

XAT 2017

Verbal Ability and Logical Reasoning

1. 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.

2. 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.

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, Kakhétians, 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

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

5. 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:

1. unproductive
2. not appreciated
3. overstated
4. penchant for
5. dislike for
6. investment in
7. 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

6. 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.

7. 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.

8. 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

9. 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.

10. 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.

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

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 affect, effect, effect, effected

B affect, effect, affect, affected

C affect, affect, affect, affected

D effect, affect, effect, effected

E effect, affect, effect, affected

Instructions [13 - 14]

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 a 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

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 lighting.
- D A tendency to break down intricacies of creation into its simple parts.
- E Prosaic attitude immune to the mysteries of the world.

Instructions [15 - 17]

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 upgrades 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.

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.

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 policies 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

Instructions [18 - 21]

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 turkey carpet, why life was so confusing. Today there is similar trouble over the question whether there is, or is not, something called Human Nature. On the one hand, there has been an explosion of animal behavior studies, and comparisons between animals and men have become immensely popular. People use evidence from 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. So do Existentialist philosophers. If man has no 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.

18. 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.

19. 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.

20. 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

21. 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.

Instructions [22 - 24]

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 feelings 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 13 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 exists to motivate compassion and altruism. Still, the link between empathy (in the sense of mirroring another's feelings) and compassion (in the sense of feeling 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 can have compassion without empathy, you can have empathy without compassion. 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.

22. 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.

23. 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.

24. 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.

Decision Making

Instructions [25 - 26]

A pastor had eaten at 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 disproportionate punishment to waitress.
- E** The management for removing negative comments from the social media.

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 waitress at a higher wage but stick to the original decision of firing the waitress.

Instructions [27 - 28]

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

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 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

29. Analyse the following caselet and answer the question that follows:

Genius Consulting is a boutique consulting firm started by Shirish, Balram, 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 presentations, 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.

Instructions [30 - 32]

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 owning 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 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.

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.

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

Instructions [33 - 35]

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 target. 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 point for missing the target. In cricket, a batsman 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 select 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.

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.

35. Which of the following options is the 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 players from the range of 50-59.
- C** The coach should never select players from the range of 70-79.
- D** The coach should definitely select players only from the range of 80-99.
- E** None of the above.

Instructions [36 - 37]

A college campus with a population of around 2,000 of whom 200 were children, 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 toward 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.

36. 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.

37. 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 use inside the campus.

Instructions [38 - 40]

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 reastaurant 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.

38. 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 in the menu.
- C** Keep 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.

39. Girirajan started analyzing 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.

40. Giriraja 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? (Figures 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.

Instructions [41 - 43]

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

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

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 wage 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.

44. Analyse the following caselete and answer the question that follows:

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.

45. Analyse the following caselete and answer the question that follows:

Principal Maheshwari 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, medicore 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 organize a faculty development program.
- E** She should ignore the letter and not think about it at all.

Quantitative Ability

46. The sum of series, $(-100) + (-95) + (-90) + \dots + 110 + 115 + 120$, is:

- A** 0
- B** 220
- C** 340
- D** 450
- E** None of the above

47. 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

48. 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

49. 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 meet 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

50. 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

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

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

53. 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

54. 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 F F T T F T T F

BENN T T T F F T F T T F

CHITRA T T T T F F F T 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

55. 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

56. If $5^\circ \leq x^\circ \leq 15^\circ$, then the value of $\sin 30^\circ + \cos x^\circ - \sin x^\circ$ 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

57. The Volume of a pyramid with a square base is 200 cubic cm. The height of the pyramid is 13cm. 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

58. 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 $\frac{5}{36}$
- B $\frac{8}{36}$
- C $\frac{15}{36}$
- D $\frac{21}{36}$
- E None of the above

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.

60. 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

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

62. ABCD is a rectangle. P, Q and R are the midpoint 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 area of triangle APS to area of rectangle ABCD is

- A 36/128
- B 39/128
- C 44/128
- D 48/128
- E 64/128

Instructions [63 - 64]

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.

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.

Instructions [65 - 68]

Abdul has 8 factories, with different capacities, producing boutique kurtas. In the production process, he incurs raw material 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	Selling Price / Kurta	Profit / Kurta	Selling Cost / Kurta	Labour Cost / Hour
#	(No of Kurtas)	₹	₹	₹	₹
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 per kurta?

- 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

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

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

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

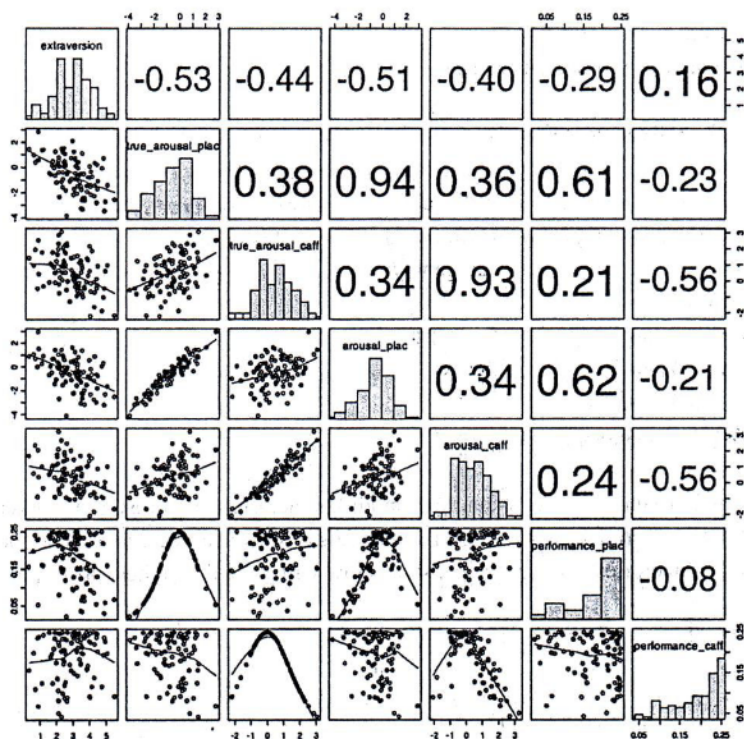
C Factory 4

D Factory 5

E Factory 6

Instructions [69 - 72]

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.

