 1880. Statement 1 talks about the stance of the us over the northwest passage, establishing that it is an international strait. Statement 4 talks about the access problem mentioned in statement 1 and how Canada & US have not settled it legally but have an agreement in place. Statement 3 talks about a possible future scenario regarding the artic waters and a natural resolution to the dispute. Hence, the order is 2-1-4-3.

Q.21) Answer – A
Explanation:
Biologists who publish their research directly to the Web have been labelled as "rogue", but **physicists have been routinely publishing research digitally** ("preprints"), prior to submitting in a peer-reviewed journal. **Advocates of preprints argue that quick and open dissemination of research speeds up scientific progress and allows for wider access to knowledge.** But some journals still don't accept research previously published as a preprint. Even if the idea of preprints is gaining ground, one of **the biggest barriers for biologists is how they would be viewed by members of their conservative research community**.

Physicists have been publishing preprints routinely which makes them less conservative compared to the biologist's community. Also, the advocates of preprints argue that they fasten the scientific progress and give wider access to knowledge.

This is perfectly captured by Option A; hence it is the correct answer.

Q.22) Answer – 5
Explanation:

Statement 3 introduces us to the topic of neuromarketing and statement 1 links to statement 3 in discussing about what the advertising world thinks of it. Statement 4 talks about how some see neuromarketing as an attempt to make the "art" of advertising into a science and statement 2 talks about what the scientific world thinks of neuromarketing.

Statement 5 has no linkage to neuromarketing and deals more on psychology which is not in line with the idea in the other 4 statements. Hence, statement 5 is the odd one out.

Q.23) Answer – 2413

Explanation:

statement 2 introduces us to the topic of how we are at a crossroads now in our vision and practice of development. Statement 4 gives us a historical perspective about the topic mentioned in statement 2. Statement 1 talks about the epochal challenge to rethink and reconstitute the vision and practice of development as a shared responsibility which is in contrast to the point presented in statement 4. Statement 3 talks about how we can address this challenge mentioned in statement 1. Hence, the order is 2-4-1-3.

Q.24) Answer – 1

Explanation:

This was the easiest question of the slot.

Statements 2,3,4,5 talks about Genetics and the ethical standpoint regarding the use of genetics to re-engineer the natural human form. While statement 1 is a general statement talking about philosophers examine arguments for and against forms of biotechnology. This statement doesn't specifically talk about genetics unlike the other 4 statements. Thus statement 1 is the odd one out.

DATA INTERPRETATION AND LOGICAL REASONING-

Q.1) Answer- 5

Explanation:

As per statement 1 Atal gave higher rating points than Bihari and Chirag in timeliness which means that Bihari, Chirag and Deepak had given Ravi same points in timeliness which we will denote as x

Also as per statement 5 unique maximum and minimum ratings in this parameter were given by Atal and Deepak respectively which means that Atal and Deepak gave 7 and 5 respectively and Bihari and Chirag gave a 6 as the highest and lowest ratings were unique

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7				
Bihari	6			X	
Chirag	6	Y	Y	X	
Deepak	5			X	
Total	24	29	26	21	

Now we know that Ravi received a total of Rs. 120 in tips and bonuses, how can we get 120

Case 1 – 50 + 30 + 20 + 20 = 120

Case 2 – 30 + 30 + 30 + 30 = 120

Now only Case 1 is possible as question says tips and bonuses.

Now how can we uniquely get 29 and 26

For 29:

5+7+8+9 = 29

For 26:

5+6+7+8 = 26

4+5+8+9 = 26

4+6+7+9 = 26

As per statement 4 Bihari gave the highest rating points in Packaging, and Chirag gave the highest rating points in Hygiene.

So Bihari gives Ravi a 9 in packaging which means the highest points in Hygiene can be 8 only as Chirag gives the highest points in Hygiene and he gives the same score in packaging too.

Also per statement 6 Atal's rank based on Packaging is the same as that based on Hygiene. This is also true for Deepak, this means that Bihari will be second in Hygiene and thus gives 7 points

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7				
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5			X	
Total	24	29	26	21	

Now we know that only 2 overall ratings will have 25+ points and 2 will be less than 25, Bihari and Chirag have 22 points each

Now Timeliness can be

Case 1 – 6 + 5 + 5 + 5

Case 2 – 9 + 4 + 4 + 4

In either case Bihari and Chirag will cross 25, so we need to ensure that Atal and Deepak remain less than 25

We have (5,7) and (5,6) remaining for packaging and Hygiene and Atal, Deepak have same ranks

for the two parameters
Case 1

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	5	5		
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5	7	6	X	
Total	24	29	26	21	

Now we can notice that Atal has given 17 points and Deepak has given 18 points which means Deepak cannot give 6 points in Timeliness which leaves us with case 1 i.e 6+5+5+5

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	5	5	6	23
Bihari	6	9	7	5	27
Chirag	6	8	8	5	27
Deepak	5	7	6	5	23
Total	24	29	26	21	

Case 2

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	7	6		
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5	5	5	X	
Total	24	29	26	21	

In this case we see that Atal has given 20 points no matter what case we select he will end up giving more than 25 points, hence this case is overall invalid.

Q.2) Answer- B
Explanation:
As per statement 1 Atal gave higher rating points than Bihari and Chirag in timeliness which means that Bihari, Chirag and Deepak had given Ravi same points in timeliness which we will denote as x
Also as per statement 5 unique maximum and minimum ratings in this parameter were given by

Atal and Deepak respectively which means that Atal and Deepak gave 7 and 5 respectively and Bihari and Chirag gave a 6 as the highest and lowest ratings were unique

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7				
Bihari	6			X	
Chirag	6	Y	Y	X	
Deepak	5			X	
Total	24	29	26	21	

Now we know that Ravi received a total of Rs. 120 in tips and bonuses, how can we get 120

Case 1 – 50 + 30 + 20 + 20 = 120

Case 2 – 30 + 30 + 30 + 30 = 120

Now only Case 1 is possible as question says tips and bonuses.

Now how can we uniquely get 29 and 26

For 29:

5+7+8+9 = 29

For 26:

5+6+7+8 = 26

4+5+8+9 = 26

4+6+7+9 = 26

As per statement 4 Bihari gave the highest rating points in Packaging, and Chirag gave the highest rating points in Hygiene.

So Bihari gives Ravi a 9 in packaging which means the highest points in Hygiene can be 8 only as Chirag gives the highest points in Hygiene and he gives the same score in packaging too.

