Solutions of XAT2017 held on 08.01.2017 (Booklet Code: D)

SECTION - A
VERBAL AND LOGICAL ABILITY

1. Read the following excerpt and answer the question that follows:
   Fragrant with steam
   were the days and the nights red
   with many braziers
   in the beloved house
   of my father, my mother.
   Which of the following options is the closest expression of the poet's feeling?
   A. The house was located in beautiful settings probably surrounded by flowers in the mountains.
   B. The ancestral home was probably the most important house in the community.
   C. The poet fondly recalls the pleasant climate enjoyed day and night.
   D. The poet misses the braziers and steam she had enjoyed during her childhood.
   E. Everything about the house felt special because of her parents love for her.

   Solution:
   "Brazier" is a portable heater consisting of a pan or stand for holding lighted coals. Choice (C) (fondly recalls the climate) is better that choice (D). The verse is about the fond remembrance of the climatic atmosphere and not really about "missing the braziers and steam".   Choice (C)

2. Read the following paragraphs and answer the question that follows:
   The current trend indicates that food and vegetable inflations continue to be pain points. Food inflation rose to 7.79 percent in June from 7.47 percent, and vegetable inflation rose to 14.74 percent from 10.85 percent. In the weeks ahead, the volatile food inflation will determine the course of overall inflation.
   For RBI too, the trend is a concern since under the current agreement with the government, if the inflation exceeds 11 percent it will have to explain to the government why it could not be contained (the lower limit is 2 percent).
   Which of the following options is the most appropriate?
   A. The first paragraph states a cause and the second illustrates the effect.
   B. The first paragraph provides information and the second highlights potential application of the information.
   C. The first paragraph is an assertion and the second provides an illustration of that assertion.
   D. The first paragraph highlights inflation conditions and the second hints at RBI's inefficiency in managing the situation.
   E. The first paragraph highlights pain points and the second contains a remedy for them.

   Solution:
   The words "the trend is a concern" and "it will have to explain to the government why it could not be contained", in para 2 clearly indicate that the second para hints at RBI's inefficiency in managing the situation. Hence choice (D) is the appropriate option. Choice (A) is wrong because the second para is not an effect of the points mentioned in the first para. An effect has also been mentioned in the last sentence of para 1. "Potential application" in choice (B) renders it incorrect. Choice (C) is incorrect because illustrations have been provided even in the first para. Choice (E) is wrong because the second para does not provide a course of action or remedy.   Choice (D)

3. Read the following statements and answer the question that follows:

   1. This is Russia's Wild West, though the mountains lie to the south of Moscow and St. Petersburg.
   2. The Caucasus range has throughout history held Russians, especially fierce nationalists like Solzhenitsyn, in fear and awe.
   3. Here, between the Black and Caspian seas, is a land bridge where Europe gradually vanishes amid a six-hundred-mile chain of mountains as high as eighteen thousand feet – mesmerizing in their spangled beauty, especially after the yawning and flat mileage of the steppe lands to the north.
   4. Here, since the seventeenth century, Russian colonizers have tried to subdue congeries of proud peoples: Chechens, Ingush, Ossetes, Daghestanis, Abkhaz, Kartvelians, Kakahetians, Armenians, Azeris, and others.
   5. Here, the Russians encountered Islam in both its moderation and implacability.
   Which of the following options is the best logical order of the above statements?
   A. 1,2,3,4,5   B. 2,3,1,4,5   C. 2,4,3,1,5
   D. 3,1,2,4,5   E. 4,5,3,1,2

   Solution:
   Statement 2 is the only general sentence that can begin the paragraph. "This is" in statement 1 needs a precedent. "Here" in sentences 3, 4, and 5 also need a precedent. "The Caucasus range" in sentence 2 links with "six-hundred mile chain of mountains" in sentence 3. "fear and awe" in sentence 2 links with "mesmerizing in their spangled beauty" in sentence 3. Sentence 1 follows sentence 3. "The mountains" in sentence 1 can only come after "a six-hundred mile chain of mountains" in sentence 3. Sentences 4 and 5, in that order, are best placed after sentence 1. "Here" in sentences 4 and 5 refer to "Russia's Wild West" in sentence 1. The correct sequence is 2, 3, 1, 4, 5.   Choice (B)

4. Read the following statements and answer the question that follows:

1. The periodic table orders the elements in a way that helps to understand why atoms behave as they do.
2. The properties of the elements are due to electronic configuration, and their recurring pattern gives rise to periodicity.
3. In other words, what gives the elements their properties and what order lies below the surface of their seemingly random nature?
4. What makes Fluorine react violently with Caesium while its nearest neighbour neon is reluctant to react with anything?

Which of the following options is the best logical order of the above statements?

A. 1,2,3,4   B. 1,4,3,2   C. 2,3,1,4
D. 3,4,2,1   E. 4,3,1,2

Solution:
Statement 1 introduces the para. "atoms behave as they do" in statement 1 is substantiated by "makes Flourine react violently ..... and neon reluctant to react" in statement 4. Statement 4 is followed by statement 3. "In other words" in statement 3 explains the example in statement 4. Statements 3 and 2 form a mandatory pair. "What gives the elements their properties" in statement 3 links with "properties of the elements are due to ....." in statement 2. "recurring pattern gives rise to periodicity" in the conclusion sentence 2 mirrors the introduction "The periodic table orders the elements" in statement 1. Therefore 1, 4, 3, 2 is the logical sequence.   Choice (B)

5. Read the following stanza and answer the question that follows:

Invisible atoms coming together
Revealing themselves in visible forms
Seeds are hugged by the earth
Which renders them as gardens in bloom.
And yonder stars, are they not pearls
Floating on teeming seas?
Scattered, yet strung together in orderly constellations
Love binding them to one another
And each is perpetually seeking its like?

Which of the following options best captures the spirit of the above stanza?

A. Stars and seas are similar.
B. All rivers flow into the ocean.
C. United we stand, divided we fall.
D. Love dissolves all religious differences.
E. Something invisible binds disparate objects.

Solution:
It can be inferred from the given stanza that there is something invisible which binds disparate objects – objects which are essentially different in kind. This can be particularly inferred from the first four lines of the stanza and also from the lines 'Scattered, yet strong together in orderly constellation' and 'Love binding them together'. Choice (D) can be eliminated because there is no reference to religious differences. The remaining options (A), (B) and (C) are not appropriate.
          Choice (E)

6. The serious study of popular films by critics is regularly credited with having rendered obsolete a once-dominant view that popular mainstream films are inherently inferior to art films. Yet the change of attitude may be somewhat _____ Although, it is now academically respectable to analyse popular films, the fact that many critics feel compelled to rationalize their own ____ action movies or mass-market fiction reveals, perhaps unwittingly, their continued _____ the old hierarchy of popular and art films.

Consider the following words:
unproductive
1. not appreciated
2. overstated
3. penchant for
4. dislike for
5. investment in
6. exposure to

Which of the following options is the most appropriate sequence that would meaningfully fit the blanks in the above paragraph?

A. 1,5,6   B. 3,2,7   C. 3,4,6
D. 4,5,6   E. 6,3,1

Solution:
Choice (B) is incorrect because the expression 'not-appreciated' does not make sense in the second blank. Choice (D) is completely absurd. Choice (E) is incorrect because option 6 'investment in' and option 3 'overstated' cannot logically fit into blanks one and two. Between options (A) and (C), the latter is appropriate because only the word 'overstated' is logically appropriate in the first blank.   Choice (C)

7. Which of the following options is grammatically correct and meaningful?
A. I want to join an MBA college that is not only the best in the country but also provides the best campus jobs.
B. I want to join an MBA college that is not only the best in the country but also I can get good job.
C. I want to join an MBA college that is not only the best in the country but also best in job.
D. I want to join an MBA college that is not only good but also I can get good job.
E. I want to join an MBA college that I found not only best in the country but also I can get good job.

Solution:
Only choice A is grammatically correct. Options (B), (C), (D) and (E) do not follow the rules of parallelism and sentence construction. Choice (A)

8. Read the following passage and answer the question that follows:

On Friday morning, Dieting supplement sales company Herbalife agreed to pay the US Federal Trade Commission a $200m fine. The FTC said Herbalife cheated hopeful salespeople out of hundreds of millions of dollars with a high-pressure multi-level marketing scheme.

Herbalife's stock received an immediate 15% increase following the above news. The company also announced that it would hire a second former FTC commissioner in a press release describing the terms of the settlement.

Which of the following options would imply that the 15 percent increase in stock price is fair?

A. Cheating results in increase in the company's stock price.
B. When fraudulent companies are exposed, their stock price increases.
C. When fraudulent companies are caught, their stock price initially goes down.
D. Acknowledgement of deceit increases the stock price of companies.
E. Compliance with court order increases the company's stock price.

Solution:
The word 'deceit', as mentioned in choice (D), seems to be an overstatement here. Herbalife may not have lived upto the expectations of the sales people but it is not explicit from the text that Herbalife promised them something and eventually resorted to deceit. The company agreed to pay the fine imposed by the FTC not necessarily out of guilt but more out of respect for the law of the land which it considers sacrosanct. Hence it is the compliance with the court order that led to the increase in the company's stock price. Therefore choice (E) is more appropriate compared to choice (D). The other options are easy eliminations.   Choice (E)

9. Read the following paragraph and answer the question that follows:

Worldwide, tomato is one of the most important crops. Because this crop can be adapted for cultivation in various environments ranging from tropical to alpine regions, its cultivation area is now expanding worldwide into not so productive regions. On the other hand, traditional cultivation areas, the most favourable for tomato cultivation with warm and dry climate, are contracting. Every year, traditional cultivation areas lose 2 million hectares (ha) of land to environmental factors such as salinity, drought, and soil erosion.

Which of the following is the correct inference based on the above passage?

A. In recent years, per hectare production of tomato has increased worldwide.
B. In recent years, per hectare wastage of tomato has increased worldwide.
C. In recent years, per hectare production of tomato has decreased worldwide.
D. In recent years, per hectare wastage of tomato has decreased worldwide.
E. In recent years, per hectare production of tomato has remained the same worldwide.

Solution:
Tomato crop is adapted for cultivation. Its cultivation area is now expanding but into **not so productive** regions. **Most favourable** land (tradional cultivation areas) for cultivation are **contracting**. So, per hectare production of tomatoes has decreased. Hence choice (C) is the correct inference which can be drawn from the passage.   Choice (C)

10. Carefully read the statements below:

1. Chatterjee loves books; therefore, he reads them all the time.
2. Chatterjee loves books. Therefore, he reads them all the time.
3. Chatterjee loves books and, therefore, reads them all the time.

Which of the above statement(s) is (are) correct in grammar and meaning?

A. 1 only
B. 2 only
C. 1 and 2 only
D. 2 and 3 only
E. 1, 2 and 3

Solution:
All the given options are grammatically correct.
                    Choice (E)

11. Grotesque is related to Macabre in a similar way as_____

A. Classics is related to Ruins
B. History is related to Palaeontology
C. Marriage is related to Funeral
D. Sorcery is related to Necromancy
E. Science is related to Thanatology

Solution:
"Grotesque" means comically or repulsively ugly or distorted. "Macabre" means disturbing because concerned with or causing a fear of death.   (Higher Degree)
SORCERY is the use of magic, especially black magic. "NECROMANCY" is the supposed practice of communicating with the dead, especially in order to predict the future. Hence only choice (D) is analogous to the words "grotesque" and "macabre".
                    Choice (D)

12. Choose the option with all the correct words and their correct accent (underlined syllable) that fits the blanks.

The suspension of the captain may _____ the number of spectators, who turn up for this match.
Transportation costs will directly _____ the cost of retail goods.
Grandmother's advancing age could _____ her ability to take care of the house.
She _____ a Texan accent throughout the interview.