70. Which of the scatterplots shows the weakest relationship?

- A** Between "extraversion" and "performance_caff".
- B** Between "true_arousal_plac" and "arousal_plac".
- C** Between "true_arousal_plac" and "performance_plac".
- D** Between "true_arousal_caff" and "performance_caff".
- E** Between "arousal_caff" and "performance_caff".

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 "performancc_caff"
- E All the above are irrelevant relations.

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_catr" 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 $b > 0$.

General Knowledge

73. 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

74. The International Court of Justice is located in:

- A** Geneva
- B** The Hague
- C** Munich
- D** New York
- E** Washington DC

75. Which of the following countries is not a member of SAARC?

- A** Bhutan
- B** Myanmar
- C** Bangladesh
- D** Nepal
- E** The Maldives

76. 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

77. 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

78. 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 Jharkhan

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.

79. Which of the following is the oldest mountain range?

A Himalaya

B Nilgiri Hills

C Satpuras

D Karakoram

E Aravalis

80. The words "Satyameva Jayate", inscribed on Indian currency are taken from :

A Mahabharat

B Mundak Upanished

C Rigveda

D Shakuntala

E A passage to India

81. Who directed the Oscar winning film "Gandhi"?

A Ben Kingsley

B Richard Attenborough

C David Lean

D Ritwik Ghatak

E Frank Darabont

82. 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** BearingPoint :: KPMG Consulting Inc.

83. 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

84. 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

85. 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

86. Which of the followings is a WRONG combination?

- A** Maldives - Maldivian Rupee
- B** Bangladesh - Bangladesh Taka
- C** Bhutan - Bhutanese Ngultrum
- D** East Timor - U.S. Dollar
- E** Indonesia - Indonesian Rupiah

87. Which of the followings is a WRONG combination?

- A** Willis Haviland Carrier - Microwave compatible Tiffin Carrier
- B** Alexander Bell - Telephone
- C** Alfred nobel - Dynamic
- D** Elisha Graves Otis - Safety Elevator
- E** John Boyd Dunlop - Pneumatic Tyre

88. 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

89. Which of the followings is in the outemost reaches of the solar system?

- A** Orion Nebula
- B** Andromeda Galaxy
- C** Oort Cloud
- D** Asteroid belt
- E** Interstellar wormhole

90. Which Cult Television series celebrated its 50th anniversary in 2016?

- A** Frasier
- B** That 70's Show
- C** Veep

D Star Trek

E Buniyaad

91. Bogota, Lima and Quito are the captials of :

A Colombbia, 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

92. 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

93. Where is Hadrian's Wall located?

A China

B Afghanistan

C Rome

D England

E Ladakh

94. 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

95. In which of the following countries, both the Tropic of Capricorn and Equator pass through?

- A** Brazil
- B** Argentina
- C** Peru
- D** Chile
- E** Venezuela

96. 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

97. Rodrigo Duterte is associated with which of the following nations?

- A** USA
- B** Russia
- C** Philippines
- D** Indonesia
- E** Vietnam

Answers

Verbal Ability and Logical Reasoning

1.D	2.C	3.B	4.B	5.C	6.A	7.E	8.E
9.D	10.C	11.D	12.C	13.D	14.B	15.C	16.A
17.D	18.E	19.A	20.E	21.B	22.C	23.A	24.D

Decision Making

25.D	26.B	27.E	28.D	29.C	30.D	31.B	32.C
33.E	34.A	35.E	36.B	37.A	38.C	39.E	40.A
41.C	42.B	43.D	44.A	45.B			

Quantitative Ability

46.D	47.A	48.B	49.B	50.B	51.C	52.D	53.E
54.A	55.D	56.E	57.C	58.C	59.C	60.E	61.E
62.A	63.E	64.D	65.A	66.E	67.D	68.B	69.A
70.A	71.C	72.B					

General Knowledge

73.E	74.B	75.B	76.E	77.D	78.B	79.E	80.B
81.B	82.E	83.D	84.B	85.C	86.A	87.A	88.D
89.C	90.D	91.A	92.C	93.D	94.A	95.A	96.E
97.C							

Explanations

Verbal Ability and Logical Reasoning

1. D

The first paragraph highlights the inflation conditions prevalent in the country. In the second paragraph, the author states that the inflation is a concern for the RBI too since it will have to explain if the inflation exceeds 11%. Therefore, we can infer that RBI is responsible for keeping the inflation in check. The rise in inflation hints that the RBI is inefficient in handling the issue.

The first paragraph talks about inflation and the second paragraph talks about RBI's inefficiency in handling the same. Therefore, option D is the right answer.

2. C

"Brazier" is a portable heater consisting of a pan or stand for holding lighted coals. Option C, which fondly recalls the climate, is a better choice than option D. The verse is about the fond remembrance of the climatic atmosphere and not really about "missing the braziers and steam."

3. B

The sequence begins with sentence 2 which introduces the region to us and its impact on Russian nationalists. Then, we can see that sentence 1 has "the mountains" which means the sentence preceding 1 must describe/talk about a certain mountain range. This is done in 3 which has "six hundred mile chain of mountains.....". Hence, the sequence begins with 2-3-1. Coming now to the people inhabiting the said region, sentence 4 tells us the different races of people who live in this region and lastly sentence 5 closes the paragraph by telling us what kind of impact it had on Russians. Hence, the order is 23145.

4. B

Statement 1 introduces the topic: "The Periodic Table". Hence, it will be the first statement.

4-3 forms a logical pair as 4 gives the example of Fluorine and 3 explains the aim behind it.

Only option B satisfies the criteria.

Hence, the answer is option B.

5. C

Let us note down the main points.

Usually, commercial films are considered inferior to art films. The attitude is changing but it is not changing as much as it is described to be. The very fact that the critics justify their interest in commercial movies reveals how they still consider art movies superior.

The author feels that the change in attitude is exaggerated a bit. Therefore, 'overstated' should be used to fill the first blank.