Also per statement 6 Atal's rank based on Packaging is the same as that based on Hygiene. This is also true for Deepak, this means that Bihari will be second in Hygiene and thus gives 7 points

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7				
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5			X	
Total	24	29	26	21	

Now we know that only 2 overall ratings will have 25+ points and 2 will be less than 25, Bihari and Chirag have 22 points each

Now Timeliness can be

Case 1 – 6 + 5 + 5 + 5

Case 2 – 9 + 4 + 4 + 4

In either case Bihari and Chirag will cross 25, so we need to ensure that Atal and Deepak remain less than 25

We have (5,7) and (5,6) remaining for packaging and Hygiene and Atal, Deepak have same ranks for the two parameters

Case 1

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	5	5		
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5	7	6	X	
Total	24	29	26	21	

Now we can notice that Atal has given 17 points and Deepak has given 18 points which means Deepak cannot give 6 points in Timeliness which leaves us with case 1 i.e 6+5+5+5

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	5	5	6	23
Bihari	6	9	7	5	27
Chirag	6	8	8	5	27
Deepak	5	7	6	5	23
Total	24	29	26	21	

Case 2

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	7	6		
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5	5	5	X	
Total	24	29	26	21	

In this case we see that Atal has given 20 points no matter what case we select he will end up giving more than 25 points, hence this case is overall invalid.

Q.3) Answer- 6
Explanation:

As per statement 1 Atal gave higher rating points than Bihari and Chirag in timeliness which means that Bihari, Chirag and Deepak had given Ravi same points in timeliness which we will denote as x

Also as per statement 5 unique maximum and minimum ratings in this parameter were given by Atal and Deepak respectively which means that Atal and Deepak gave 7 and 5 respectively and Bihari and Chirag gave a 6 as the highest and lowest ratings were unique

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7				
Bihari	6			X	
Chirag	6	Y	Y	X	
Deepak	5			X	
Total	24	29	26	21	

Now we know that Ravi received a total of Rs. 120 in tips and bonuses, how can we get 120

Case 1 – 50 + 30 + 20 + 20 = 120

Case 2 – 30 + 30 + 30 + 30 = 120

Now only Case 1 is possible as question says tips and bonuses.

Now how can we uniquely get 29 and 26

For 29:

5+7+8+9 = 29

For 26:

5+6+7+8 = 26

4+5+8+9 = 26

4+6+7+9 = 26

As per statement 4 Bihari gave the highest rating points in Packaging, and Chirag gave the highest rating points in Hygiene.

So Bihari gives Ravi a 9 in packaging which means the highest points in Hygiene can be 8 only as Chirag gives the highest points in Hygiene and he gives the same score in packaging too.

Also per statement 6 Atal's rank based on Packaging is the same as that based on Hygiene. This is also true for Deepak, this means that Bihari will be second in Hygiene and thus gives 7 points

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7				
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5			X	
Total	24	29	26	21	

Now we know that only 2 overall ratings will have 25+ points and 2 will be less than 25, Bihari and Chirag have 22 points each

Now Timeliness can be

Case 1 – 6 + 5 + 5 + 5

Case 2 – 9 + 4 + 4 + 4

In either case Bihari and Chirag will cross 25, so we need to ensure that Atal and Deepak remain less than 25

We have (5,7) and (5,6) remaining for packaging and Hygiene and Atal, Deepak have same ranks for the two parameters

Case 1

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	5	5		
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5	7	6	X	
Total	24	29	26	21	

Now we can notice that Atal has given 17 points and Deepak has given 18 points which means Deepak cannot give 6 points in Timeliness which leaves us with case 1 i.e 6+5+5+5

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	5	5	6	23
Bihari	6	9	7	5	27
Chirag	6	8	8	5	27
Deepak	5	7	6	5	23
Total	24	29	26	21	

Case 2

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	7	6		
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5	5	5	X	
Total	24	29	26	21	

In this case we see that Atal has given 20 points no matter what case we select he will end up giving more than 25 points, hence this case is overall invalid.

Q.4) Answer- D

Explanation:

As per statement 1 Atal gave higher rating points than Bihari and Chirag in timeliness which means that Bihari, Chirag and Deepak had given Ravi same points in timeliness which we will denote as x

Also as per statement 5 unique maximum and minimum ratings in this parameter were given by Atal and Deepak respectively which means that Atal and Deepak gave 7 and 5 respectively and Bihari and Chirag gave a 6 as the highest and lowest ratings were unique

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7				
Bihari	6			X	
Chirag	6	Y	Y	X	
Deepak	5			X	
Total	24	29	26	21	

Now we know that Ravi received a total of Rs. 120 in tips and bonuses, how can we get 120

Case 1 – 50 + 30 + 20 + 20 = 120

Case 2 – 30 + 30 + 30 + 30 = 120

Now only Case 1 is possible as question says tips and bonuses.

Now how can we uniquely get 29 and 26

For 29:

5+7+8+9 = 29

For 26:

5+6+7+8 = 26

4+5+8+9 = 26

4+6+7+9 = 26

As per statement 4 Bihari gave the highest rating points in Packaging, and Chirag gave the highest rating points in Hygiene.

So Bihari gives Ravi a 9 in packaging which means the highest points in Hygiene can be 8 only as Chirag gives the highest points in Hygiene and he gives the same score in packaging too.

Also per statement 6 Atal's rank based on Packaging is the same as that based on Hygiene. This is also true for Deepak, this means that Bihari will be second in Hygiene and thus gives 7 points

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7				
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5			X	
Total	24	29	26	21	

Now we know that only 2 overall ratings will have 25+ points and 2 will be less than 25, Bihari and Chirag have 22 points each

Now Timeliness can be

Case 1 – 6 + 5 + 5 + 5

Case 2 – 9 + 4 + 4 + 4

In either case Bihari and Chirag will cross 25, so we need to ensure that Atal and Deepak remain less than 25

We have (5,7) and (5,6) remaining for packaging and Hygiene and Atal, Deepak have same ranks for the two parameters

Case 1

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	5	5		
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5	7	6	X	
Total	24	29	26	21	

Now we can notice that Atal has given 17 points and Deepak has given 18 points which means Deepak cannot give 6 points in Timeliness which leaves us with case 1 i.e 6+5+5+5

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	5	5	6	23
Bihari	6	9	7	5	27
Chirag	6	8	8	5	27
Deepak	5	7	6	5	23
Total	24	29	26	21	

Case 2

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	7	6		
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5	5	5	X	
Total	24	29	26	21	

In this case we see that Atal has given 20 points no matter what case we select he will end up giving more than 25 points, hence this case is overall invalid.