A. af<u>fect</u>, <u>ef</u>fect, <u>ef</u>fect, <u>ef</u>fected
B. af<u>fect</u>, <u>ef</u>fect, af<u>fect</u>, af<u>fect</u>ed
C. af<u>fect</u>, af<u>fect</u>, af<u>fect</u>, af<u>fect</u>ed
D. <u>ef</u>fect, af<u>fect</u>, <u>ef</u>fect, <u>ef</u>fected
E. <u>ef</u>fect, af<u>fect</u>, <u>ef</u>fect, af<u>fect</u>ed

Solution:
'Affect', meaning to have an influence on somebody or something, is the correct word to fit into blanks 1, 2 and 3. The word 'affected', which is used disapprovingly, means to put on or to use or wear something that is intended to impress other people. Hence choice (C) gives the correct words along with the accent/pronunciation.

Choice (C)

Analyse the passage below and answer the questions 13-14 that follows:

Writing is both my vocation and my avocation: that's all I do.

You may wonder why I should write a genealogy. Well, to begin with, my story is interesting. And, next, I am a mystery - more so than a tree or sunset or even a flash of lightning. But, sadly, I am taken for granted by those who use me, as if I were a mere incident and without background. This supercilious attitude relegates me to the level of the commonplace. This is a species of the grievous error in which mankind cannot too long persist without peril. For, as a wise man, G. K. Chesterton, observed, "We are perishing for want of wonder, not for want of wonders."

I, simple though I appear to be, merit your wonder and awe, a claim I shall attempt to prove. In fact, if you can understand me-no, that's too much to ask of anyone - if you can become aware of the miraculousness that I symbolize, you can help save the freedom mankind is so unhappily losing. I have a profound lesson to teach. And I can teach this lesson better than an automobile or an airplane or a mechanical dishwasher because - well, because I am seemingly so simple.

Simple? Yet, not a single person on the face of this earth knows how to make me. This sounds fantastic, doesn't it? Especially when you realize that there are about one and one-half billion of my kind produced in the U.S. each year.

Pick me up and look me over. What do you see? Not much meets the eye - there's some wood, lacquer, the printed labeling, graphite lead, a bit of metal, and an eraser.

13. "I" in the passage, most likely, refers to:

A. the author of the passage
B. a geometry box
C. a study table
D. a pencil
E. the evolution of a book

Solution:
Refer to the penultimate para. 'There's some wood, lacquer, the printed labeling, graphite lead, a bit of metal, and an eraser,' all of which point to choice (D).

Choice (D)

14. A "supercilious attitude" in this passage implies:

A. Failure to perceive the mystery of the sunset.
B. Arrogance of treating all simple things as trivial.
C. Lack of curiosity in seeking the mystery behind the lightning.
D. A tendency to break down intricacies of creation into its simple parts.

E. Prosaic attitude immune to the mysteries of the world.

Solution:
Choice B (Supercilious meaning haughtily disdainful) is the answer.
The remaining choices do not refer to "supercilious attitude". ".......... mystery of the sunset" (Choice A); " ..... mystery behind the lightning" (Choice C); "intricacies of creation ....." (Choice D) and ".... attitude .... mysteries of the world" (Choice E) have been given to confuse a student. The sentence "I am a mystery—more so than a tree or a sunset or even a flash of lightning" is followed by the sentences "But, sadly, I am taken for granted by those who use me, as if I were a **mere incident** and **without background**. This supercilious attitude relegates me to the level of the commonplace."

Choice (B)

Analyse the passage below and answer the questions 15-17 that follow:

It's taken me 60 years, but I had an epiphany recently: Everything, without exception, requires additional energy and order to maintain itself. I knew this in the abstract as the famous second law of thermodynamics, which states that everything is falling apart slowly. This realization is not just the lament of a person getting older. Long ago I learnt that even the most inanimate things we know of---stone, iron columns, copper pipes, gravel roads, a piece of paper---won't last very long without attention and fixing and the loan of additional order. Existence, it seems, is chiefly maintenance.

What has surprised me recently is how unstable even the intangible is. Keeping a website or a software program afloat is like keeping a yacht afloat. It is a black hole for attention. I can understand why a mechanical device like a pump would break down after a while-moisture rusts metal, or the air oxidizes membranes, or lubricants evaporate, all of which require repair. But I wasn't thinking that the nonmaterial world of bits would also degrade. What's to break? Apparently everything.

Brand-new computers will ossify. Apps weaken with use. Code corrodes. Fresh software just released will immediately begin to fray. On their own-nothing you did. The more complex the gear, the more (not less) attention it will require. The natural inclination toward change is inescapable, even for the most abstract entities we know of: bits.

And then there is the assault of the changing digital landscape. When everything around you is upgrading, this puts pressure on your digital system and necessitates maintenance. You may not want to upgrade, but you must because everyone else is. It's an upgrade arms race.

I used to upgrade my gear begrudgingly (why upgrade if it still works?) and at the last possible moment. You know how it goes: Upgrade this and suddenly you need to upgrade that, which triggers everywhere. I would put it off for years because I had the experiences of one "tiny" upgrade of a minor part disrupting my entire working life. But as our personal technology is becoming more complex, more co-dependents upon peripherals, more like a living ecosystem, delaying upgrading is even more disruptive. If you neglect ongoing minor upgrades, the change backs up so much that the eventual big upgrade reaches traumatic proportions. So I now see upgrading as a type of hygiene: You do it regularly to keep your tech healthy. Continual upgrades are so critical for technological systems that they are now automatic for the major personal computer operating systems and some software apps. Behind the scenes, the machines will upgrade themselves, slowly changing their features over time. This happens gradually, so we don't notice they are "becoming."

We take this evolution as normal.

Technological life in the future will be a series of endless upgrades. And the rate of graduations is accelerating. Features shift, defaults disappear, menus morph. I'll open up a software package I don't use every day expecting certain choices, and whole menus will have disappeared.

No matter how long you have been using a tool, endless upgrades make you into a newbie-the new user often seen as clueless. In this era of "becoming," everyone becomes a newbie. Worse, we will be newbies forever. That should keep us humble.

That bears repeating. All of us-every one of us-will be endless newbies in the future simply trying to keep up. Here's why: First, most of the important technologies that will dominate life 30 years from now have not yet been invented, so naturally you'll be a newbie to them. Second because the new technology requires endless upgrades, you will remain in the newbie state. Third, because the cycle of obsolescence is accelerating (the average lifespan of a phone app is a mere 30 days!), you won't have time to master anything before it is displaced, so you will remain in the newbie mode forever. Endless Newbie is the new default for everyone, no matter your age or experience.

15. Which of the following statements would the author agree with the most?

    A. The second law of thermodynamics states that things need more energy as they separate.
    B. When it comes to erosion, intangibles behave differently from tangible.
    C. Up-gradation is no longer an option but an obligation.
    D. Up-gradation though simple is disruptive.
    E. In the next thirty years, one's experience in up-grading will be greatly valued.

Solution:
Choice (C) (Up-gradation is no longer an option but an obligation.) is the correct answer.
This is true from the lines in para 4: You may not want to upgrade, but you must because everyone else is. It's an upgrades arms race. The penultimate para also states: "In this era of 'becoming' everyone becomes a newbie. Worse, we will be newbies forever."
Wrong choices:
A: Choice (A) cannot be inferred. The passage only states that the *second law of thermodynamics, states that everything is falling apart slowly.*
B: Choice (B) is incorrect. The first sentence of para 2 states that "What has surprised me recently is how unstable even the intangible is".
D: We cannot infer that upgradation is simple. The fifth para states that delaying upgrading is even more disruptive implying that upgrading is disruptive. "tiny upgrade of a minor part disrupting my entire working life." So choice (D) is not entirely true.
E: The last para states that "Important technologies that will dominate life 30 years from now have not been invented, you'll be a newbie to them". The last sentence of the passage says that "Endless Newbie is the new default for everyone, **no matter your age or experience**." Choice (E) is incorrect.
Therefore Choice (C) is the best answer.

                              Choice (C)

16. Which of the following quotes would the author agree with the most?
    A. Life is like riding a bicycle. In order to avoid falling, you must keep moving.
    B. The only thing constant in life is change.
    C. You must be the change you wish to see in the world.
    D. If you do not change you will be changed.
    E. What we can't cure we must endure.

Solution:
Choice (B) (The only thing constant in life is change.) is evident from the passage (and particularly the last paragraph). This is an era of "becoming". The passage talks about technological life and human life being endless newbies in the future.
Choice (D) is a close choice but it is incorrect. It is countered by "you will remain in the newbie state ...... you will remain in the newbie mode forever." "So if you do not change" almost sounds like a compulsion or obligation and that is not hinted in the passage. Choice (C) which is Gandhi's quote does not apply.
Choice (E) is incorrect. The passage refers to continuous upgradation. (Not enduring things that we cannot cure).
"you must" (Choice A),
"you must" (Choice C),
"If you do not" (Choice D).
"we must" (Choice E) sounds obligatory/mandatory. These words make the choices extreme.
                              Choice (B)

17. The CEO of a technology company was thinking of the following policies.

    1. Life time employment
    2. Promotion based on seniority
    3. Hire new competent employees and fire old incompetent employees
    4. Regular training and retraining

If a CEO were to consult the author of the passage, which of the above polices should the author recommend?

    A. 1 or 3
    B. 1 or 4
    C. 2 or 4
    D. 3 or 4
    E. 1, 3 and 4

Solution:
The author would recommend Policy 3 or Policy 4 as they point to continuous upgradation.
"Life time employment" and "Promotion based on seniority" do not refer to the theme of the passage: "Upgrade ...... In this era of "becoming", everyone becomes a newbie. Hence policy 1 and policy 2 do not apply.
                              Choice (D)

Analyse the passage below and answer the questions 18-20 that follow:

Some psychologists and sociologists believe that psychopathy can be an asset in business and politics and that, as a result, psychopathic traits are overrepresented among successful people. This would be a puzzle if it were so. If our moral evolved through natural selection, then it shouldn't be the case that one would flourish without them. And, in fact, the successful psychopath is probably the exception. Psychopaths have certain deficits. Some of these are subtle. The psychologist Abigail Marsh and her colleagues find that psychopaths are markedly insensitive to the expression of fear. Normal people recognize fear and treat it as a distress cue, but psychopaths have problems seeing it, let alone responding to it appropriately. Other deficits run deeper. The overall lack of moral sentiments – and specifically, the lack of regard for others – might turn out to be the psychopath's downfall. We non-psychopaths are constantly assessing one another, looking for kindness and shame and the like, using this information to decide whom to trust, whom to affiliate with. The psychopath has to pretend to be one of us. But this is difficult. It's hard to force yourself to comply with moral rules just through a rational appreciation of what you are expected to do. If you feel like strangling the cat, it's a struggle to hold back just because you know that it is frowned upon. Without a normal allotment of shame and guilt, psychopaths succumb to bad impulses, doing terrible things out of malice, greed, and simple boredom. And sooner or later, they get caught. While psychopaths can be successful in the short term, they tend to fail in the long term and often end up in prison or worse. Let's take a closer look at what separates psychopaths from the rest of us. There are many symptoms of psychopathy, including pathological lying and lack of remorse or guilt, but the core deficit is indifference toward the suffering of other people. Psychopaths lack compassion. To understand how compassion works for all of us non-psychopaths, it's important to distinguish it from empathy. Now, some contemporary researchers use the terms interchangeably, but there is a big difference between caring about a person (compassion) and putting yourself in the person's shoes (empathy).