The critics justify their liking for mass entertainers. Therefore, 'penchant for' should be used to fill the second blank.

The critics still hold art movies dear. Therefore, 'investment in' should be used to fill the third blank.

The words represented by 3, 4, and 6 should be used to fill the blanks in that order. Therefore, option C is the right answer.

6. A

Only option A is grammatically correct. Remaining options do not follow the parallelism.

Answer is option A.

7. E

Throughout the poem, the poet describes how something binds seemingly individual objects. The poet highlights natural phenomena such as the combination of atoms to form a compound, seeds growing from the ground, stars floating in the sky forming constellations to establish his point. Therefore, option E is the right answer.

8. E

All the given statements are grammatically correct.

Answer is option E.

9. D

Option A: This option, if true, will incentivise cheating and hence is not the correct option.

Option B: This can be rejected on the same grounds as A.

Option C: Since this option is stating contrary to what happened, this is not the correct option.

Option D: If this option is true, then it would justify the increase in the stock price in a fair manner; acknowledgement of deceit increases the trust of investors in the company. Thus, this is the correct option.

Thus, the correct option is D.

10. C

Tomato cultivation area is expanding worldwide into average productive lands. On the other hand, it is losing the most productive areas at a rate of almost 2 million hectares per year.

Thus, it can be inferred that the net production of tomatoes per hectare is decreasing(average productive land will produce fewer tomatoes per hectare as compared to the traditional lands).

Thus, the correct option is C.

11. D

Grotesque is used to describe something ugly.

Macabre is used to describe something that is disturbing to the extent of invoking fear of causing death.

The 2 words vary in their severity, though they are similar in their meaning.

Among the give options, Sorcery and Necromancy are the words that are similar in meaning.

Sorcery is used to define the use of black magic.

Necromancy means using sorcery to communicate with the dead.

Therefore, option D is the right answer.

12. C

'Affect' is used to describe that an action causes some effect on the result.

The suspension of the captain will impact the number of spectators.

Transportation costs will impact the price of goods.

Grandmother's increasing age will impact her ability to take care of the house.

'Affect' should be used to fill the first 3 blanks.

Therefore, option C is the right answer.

13. D

Towards the end of the passage, the author describes the thing he is talking as. He says that he is made up of wood, lacquer, some printed labeling, graphite lead, some metal and an eraser. Clearly, the author is describing a pencil. Therefore, option D is the right answer.

14. B

The author states that he (pencil) is taken for granted since he is simple. The author states that a pencil is no less a wonder than many other things but its wonder is overlooked due to its simplicity and abundance. The author deems this attitude 'supercilious'. Therefore, option B is the right answer.

15. C

Option B is exact opposite of what the author says. Option A is also untrue because the natural order of the world is to separate and that energy is needed to keep things together. Option D is also incorrect because upgradation is no longer a simple thing but a complex interlinking of all our ecosystem's member objects. Hence, Option C is the most apt answer.

16. A

While the author would agree with both A and B, the larger focus of the author trying to tell the reader is that we must always be on our toes by keeping up with the change that is a constant feature of our lives now. The focus is not just on the fact that change is a part of our lives but also on the importance of keeping up with it because the cost of not doing so can be perilous to ourselves in the longer run.

17. D

We can infer from the given passage that the author is of the view that upgrading continuously is necessary for survival.

Suggestions 1 and 2 go against the views of the author.

Life time employment and promoting just based on seniority eliminates the need for the person to upgrade himself continuously. Therefore, we can eliminate these suggestions.

Suggestions 3 and 4 ensure that the employees upgrade themselves. Therefore, the author is likely to recommend 3 or 4 and hence, option D is the right answer.

18. E

The author says that, "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".

Essentially, we evaluate the past credentials or achievements to gauge the tendencies or nature of an individual. As per an existentialist, humans have absolute freedom and their experiences in certain exams cannot be used to define them.

The author also says, "For Existentialism there is only the human condition, which is what happens to man and not what he is born like. We must never talk about human nature or human instincts.". This implies that the current state of human condition is the only thing that matters and we shouldn't look at one's historical achievements or performances to understand their nature because we do not have a nature. We only have the present human condition.

An easiest way to define the current human condition would be to use the most recent experience or something that is ongoing i.e. current form of work. Hence, among the given options, E is the most suitable

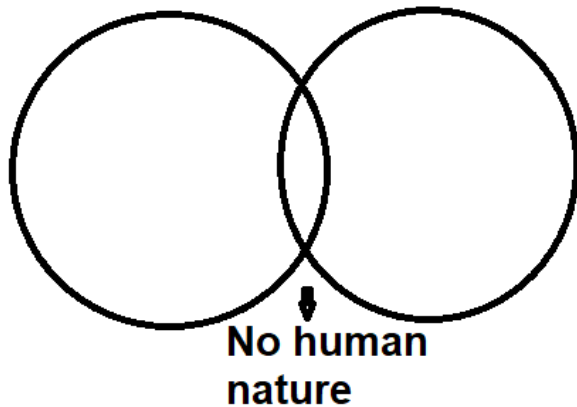
19. A

"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"

The notion that human instinct does not exist is still widely popular. It is not only confined to the discussions of metaphysics/philosophy etc, this notion is also popular in the general discourse in masses. Clearly, the author is extending the theory of existentialism to a generic political philosophy such as libertarianism. He is suggesting that this notion is not just accepted or followed by few individuals of metaphysics etc, it can also be easily adopted by libertarians such as himself.

The usage of words implies that, the author is suggesting a commonality of "this notion" in both existentialism and libertarianism. Hence we can say, these 2 philosophies are likely to appear such as this. We can infer the following information from the given sentence.

Existentialism Libertarianism



Hence, option B, C and E are incorrect representation as per the author.

Option D: The author in the next paragraph emphasizes that we need to conduct research on the relation of human and animal behavior. In the above lines(this notion), however, he merely suggests that we shouldn't say that human nature exists .

20. E

In the last paragraph, the author says that "Philosophers have not yet made much use of informed comparison with other species as a help in the understanding of man". He is emphasizing that we need to explore the relation of humans and animals in order to make an informed comparison.