Q.5) Answer- A

Explanation:

As per statement 1 Atal gave higher rating points than Bihari and Chirag in timeliness which means that Bihari, Chirag and Deepak had given Ravi same points in timeliness which we will denote as x

Also as per statement 5 unique maximum and minimum ratings in this parameter were given by Atal and Deepak respectively which means that Atal and Deepak gave 7 and 5 respectively and Bihari and Chirag gave a 6 as the highest and lowest ratings were unique

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7				
Bihari	6			X	
Chirag	6	Y	Y	X	
Deepak	5			X	
Total	24	29	26	21	

Now we know that Ravi received a total of Rs. 120 in tips and bonuses, how can we get 120

Case 1 – 50 + 30 + 20 + 20 = 120

Case 2 – 30 + 30 + 30 + 30 = 120

Now only Case 1 is possible as question says tips and bonuses.

Now how can we uniquely get 29 and 26

For 29:

5+7+8+9 = 29

For 26:

5+6+7+8 = 26

4+5+8+9 = 26

4+6+7+9 = 26

As per statement 4 Bihari gave the highest rating points in Packaging, and Chirag gave the highest rating points in Hygiene.

So Bihari gives Ravi a 9 in packaging which means the highest points in Hygiene can be 8 only as Chirag gives the highest points in Hygiene and he gives the same score in packaging too.

Also per statement 6 Atal's rank based on Packaging is the same as that based on Hygiene. This is also true for Deepak, this means that Bihari will be second in Hygiene and thus gives 7 points

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7				
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5			X	
Total	24	29	26	21	

Now we know that only 2 overall ratings will have 25+ points and 2 will be less than 25, Bihari and Chirag have 22 points each

Now Timeliness can be

Case 1 – 6 + 5 + 5 + 5

Case 2 – 9 + 4 + 4 + 4

In either case Bihari and Chirag will cross 25, so we need to ensure that Atal and Deepak remain less than 25

We have (5,7) and (5,6) remaining for packaging and Hygiene and Atal, Deepak have same ranks for the two parameters

Case 1

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	5	5		
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5	7	6	X	
Total	24	29	26	21	

Now we can notice that Atal has given 17 points and Deepak has given 18 points which means Deepak cannot give 6 points in Timeliness which leaves us with case 1 i.e 6+5+5+5

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	5	5	6	23
Bihari	6	9	7	5	27
Chirag	6	8	8	5	27
Deepak	5	7	6	5	23
Total	24	29	26	21	

Case 2

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	7	6		
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5	5	5	X	
Total	24	29	26	21	

In this case we see that Atal has given 20 points no matter what case we select he will end up giving more than 25 points, hence this case is overall invalid.

Q.6) Answer- B

Explanation:

As per statement 1 Atal gave higher rating points than Bihari and Chirag in timeliness which means that Bihari, Chirag and Deepak had given Ravi same points in timeliness which we will denote as x

Also as per statement 5 unique maximum and minimum ratings in this parameter were given by Atal and Deepak respectively which means that Atal and Deepak gave 7 and 5 respectively and Bihari and Chirag gave a 6 as the highest and lowest ratings were unique

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7				
Bihari	6			X	
Chirag	6	Y	Y	X	
Deepak	5			X	
Total	24	29	26	21	

Now we know that Ravi received a total of Rs. 120 in tips and bonuses, how can we get 120

Case 1 – 50 + 30 + 20 + 20 = 120

Case 2 – 30 + 30 + 30 + 30 = 120

Now only Case 1 is possible as question says tips and bonuses.

Now how can we uniquely get 29 and 26

For 29:

5+7+8+9 = 29

For 26:

5+6+7+8 = 26

4+5+8+9 = 26

4+6+7+9 = 26

As per statement 4 Bihari gave the highest rating points in Packaging, and Chirag gave the highest rating points in Hygiene.

So Bihari gives Ravi a 9 in packaging which means the highest points in Hygiene can be 8 only as Chirag gives the highest points in Hygiene and he gives the same score in packaging too.

Also per statement 6 Atal's rank based on Packaging is the same as that based on Hygiene. This is also true for Deepak, this means that Bihari will be second in Hygiene and thus gives 7 points

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7				
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5			X	
Total	24	29	26	21	

Now we know that only 2 overall ratings will have 25+ points and 2 will be less than 25, Bihari and Chirag have 22 points each

Now Timeliness can be

Case 1 – 6 + 5 + 5 + 5

Case 2 – 9 + 4 + 4 + 4

In either case Bihari and Chirag will cross 25, so we need to ensure that Atal and Deepak remain less than 25

We have (5,7) and (5,6) remaining for packaging and Hygiene and Atal, Deepak have same ranks for the two parameters

Case 1

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	5	5		
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5	7	6	X	
Total	24	29	26	21	

Now we can notice that Atal has given 17 points and Deepak has given 18 points which means Deepak cannot give 6 points in Timeliness which leaves us with case 1 i.e 6+5+5+5

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	5	5	6	23
Bihari	6	9	7	5	27
Chirag	6	8	8	5	27
Deepak	5	7	6	5	23
Total	24	29	26	21	

Case 2

	Behaviour	Packaging	Hygiene	Timeliness	Total
Atal	7	7	6		
Bihari	6	9	7	X	
Chirag	6	8	8	X	
Deepak	5	5	5	X	
Total	24	29	26	21	

In this case we see that Atal has given 20 points no matter what case we select he will end up giving more than 25 points, hence this case is overall invalid.

Q.7) Answer- 6

Explanation:

We need to look for days which have no orderings starting on it.

We can see

September 8, 9, 10, 11, 12 & 14 have no bookings.

Hence, the answer to this question is 6.

Q.8) Answer- 11

Explanation:

Accessories and envelopes are the only 2 categories which have only 1 shipping method

Their respective processing times are 18 and 4 days.

Total processing time = 18+4 = 22

Average = 22/2 = 11 Days

Q.9) Answer- C

Explanation:

Art

Total processing time = 20 days

No of orders = 5

Avg processing time = 20/5 = 4 days

Binders

Total processing time = 15 days

No of orders = 4

Avg processing time = 15/4 = 3.75 days

Paper

Total processing time = 10 days

No of orders = 3

Avg processing time = 10/3 = 3.33 days

Phone

Total processing time = 15 days

No of orders = 3

Avg processing time = 15/3 = 5 days

Thus in decreasing order we get

Phone, Art, Binders, Paper

Q.10) Answer- C

Explanation:

Total orders across categories = 35
Orders which had processing time of one day = 7
% = (7/35) * 100 = 20%

Q.11) Answer- A
Explanation:
Let's note the data from the question

Group A
Aruna – 3 matches
Azul – 2 matches
Arif – 1 match
Group B
Biju – 3 matches
Brij – 1 match
Brinda – 1 match
Group C
Chitra – 3 matches
Chetan – 2 matches
Chhavi – 1 match
Group D
Dipen – 3 matches
Donna – 1 match
Deb – 1 match
Now let's see the match-ups at a group level
Group A
Now Aruna played 3 matches which means she was the winner of the group, also we have to note that Azul played 2 matches and did not move onto the semi-finals which means Azul played both the matches at a group level
Match 1 – Azul vs Arif
Winner – Azul