I am too much of an adaptationist to think that a capacity as rich as empathy exists as a freak biological accident. It most likely has a function, and the most plausible candidate here is that it motivates us to care about others. Empathy (in the sense of mirroring another's feelings) and compassion (in the sense of feelings and acting kindly toward another) is more nuanced than many people believe. First, although empathy can be automatic and unconscious – a crying person can affect your mood, even if you're not aware that this is happening and would rather it didn't – we often choose whether to empathize with another person. So when empathy is present, it may be the product of a moral choice, not the cause of it. Empathy is also influenced by what one thinks of the other person. Second, empathy is not needed to motivate compassion. As the psychologist Steven Pinker Points out, "If a child has been frightened by a barking dog and is howling in terror, my sympathetic response is not to howl in terror with her, but to comfort and protect her". Third, just as you might feel the person's pain and wish to stop feeling it – but choose to solve the problem by distancing yourself from that person instead of alleviating his or her suffering. Even otherwise good people sometimes turn away when faced with depictions of pain and suffering in faraway lands, or when passing a homeless person on a city street.

18. The core deficit of psychopaths affects their long term success because,
    A. they cannot sustain the behaviour.
    B. they are less likely to succeed as HR managers than as finance managers.
    C. they cannot hide their lack of compassion for long.
    D. empathy is essential for long term success.
    E. natural selection enables moral feelings.

    Solution:
    Refer to lines 10 to 19 of para 1 starting from 'The overall lack of moral sentiments' till 'And sooner or later they get caught'. From this it can be clearly understood that the core deficit of psychopaths affects their long term success because they cannot hide their lack of compassion for long. Hence choice (C) is most appropriate.

    Choice (C)

19. Which of the following options is correct according to the author?
    A. Compassion exists for a reason.
    B. Empathy is a chance event.
    C. Empathy is the cause of moral choice.
    D. Caring for others is psychopathy.
    E. Long term success in business is a freak accident.

    Solution:
    Refer to the first two sentences of para 2 which state that empathy is not a freak biological accident and that it has a function that is to motivate us to care about others. Hence it can be said that compassion exists for a reason. Although choice (C) is seemingly close it cannot be the precise answer because it is stated in the last part of the passage (refer to the lines 'So when empathy is present, it may be the product of a moral choice, not the cause of it) that empathy is not the cause of moral choice. Hence choice (A) is the correct answer   Choice (A)

20. A student approached a faculty pleading to increase his marks because failure in one more subject will result in the student having to leave the program. The faculty said, "I am sorry. But I cannot change your grades as it would be unfair to others". In the given circumstance, which of the following best describes the faculty?
  A. The faculty is a psychopath.
  B. The faculty was compassionate.
  C. The faculty was both empathetic and compassionate but unfair.
  D. The faculty displayed empathy but not compassion.
  E. The faculty displayed compassion but not empathy.

Solution:
The difference between empathy and compassion is clearly stated in the last part of the second para. On reading the last part of para two it can be inferred that the faculty displayed empathy but not compassion. That is, he felt the person's pain but he did not go out of the way in adding the required marks. Hence choice D

Choice (D)

Analyse the passage below and answer the questions 21-24 that follow:

Every age has its pet contradictions. A few decades back, we used to accept Marx and Freud together, and then wonder, like the chameleon on the question whether there is, or is not, something called Human Nature. On the one hand, there has been an explosion of animal behaviour studies, and comparisons between animals to decide whether man is naturally aggressive, or naturally territorial; even whether he has an aggressive or territorial instinct. Moreover, we are still much influenced by Freudian psychology, which depends on the notion of instinct. On the other hand, many still hold what may be called the Blank Paper view, that man is a creature entirely without instincts, all comparison with animals must be irrelevant. (Both these simple party lines have been somewhat eroded over time, but both are still extremely influential.)

According to the Blank Paper view, man is entirely the product of his culture. He starts off infinitely plastic, and is formed completely by the society in which he grows up. There is then no end to the possible variations among cultures; what we take to be human instincts are just the deep-dug prejudices of our own society. Forming families, fearing the dark, and jumping at the sight of a spider are just results of our conditioning. Existentialism at first appears a very different standpoint, because the Existentialist asserts man's freedom and will not let him call himself a product of anything. But Existentialism too denies that man has a nature; if he had, his freedom would not be complete. Thus Sartre insisted that "there is no human nature…..Man first of all exists, encounters himself, surges up in the world, and defines himself afterwards. If man as the Existentialist sees him is not definable, it is because to begin with he is nothing. He will not be anything until later, and then he will be what he makes himself." For Existentialism there is only the human condition, which is what happens to man and not what he is born like. If we are afraid of the dark, it is because we choose to be cowards; if we care more for our own children than for other people's, it is because we choose to be partial. We must never talk about human nature or human instincts. This implicit moral notion is still very influential, not at all confined to those who use the metaphysic of essence and existence. So I shall sometimes speak of it, not as Existentialist, but as Libertarian – meaning that those holding it do not just (like all of us) think liberty important, but think it supremely important and believe that our having a nature would infringe it.

Philosophers have not yet made much use of informed comparison with other species as a help in the understanding of man. One reason they have not is undoubtedly the fear of fatalism. Another is the appalling way terms such as instinct and human nature have been misused in the past. A third is the absurdity of some ethological propaganda.

21. A business school led by an existentialist director, wanted to decide on admission policy for its executive MBA program, which requires candidates to possess minimum five years of managerial experience.

With respect to the selection process, which of the following statements will be closest to the director's belief:

  A. Tenth standard marks should be given highest weightage.
  B. Twelfth standard marks should be given highest weightage.
  C. Marks scored in the engineering college should be given highest weightage.
  D. Marks scored by the candidate in all previous examinations be given equal weightage.
  E. Recent work experience and contribution to the organization should be given highest weightage.

Solution:
An existentialist director would believe in the view that man is a creature entirely without instincts. Man has no nature. He is not definable. To begin with he is nothing. He will be what he makes himself. He will not be anything **until later**, and then he will be what he makes himself. Choices (A), (B), (C), (D) can be ruled out as the exams mentioned in the choices refer to earlier and not the more recent events of a man's life.
Since a candidate requires a minimum five years work experience for the executive MBA program, choice (E) is the correct answer.   Choice (E)

22. Which of the following statements would the author agree with the most?
   A. Existentialism can be extended to Libertarianism.
   B. Existentialism and Libertarianism are the same.
   C. Existentialism encompasses Libertarianism.
   D. Animal behaviour should not be compared with human behaviour.
   E. Liberty and existentialism are unrelated.

Solution:
Refer to lines 7 to 9 of para 2 - 'The existentialist asserts man's freedom---- his freedom would not be complete' and the last sentence of para 2-' So I shall sometimes speak of it......infringe it.' It can be inferred from these two instances that existentialism encompasses libertarianism and that existentialism is not an extension of libertarianism. Hence Choice (C) is the appropriate answer.   Choice (C)

23. Who among the following, as stated in the third paragraph, would the author be the most sympathetic to?
   A. PETA (People for the ethical treatment of animals) activists
   B. Save the tiger activists
   C. Architect
   D. Physicists
   E. Zoologists

Solution:
One reason for this is undoubtedly the fear of fatalism; another is the appalling misuse of terms like "instinct" and "human nature" in the past; the third is the absurdity of some ethological

propaganda. **Ethology** is the scientific and objective study of animal behaviour, usually with a focus on behaviour under natural conditions, and viewing behaviour as an evolutionarily adaptive trait. Hence the author would be most sympathetic to Zoologists. Choices (C) and (D) can be ruled out. Choice (A) is a distraction. "ethical" is not the same as "ethological".
                    Choice (E)

24. Which sentence in the passage distances man from "nature", the most?
   A. The sixth sentence of the first paragraph.
   B. The first sentence of the second paragraph.
   C. The sentence third from the last in the passage.
   D. The sentence second from the last in the passage.
   E. The last sentence of the passage.

Solution:
The Blank Paper view is that man is a creature entirely without instincts. This idea is reflected in the first sentence of para 2. Man is entirely the product of his culture. This would distance man from nature the most. Hence choice B is correct.
Incorrect Choices:
Choice (A) (sixth sentence of para 1) talks about instinct which is present in animals. The choice is not specific to the question. Choices (C), (D), (E) refers to sentences in the third para that mention reasons for not making use of informed comparison with other species in order to understand man better. These sentences do not distance man from: nature".
                    Choice (B)

SECTION - B
DECISION MAKING ABILITY

Analyse the following caselet and answer the question 25-26 that follow:

A pastor had eaten at a restaurant with his troupe of ten and his family. It is a norm to tip the waiter and about 20% of a waiter's salary comes from these tips. However, while paying the bill, the pastor crossed out the automatic 18% tip charged for parties of more than eight and wrote "I give God 10% why do you get 18?" above his signature. The chagrined waitress at the restaurant posted a photo of this on the social media. She was subsequently fired for violating company's policy on customer privacy.

This would have been understandable if the restaurant had not posted just 2 weeks ago a customer receipt that was complimenting them. Social media and social activists came heavily upon the management's ambivalent stand and the firing of the waitress. In response, the company posted a note on their social media page defending their actions. This quickly drew over 10,000 comments, mostly negative, to which the management started responding by posting the same note over and over again. There were also accusations of the company deleting negative comments and blocking users. The restaurant also experienced a sizable drop in their footfall.

25. Who/what is the main cause for the situation becoming unmanageable?

A. The pastor for flouting the norm of restaurant.
B. The waitress for violating customer privacy.
C. The management for not taking action against the pastor.
D. The management for giving out disproptionate punishment to waitress.
E. The management for removing negative comments from the social media.

Solution:
It is given that, "the social media and social activists came heavily upon the management's ambivalent stand and the firing of the waitress". Later the management posted a note defending their actions, which drew more number of negative comments. Thus the situation became unmanageable after the restaurant posted a note defending their actions repeatedly and also the allegation that negative comments are being removed and blocking users. Thus Choice (E) is the cause for the situation becoming unmanageable. Choice (E)

26. The downward spiral continued for the restaurant as the management persisted in defending their actions and argued with those who criticised them. By the following week, the original post had generated over 18,000 negative comments.

Which of the following is the best way forward for the restaurant at this juncture?

A. Unconditionally restore the waitress to her former position and salary on the ground that she was never at fault in the first place.
B. Apologise to and reinstate the waitress and ask her to apologize for her breach of customer privacy and post both the apologies on social media.
C. Reinstate the waitress provided she apologises for her breach of customer privacy and post that apology on the restaurant's social media page.
D. Reinstate the waitress if and only if she apologizes for her breach of customer privacy and posts that apology on her social media page.
E. Recruit two waitresses at a higher wage but stick to the original decision of firing the waitress.

Solution:
From the information given, it is clear that neither the restaurant nor the social media supported the waitress for posting the bill with pastors comment. The restaurant faced the ire of the social media for its ambivalent stand and the firing of the waitress. To rectify these two, the restaurant may on one hand apologies for firing the waitress and reinstate her, on the other hand ask the waitress to apologies for having breached the customer privacy. Thus choice (B) represents the best way forward for the restaurant.
Choice (B)

Analyse the following caselet and answer the questions 27-28 that follow:

Vimla is the domestic help for Shreya and her neighbour Padma; both live in a posh gated community. Vimla not only cleans the house, but also cooks for both the families. Shreya treasures Vimla ever since she joined her family four years ago. VImla joined Padma's household this year.