Among the given options, the group of people most relevant to conduct any research between the overlap of humans and animals are zoologists(zoology is the branch of biology devoted to the study of animal life i.e. human and other animals both included)

21. B

The five sentences mentioned by the author are :

Option A : Moreover, we are still much influenced by Freudian psychology, which depends on the notion of instinct.

Option B : According to the Blank Paper view, man is entirely the product of his culture

Option C : One reason they have not is undoubtedly the fear of fatalism

Option D : Another is the appalling way terms such as instinct and human nature have been misused in the past.

Option E : A third is the absurdity of some ethological propaganda.

The last three sentences of the passage are citing reasons as to why extensive research has not been conducted on the relation between humans and animals.

Option C: Fatalism means the belief that everything has a set destiny. The researchers did not conduct research fear that the research might reveal that everything has a predetermined destiny. This is completely opposed to the existentialist idea and nature is in complete authority.

Option D & E : Misuse of terms and certain propoganda are reasons for the apprehension to conduct research. However, these do not distance humans from nature in any way.

Option A : It again indicates humans indeed have a certain nature.

Option B : Among the given option, only B suggests that humans are infinitely plastic and not influenced by anything except nature.

Hence, among the given option, B is correct.

22. C

The author says:

"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."

Very clearly, psychopaths cannot hold themselves back from doing terrible things for long and end up getting caught. These terrible things can almost always be traced to having a lack of compassion.

23. A

The author very clearly states that empathy is not a chance event as most people believe and says that it is the product of a moral choice that we make. Hence, by this we can easily negate options B and C. Option D is also incorrect because a major feature of psychopathy is a lack of caring for others. Option E is unrelated.

hence, A can clearly seen to be the answer.

24. D

If we are to assume that the faculty's "I am sorry" was well meaning and in sincerity (and not just because one is habituated to saying it in such situations), we can say that the faculty has placed himself in the student's shoes and understood his problem/pain and feels bad about it. However, by refusing to change grades and not getting the student to pass the subject, the faculty has not alleviated the student's suffering and thus, failed to display compassion.

Hence, we can say that the faculty has displayed empathy but not compassion.

Decision Making

25. D

The main reason for this dire situation was the unfair firing of the waitress. This behaviour of the management was not taken lightly by Social media and the activists.

Thus, the correct option is D.

26. B

The most reasonable way to end the outrage without much harm to the restaurant's image will be to convince the waitress to admit her mistake and reinstate her as a waitress. Since this will not be an easy task as they have wronged her by the disproportionate firing, the best option will be to apologize to her first.

Thus, the correct option is B.

27. E

Statements 1, 2, and 4 weaken Vimla's case as if true; this will directly make her a suspect.

Statements 3 and 5 will decrease the likelihood of Vimla stealing the money; if true, the eldest son of Sherya will have a motive for stealing the money.

Thus, the correct option is E.

28. D

Padma cannot let this pass as it will only encourage this kind of behaviour. Also, since she only has suspicions against Vimla, she cannot directly confront her with the blame.

The best way would be to let Vimla get an idea that she is suspecting to her. She should follow a more nuanced approach for the same.

As statements 3, 4, and 5 promote a more subtle and indirect approach, the correct answer is D.

29. C

The project does not violate any principle of Genius consulting. Getting referred is not an unethical activity.

Therefore, we can eliminate options A and B.

Sharing the earnings equally is one of the core values of Genius consulting. Therefore, Rahman should not be paid the finders fee.

Therefore, option C is the right answer.

30. D

Since Mr Biswas already has a long experience in the construction field, with the help of the best engineers and products under the supervision of his family, he can ensure the best quality for the house.

Thus, the correct answer is D.

31. B

If the local contractors enjoy a good reputation for their work among the local property holders, it will provide more credibility to them despite being unregistered.

If option B is true, it will improve their chances of getting the contract.

Thus, the correct option is B.

32. C

Since the local unregistered contractors have the least credibility, the answer should start with 3. It will be followed by purchasing an old furnished house. Thus, option 1 will come next.

Since the most appropriate way to ensure the quality is to build themselves with the best resources under the supervision of their family, option 4 will come last.

Thus, the correct option is C.

33. E

We have to analyze the nature of the games before answering the questions.

'Snake and ladder' is a game based on luck. Past performance in the game cannot be held as a reflection of one's true potential.

'Shooting' is a game extremely dependent on the skills of the player. Therefore, the past performance of the player has a huge implication on how the player might perform in the future.

In 'cricket' we have details only about the player hitting the ball. A team cannot be composed using batsmen alone. Therefore, the past performance in this sport, though reflective of the person's abilities, cannot be used to form a good team since some data are missing.

As we have seen, snakes and ladders is a game based on luck. Therefore, the coach can ignore the data and select 11 students randomly. Therefore, option E is the right answer.

34. A

We have to analyze the nature of the games before answering the questions. '

Snake and ladder' is a game based on luck. Past performance in the game cannot be held as a reflection of one's true potential. 'Shooting' is a game extremely dependent on the skills of the player. Therefore, the past performance of the player has a huge implication on how the player might perform in the future. In 'cricket' we have details only about the player hitting the ball. A team cannot be composed using batsmen alone. Therefore, the past performance in this sport, though reflective of the person's abilities, cannot be used to form a good team since

35. E

We have to analyze the nature of the games before answering the questions. '

'Snake and ladder' is a game based on luck. Past performance in the game cannot be held as a reflection of one's true potential. 'Shooting' is a game extremely dependent on the skills of the player. Therefore, the past performance of the player has a huge implication on how the player might perform in the future. In 'cricket' we have details only about the player hitting the ball. A team cannot be composed using batsmen alone. Therefore, the past performance in this sport, though reflective of the person's abilities, cannot be used to form a good team since we lack some crucial data.

Since we lack any information regarding the performance of the players in other skills (fielding, bowling), we cannot form a team using the given data alone. Also, the table gives details only about the number of times a batsman hit a ball. The number of balls a batsman faced is unknown (only the maximum possible number of balls that a batsman could have faced is given as 100). We lack enough data to form a team and hence, option E is the right answer.