Match 2 – Azul vs Aruna
Winner – Aruna
Thus the Group A winner was Aruna
Group B
Brij and Brinda have played one match each means they lost to Biju in both matches

Match 1 – Biju vs Brij/Brinda

Winner – Biju

Match 2 – Biju vs Brinda/Brij

Winner – Biju

Thus the Group B winner was Biju

Group C

Now Chitra played 3 matches which means she was the winner of the group, also we have to note that Chetan played 2 matches and did not move onto the semi finals which means Chetan played both the matches at a group level

Match 1 – Chetan vs Chhavi

Winner – Chetan

Match 2 – Chetan vs Chitra

Winner – Chitra

Thus the Group C winner was Chitra

Group D

Donna and Deb have played one match each means they lost to Dipen in both matches

Match 1 – Dipen vs Donna/Deb

Winner – Dipen

Match 2 – Dipen vs Deb/Donna

Winner – Dipen

Thus the Group D winner was Dipen

Semi-Finals

Group A – Aruna (played 1 match until now)

Group B – Biju (played 2 matches until now)

Group C – Chitra (played 1 match until now)

Group D – Dipen (played 2 matches until now)

Semi-final 1 winner – Aruna

Semi-final 2 winner – Chitra

As both of them have to play 3 matches in total which means they must have competed in the finals

Finals

Aruna is the winner because condition 1 states that Chitra was not the winner.

Q.12) Answer- C

Explanation:

Let's note the data from the question

Group A
Aruna – 3 matches
Azul – 2 matches
Arif – 1 match
Group B
Biju – 3 matches
Brij – 1 match
Brinda – 1 match
Group C
Chitra – 3 matches
Chetan – 2 matches
Chhavi – 1 match
Group D
Dipen – 3 matches
Donna – 1 match
Deb – 1 match
Now let's see the match-ups at a group level
Group A
Now Aruna played 3 matches which means she was the winner of the group, also we have to note that Azul played 2 matches and did not move onto the semi-finals which means Azul played both the matches at a group level
Match 1 – Azul vs Arif
Winner – Azul

Match 2 – Azul vs Aruna
Winner – Aruna
Thus the Group A winner was Aruna
Group B
Brij and Brinda have played one match each means they lost to Biju in both matches

Match 1 – Biju vs Brij/Brinda
Winner – Biju
Match 2 – Biju vs Brinda/Brij
Winner – Biju
Thus the Group B winner was Biju

Group C

Now Chitra played 3 matches which means she was the winner of the group, also we have to note that Chetan played 2 matches and did not move onto the semi finals which means Chetan played both the matches at a group level

Match 1 – Chetan vs Chhavi

Winner – Chetan

Match 2 – Chetan vs Chitra

Winner – Chitra

Thus the Group C winner was Chitra

Group D

Donna and Deb have played one match each means they lost to Dipen in both matches

Match 1 – Dipen vs Donna/Deb

Winner – Dipen

Match 2 – Dipen vs Deb/Donna

Winner – Dipen

Thus the Group D winner was Dipen

Semi-Finals

Group A – Aruna (played 1 match until now)

Group B – Biju (played 2 matches until now)

Group C – Chitra (played 1 match until now)

Group D – Dipen (played 2 matches until now)

Semi-final 1 winner – Aruna

Semi-final 2 winner – Chitra

As both of them have to play 3 matches in total which means they must have competed in the finals

Finals

Aruna is the winner because condition 1 states that Chitra was not the winner.

Q.13) Answer- C

Explanation:

Let's note the data from the question

Group A

Aruna – 3 matches

Azul – 2 matches

Arif – 1 match

Group B

Biju – 3 matches

Brij – 1 match

Brinda – 1 match

Group C

Chitra – 3 matches

Chetan – 2 matches

Chhavi – 1 match

Group D

Dipen – 3 matches

Donna – 1 match

Deb – 1 match

Now let's see the match-ups at a group level

Group A

Now Aruna played 3 matches which means she was the winner of the group, also we have to note that Azul played 2 matches and did not move onto the semi-finals which means Azul played both the matches at a group level

Match 1 – Azul vs Arif

Winner – Azul

Match 2 – Azul vs Aruna

Winner – Aruna

Thus the Group A winner was Aruna

Group B

Brij and Brinda have played one match each means they lost to Biju in both matches

Match 1 – Biju vs Brij/Brinda

Winner – Biju

Match 2 – Biju vs Brinda/Brij

Winner – Biju

Thus the Group B winner was Biju

Group C

Now Chitra played 3 matches which means she was the winner of the group, also we have to note that Chetan played 2 matches and did not move onto the semi finals which means Chetan played both the matches at a group level

Match 1 – Chetan vs Chhavi

Winner – Chetan

Match 2 – Chetan vs Chitra

Winner – Chitra

Thus the Group C winner was Chitra

Group D

Donna and Deb have played one match each means they lost to Dipen in both matches

Match 1 – Dipen vs Donna/Deb

Winner – Dipen

Match 2 – Dipen vs Deb/Donna

Winner – Dipen

Thus the Group D winner was Dipen

Semi-Finals

Group A – Aruna (played 1 match until now)

Group B – Biju (played 2 matches until now)

Group C – Chitra (played 1 match until now)

Group D – Dipen (played 2 matches until now)

Semi-final 1 winner – Aruna

Semi-final 2 winner – Chitra

As both of them have to play 3 matches in total which means they must have competed in the finals

Finals

Aruna is the winner because condition 1 states that Chitra was not the winner.

Q.14) Answer- A

Explanation:

Let's note the data from the question

Group A

Aruna – 3 matches

Azul – 2 matches

Arif – 1 match

Group B

Biju – 3 matches

Brij – 1 match

Brinda – 1 match

Group C

Chitra – 3 matches

Chetan – 2 matches

Chhavi – 1 match

Group D

Dipen – 3 matches

Donna – 1 match

Deb – 1 match

Now let's see the match-ups at a group level

Group A

Now Aruna played 3 matches which means she was the winner of the group, also we have to note that Azul played 2 matches and did not move onto the semi-finals which means Azul played both the matches at a group level

Match 1 – Azul vs Arif

Winner – Azul

Match 2 – Azul vs Aruna

Winner – Aruna

Thus the Group A winner was Aruna

Group B

Brij and Brinda have played one match each means they lost to Biju in both matches

Match 1 – Biju vs Brij/Brinda

Winner – Biju

Match 2 – Biju vs Brinda/Brij

Winner – Biju

Thus the Group B winner was Biju

Group C

Now Chitra played 3 matches which means she was the winner of the group, also we have to note that Chetan played 2 matches and did not move onto the semi finals which means Chetan played both the matches at a group level

Match 1 – Chetan vs Chhavi

Winner – Chetan

Match 2 – Chetan vs Chitra

Winner – Chitra

Thus the Group C winner was Chitra

Group D

Donna and Deb have played one match each means they lost to Dipen in both matches

Match 1 – Dipen vs Donna/Deb

Winner – Dipen

Match 2 – Dipen vs Deb/Donna

Winner – Dipen

Thus the Group D winner was Dipen

Semi-Finals

Group A – Aruna (played 1 match until now)

Group B – Biju (played 2 matches until now)

Group C – Chitra (played 1 match until now)

Group D – Dipen (played 2 matches until now)

Semi-final 1 winner – Aruna

Semi-final 2 winner – Chitra

As both of them have to play 3 matches in total which means they must have competed in the finals

Finals

Aruna is the winner because condition 1 states that Chitra was not the winner.