27. One evening Shreya trying to pay the pizza delivery was surprised to find a few five hundred rupee notes missing from her purse that she was sure were there earlier. She wants to ascertain if someone has stolen the money. On reflecting, the following facts crossed her mind:

1. In the last one year, Shreya had noticed cash missing on three occasions.
2. Shreya's husband also shared that a few notes were missing from his wallet, though he was not sure if they were stolen.
3. Her eldest son had been pestering Shreya for more pocket money for the last three weeks; in the last few days, he had stopped doing so.
4. In the last one year, Vimla had received six mails from her family asking for money.
5. Her eldest son's expenditure had gone up in the last few days.

Which of the following combinations of the above statements would DECREASE the likelihood that Vimla has stolen the money?

A. 1 and 3
B. 1 and 4
C. 1 and 5
D. 2 and 4
E. 3 and 5

Solution:
Choice (A) cannot be the answer because Shreya noticed cash missing in the last one year, while her son has been pestering her for more pocket money over the last three weeks. This combination does not shift the suspicion to her son from Vimla.
Choices (B) and (D) increase the suspicion on Vimla.
Choice (C), like (A) does not shift the suspicion to Shreya's son.
Choice (E) shifts the suspicion on to Shreya's son, thus decreasing the likelihood that Vimla has stolen the money. Choice (E)

28. Padma discovered some money missing from her purse. She suspects that Vimla has stolen it. She wants to prevent the stealing from happening again and is contemplating the following actions:

1. She should let it pass, since to err is human.
2. She should confront Vimla and tell her that she knows the truth and the act is unpardonable regardless of her past service and she is thinking of terminating her services.
3. She should tell Vimla that she is aware someone has stolen money from the house but is not sure who it is.
4. She should share with Vimla that neighbours think Vimla has stolen the money though she doesn't, but is interested in finding out the truth.
5. She should directly ask Vimla if she stole the money, promising her no punishment if she confesses.

Arrange the following combinations of the above actions in the DECREASING order of appropriateness.

A. 1,5,4
B. 2,4,1
C. 2,5,4
D. 3,5,4
E. 5,2,4

Solution:
Action 1: Encourages stealing.
Action 2: This is very inappropriate because Padma does not have any evidence against Vimla.
Action 3: This would put Vimla on alert and keeps her away from making any such attempts.
Thus it is a very appropriate one.
Action 4: This is less appropriate as compared to 3, because this may lead to altercations between Vimla and the neighbours and also puts Padma in a bad light because she would be the cause for such altercations.
Action 5: This is a direct confrontation which would clear the doubt but has the potential to create rift between Vimla and herself if Vimla had not stolen the money. This is less appropriate as compared to 3 but better than 4.

Thus 3, 5, 4 are in the decreasing order of appropriateness.   Choice (D)

Analyse the following caselet and answer the question that follows:

29. Genius Consulting is a boutique consulting firm started by Shirish, Balarm, Rahman and Xavier, four friends from a premier business school. They committed themselves to abide by two principles: a) not to indulge in anything unethical and b) share earnings equally.

Genius Consulting could not get a significant project till the following year, when they managed a big one after Rahman's father referred their firm to his top management. Convinced of the team's talent following an impressive presentation, the top management awarded them the project even though six other referred teams made presentations.

The day following the presentation, they met to decide the way forward for the organization. Which of the following choices would be the most appropriate for Genius Consulting?

A. As this project violates both their principles, Genius consulting should not take up the project.
B. Due to the violation of the first principle Genius consulting should not take up this project.
C. They should take up the project. Further, since rahman had agreed to equal sharing, he is not entitled to finder's fee.
D. They should take up the project and as the referral helped them survive, Rahman should be paid finder's fee.
E. They should take up the project. But, in order not to violate the principles, Rahman can be paid finder's fee this year and an equal amount be deducted from his compensation the next year.

Solution:
Referring name is not unethical. Secondly the project is awarded after the management got convinced by an impressive presentation. Hence, (A) and (B) are inappropriate.
Since they got the project in an ethical manner and that it is not Rahman who found the project but his father. Hence, Rahman will not be entitled for any finder's fee. Thus (C) is the most appropriate step for Genius Consultancy.
                     Choice (C)

Analyse the following caselet and answer the questions 30-32 that follow:

Mrs. Biswas was to retire in one year after serving in the construction department of the Gujarat government for more than thirty years. After retirement, she wanted to spend her retired life along with Mr. Biswas, a retired school teacher in a small town in Kerala. They had two children, both studying in Bengaluru. The Biswas' wished to construct a house in Kerala with their life savings.

The couple gathered information about owing a house in kerala. They had four options:

1. Buy a fully furnished house from a big developer.
2. Buy a semi-furnished house from a big developer and furnish it.
3. Get a local unregistered contractor to construct a house and furnish it.
4. Mr Biswas with inputs from the family could supervise the construction of a house back in kerala by employing the best material, engineers, masons and labourers.

30. Which option would ENSURE the best control of quality of construction for the Biswas'?

   A. The first option would ensure the best quality.
   B. The second option would ensure the best quality.
   C. The third option would ensure the best quality.
   D. The fourth option would ensure the best quality.
   E. Any of the options will equally ensure the best quality.

Solution:
Mr.Biswas could ensure control over the quality of construction with option (4) i.e, he should supervise the construction. In all other cases he is just a client and the control lies with developer/contractor.

                                     Choice (D)

31. Which of the following additional information, IF TRUE, would improve the chances of the third option being preferred?

   A. Based on the current information, with no additional information, the third is the best option.
   B. Among local property holders, the contractor in the third option enjoys a good reputation.
   C. Big developers are less open to changes in design.
   D. Mr Biswas cannot stay back alone to supervise the construction.
   E. The Biswas' want to select the furniture on their own.

Solution:
Choice (A): The fourth option is better than the third option.

Choice (B): A good reputation of the contractor would improve the chances of the third option being the preferred one.
Choice (C): This does not shift the preference to third option as this has nothing against the fourth option.
Choice (D): This makes either 1 or 2 more preferable.
Choice (E): This makes options three and four equally preferable.
Thus choice (B) makes the third option a preferred one.   Choice (B)

32. The Kerala Government recently announced a policy: In case of major quality infringement, the builder will pay a penalty of 50% of the price of the house in addition to the price of the house, to the client within a year of notice.

Rank in ASCENDING order the options that would ensure "control of quality".

   A. 1,2,3,4
   B. 2,3,4,1
   C. 3,1,2,4
   D. 4,3,1,2
   E. 4,1,2,3

Solution:
The new policy make developers more responsible and hence it is likely that they pay more attention on quality control, while an unregistered contractor is not covered under the government regulations. Hence option 3 ensures least control of quality among the four. Option 1, 2 and 3, in that order, increasingly ensure control of quality as Mr. Biswas has increasing control on the material that is being used in construction. Thus, 3, 1, 2 and 4 is the required order.

                                     Choice (C)

Analyse the following caselet and answer the questions 33-35 the follow:

A University coach was asked to select teams in three sports: Shooting, Cricket (batsmen only) and "Snakes & Ladder". The honest and keen observer head boy of the school informed the coach that he had observed 100 students playing the three games-shooting, cricket and "Snakes & Ladder". In shooting, all students were given 100 chances to hit a traget. In cricket, a batsman faced a maximum of 100 balls, provided he DID NOT GET OUT. In "Snakes & Ladder", every student could play 100 matches, one each with the other students and one against a computer. In shooting, a player got one point for hitting the target and zero for missing the target. In cricket, a batsmen got one point for hitting the ball and zero point for missing it. In "Snakes & Ladder", a person got one point for winning the game and zero for losing. To the coach's utter surprise, the distribution of points across all three games was the same. It was as follows:

Points scored	Number of students
0 – 9	1
10 – 19	8
20 – 29	5
30 – 39	15
40 – 49	20
50 – 59	20
60 – 69	13
70 – 79	7
80 – 89	9
90 – 99	2

The coach has to selected a team of eleven in each sport.

33. Which of the following options is the best way to select the "Snakes & Ladder: team?

    A. The coach must select all students between 80 and 99.
    B. The coach must select both the students between 90 and 99.
    C. The coach must select at least 6 students between 40 and 59.
    D. The coach must not select students between 0 and 9.
    E. The coach can ignore the data in the table and randomly pick any 11 players.

    Solution:
    Since "Snakes & Ladders" is a game of luck, the coach can ignore the data and randomly pick any 11 players.   Choice (E)

34. Which of the following options is the best way of selecting the Shooting team?
    A. The coach should select all students in 80 - 99 ranges.
    B. The coach should select both the students in 90 - 99 range; others can be from any of the other ranges.
    C. The coach should select at least 6 students between 40 and 49.
    D. The coach should not select students between 40 and 89.
    E. The coach can pick randomly any 11 players from any of the ranges.

Solution:
As shooting is completely based on individual's skills, the coach should select the best of the lot. Thus the coach should select all students in 80-99 range.   Choice (A)

35. Which of the following options is correct statement for picking up the cricket team?
    A. The coach should never select the player in the range of 0 - 9 points.
    B. The coach should never select the players from the range of 50 - 59.
    C. The coach should never select the players from the range of 70 - 79.
    D. The coach should definitely select the players only from the range of 80 - 99.
    E. None of the above.

Solution:
For a cricket team only the batsmen are being selected. The scores indicate the number of times the batsmen made contact with the ball. There is no information in how many ball the batsman has scored. Thus, making it difficult to make a judgement. For example: If A and B have scored 50, and A scored his 50 in 50 balls, while B scored his in 100 balls. Clearly, A is a better batsman than B. But since this information is missing we cannot categories or rank the batsman. Hence, none of the given options is correct.   Choice (E)

Analyse the following caselet and answer the question 36-38 that follow:

Girirajan an unemployed youngster from Kumbakonam, Tamilnadu, visited Singapore where his school friend worked as software engineer. In Singapore, Girirajan realized that there were a lot of Tamils in "Little India" area. He soon assessed that there were very few restaurants serving authentic Tamil food and decided to set-up a restaurant "Giri's" in "Little India" serving authentic Tamil food in traditional banana leaf. Customers loved the food. Very soon word spread about the good quality food served in the traditional way. Girirajan expanded operation recruiting 10 employees, all Tamils.

Six months later, Girirajan realized that a lot of Kannadiga and Telugu customers started visiting the restaurant along with their Tamil friends. One day, a Kannadiga customer looking for Devangere Benne Dosa suggested that it may not be a bad idea for Girirajan to serve Karnataka and Andhra cuisines along with Tamil.

With time, the popularity of the restaurant kept soaring. As a result, a lot of Malays, Indonesians and Chinese started visiting the restaurant. His software engineer friend advised to cater to customers of all nationalities. Despite his desire to go grand, Girirajan realized he did not have enough money to get extra space anywhere in Singapore and banks were also reluctant to lend.

One day, while assessing the business, he realized that the restaurant had 90% occupancy rate during peak hours and 40% during the non-peak hours. Both figures were increasing with time.

36. Which of the following options would be most suitable for the growth of the business?
A. Include Karnataka and Andhra cuisines in the menu.
B. Include Indonesian and chinese cuisines in the menu.
C. Kept the focus on Tamil food only with an increased focus on quality improvement.
D. Expand to include either Karnataka and Andhra cuisines or Indonesian and Chinese cuisines.
E. Include Karnataka and Andhra cuisines as well as Indonesian and Chinese.

Solution:
By introducing Chinese and Indonesian cuisines, the restaurant loses its identity. Hence, none among (B), (D) and (E) is a suitable step. Choice (C) does not help in growth as it simply suggests status quo. By introducing Karnataka and Andhra cuisines, Girirajan can expand the business as there is demand for these items.   Choice (A)

37. Girirajan started analysing his quarterly customer data to assess growth opportunities. He discovered that 20% of his customers are Kannadigas and many of them were requesting for a few Karnataka dishes. He was not sure if it was a good idea to serve Karnataka food. He wanted to experiment before taking the final call. Which of the following options will be worth experimenting in the next fortnight?