36. B

The best way to reduce the risks of vehicles inside the campus will be to limit their use inside the campus.

Option B gives the most appropriate solution as the space outside the campus will not only provide an increased parking space it will also decrease the number of vehicles inside the campus.

Since this approach has also taken care of cases of emergencies,

The correct option is B.

37. A

Constructing a parking lot outside the campus will decrease the number of vehicles inside the campus. Also, it will not only take care of the pollution issues, which is the main concern of the passage, but it will also help in funding the construction of the parking space.

Thus, the correct option is A.

38. C

Girirajan is facing issues with scalability because of a lack of funds. Since he does not have the resources to expand right now, it would not be a very good idea to include some of the dishes on the menu, as this move can be taken out of proportion and can be seen as discrimination.

He should focus on his current dishes and try to utilize their full potential by improving the quality he is currently offering. This, in the long run, can provide him with the required funds to expand the menu and scale his business.

Thus, the correct answer is C.

39. E

20% of the total customers is a significant number, and thus, implementing their requests should be among Girirajan's priorities.

Since he wants to experiment with this potential opportunity, he should add some of the requests made by the Kannadigas to his menu for the next day to analyze the behaviour of the customers. Also, displaying them in a separate menu will make it easier for the be an excellent idea to gauge the customer's behaviour.

Thus, the correct answer is E.

40. A

A linear or exponential growth in the business following an experiment is a good sign for the business. It will very well boost Girirajan's confidence to continue serving Karnataka food.

Thus, the correct option is A.

41. C

The 1st handi of sabji is brought from home. This can be served for 12 customers. Two plates of puri's are made in 10 mins.

Now in 30 min, the number of puri-sabji that can be served = 6

After 30 min, the sabji needs to be heated which taken 10 mins.

Hence, in the remaining 20 min 4 plates of puri-sabji can be served.

Hence, in total in the first hour 10 plates of puri-sabji can be served.

Hence, option C is the correct answer.

42. **B**

Since he already has one handi of sabji, he will invest the first 30 minutes of starting time in making puris in the oven.

As 1 oven cooks 2 plates of puris in 15 minutes, in the first 30 minutes, he will be able to prepare 8 plates of puris.

Timings	Oven 1	Oven 2
7:30 to 7:45	Puri	Handi (Reheat)
7:45 to 8:00	Puri	Handi (Cook)
8:00 to 8:15	Puri	Handi (Cook)
8:15 to 8:30	Puri	Handi (Cook)
8:30 to 8:45	Puri	Handi (Cook)
8:45 to 9:00	Puri	Puri

Total plates of Puri = $8 + 7 \times 2 = 22$

Now, profit = $15 \times 22 = 330 - 50$ (Transport cost) = 280

Thus, the correct answer is B.

43. **D**

Since the efficiency of Aman in making both Sabji and Puri is better than that of Shyam, Shyam should use his proficiencies in both parts.

For the first 20 minutes, Aman will make sabji and Shyam will make puri in the next 10 min. Then they can make puris in the ovens simultaneously and hence, can work on both the parts.

Thus, the correct answer is D.

44. **A**

Options B, C and D may lead to ego issues among peers. Option E does not make an employee accept his/her shortcomings openly. Option A would help in achieving the policy.

45. **B**

The Principal did need not mention the anonymous mail. Hence option A is eliminated. She can directly address the concerns of the students without referring to the mail. Option C and D tantamount to accepting that the syllabi are outdated. It is necessary to address the concerns of the students; hence option E is also eliminated. Option B is correct as it assures the students about the efforts being made from the management side.

Quantitative Ability

46. **D**

The given series is $(-100) + (-95) + (-90) + \dots + 110 + 115 + 120$.

We can observe that -100 will cancel out 100, -95 will cancel out 95 and so on. Therefore, the only terms that will be remaining are 105, 110, 115 and 120.

Sum of the series = $105 + 110 + 115 + 120 = 450$.

Therefore, option D is the right answer.

47. A

Let us assume the volume of the tank to be 60 litres.

A can fill or empty $60/4 = 15$ litres in a minute.

B can fill or empty $60/10 = 6$ litres in a minute.

C can fill or empty $60/12 = 5$ litres in a minute.

D can fill or empty $60/20 = 3$ litres in a minute.

We have to find the combination for which the tank will be half-full in 30 minutes (i.e., completely filled in 1 hour).

Therefore, the combination must result in a net input of $60/60 = 1$ litre per minute.

Let us evaluate the options.

Option B:

Pipe A drained and pipes B, C and D filled

The net result will be $-15 + 6 + 5 + 3 = -1$ litre/minute. We can eliminate option B.

Option C:

Pipes A and D drained and pipes B and C filled

The net result will be $-15 - 3 + 6 + 5 = -7$ litres/minute. We can eliminate option C as well.

Option D:

Pipes A and D filled and pipes B and C drained

The net result will be $15 + 3 - 6 - 5 = 7$ litres/minute. We can eliminate option D as well.

Option A:

Pipe A filled and pipes B, C and D drained

The net result will be $15 - 6 - 5 - 3 = 1$ litre/minute.

Therefore, option A is the right answer.

48. B

Patel bought 20 shirts. He would have gotten every fourth shirt at Rs. 100. He would have paid the marked price for 15 shirts and would have gotten 5 shirts at Rs. 100 each.

Let the marked price of one shirt be 'x'.

$$15x + 5 \times 100 = 20000$$

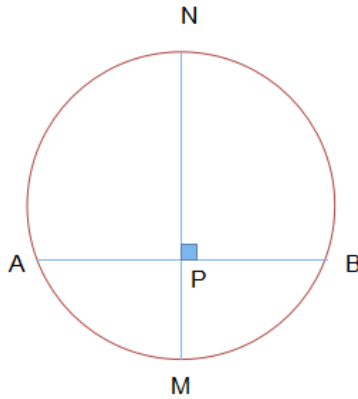
$$15x = 19500$$

$$x = 19500/15 = \text{Rs. } 1300.$$

The marked price of a shirt is Rs. 1300. Therefore, option B is the right answer.

49. B

Let us draw the diagram using the given conditions.