Q.15) Answer- D

Explanation:

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A	4	9	9	3	7	3	8	7	9	5	
B	5	9	7	5	5	3	6	8	10	8	
C	8	8	8	3	6	4	5	8	9	6	
D	8	8	8	5	5	3	6	4	9	8	
E	6	8	9	5	6	5	6	3	7	10	

Now from the question we know that Bharat's bundle has O9 and Elise's bundle has O10.

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A	4	9	9	3	7	3	8	7			
B	5	9	7	5	5	3	6	8	10		O9
C	8	8	8	3	6	4	5	8			
D	8	8	8	5	5	3	6	4			
E	6	8	9	5	6	5	6	3		10	O10

Now 3 people have their bundle value as 16 and Disha is not one of the 3 as her bundle value is odd.

If we have a look at Bharat's possible bundle, he can only choose O7 as anything between O1 to O6 will make his bundle value and odd and selecting O8 will make it 18 which is higher than the maximum possible value of 16

Now we can see that Elise cannot choose O2, O3, O4, O6 and O8 as they either make the value greater than 16 or odd, so we remove those values for Elise.

We can remove O1 for Amar as even + odd would give us an odd number.

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3	7	3		7			
B							6		10		O7, O9
C	8	8	8	3	6	4		8			
D	8	8	8	5	5	3		4			
E	6				6					10	O10

Now we can see that out of Amar, Charles, Disha and Elise only Amar envies Bharat as he values Bharat's bundle at 17 which means that he values his bundle less than 16.

That makes Charles Bundle value to be 16, thus Charles does not have O4, O5, O6 and O1 as O1 & O8 cannot be together

Also Amar cannot select (O4,O5) & (O5,O6) as Bharat & Charles would envy Amar in that case, thus we can eliminate O5 for Amar

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3		3					
B							6		10		O7, O9
C		8	8					8			O8
D	8	8	8	5	5	3					
E	6				6					10	O10

Similarly Disha cannot select (O3,O4) or (O3,O5) or (O3,O6) as that would make elise envious of her.

So Disha definitely takes O1 and that means Elise takes O5

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3		3					
B							6		10		O7,O9
C		8	8					8			O8
D	8			5		3					O1
E					6				10		O5,O10

Also Charles chooses (O3,O8)

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9				3					O2,O6
B							6		10		O7,O9
C			8					8			O3,O8
D	8			5							O1,O4
E					6					10	O5,O10

Q.16) Answer- A
Explanation:

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10
A	4	9	9	3	7	3	8	7	9	5
B	5	9	7	5	5	3	6	8	10	8
C	8	8	8	3	6	4	5	8	9	6
D	8	8	8	5	5	3	6	4	9	8
E	6	8	9	5	6	5	6	3	7	10

Now from the question we know that Bharat's bundle has O9 and Elise's bundle has O10.

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A	4	9	9	3	7	3	8	7			
B	5	9	7	5	5	3	6	8	10		O9
C	8	8	8	3	6	4	5	8			
D	8	8	8	5	5	3	6	4			
E	6	8	9	5	6	5	6	3		10	O10

Now 3 people have their bundle value as 16 and Disha is not one of the 3 as her bundle value is odd.

If we have a look at Bharat's possible bundle, he can only choose O7 as anything between O1 to

O6 will make his bundle value and odd and selecting O8 will make it 18 which is higher than the maximum possible value of 16

Now we can see that Elise cannot choose O2, O3, O4, O6 and O8 as they either make the value greater than 16 or odd, so we remove those values for Elise.

We can remove O1 for Amar as even + odd would give us an odd number.

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3	7	3		7			
B							6		10		O7, O9
C	8	8	8	3	6	4		8			
D	8	8	8	5	5	3		4			
E	6				6					10	O10

Now we can see that out of Amar, Charles, Disha and Elise only Amar envies Bharat as he values Bharat's bundle at 17 which means that he values his bundle less than 16.

That makes Charles Bundle value to be 16, thus Charles does not have O4, O5, O6 and O1 as O1 & O8 cannot be together

Also Amar cannot select (O4,O5) & (O5,O6) as Bharat & Charles would envy Amar in that case, thus we can eliminate O5 for Amar

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3		3					
B							6		10		O7, O9
C		8	8					8			O8
D	8	8	8	5	5	3					
E	6				6					10	O10

Similarly Disha cannot select (O3,O4) or (O3,O5) or (O3,O6) as that would make elise envious of her.

So Disha definitely takes O1 and that means Elise takes O5

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3		3					
B							6		10		O7,O9
C		8	8					8			O8
D	8			5		3					O1
E					6					10	O5,O10

Also Charles chooses (O3,O8)

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9				3					O2,O6
B							6		10		O7,O9
C			8					8			O3,O8
D	8			5							O1,O4
E					6					10	O5,O10

Q.17) Answer- 12
Explanation:

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A	4	9	9	3	7	3	8	7	9	5	
B	5	9	7	5	5	3	6	8	10	8	
C	8	8	8	3	6	4	5	8	9	6	
D	8	8	8	5	5	3	6	4	9	8	
E	6	8	9	5	6	5	6	3	7	10	

Now from the question we know that Bharat's bundle has O9 and Elise's bundle has O10.

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A	4	9	9	3	7	3	8	7			
B	5	9	7	5	5	3	6	8	10		O9
C	8	8	8	3	6	4	5	8			
D	8	8	8	5	5	3	6	4			
E	6	8	9	5	6	5	6	3		10	O10

Now 3 people have their bundle value as 16 and Disha is not one of the 3 as her bundle value is odd.
If we have a look at Bharat's possible bundle, he can only choose O7 as anything between O1 to

O6 will make his bundle value and odd and selecting O8 will make it 18 which is higher than the maximum possible value of 16

Now we can see that Elise cannot choose O2, O3, O4, O6 and O8 as they either make the value greater than 16 or odd, so we remove those values for Elise.