A. Introduce a Karnataka food day every week to please the kannadiga customers.
B. Recruit a few Kannadiga waiters to interact with Kannadiga customers.
C. Rename a few Tamil dishes as Karnataka dishes.
D. Serve Karnataka dishes as and when requested by customers without the menu displaying these dishes.

E. Add a few Karnataka dishes to the cuisine and display these in a separate menu.

Solution:
Choice (A) leads to losing some of the loyal customers. The passage doesn't indicate any communication issues. Hence, (B) is not a worthy experiment. Choice (C) is unethical. Between (D) and (E), displaying is a better option because there is demand for a few kannadiga dishes. Thus (E) is worth experimenting.   Choice (E)

38. Girirajan experimented with Karnataka food for a fortnight. He collected sales data for Karnataka food along with the trend of overall sales for the last seven days. Which of the following datasets, IF TRUE, will give Girirajan greater confidence to continue serving Karnataka food? (Figure below represent Karnataka food sales as percentage of total sales.)

A. 14, 15, 16, 17, 18, 19, 20, with total sales trend increasing by 0.4%.
B. 20, 20, 20, 20, 20, 20, 20, with total sales trend increasing by 0.4%.
C. 50, 47, 44, 40, 47, 45, 40, with total sales trend remaining same.
D. 45, 44, 43, 42, 41, 40, 39, with total sales trend remaining same.
E. 20, 50, 10, 45, 43, 13, 36, with total sales trend coming down.

Solution:
Choice (B) indicates that the growth in business is on account of increase in sales of Tamil food but not Karnataka food. Choices (C) and (D) indicate that the experiment did not lead to increase in business. Choice (E) indicates loss of loyal customers. Choice (A) indicates an increasing trend in the sale of Karnataka food and also overall growth. Hence, (A) gives greater confidence to Girirajan.   Choice (A)

Analyse the following caselet and answer the questions 39-40 that follow:

A college campus with a population of around 2,000 of whom 200 were childern, 1,200 people between 15 and 45 years, 500 people between 45 and 65 and around 100 people more than 65 years of age. The campus has two big gates opening out to the city. There are 400 cars and 500 motorbikes inside the campus. The residents relied on these vehicles to visit the city located 10 kilometres away.

Now, with land within the campus becoming scarce, the chief administrator (CA) found the growing demand for parking lot difficult to handle. The faculty, staff and students wanted increased parking space. In the past six years, the parking requirement on campus had doubled. The CA found it inappropriate to construct parking lots from the students' fee, even though those with vehicles may not complain about it.

Besides creating parking problems, the CA felt that these vehicles added to the pollution and made residents less responsible towards each other. The risk to the children and the elderly because of over-speeding was menacing. Therefore, the CA wanted to reduce the number of vehicles in the campus. Many faculty members, students and staff members, however, felt that demand for more parking space was natural as vehicles were required to go to the market, railway station, airport, and inter-state bus terminal all located in the city. They also told the CA that the elderly, sick and the toddlers relied only on these vehicles.

After listening to all stakeholders, the CA wanted to solve these problems while ensuring the campus remained responsible and green.

39. Which of the following actions would best satisfy all the stakeholders within the campus?

   A. Levy extra fee on students to construct additional parking lots inside the campus. Students should pay for up-keep of the campus.
   B. Let all vehicles be parked in a college-managed space outside the campus while two battery operated vehicles handle exigencies inside the campus.
   C. Bring all stakeholders to the discussion table.
   D. To reduce carbon footprints, only pooled vehicles should be allowed to operate inside the campus.
   E. Charge significant fee from any vehicle entering or leaving the campus.

   Solution:
   Neither (A) nor (D) addresses the pollution issue. The passage states that CA has listened to all the stakeholders, hence (C) is redundant. (D) does not address the insufficiency of parking lot. Choice (B) addresses all the concerns and hence satisfies all the stakeholders in a best possible way.

   Choice (B)

40. Which of the following would be the best option to increase revenue, decrease carbon footprint and still satisfy all the stakeholders in the campus?

   A. Make substantial collection from vehicles entering or leaving campus and construct a parking lot outside the campus.
   B. Levy extra fee on the students and build extra parking lots inside the campus.
   C. Bring all stakeholders to table and let them build consensus.
   D. To reduce the carbon footprint, only pooled vehicles be permitted on campus.
   E. Let all vehicles be parked in a managed space outside the campus while battery operated vehicles parked at the two gates can be used inside the campus.

   Solution:
   Choice (B) goes against the CA's decision to not to construct parking lot from the students' fee. Choice (C) doesn't talk about any solution. Choice (D) does not address the insufficiency of parking lot. Choice (E) doesn't increase the revenue. Choice (A) addresses all the concerns mentioned in the question.

   Choice (A)

Analyse the following caselet and answer the questions 41-43 that follow:

Shyam prepares and sells piping hot puri and sabji (gravy) from 7:00 am to 9:00 am (both inclusive) through a stall at XLRI campus. Presently, he has just a single oven, which can do only one job at a time. It takes 30 minutes to cook one handi (a large bowl) of sabji, sufficient for 12 customers. It takes him 10 minutes to prepare 2 plates of puri at a time. While the cost of a plate of puri-sabji is ₹10, the price is ₹25. Puri stays hot for only 5 minutes after preparation, while sabji stays hot for 30 minutes only. It takes 10 minutes to reheat the sabji which stays hot for another 30 minutes. If he brings a handi of hot sabji from home, the transport would cost him ₹50. It can also stay hot for 30 minutes excluding the transportation time. Currently, every 20 minutes five plates are ordered. All unsold quantities are distributed at cost after 9:30 am.

41. Find the maximum number of plates of puri-sabji Shyam can sell in the first hour of business?
A. 6
B. 8
C. 10
D. 12
E. 15

Solution:
Assuming that Shyam brings one hundi of Subji at home he can sell six plates of puri till 7:30. From 7:30 to 7:40 he heats subji. From 7:50 to 8:00 he will be able to sell another four plates. Thus in the first hour the maximum possible number of plates that he can sell is ten.

Choice (C)

42. Shyam's puri-sabji became famous. Now he gets 5 orders per 10 minutes and has invested in an additional oven. As he is working alone on both the ovens simultaneously, now in any one oven it takes him 45 minutes to cook one handi of sabji, 15 minutes for 2 plates of puri and 15 minutes to reheat the sabji. He can bring only one handi from home. What will be his maximum daily profit?
A. ₹250
B. ₹280
C. ₹300
D. ₹330
E. ₹360

Solution:
Under the given conditions Shyam will be able to sell 22 plates of puri-sabji in two hours. The profit is 15 x 22 = 330. Since he brings one hundi from home, the cost of transport should be reduced from this. That the profit would be ₹280/-.

Choice (B)

43. Shyam's stall was becoming popular by the day. Now he gets 5 customers every 10 minutes. After buying a second oven, he employed a helping hand, Aman at ₹100 for two hours. Aman can cook one handi of sabji in 20 minutes or can prepare 3 plates of puri in 10 minutes. Reheat time for sabji is 10 minutes. None of them can work on both the ovens simultaneously.

Which of the following options will help Shyam maximize his daily profit, if he does NOT bring sabji from home?

A. Shyam should dismiss Aman because his wages are more than the benefits he brings.
B. Shyam will prepare only puri and Aman will prepare only sabji.
C. Shyam will prepare only sabji and Aman will prepare only puri.
D. Shyam and Aman will prepare both puri and sabji.
E. Options B, C and D will yield the same profit.

Solution:
Initially Aman starts preparing sabji and Shaym starts preparing pooris. By 7:20, they will be ready to start serving. At 7:20 Aman shifts to preparing pooris while Shyam prepares sabji. This way they will be able to minimise loss of time and thus maximise profit. Choice (D)

Analyse the following caselet and answer the question that follows:

44. As a newly started organization in the IT sector, Saksha IT is a fast growing 400 employee organization. Its head, Saksha Kumar believes in building an organization driven by humility. Which of the following policies would best help him achieve that?

A. Employees shall, in their annual evaluation form, be asked to acknowledge three of their shortcomings, overcoming which will make them better.
B. Employees shall be asked to share with their peers three shortcomings they had noticed about their peers.
C. The immediate superiors would suggest three shortcomings their subordinates have to work on in a given period.
D. Everyone beginning with Saksha, shall be asked to share three of their weaknesses, in a public forum.
E. Employees shall be asked to overcome three shortcomings in the following year. Improvement, if noticed would attract rewards.

Solution:
Choices (B), (C) and (D) may lead to ego issues among peers. Choice (E) does not make an employee to accept his/her short comings openly. Choice (A) would help in achieving the policy.

Choice (A)

Analyse the following caselet and answer the question that follows:

45. Principal Maheswari of BINK School of Management is facing a problem that calls for quick action. She received an anonymous mail one day, possibly from one of the students, complaining about outdated syllabi, mediocre teachers and poor choice of courses on offer.

Which of the following is the best course of action available to the principal?

A. She should invite students to discuss any problem openly, one on one or in small groups, promise to act on them but firmly condemn the culture of anonymous mails.
B. She should update the students about the efforts the institute is taking in sprucing up the syllabi, hiring talented faculty etc., but make no reference to the letter.
C. She should convene a meeting of the faculty at the earliest and get them to work on updating the syllabi and also arrange a faculty development program but keep mum about the letter.
D. She should convene a meeting of the faculty and talk about the letter as a symptom of a deeper malaise, ask them to update the syllabi and also organise a faculty development program.
E. She should ignore the letter and not think about it at all.

Solution:
The principal need not mention about the anonymous mail. Hence, (A) is not a correct answer. She can directly address the concerns of the students without referring to the mail. Choice (B) is a correct option as it assures the students about the efforts being made from the management side. Choices (C) and (D) tantamount to accepting that the syllabi is outdated. It is necessary to address the concerns of the students. Hence, (E) is not the correct answer. Choice (B)

SECTION - C
DATA INTERPRETATION AND QUANTITATIVE ABILITY

46. The sum of series, $(-100) + (-95) + (-90) +$ ………. $+ 110 + 115 + 120$, is:
A. 0
B. 220
C. 340
D. 450
E. None of the above.

Solution:

Sum of series = $\dfrac{45}{2}[-100+120]=450$

($\because$ Series is in AP)   Choice (D)

47. A shop, which sold same marked price shirts, announced an offer – if one buys three shirts then the fourth shirt is sold at a discounted price of ₹100 only. Patel took the offer. He left the shop with 20 shirts after paying ₹20,000. What is the marked price of a shirt?
A. ₹1260
B. ₹1300
C. ₹1350
D. ₹1400
E. ₹1500

Solution:
15 shirts are sold at the marked price and 5 shirts at the discounted price.
Total selling price of the shirts sold at marked price = 20000 − 5(100) = 19500.
Marked price of each shirt is required.