$AB = 24$ cm and P is the mid-point of AB . Therefore, $AP = PB = 12$ cm.

MN is perpendicular to AB and passes through P .

$PM < PN$. Therefore, M should be closer to A and B than N .

MN and AB are 2 perpendicular chords intersecting at P .

Therefore, according to the intersecting chords theorem, $AP \cdot PB = PM \cdot PN$

$$12 \cdot 12 = 8 \cdot PN$$

$$\Rightarrow PN = 18 \text{ cm.}$$

Therefore, option B is the right answer.

50. **B**

$$4(x - 2)^2 + 4(y - 3)^2 - 2(x - 3)^2$$

y is an independent variable. The value of y is unaffected by the value of x . Therefore, the least value that the expression $4(y - 3)^2$ can take is 0 (at $y = 3$).

Let us expand the remaining terms.

$$4(x - 2)^2 - 2(x - 3)^2 = 4(x^2 - 4x + 4) - 2(x^2 - 6x + 9)$$

$$= 2x^2 - 4x - 2$$

$$= 2(x^2 - 2x - 1)$$

$$= 2(x^2 - 2x + 1 - 2)$$

$$= 2((x - 1)^2 - 2)$$

The least value that the expression $(x - 1)^2$ can take is 0 (at $x = 1$)

Therefore, the least value that the expression $2((x - 1)^2 - 2)$ can take is $2 * (0 - 2) = 2 * (-2) = -4$

Therefore, option B is the right answer.

51. **C**

$$f(x) = ax + b.$$

$$f(f(x)) = f(ax + b) = a(ax + b) + b = a^2x + ab + b$$

We have been given that $f(f(x)) = 9x + 8$

$$9x + 8 = a^2x + ab + b$$

Equating the co-efficient of x , we get, $a^2 = 9$. Therefore, a can be 3 or -3 . But, it has been given that a is a positive real number.

Equating the constants, we get, $ab + b = 8$

If we substitute $a = 3$, we get, $3b + b = 8$

$$4b = 8$$

$$b = 2$$

$$\text{Therefore, } a + b = 3 + 2 = 5$$

Therefore, option C is the right answer.

52. **D**

Both of them row the boat for the same time. Therefore, we can ignore the time taken to row the boat and add it to the final answer.

Arup will walk 2 km in $2/4 = 30$ minutes.

Swarup will walk 2 km in $2/5 = 24$ minutes.

Therefore, Swarup will start driving $30 - 24 = 6$ minutes earlier than Arup.

In 6 minutes, Swarup will gain a lead of $6 \times 40/60 = 4$ km.

Arup drives at 50 kmph (i.e, 10 kmph faster than Swarup). Therefore, Arup will cover the 4 km advantage that Swarup has in $4/10 \times 60 = 24$ minutes.

Therefore, the time after which both of them will meet is 30 (to walk) + 30 (to row the boat) + 24 = 1 hour 24 minutes after Arup starts.

Since both of them start at 8 AM, they will meet again at 9:24 AM.

Therefore, option D is the right answer.

53. **E**

Let the age of the father be 'f', mother be 'm', Hari be 'h', Chari be 'c'. It has been given that Chari is 4 years older than Gouri. Therefore, the age of Gouri is $c - 4$.

When Chari was born, the sum of the ages of Hari, his father and mother was 70 years.

If Chari's age is 'c' now, then Chari's father's age when Chari was born would have been 'f-c' (i.e, Current age - the number of years that has passed after Chari's birth). The same holds true for all the family members.

$$\Rightarrow f - c + m - c + h - c = 70$$

$$f + m + h - 3c = 70 \text{ -----(1)}$$

The sum of the ages of the 4 family members when Gouri was born was twice the sum of the ages of the father and mother at the time of Hari's birth.

$$\Rightarrow f - (c - 4) + m - (c - 4) + h - (c - 4) + c - (c - 4) = 2(f - h + m - h)$$

$$\Rightarrow f + m + h + c - 4(c - 4) = 2f + 2m - 4h$$

$$f + m + h - 3c + 16 = 2f + 2m - 4h$$

Substituting (1), we get,

$$70 + 16 = 2f + 2m - 4h$$

$$43 + 2h = f + m \text{ -----(2)}$$

Substituting (2) in (1), we get,

$$43 + 2h + h - 3c = 70$$

$$3h - 3c = 27$$

$$\Rightarrow h - c = 9$$

Therefore, the difference between the age of Hari and Chari is 9 years. Therefore, option E is the right answer.

54. A

Both Amit and Ben scored 35 marks. 4 marks are awarded for a correct answer and 1 mark is deducted for an incorrect answer.

Let the number of questions that Amit got right be 'x'.

$$\Rightarrow 4x - (10 - x) = 35$$

$$5x = 45$$

$$x = 9.$$

Therefore, Amit must have made only 1 mistake. The same must have been the case with Ben too.

The responses given by the 3 persons are as follows:

AMIT T T F F T T F T T F

BENN T T T F F T F T T F

CHITRA T T T T F F T F T T

Amit and Ben have given different responses for question 3 and question 5. Therefore, one of them must be wrong in each of these questions. Also, Amit must have given the correct answer for one of these 2 questions and Ben must have answered the other one correct, since both of them got 9 questions correct.

Let us assume Amit has given an incorrect response for question 3 and Ben has given an incorrect response for question 5.

In this case, Chitra's would have given 4 correct responses (questions 1,2,3, and 9). Chitra's score would have been $4 \times 4 - 6 = 10$.

Let us assume Amit has given an incorrect response for question 5 and Ben has given an incorrect response for question 3.

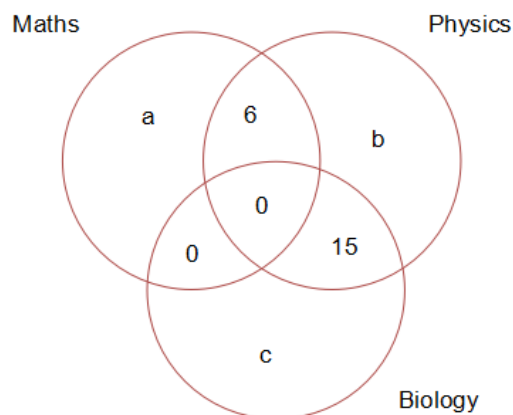
In this case, Chitra's would have given 4 correct responses (questions 1,2,5, and 9). Chitra's score would have been $4 \times 4 - 6 = 10$.