We can remove O1 for Amar as even + odd would give us an odd number.

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3	7	3		7			
B							6		10		O7, O9
C	8	8	8	3	6	4		8			
D	8	8	8	5	5	3		4			
E	6				6					10	O10

Now we can see that out of Amar, Charles, Disha and Elise only Amar envies Bharat as he values Bharat's bundle at 17 which means that he values his bundle less than 16.

That makes Charles Bundle value to be 16, thus Charles does not have O4, O5, O6 and O1 as O1 & O8 cannot be together

Also Amar cannot select (O4,O5) & (O5,O6) as Bharat & Charles would envy Amar in that case, thus we can eliminate O5 for Amar

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3		3					
B							6		10		O7, O9
C		8	8					8			O8
D	8	8	8	5	5	3					
E	6				6					10	O10

Similarly Disha cannot select (O3,O4) or (O3,O5) or (O3,O6) as that would make elise envious of her.

So Disha definitely takes O1 and that means Elise takes O5

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3		3					
B							6		10		O7,O9
C		8	8					8			O8
D	8			5		3					O1
E					6					10	O5,O10

Also Charles chooses (O3,O8)

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9				3					O2,O6
B							6		10		O7,O9
C			8					8			O3,O8
D	8			5							O1,O4
E					6					10	O5,O10

Q.18) Answer- C
Explanation:

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10
A	4	9	9	3	7	3	8	7	9	5
B	5	9	7	5	5	3	6	8	10	8
C	8	8	8	3	6	4	5	8	9	6
D	8	8	8	5	5	3	6	4	9	8
E	6	8	9	5	6	5	6	3	7	10

Now from the question we know that Bharat's bundle has O9 and Elise's bundle has O10.

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A	4	9	9	3	7	3	8	7			
B	5	9	7	5	5	3	6	8	10		O9
C	8	8	8	3	6	4	5	8			
D	8	8	8	5	5	3	6	4			
E	6	8	9	5	6	5	6	3		10	O10

Now 3 people have their bundle value as 16 and Disha is not one of the 3 as her bundle value is odd.
If we have a look at Bharat's possible bundle, he can only choose O7 as anything between O1 to

O6 will make his bundle value and odd and selecting O8 will make it 18 which is higher than the maximum possible value of 16

Now we can see that Elise cannot choose O2, O3, O4, O6 and O8 as they either make the value greater than 16 or odd, so we remove those values for Elise.

We can remove O1 for Amar as even + odd would give us an odd number.

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3	7	3		7			
B							6		10		O7, O9
C	8	8	8	3	6	4		8			
D	8	8	8	5	5	3		4			
E	6				6					10	O10

Now we can see that out of Amar, Charles, Disha and Elise only Amar envies Bharat as he values Bharat's bundle at 17 which means that he values his bundle less than 16.

That makes Charles Bundle value to be 16, thus Charles does not have O4, O5, O6 and O1 as O1 & O8 cannot be together

Also Amar cannot select (O4,O5) & (O5,O6) as Bharat & Charles would envy Amar in that case, thus we can eliminate O5 for Amar

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3		3					
B							6		10		O7, O9
C		8	8					8			O8
D	8	8	8	5	5	3					
E	6				6					10	O10

Similarly Disha cannot select (O3,O4) or (O3,O5) or (O3,O6) as that would make elise envious of her.

So Disha definitely takes O1 and that means Elise takes O5

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3		3					
B							6		10		O7,O9
C		8	8					8			O8
D	8			5		3					O1
E					6				10		O5,O10

Also Charles chooses (O3,O8)

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9				3					O2,O6
B							6		10		O7,O9
C			8					8			O3,O8
D	8			5							O1,O4
E					6				10		O5,O10

Q.19) Answer- A
Explanation:

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10
A	4	9	9	3	7	3	8	7	9	5
B	5	9	7	5	5	3	6	8	10	8
C	8	8	8	3	6	4	5	8	9	6
D	8	8	8	5	5	3	6	4	9	8
E	6	8	9	5	6	5	6	3	7	10

Now from the question we know that Bharat's bundle has O9 and Elise's bundle has O10.

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A	4	9	9	3	7	3	8	7			
B	5	9	7	5	5	3	6	8	10		O9
C	8	8	8	3	6	4	5	8			
D	8	8	8	5	5	3	6	4			
E	6	8	9	5	6	5	6	3		10	O10

Now 3 people have their bundle value as 16 and Disha is not one of the 3 as her bundle value is odd.
If we have a look at Bharat's possible bundle, he can only choose O7 as anything between O1 to

O6 will make his bundle value and odd and selecting O8 will make it 18 which is higher than the maximum possible value of 16

Now we can see that Elise cannot choose O2, O3, O4, O6 and O8 as they either make the value greater than 16 or odd, so we remove those values for Elise.

We can remove O1 for Amar as even + odd would give us an odd number.

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3	7	3		7			
B							6		10		O7, O9
C	8	8	8	3	6	4		8			
D	8	8	8	5	5	3		4			
E	6				6				10		O10

Now we can see that out of Amar, Charles, Disha and Elise only Amar envies Bharat as he values Bharat's bundle at 17 which means that he values his bundle less than 16.

That makes Charles Bundle value to be 16, thus Charles does not have O4, O5, O6 and O1 as O1 & O8 cannot be together

Also Amar cannot select (O4,O5) & (O5,O6) as Bharat & Charles would envy Amar in that case, thus we can eliminate O5 for Amar

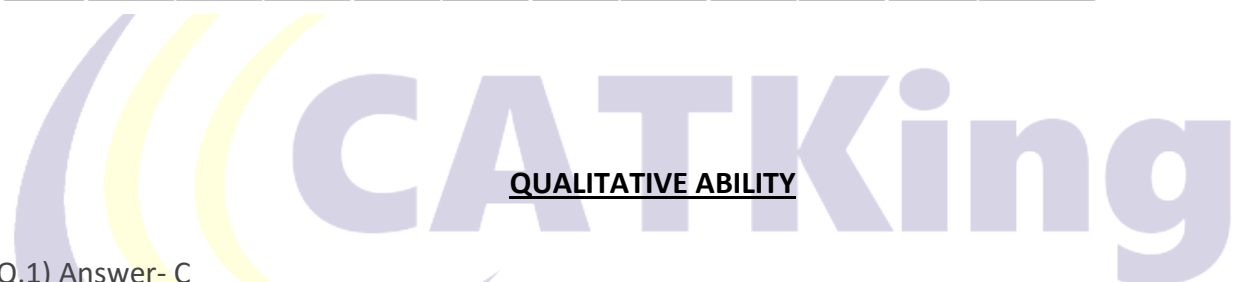|	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3		3					
B							6		10		O7, O9
C		8	8					8			O8
D	8	8	8	5	5	3					
E	6				6				10		O10

Similarly Disha cannot select (O3,O4) or (O3,O5) or (O3,O6) as that would make elise envious of her.