$\therefore$ This is $\dfrac{19500}{15}$ i.e. 1300

Choice (B)

48. AB is a chord of a circle. The length of AB is 24 cm. P is the midpoint of AB. Perpendiculars from P on either side of the chord meets the circle at M and N respectively. If PM < PN and PM = 8 cm, then what will be the length of PN?
A. 17 cm
B. 18 cm
C. 19 cm
D. 20 cm
E. 21 cm

Solution:
P is the mid point of AB. AP = PB = 12.
Perpendiculars from p on either side of the chord meet the circle at M and N respectively
$\therefore$ The chords AB and MPN meet at P.
(AP) (PB) = (PM) (PN)
(12) (12) = (PM) (PN) = 8 (PN)
PN = 18
Note: PM < PN is redundant data. Choice (B)

49. If x and y are real numbers, the least possible value of the expression $4(x – 2)^2 + 4(y – 3)^2 – 2(x – 3)^2$ is:
A. −8
B. −4
C. −2
D. 0
E. 2

Solution:
$4(x – 2)^2 + 4(y – 3)^2 – 2(x – 3)^2 = 4(x^2 – 4x + 4) + 4(y^2 – 6y + 9) – 2(x^2 – 6x + 9) = 2x^2 + 4y^2 – 4x – 24y + 347 = 2(x – 1)^2 + 4(y – 3)^2 – 4$
Least possible volume of the expression occurs when $(x – 1)^2 = (y – 3)^2 = 0$. This value is –4
Choice (B)

50. Four two-way pipes A, B, C and D can either fill an empty tank or drain the full tank in 4, 10, 12, and 20 minutes respectively. All four pipes were opened simultaneously when the tank is empty. Under which of the following conditions the tank would be half filled after 30 minutes?

A. Pipe A filled and pipes B, C and D drained
B. Pipe A drained and pipes B, C and D filled
C. Pipes A and D drained and pipes B and C filled
D. Pipes A and D filled and pipes B and C drained
E. None of the above

Solution:
The tank would be half full after 30 min.
∴ It would be full after 60 min.
A, B, C, D can fill/drain the tank in 4, 10, 12, 20 (all in min) respectively. A, B, C, D can fill/drain $\frac{1}{4}, \frac{1}{10}, \frac{1}{12}, \frac{1}{20}$ of the tank each min i.e.
$\frac{15}{60}, \frac{6}{60}, \frac{5}{60}, \frac{3}{60}$ of the tank each min.

Together, for the four to fill $\frac{1}{60}^{th}$ of the tank each min $\frac{1}{60} = \frac{15}{60} - (\frac{6}{60} + \frac{5}{60} + \frac{3}{60})$.
A is a filling pipe. B, C, D are emptying pipes.

Choice (A)

51. If f(x) = ax + b, a and b are positive real numbers and if f(f(x)) = 9x + 8, then the value of a + b is:
A. 3
B. 4
C. 5
D. 6
E. None of the above.

Solution:
f(x) = ax +b, where a and b are positive real numbers.
f(f(x)) = 9x + 8.
f(ax + b) = 9x + 8
a(ax +b) +b = 9x + 8
a^2x + ab +b = 9x + 8.
Equating the coefficients of x and the constant terms both sides, $a^2 = 9$ and ab + b = 8
a = ± 3 and ab + b = 8
As a is positive, a = 3 and b(a + 1) = 8.
b = 2
a + b = 5.   Choice (C)

52. Arup and Swarup leave point A at 8 AM to point B. To reach B, they have to walk the first 2 km, then travel 4 km by boat and complete the final 20 km by car. Arup and Swarup walk at a constant speed of 4 km/hr and 5 km/hr respectively. Each rows his boat for 30 minutes. Arup drives his car at a constant speed of 50 km/hr while Swarup drives at 40 km/hr. If no time is wasted in transit, when will they meet again?

A. At 9.15 AM
B. At 9.18 AM
C. At 9.21 AM
D. At 9.24 AM
E. At 9.30 AM

Solution:
All speeds are in km/hr.

	Walking	Boat	Car
Distance (km)	2	4	20
A's Speed	4		50
S's Speed	5		40

Each rows his boat for 30 min.
∴ Each rows at 8 km /hr.
Times taken by Arup and Swarup to walk are 30 min and 24 min respectively.
At 8:54 am, Swarup would have completed his the walk and rowing the boat. Arup would have completed these in another 6 min.
When Arup starts in his car, Swarup would have covered 4 km. The two will meet in another.
$\frac{4}{50 - 40}$ hrs i.e. 0.4 hrs i.e. at 9 : 24 am

Choice (D)

53. The volume of a pyramid with a square base is 200 cm^3. The height of the pyramid is 13 cm. What will be the length of the slant edges (i.e. the distance between the apex and any other vertex), rounded to the nearest integer?
A. 12 cm
B. 13 cm
C. 14 cm
D. 15 cm
E. 16 cm

Solution:
Let the side of the square base be a.
$\frac{1}{3}(a^2)(h) = V \Rightarrow a^2 = 3V/h = \frac{600}{13}$

Length of each slant edge = $\sqrt{h^2 + \left(\frac{D}{2}\right)^2}$

Where D is the diagonal of the square base
= $\sqrt{h^2 + \left(\frac{a\sqrt{2}}{2}\right)^2}$ = $\sqrt{13^2 + \frac{a^2}{2}}$ = $\sqrt{169 + \frac{300}{13}}$

= $\sqrt{\frac{2497}{13}}$ = $\sqrt{192 + \frac{1}{13}}$ ≈ 14   Choice (C)

54. A dice is rolled twice. What is the probability that the number in the second roll will be higher than that in the first?
A. 5/36
B. 8/36
C. 15/36
D. 21/36
E. None of the above

Solution:
Let the numbers in the first and the second rolls be a and be respectively.
We require P(b > a)
p(b > a) + p(b = a) + p(b < a) = 1
b > a is as likely as b < a.
∴p(b > a) = p(b < a)
p(b > a) + p(b = a) + p(b > a) = 1
$$p(b > a) = \frac{1 - p(b = a)}{2}$$
b = a is possible in six ways.
$$p(b = a) = \frac{6}{36} = \frac{1}{6}.$$
$$p(b > a) = \frac{1 - \frac{1}{6}}{2} = \frac{5}{12} = \frac{15}{36} \qquad \text{Choice (C)}$$

55. Hari's family consisted of his younger brother (Chari), younger sister (Gouri), and their father and mother. When Chari was born, the sum of the ages of Hari, his father and mother was 70 years. The sum of the ages of four family members, at the time of Gouri's birth, was twice the sum of ages of Hari's father and mother at the time of Hari's birth. If Chari is 4 years older than Gouri, then find the difference in age between Hari and Chari.
A. 5 years
B. 6 years
C. 7 years
D. 8 years
E. 9 years

Solution:
When Chari was born let the ages of the father, the mother, Hari be f, m, h respectively.
f + m + h = 70
f + m = 70 – h
When Gouri was born, Chari would be 4 years old. Also the father, the mother, Hari would be f + 4, m+ 4, h + 4 years old respectively.
f + 4 + m + 4 + h + 4 + 4 = 2 (f – h + m –h)
f + m + h + 16 = 2(f + m –2h)
5h + 16 = f + m
= 70 – h
h = 9
When Chari was born, Hari's age is 9 years.
∴Difference of the ages of Hari and Chari is 9 years. Choice (E)

56. In a True/False quiz, 4 marks are awarded for each correct answer and 1 mark is deducted for each wrong answer. Amit, Benn and Chitra answered the same 10 questions, and their answers are given below in the same sequential order.

AMIT   T T F̲ F̲ T T F̲ T T F̲
BENN   T T T F̲ F̲ T F̲ T T F̲
CHITRA T T T T F̲ F̲ T F̲ T T

If Amit and Benn both score 35 marks each then Chitra's score will be:
A. 10
B. 15
C. 20
D. 25
E. None of the above.

Solution:
Amit and Benn both score 35 marks.
∴ Each of them got 9 correct and 1 wrong.
8 of the answers of Amit and Benn match. The remaining two answers (3 and 5) of Amit and Benn are FT and TF.
The correct answers for these questions must be F, F or T, T. In either case Chitra got 4 correct answers and 6 wrong answers.
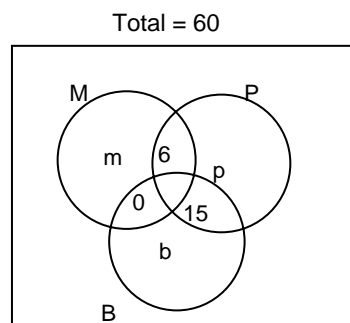∴ Her score is 10. Choice (A)

57. In a class of 60, along with English as a common subject, students can opt to major in Mathematics, Physics, Biology or a combination of any two. 6 students major in both Mathematics and Physics, 15 major in both Physics and Biology, but no one majors in both Mathematics and Biology. In an English test, the average mark scored by students majoring in Mathematics is 45 and that of students majoring in Biology is 60. However, the combined average mark in English, of students of these two majors, is 50. What is the maximum possible number of students who major ONLY in Physics?
A. 30
B. 25
C. 20
D. 15
E. None of the above.

Solution:

Total = 60

Avg (Maths majoring) = 45
Avg (Biology majoring) = 60
Avg (Maths & Biology majoring) = 50

$$\frac{45T_M + 60T_B}{T_M + T_B} = 50$$

$$\frac{45(m + 6) + 60(b + 15)}{m + b + 21} = 50$$

45m + 60b + 1170 = 50 (m + b + 21)
10b + 120 = 5 m
m = 2b + 24
b ≥ 0. ∴ m ≥ 24
m + p + b + 6 + 0 + 15 = 60
m + p + b = 39
m ≥ 24. ∴ p + b ≤ 15
Max (p) = 15.

Choice (D)

58. If 5° ≤ x° ≤ 15°, then the value of sin 30° + cos x° – sinx° will be:
A. Between –1 and –0.5 inclusive
B. Between –0.5 and 0 inclusive
C. between 0 and 0.5 exclusive
D. between 0.5 and 1 inclusive
E. None of the above

Solution:

Sin 30 + cos x° – sin x° = $\frac{1}{2}$ + cos x – sin x

5 ≤ x ≤ 15

$\frac{1}{2}$ + cos x – sin x = E (say)

cos x – sin x is maximum when cos x is maximum and sin x is minimum and is minimum when cos x is minimum and sin x is maximum.
As x increases, cos x decreases and sin x increases.
∴ cos x – sin x decreases.

$\frac{1}{2}$ + cos 15° – sin 15° ≤ E ≤ $\frac{1}{2}$ + cos 5° – sin 5°

cos 15 = $\frac{\sqrt{3}+1}{2\sqrt{2}}$ and sin 15 = $\frac{\sqrt{3}-1}{2\sqrt{2}}$

cos 15 – sin 15 = $\frac{1}{\sqrt{2}}$.

$\frac{1}{2} + \frac{1}{\sqrt{2}}$ ≤ E

$\frac{1}{2} + \frac{\sqrt{2}}{2}$ ≤ E i.e 0.5 + $\frac{1.41}{2}$ ≤ E i.e 1.2 ≤ E

Choice (E)

Alternate Method:

The values of sinθ, cosθ and cosθ – sinθ for the necessary values of θ are tabulated below. Let the given expression be E.

θ	0	5^0	15^0
sinθ	0	–	0.26
cosθ	1	–	0.97
cosθ -sinθ	1		0.71

If we add sin 30°, (i.e, 0.5) to the third row. We see that
1.21 < E < 1.5

59. An institute has 5 departments and each department has 50 students. If students are picked up randomly from all 5 departments to form a committee, what should be the minimum number of students in the committee so that at least one department should have representation of minimum 5 students?
A. 11
B. 15
C. 21
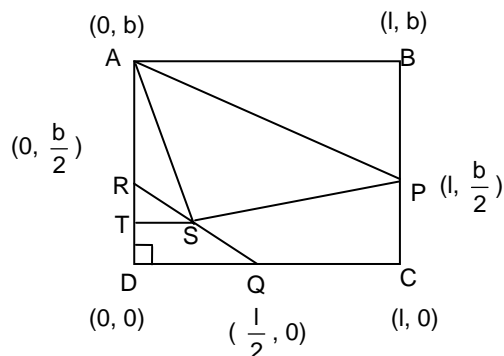D. 41
E. None of the above.

Solution:
If 4 students are picked up randomly from each department, a total of 20 students would be picked up. The next student picked up must be from one of the five departments and that department would have a representation of 5 students.