Therefore, Chitra's score should have been 10 and hence, option A is the right answer.

55. D

Let us note down the information given:

No person can major in all 3 subjects. 6 students major in both Mathematics and Physics, 15 major in both Physics and Biology, but no one majors in both Mathematics and Biology. There are 60 students in total.



It has been given that average marks scored by students majoring in Maths in English is 45.

Average marks scored by students majoring in Biology in English is 60.

But the combined average marks scored by students majoring in Maths and Biology in English is 50.

$$\Rightarrow \frac{45 * (a + 6) + 60 * (c + 15)}{a + 6 + c + 15} = 50$$
$$45a + 270 + 60c + 900 = 50a + 50c + 1050$$
$$5a = 10c + 120$$
$$a = 2c + 24$$

To maximize b, we have to minimize 'a' and 'c'. The least value that 'c' can take is 0.

The corresponding value of a is 24.

$$24 + 6 + b + 15 = 60$$

$$\Rightarrow b = 15.$$

Therefore, the maximum number of students who could have majored only in physics is 15. Therefore, option D is the right answer.

56. E

For smaller values of 'x', cos 'x' will be close to 1 and sin x will be close to 0.

$$\sin 30^\circ = 1/2 = 0.5$$

As we move closer to 0, the value of cos x increases and sin x decreases. Therefore, when we move from a larger value of x to a smaller value, the value of the expression cos x - sin x will increase.

Let us evaluate the value of the expression at $x = 30^\circ$ (since we know the values of $\cos x^\circ$ and $\sin x^\circ$ at this point) and then logically deduce the range of the value of the expression.

$$\text{At } x = 30^\circ, \cos x = \frac{\sqrt{3}}{2} \text{ and } \sin x = \frac{1}{2}$$

$$\text{Therefore, } \cos x^\circ - \sin x^\circ \text{ would have been } 1.732/2 - 0.5 = 0.866 - 0.5 = 0.366$$

$$\sin 30^\circ + \cos x - \sin x \text{ will be } 0.866$$

$$\text{At } x = 0, \sin 30 + \cos x - \sin x \text{ will be } 0.5 + 1 - 0 = 1.5.$$

$$\text{At } x = 5^\circ, \text{ the value of the expression } \sin 30 + \cos x - \sin x \text{ will be slightly less than } 1.5.$$

Therefore, we can infer that the upper limit of the expression will be greater than 1. None of the given limits include values greater than 1. Therefore, option E is the right answer.

Alternate solution:

The value of $\sin 15^\circ$ and $\cos 15^\circ$ can be found out using the identities $\sin (A-B) = \sin A \cos B - \cos A \sin B$ and $\cos (A-B) = \cos A \cos B + \sin A \sin B$.

Substituting $A = 45^\circ$ and $B = 15^\circ$ in these expressions, we get,

$$\sin 15^\circ = 0.2588$$

$$\cos 15^\circ = 0.9659$$

$$\sin 30^\circ + \cos 15^\circ - \sin 15^\circ = 0.5 + 0.9659 - 0.2588 = 1.2071.$$

None of the given options capture this value in the range. Therefore, option E is the right answer.

57. C

Volume of the pyramid = 200 cubic cm.

The volume of a pyramid is usually a third of the volume of a cuboid of the same height.

Therefore, a square cuboid of the height of the pyramid will have a volume of 600 cubic cm.

We know that the height is 13 cm.

$$\text{Area of the base square} * \text{height} = 600 \text{ cm.}$$

$$\Rightarrow \text{Area of the base square} = \frac{600}{13} \text{ cm}^2.$$

$$\text{Side of the base square} = \sqrt{\frac{600}{13}} \text{ cm.}$$

$$\text{Length of diagonal of the base square} = \sqrt{\frac{600}{13}} * \sqrt{2}$$

Now, the height of slant edge of the pyramid can be found out by using the Pythagoras theorem. Length of half the diagonal of the base square will form one of the sides and the height of the pyramid will form the other side. The slant height of the pyramid will be the hypotenuse of the right-angled triangle.

$$\begin{aligned} \text{Height of slant edge} &= \sqrt{13^2 + \frac{1}{4} * 2 * \frac{600}{13}} \\ &= \sqrt{169 + \frac{600}{26}} \\ &= \sqrt{\frac{4394+600}{26}} \\ &= \sqrt{\frac{4994}{26}} \\ &= \sqrt{192.07} \\ &= 13.85 \text{ cm} \end{aligned}$$

The nearest integer is 14. Therefore, option C is the right answer.

58. C

A die is rolled twice.

The number of combinations that can occur = $6*6 = 36$.

We have to find the probability of the second roll being higher than the first.

If we select 2 numbers out of the 6 and arrange them in ascending order, then we will obtain the scenario in which the number obtained in the second roll will be greater than the number obtained in the first roll.

2 numbers out of 6 numbers can be selected in $6C2 = 15$ ways. The numbers can be arranged in ascending order in only one way.

Therefore, the required probability is $15/36$.

Therefore, option C is the right answer.

59. C

We have to employ the pigeon hole principle to solve this problem.

The maximum number of students who can be picked from each department such that 5 students are not selected from the same department is 4.

Therefore, after 4 students from each department are selected (i.e., $4*5 = 20$ students in total), the 21st student selected will be the fifth student to be selected from one of the 5 departments. Therefore, $20+1 = 21$ students should be selected in total to ensure that at least five students from one of the departments is selected.

Therefore, option C is the right answer.

60. E

It has been given that $N = (11^{p+7})(7^{q-2})(5^{r+1})(3^s)$ is a perfect cube. All the factors given are prime.