So Disha definitely takes O1 and that means Elise takes O5

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3		3					
B							6		10		O7,O9
C		8	8					8			O8
D	8			5		3					O1
E					6				10		O5,O10

Also Charles chooses (O3,O8)

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9				3					O2,O6
B							6		10		O7,O9
C			8					8			O3,O8
D	8			5							O1,O4
E					6					10	O5,O10

Q.20) Answer- A
Explanation:

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A	4	9	9	3	7	3	8	7	9	5	
B	5	9	7	5	5	3	6	8	10	8	
C	8	8	8	3	6	4	5	8	9	6	
D	8	8	8	5	5	3	6	4	9	8	
E	6	8	9	5	6	5	6	3	7	10	

Now from the question we know that Bharat's bundle has O9 and Elise's bundle has O10.

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A	4	9	9	3	7	3	8	7			
B	5	9	7	5	5	3	6	8	10		O9
C	8	8	8	3	6	4	5	8			
D	8	8	8	5	5	3	6	4			
E	6	8	9	5	6	5	6	3		10	O10

Now 3 people have their bundle value as 16 and Disha is not one of the 3 as her bundle value is odd.

If we have a look at Bharat's possible bundle, he can only choose O7 as anything between O1 to

O6 will make his bundle value and odd and selecting O8 will make it 18 which is higher than the maximum possible value of 16

Now we can see that Elise cannot choose O2, O3, O4, O6 and O8 as they either make the value greater than 16 or odd, so we remove those values for Elise.

We can remove O1 for Amar as even + odd would give us an odd number.

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3	7	3		7			
B							6		10		O7, O9
C	8	8	8	3	6	4		8			
D	8	8	8	5	5	3		4			
E	6				6					10	O10

Now we can see that out of Amar, Charles, Disha and Elise only Amar envies Bharat as he values Bharat's bundle at 17 which means that he values his bundle less than 16.

That makes Charles Bundle value to be 16, thus Charles does not have O4, O5, O6 and O1 as O1 & O8 cannot be together

Also Amar cannot select (O4,O5) & (O5,O6) as Bharat & Charles would envy Amar in that case, thus we can eliminate O5 for Amar

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3		3					
B							6		10		O7, O9
C		8	8					8			O8
D	8	8	8	5	5	3					
E	6				6					10	O10

Similarly Disha cannot select (O3,O4) or (O3,O5) or (O3,O6) as that would make elise envious of her.

So Disha definitely takes O1 and that means Elise takes O5

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9	9	3		3					
B							6		10		O7,O9
C		8	8					8			O8
D	8			5		3					O1
E					6				10		O5,O10

Also Charles chooses (O3,O8)

	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	
A		9				3					O2,O6
B							6		10		O7,O9
C			8					8			O3,O8
D	8			5							O1,O4
E					6				10		O5,O10

QUALITATIVE ABILITY

Q.1) Answer- C
Explanation:
2:3:5 and 1/6 mixture are sold
let's assume total purchase as 60 kg
12:18:30
C.P= 9600+9000+9000= 27600
Now to get S.P. = 27600*1.5= 41400
We sold 10kg at Rs 700
41400-7000/50 = Rs 688/kg

Q.2) Answer- D
Explanation:
$x^2-xy-x=22$ …..(i)
$y^2-xy+y=34$ …….(ii)
Adding the equation
$x^2+y^2-2xy-x+y=56$

$(x-y)^2-(x-y)=56$

$(x-y)(x-y-1)=56$ Assume $x-y=t$

$t(t-1)=56$ Only possible value is 8 and 7

$x-y=8$

Q.3) Answer- 30

Explanation:
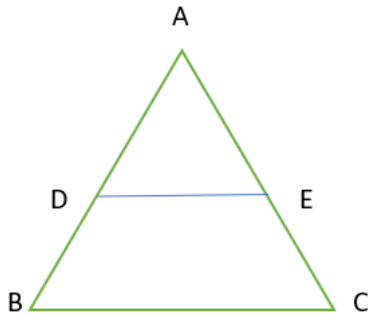
Area of Triangle ADE= (AD/AB)*(AE/AC)*(Area of ABC)

$8 = (2/3)*(2/5)*$(Area of ABC)

Area of ABC = 30

Q.4) Answer- 250

Explanation:

Total balls= 450

No. of white balls= x

No. of black balls = y

X+Y= 450

Now no. of metallic white and black balls are equal 0.4x = 0.5y

x= 5y/4

5y/4 +y =450

Hence, y= 200, à x= 250

No of metallic balls = 2 X 0.5y = 200

No. of non-metallic balls = 450-200 = 250

Q.5) Answer- 5

Explanation:

$Log_2[3+log_3\{4+log_4(x-1)\}]-2 = 0$

$3+log_3\{4+log_4(x-1)\} = 4$

$4+log_4(x-1) = 3$

$\log_4(x-1) = -1$

$x-1 = ¼$ à $x = 5/4$ à $4x = 5$

Q.6) Answer- 45

Explanation:

Let the initial quantity (Capacity of Container) = x

Milk / Total = $16/25 = [(x-9)/x]^2$

=> $4/5 = (x-9)/x$

=> $x = 45$

Q.7) Answer- 7

Explanation:

$2.25 <= 2 + 2^{n+2} <= 202$

$0.25 <= 2^{n+2} <= 200$

$2^{-2} <= 2^{n+2} <= 2^{7.x}$

$-2 <= n+2 <= 7.x$

$-4 <= n <= 5.x$

N can take value -4, -3, -2, -1, 0, 1, 2, 3, 4

$3 + 3^{n+1}$ will be an integer

è n = -1, 0, 1, 2, 3, 4, 5 à **7 values**

Q.8) Answer- A

Explanation:
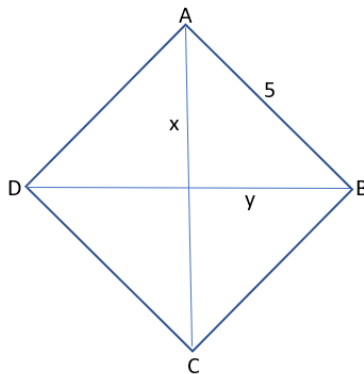
Diagonals of a rhombus are always at 90^0

Lets Distance of AO=x, BO=y à AOB is right triangle

$x^2 + y^2 = 5^2 = 25$ ..... (i)