Choice (C)

60. ABCD is a rectangle. P, Q and R are the midpoints of BC, CD and DA. The point S lies on the line QR in such a way that SR : QS = 1 : 3. The ratio of the triangle APS and rectangle ABCD is
A. 36/128
B. 39/128
C. 44/128
D. 48/128
E. 64/128

Solution:

SR : QS = 1 : 3
Let T be the foot of the perpendicular drawn from S to RD. ΔRTS and RDQ are similar.

$$\frac{RT}{RD} = \frac{TS}{DQ} = \frac{RS}{RQ} = \frac{1}{4}$$

RT = $\frac{1}{4}$ RD = $\frac{1}{4}(\frac{b}{2})$ = $\frac{b}{8}$ and TS = $\frac{l}{8}$
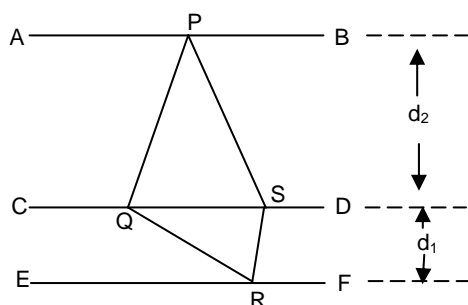
S = $\left(0 + \frac{l}{8}, \frac{b}{2} - \frac{b}{8}\right) = \left(\frac{\ell}{8}, \frac{3b}{8}\right)$

Area of Δ APS = $\frac{1}{2}\begin{vmatrix} x_1 - x_2 & y_1 - y_2 \\ x_2 - x_3 & y_2 - y_3 \end{vmatrix}$ = $\frac{36}{128}$.

Choice (A)

61. AB, CD and EF are three parallel lines, in that order. Let d_1 and d_2 be the distances from CD to AB and EF respectively. d_1 and d_2 are integers, where $d_1 : d_2 = 2 : 1$. P is a point on AB, Q and S are points on CD and R is a point on EF. If the area of the quadrilateral PQRS is 30 square units, what is the value of QR when value of SR is the least?

A. slightly less than 10 units
B. 10 units
C. slightly greater than 10 units
D. slightly less than 20 units
E. slightly greater than 20 units

Solution:

Ar (PQRS) = 30. Shown in the figure is one of the possible arrangements of PQRS.

SR is least when SR is perpendicular to CD. Then $\angle QSR = 90°$.

When SR is least, QR is the hypotenuse of $\triangle$ QSR.

$QR = \sqrt{QS^2 + SR^2} = \sqrt{QS^2 + d_2^2}$

Ar (PQRS) = Area of $\triangle$ PQS + Area of $\triangle$ QSR

$= \dfrac{1}{2}(QS)(d_1) + \dfrac{1}{2}(QS)(d_2)$

$= \dfrac{1}{2}(QS)(d_1 + d_2)$

$= \dfrac{1}{2}(QS)(3\,d_2)$

$\dfrac{1}{2}(QS)(3\,d_2) = 30$

$(QS)\, d_2 = 20$

d_2 is on integer. $\therefore$ Min $(d_2) = 1$.

Then QS = 20.

$QR = \sqrt{20^2 + 1^2} = \sqrt{401}$, which is slightly more than 20.

Choice (E)

62. If $N = (11^{P+7}) (7^{q-2}) (5^{r+1}) (3^s)$ is a perfect cube, where p, q, r and s are positive integers, then the smallest value of p + q + r + s is:

A. 5
B. 6
C. 7
D. 8
E. 9

Solution:

$N = (11^{p+7})(5^{r+1})(3^s)$, and N is a perfect cube.

p, q, r, s are positive integers.

p + 7, q − 2, r + 1, s must be integers divisible by 3.

$\therefore$ p +7 ≥ 9, q − 2 ≥ 0, r + 1 ≥ 3, s ≥ 3.

p ≥ 2, q ≥ 2, r ≥ 2, s ≥ 3.

Smallest p, q, r, s are 2,2,2,3.

$\therefore$ Smallest (p + q +r +s) = 9.   Choice (E)

Study the data given in the caselet below and answer the questions 63-64 that follow:

In an innings of a T20 cricket match (a team can bowl for 20 overs) 6 bowlers bowled from the fielding side, with a bowler allowed maximum of 4 overs. Only the three specialist bowlers bowled their full quota of 4 overs each, and the remaining 8 overs were shared among three non-specialist bowlers. The economy rates of four bowlers were 6, 6, 7 and 9 respectively. *(Economy rate is the total number of runs conceded by a bowler divided by the number of overs bowled by that bowler)*. This however, does not include the data of the best bowler *(lowest economy rate)* and the worst bowler *(highest economy rate)*. The number of overs bowled and the economy rate of any bowler are in integers.

63. Read the two statements below:

S1: The worst bowler did not bowl the minimum number of overs.
S2: The best bowler is a specialist bowler.

Which of the above statements or their combinations can help arrive at the minimum number of overs bowled by a non-specialist bowler?

A. S1 only.
B. S2 only.
C. Either S1 or S2.
D. S1 and S2 in combination.
E. The minimum number of overs can be determined without using S1 or S2.

Solution:

The non- specialist bowlers bowled a total of 8 overs.

There are three such bowlers. The breakup of the 8 overs must be 3 – 3 – 2.

Min (overs bowled by a non- specialist bowler) = 2.

Choice (E)

64. Read the two statements below:

S1: The economy rates of the specialist bowlers are lower than that of the non-specialist bowlers.

S2: The cumulative runs conceded by the three non-specialist bowlers were 1 more than those conceded by the three specialist bowlers

Which of the above statements or their combinations can help arrive at the economy rate of the worst bowler?
A. S1 only.
B. S2 only.
C. Either S1 or S2.
D. S1 and S2 in combination.
E. The economy rate can be calculated without using S1 or S2.

Solution:
The economy rates of all the bowlers in ascending order are x, 6, 6, 7, 9, y.
S_1: Economy rates of specialist bowlers are x, 6, 6.

Economy rates of non- specialist bowlers are 7, 9, y.
$S_1 + S_2$: Min (y) = 10
Min (Total runs conceded by non- specialist bowlers)
= 7(3) +9(3) +10(2) = 68.
Max (Total runs conceded by specialist bowlers)
= 4(5 + 6 +6) = 68.
S_2 is violated if total runs conceded by non-specialist bowlers is minimum -------- (1)
Total number of runs conceded by non-specialist bowlers must be at most 69.------- (2)
From (1) and (2), total number of runs conceded by non specialist bowlers must be 69.
Total number of runs conceded by specialist bowlers must be 68.
x = 5, y = 10.
$S_1 + S_2$ is sufficient to help us arrive at x.
We cannot find x without the help of S_1 or S_2.

Choice (D)

Study the paragraph below and answer the questions 65-68 that follow:

Abdul has 8 factories, with different capacities, producing boutique kurtas. In the production process, he incurs raw materials cost, selling cost (for packaging and transportation) and labour cost. These costs per kurta vary across factories. In all these factories, a worker takes 2 hours to produce a kurta. Profit per kurta is calculated by deducting raw material cost, selling cost and labour cost from the selling price (Profit = selling price – raw materials cost – selling cost – labour cost). Any other cost can be ignored.

Exhibit: Business Details of Abdul's 8 Factories

#	Production capacity (No. of Kurtas)	Selling Price/Kurta ₹	Profit/Kurta ₹	Selling Cost/Kurta ₹	Labour Cost/Hour ₹
Factory 1	2500	4800	775	60	450
Factory 2	1500	5300	800	45	400
Factory 3	800	5800	900	60	550
Factory 4	1000	5500	800	68	450
Factory 5	1500	5400	600	75	600
Factory 6	1100	6000	875	65	400
Factory 7	2500	4900	500	85	350
Factory 8	2000	5300	600	70	420

65. Which of the following options is in decreasing order of raw materials cost?
(A) Factory 3, Factory 4, Factory 7, Factory 5
(B) Factory 4, Factory 3, Factory 2, Factory 5
(C) Factory 6, Factory 3, Factory 5, Factory 7
(D) Factory 6, Factory 8, Factory 7, Factory 2
(E) Factory 8, Factory 3, Factory 2, Factory 4

Solution:

The selling price, profit, raw material cost, selling cost and labour cost at the different factories are as follows.

Factory	Selling price	Profit	Selling cost	Labour cost	Raw material cost
Factory 1	4800	775	60	900	3065
Factory 2	5300	800	45	800	3655
Factory 3	5800	900	60	1100	3740
Factory 4	5500	800	68	900	3732
Factory 5	5400	600	75	1200	3525
Factory 6	6000	875	65	800	4260
Factory 7	4900	500	85	700	3615
Factory 8	5300	600	70	840	3790

The decreasing order is true only in option A. factory 3, factory 4, factory7, factory 5.   Choice (A)

66. Which of the factories listed in the options below has the lowest sales margin (sales margin = profit per kurta divided by selling price per kurta)?
    (A) Factory 2
    (B) Factory 4
    (C) Factory 5
    (D) Factory 6
    (E) Factory 7

Solution:

The selling price, profit, raw material cost, selling cost and labour cost at the different factories are as follows.

Factory	Selling price	Profit	Selling cost	Labour cost	Raw material cost
Factory 1	4800	775	60	900	3065
Factory 2	5300	800	45	800	3655
Factory 3	5800	900	60	1100	3740
Factory 4	5500	800	68	900	3732
Factory 5	5400	600	75	1200	3525
Factory 6	6000	875	65	800	4260
Factory 7	4900	500	85	700	3615
Factory 8	5300	600	70	840	3790

The sales margin for the different factories are as follows

Factory 2 = $\frac{800}{5300} \times 100 = 15.1\%$

Factory 4 = $\frac{800}{5500} \times 100 = 14.5\%$

Factory 5 = $\frac{600}{5400} \times 100 = 11.1\%$

Factory 6 = $\frac{875}{6000} \times 100 = 14.6\%$

Factory 7 = $\frac{500}{4900} \times 100 = 10.2\%$

The lowest is for factory 7.   Choice (E)

67. Abdul has received an order for 2,000 kurtas from a big retail chain. They will collect the finished pre packaged kurtas directly from the factories, saving him the selling cost. To deliver this order, he can use multiple factories for production. Which of the following options will ensure maximum profit from this order?
(A) Factory 1
(B) Factories 2 and 3
(C) Factories 4 and 6
(D) Factories 3, 6 and 4
(E) Factory 1 or Factory 7 or Factory 8

Solution:
The selling price, profit, raw material cost, selling cost and labour cost at the different factories are as follows.

Factory	Selling price	Profit	Selling cost	Labour cost	Raw material cost
Factory 1	4800	775	60	900	3065
Factory 2	5300	800	45	800	3655
Factory 3	5800	900	60	1100	3740
Factory 4	5500	800	68	900	3732
Factory 5	5400	600	75	1200	3525
Factory 6	6000	875	65	800	4260
Factory 7	4900	500	85	700	3615
Factory 8	5300	600	70	840	3790

The profit per kurta for the different factories are as follows
Factory 1 – 835
Factory 2 – 845
Factory 3 – 960
Factory 4 – 868
Factory 6 – 940
Factory 7 – 585
Factory 8 – 670.
Among the given choices, option (D) will ensure the maximum profit.   Choice (D)

68. Abdul has introduced a new technology in all his factories. As a result, a worker needs just 1.5 hours to produce a kurta. If raw materials cost and selling cost remain the same, which of the factories listed in the options below will yield the highest profit per kurta?
(A) Factory 2
(B) Factory 3
(C) Factory 4
(D) Factory 5
(E) Factory 6

Solution:

The selling price, profit, raw material cost, selling cost and labour cost at the different factories are as follows.

Factory	Selling price	Profit	Selling cost	Labour cost	Raw material cost
Factory 1	4800	775	60	900	3065
Factory 2	5300	800	45	800	3655
Factory 3	5800	900	60	1100	3740
Factory 4	5500	800	68	900	3732
Factory 5	5400	600	75	1200	3525
Factory 6	6000	875	65	800	4260
Factory 7	4900	500	85	700	3615
Factory 8	5300	600	70	840	3790

The profit per kurta for the different factories are as follows
Factory 2 – 800 + 200 = 1000
Factory 3 → 900 + 275 = 1175
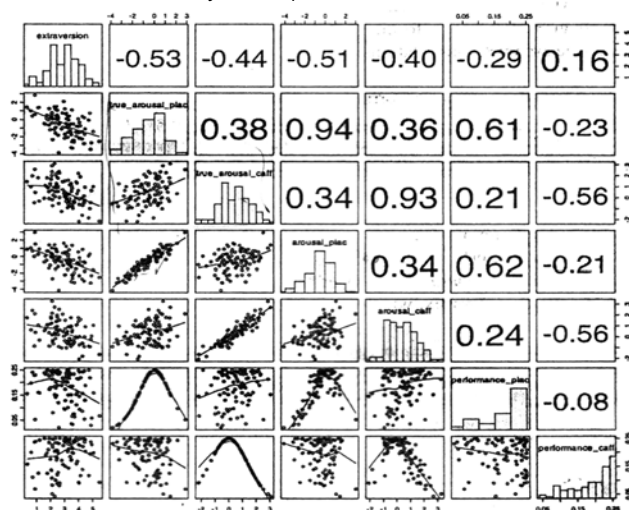Factory 4 → 800 + 225 = 1025
Factory 5 → 600 + 300 = 900
Factory 6 → 875 + 200 = 1075
The highest is for factory 3.   Choice (B)

Analyse the graph below and answer the questions 69-72 that follow:

The grid below captures relationships among seven personality dimensions: "extraversion", "true_arousal_plac", "true_arousal_caff", "arousal_plac", "arousal_caff", "performance_plac", and "performance_caff". The diagonal represents histograms of the seven dimensions. Left of the diagonal represents scatterplots between the dimensions while the right of the diagonal represents quantitative relationships between the dimensions. The lines in the scatterplots are closest approximation of the points. The value of the relationships to the right of the diagonal can vary from –1 to +1, with –1 being the extreme linear negative relation and +1 extreme linear positive relation. (Axes of the graph are conventionally drawn).

69. Which of the following is true?
 (A) "Extraversion" has two modes.
 (B) Median for "arousal_plac" is definitely the same as its average.
 (C) Median for "arousal_caff" is definitely higher than its average.
 (D) Median for "performance_plac" is definitely lower than its average.
 (E) Median for "performance_caff" is definitely lower than its average.

Solution:
The 5th and 7th values in the histogram for 'Extraversion' have the highest frequency.
∴ There are two modes for "Extraversion".
 Choice (A)

70. Which of the scatterplots shows the weakest relationship?
 A. Between "extraversion" and "performance_caff".
 B. Between "true_arousal_plac" and "arousal_place".
 C. Between "true_arousal_plac" and "performance_plac".
 D. Between "true_arousal_caff" and "performance_caff".
 E. Between "arousal_caff" and "performance_caff".

Solution:
The maximum number of points are significantly separate from the line in the scatter plot between "Extraversion" and "performance_caff".
 Choice (A)

71. In which of the following scatterplots, the value of one dimension can be used to predict the value of another, as accurately as possible?
 A. "extraversion" and "true_arousal_caff"
 B. "true_arousal_plac" and "arousal_plac"
 C. "true_arousal_plac" and "performance_plac"
 D. "true_arousal_plac" and "performance_caff"
 E. All the above are irrelevant relations.

Solution:
The scatterplot between '"true_arousal_plac" ad "performance_plac" has the best approximation of the points by the lie when compared to other scatterplots. Choice (C)

72. Which of the following options is correct?
 A. 0.93 on the right side of the diagonal corresponds to the third scatterplot in the fourth row.
 B. 0.94 on the right side of the diagonal corresponds to the second scatterplot in the fourth row.
 C. 0.38 is the relationship between "extraversion" and "true_arousal_plac".
 D. "arousal_caff' and "performance_caff" are positively related.
 E. The line that captures relationship between "arousal_caff" and "arousal_plac" can be denoted by equation: y = a –bx, where b>0.

Solution:
0.94 corresponds to the quantitative relationship between "true_arousal_plac" and "arousal_plac". The corresponding scatterplot is the second one in the fourth row. Choice (B)

SECTION 1
GENERAL KNOWLEDGE

1. Which of the following banks is recently in the news because its employees opened additional relationship accounts without its customer's permission?
   A. Citibank
   B. HSBC
   C. Standard Chartered
   D. Wells Fargo
   E. Bank of Nova Scotia

   Key:
   Wells Fargo   Choice (D)

2. Which of the following is in the outermost reaches of the solar system?
   A. Orion Nebula
   B. Andromeda Galaxy
   C. Oort Cloud
   D. Asteroid belt
   E. Interstellar wormhole

   Key:
   Oort Cloud   Choice (C)

3. Which Cult Television series celebrated its 50th anniversary in 2016?
   A. Frasier
   B. That 70's Show
   C. Veep
   D. Star Trek
   E. Buniyaad

   Key:
   Star Trek   Choice (D)

4. Bogota, Lima and Quito are the capitals of:
   A. Colombia, Peru and Ecuador respectively.
   B. Warsaw, Madrid and Montevideo respectively.
   C. Brazil, Paraguay, and Argentina respectively.
   D. Nigeria, Sudan and Zimbabwe respectively.
   E. None of the above

   Key:
   Colombia, Peru and Ecuador respectively.
                                              Choice (A)

5. The Yazidis are:
   A. Mythological creatures in the Bible
   B. Mystery creatures sighted in the Greenland
   C. Ethnic and religious minority in Iraq
   D. Members of a Islamic sect in Hungary
   E. Ethnic and religious minority in Pakistan

   Key:
   Ethnic and religious minority in Iraq
                                              Choice (C)

6. Where is Hadrian's Wall located?
   A. China
   B. Afghanistan
   C. Rome
   D. England
   E. Ladakh

   Key:
   England   Choice (D)

7. Which of the following animals' conservation status was changed from "endangered" to "vulnerable" by WWF recently?
   A. Giant Panda
   B. Tigers
   C. Orangutan
   D. Asian Elephant
   E. Blue Whale

   Key:
   Giant Panda   Choice (A)

8. In which of the following countries, both the Tropic of Capricorn and the Equator pass through?
   A. Brazil
   B. Argentina
   C. Peru
   D. Chile
   E. Venezuela

   Key:
   Brazil   Choice (A)

9. Which of the following novelists has won the Booker Prize?
   A. Ruskin Bond
   B. R. K. Narayan
   C. Amitav Gosh
   D. Anita Desai
   E. Kiran Desai

   Key:
   Kiran Desai   Choice (E)

10. Rodrigo Duterte is associated with which of the following nations?
    A. USA
    B. Russia
    C. Philippines
    D. Indonesia
    E. Vietnam

    Key:
    Philippines   Choice (C)

11. In which of the following countries is Tamil an official language?
    A. Andaman
    B. Burma
    C. Sri Lanka
    D. Singapore
    E. Both C & D above

    Key:
    Both C & D above   Choice (E)

12. The International Court of justice is located in:
A. Geneva
B. The Hague
C. Munich
D. New York
E. Washington DC

Key:
The Hague   Choice (B)

13. Which of the following countries is not a member of SAARC?
A. Bhutan
B. Myanmar
C. Bangladesh
D. Nepal
E. The Maldives

Key:
Myanmar   Choice (B)

14. Which of the following institutions are related to the Bretton Woods Agreement?
A. International Labour Organization
B. International Monetary Fund
C. World bank
D. World Trade Organization
E. Both B & C

Key:
Both B & C   Choice (E)

15. In India, February 28th is celebrated as:
A. Army Day
B. International Yoga Day
C. National Integration Day
D. National Science Day
E. Sadbhavana Divas

Key:
National Science Day   Choice (D)

16. Barak 8 is:
A. The 8th president of USA.
B. A surface-to-air missile jointly developed by India and Israel.
C. A total of 8 mines of Coal and Iron Ore in Barakar, near Jharkhand.
D. 8 villages, where only renewable energy is used, at the bank of Barak River, South Assam.
E. Eight tribes, all living in Barak Valley of Assam.

Key:
A surface-to-air missile jointly developed by India and Israel.   Choice (B)

17. Which of the following is the oldest mountain range?
A. Himalaya
B. Nilgiri Hills
C. Satpuras
D. KaraKoram
E. Aravalis

Key:
Aravalis   Choice (E)

18. The words "Satyameva Jayate", inscribed on Indian currency are taken from:
A. Mahabharat
B. Mundak Upanishad
C. Rigveda
D. Shakuntala
E. A passage to India

Key:
Mundak Upanishad   Choice (B)

19. Who directed the Oscar winning film "Gandhi"?
A. Ben Kingsley
B. Richard Attenborough
C. David Lean
D. Ritwik Ghatak
E. Frank Darabont

Key:
Richard Attenborough   Choice (B)

20. Which of the following options is a MISMATCH?
A. Andersen Consulting:: Accenture
B. Isis Chocolates :: Libeert
C. Brad's Drink :: Pepsi
D. Quantum Computer Services :: AOL Inc.
E. Bearing Point :: KPMG Consulting Inc.

Key:
Bearing Point :: KPMG Consulting Inc.
                                       Choice (E)

21. Which of the following companies is listed in the Fortune Global 500 Companies, in 2016?
A. GAIL (India) Limited
B. Oil and Natural Gas Corporation Limited (ONGC)
C. Patanjali
D. Rajesh Exports
E. Tata Consultancy Services

Key:
Rajesh Exports   Choice (D)

22. Which of the following brands is NOT currently owned by an Indian company?
A. Allen Solly
B. Dettol
C. La Opala
D. Monte Carlo
E. Royal Enfield

Key:
Dettol   Choice (B)

23. Some of the famous battles are listed below:
1. The Battle of Cajamarca
2. The Battle of Huai-Hai
3. The Battle of Plassey
4. The Battle of Stalingrad
5. The Battle of Waterloo
6. The Battle of Yorktown

Which of the following is the correct chronological order of the above battles?

A. 1-2-3-4-5-6
B. 1-2-6-3-5-4
C. 1-3-6-5-4-2
D. 2-1-3-6-4-5
E. 2-6-1-3-4-5

Key:
1-3-6-5-4-2   Choice (C)

24. Which of the following is a WRONG combination?
A. Maldives – Maldivian Rupee
B. Bangladesh – Bangladeshi Taka
C. Bhutan – Bhutanese Ngultrum
D. East Timor – U. S. Dollar
E. Indonesia – Indonesian Rupiah

Key:
Maldives – Maldivian Rupee
                                          Choice (A)

25. Which of the following is a WRONG combination?
A. Willis Haviland Carrier – Microwave compatible Tiffin Carrier
B. Alexander Bell – Telephone
C. Alfred Nobel – Dynamite
D. Elisha Graves Otis – Safety Elevator
E. John Boyd Dunlop – Pneumatic Tyre

Key:
Willis Haviland Carrier – Microwave compatible Tiffin Carrier
                                          Choice (A)

ESSAY

Write an essay on the following topic in the space provided on the backside of the OMR sheet;

Globalization and Jingoism always coexist!