Area of rhombus = $(½)xD1.D2$

$= ½*2x*2y => xy = 6$.... (ii)

$x^2+y^2+2xy= 25+2*6=37$

$(x+y)^2= 37$ => $x+y= \sqrt{37}$.......(iii)

$x^2+y^2-2xy= 25-2*6=13$ => $(x-y)^2=13$ => $x-y=\sqrt{13}$.......(iv)

On adding 3 and 4 ,

$2x= \sqrt{37}+\sqrt{13}$ which is the longer side of diagonal

Q.9) Answer- C

Explanation:

Let A doses x units of work per hour

And B does y unit of work per hour

In first the equation is 8x-7y=T

in second, 4x-2y=T

assuming total capacity if tank is T

8x-7y=4x-2y

4x=5y

x= 5y/4 , y= 4x/5

8x - 28x/5 = 12x/5

Total time needed = $\frac{12\,x}{5*x} * 60$ = 144 mins

Q.10) Answer- B

Explanation:

Let's assume total work to be 420 units

Anil = 420/60 = 7 units/day

Bimal = 420/84 = 5 units /day

After 10 days, total work left = 420 -70 = 350

Now to do 350 units of work in 14 days, has to work 25 unit per day

C's work= 25-7-5= 13 units a day

In term of work   A   B   C

                168   70   182

Profit of C = 182/420 * 21000 = 910

Q.11) Answer- C

 Explanation:

x,y,z, are in AP

2y=x+z

xyz= 5(x+y+z)

xyz= 15y à xz=15

if x=1 then z=15à y=8
z-x= 15-1= 14

Q.12) Answer- B
Explanation:
|3x-20| + |3x-40| = 20

If we put x=6
2+22   does not satisfy

If we put x=14
22+2 does not satisfy

Option A, C, D can be eliminated
Hence, 7<x<12

Q.13) Answer- C
Explanation:
Length of train A = L_a
Length of train B = L_b
Train A covered distance L_b in 46 sec and distance L_a in 69 sec at the same speed.
When speed is same-
L_a / L_b = 69/46 = 3/2

Q.14) Answer- D
Explanation:
a, b, c are rational and one root is irrational then other root will also be irrational and conjugate
Hence roots are- 2+ √3 , 2- √3
b/a=4 (sum of the roots)
b = 4a
$c/a= 2^2 - \sqrt{3}^2 = 1$
c = a
Given b = c^3
4a = a^3
$a(a^2-4) = 0$
a= 0 or a= ±2
|a| = 2

Q.15) Answer- 4195
Explanation:
Let the number be abcd
a + b + c = 14 –(1)
b + c + d = 15 –(2)
c = d + 4 – (3)
Eq (2) – (1) =
d – a = 1
d = a+1 put in eq (3)
c = a + 1 + 4
c = a + 5 –(4)
Hence, 'a' can take max value of 4 when c = 9
Put value of c from (4) to (1)
b + 2a + 5 = 14
b = 1 (When a is max = 4)
From (3) 'd' can take maximum value of 5.
Hence answer is 4195

Q.16) Answer- A
Explanation:
Let Anil, bobby and Chintu percentage be 70, x%, y%
Now overall profit falls from 18% to 15%
Now 70% of that decreased amount is Rs 420
0.7a=420
a=Rs 600
Now a is 3% of total profits investment
0.03T=600
T= Rs 20,000 (Total Profit)
Anil's investment is Rs 14,000
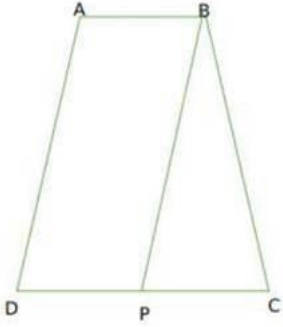Now when profit is increased from 15% to 17% Chintu's profit is increased by Rs 80
0.02y= 80
y = Rs 4000
Bobby's share = 20,000-14,000-4000= Rs 2000

Q.17) Answer- A
Explanation:

Let AB = DP = PC = x

Let the height of the parallelogram = h

Area of the parallelogram ABPD - Area of the triangle BPC = 10

xh – ½(xh) = 10

xh = 20

Area of the trapezium ABCD = xh + ½(xh) = 3/2(xh) = 30

Q.18) Answer- A

Explanation:

$X_1-x_2+x_3$………$+x_{49} = 49^2+2*49$

$X_1-x_2+x_3$………$+x_{49}-x_{50} = 50^2+2*50$

subtracting the 2 equation

$X_{50} = 49^2+2*4-50^2-2*50$

$= -101$

Now

$X_1-x_2+x_3$………$-x_{48} = 48^2+2*48$

$X_1-x_2+x_3$………$+x_{49}=49^2+2*49$

subtracting the 2 equations

$x_{49}= 99$

Hence $x_{49}+x_{50} = -2$

Q.19) Answer- 1000

Explanation:

Let's assume 3 children are C1, C2, C3

Each of them get at least 4 Balloons and 1 Pencil.

C1 4B, 1P

C2   4B,1P

C3   4B, 1P

We left with 3 Balloons, 3 Pencils & 3 Erasers

3 Balloons a + b + c = 3

$^{3+3-1}C_{3-1}$ = $^5C_2$ ways

3 Pencils = $^5C_2$ ways

3 Erasers = $^5C_2$ ways

$^5C_2$ * $^5C_2$ * $^5C_2$ = 1000

Q.20) Answer- 10

Explanation:

Let no. of matches = M

Average goals = A

Total goals = MA

à (MA+1)/(M+10) = 0.15

à (MA+2)/(M+10) = 0.2

(MA+1) = 0.15(M+10) ………(i)

(MA+2) = 0.2(M+10) ………(ii)

Eq (ii)- (i)

1 = 0.05(M+10)

M = 10

Q.21) Answer- A

Explanation:

Initial investment = Rs 10,000

Final amount = Rs 10,000*1.35 = Rs 13500

We can take an options approach to this question

Let's assume loss percentage as 10%

The profit percentage in @nd year will be 50%

10000*0.9 = Rs 9000

9000*1.5 = Rs 13500

10% is the correct answer

Q.22) Answer- B

Explanation:

F(x) = $(x^2+2x+4)/(2x^2+4x+9)$

Multiplying 2 on both sides

2y= $2(x^2+2x+4)/(2x^2+4x+9)$

= $(2x^2+4x+8+1-1)/(2x^2+4x+9)$

= $1- 1/(2x^2+4x+9)$

Min value of $(2x^2+4x+9)$ = $-D/4a$ = $- (16-72)/8 = 7$

2y = 1-1/7

y = 3/7

Maxima = infinity

2y= 1-0

y = ½

Range = [3/7, 1/2]