Therefore, the power of each number should be a multiple of 3 or 0.

p, q, r and s are positive integers. Therefore, only the power of the expressions in which some number is

subtracted from these variables or these variables are subtracted from some number can be made 0.

$$11^{p+7}:$$

This expression must be made a perfect cube. The nearest perfect cube is 11^9 . Therefore, the least value that p can take is $9 - 7 = 2$.

$$7^{q-2}$$

The least value that q can take is 2. If $q = 2$, then the value of the expression 7^{q-2} will become $7^0 = 1$, without preventing the product from becoming a perfect cube.

$$5^{r+1}:$$

The least value that r can take is 2.

$$3^s):$$

The least value that s can take is 3.

Therefore, the least value of the expression $p + q + r + s$ is $2 + 2 + 2 + 3 = 9$.

Therefore, option E is the right answer.

61. E

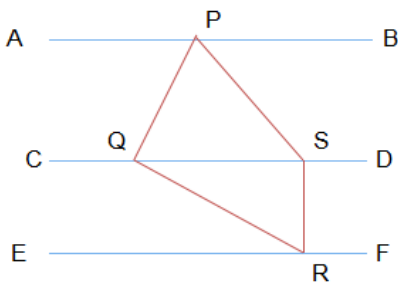
There are 3 parallel lines AB, CD, and EF, in that order.

Let the distance between CD and AB be $2x$.

It has been given that the distance between CD and EF is x .

A quadrilateral PQRS is formed such that P is on AB, Q and S are on CD, and R is on EF.

Also, the length of SR is the least possible value it can take. Therefore, SR must be perpendicular to the parallel lines.



Area of quadrilateral PQRS = Area of triangle PQS + Area of triangle SRQ = 30 square cm.

Area of triangle PQS = 2 * area of triangle SRQ (Since they rest on the same base and height of SRQ is half the height of PQS)

=> Area of triangle SRQ = 10 square cm.

Let the length of SQ be b . We know that $SR = x$

$$0.5 * x * s = 10$$

$$\Rightarrow xs = 20$$

$$s = 20/x$$

We do not have any other detail to evaluate the value of the expression. But, we have been given that d_1 and d_2 are integers. Therefore, the least value that 'x' can take is 1.

The least value that S can take is 1.

By Pythagoras theorem, $QR = \sqrt{s^2 + x^2}$

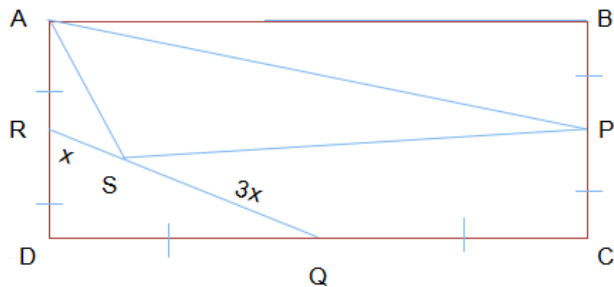
$$QR = \sqrt{20^2 + 1}$$

$$QR = \sqrt{401}$$

Therefore, the value of QR will be slightly greater than 20. Therefore, option E is the right answer.

62. **A**

First, let us construct the rectangle using the given information.

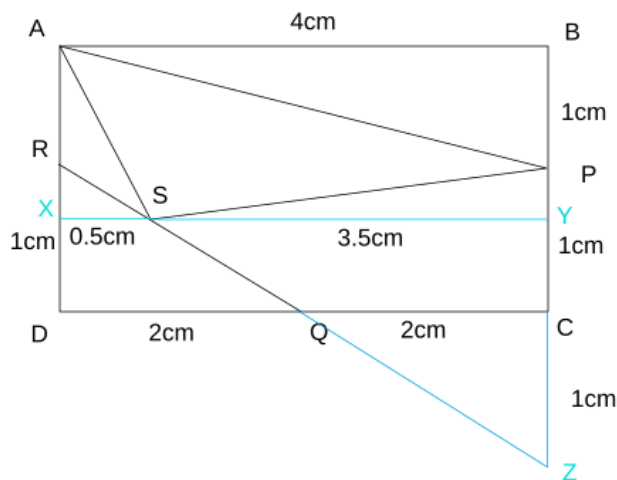


Let the length of the rectangle be 'l' and the breadth of the rectangle be 'b'.

Area of rectangle ABCD = lb.

We have to find the area of the triangle APS.

We consider length as 4cm and breadth as 2cm. (Answer is irrespective of length and breadth)



In triangle QRD

$$RS/RQ = XS/DQ$$

$$1/4 = XS/2\text{cm}$$

$$XS = 0.5\text{ cm}$$

$$SY = 4\text{cm} - 0.5\text{cm} = 3.5\text{cm}$$

We can now find the areas of all the sections.

$$\text{area (RDQ)} = 1/2 \times 1\text{cm} \times 2\text{cm} = 1\text{cm}^2$$

$$\text{area (ABP)} = 1/2 \times 1\text{cm} \times 4\text{cm} = 2\text{cm}^2$$

$$\text{area (ARS)} = 1/2 \times 1\text{cm} \times 0.5\text{cm} = 0.25\text{cm}^2$$

$$\begin{aligned} \text{area (PSQC)} &= \text{Area (PSZ)} - \text{Area (QCZ)} = 1/2 \times 2\text{cm} \times 3.5\text{cm} - 1/2 \times 1\text{cm} \times 2\text{cm} = \\ &= 2.5\text{cm}^2 \end{aligned}$$

$$\text{Area (ABCD)} = 4\text{cm} \times 2\text{cm} = 8\text{cm}^2$$

$$\text{Area (APS)} = 8 - 1 - 2 - 0.25 - 2.5 = 2.25\text{cm}^2$$

$$\text{Area (APS)} / \text{Area (ABCD)} = 9/32 = 36/128$$

Hence answer (A).

63. **E**

Since only the specialist bowlers complete their quota of 4 overs, the maximum over a non-specialist bowler can bowl is three.

Total number of overs bowled by non-specialist bowlers = 8

If one of the three bowlers bowls 1 over, the other two will bowl 3 and 4 overs. Since the maximum over a non-specialist bowler can bowl is three, this is an invalid case.

If one of the non-specialist bowlers bowls 2 overs, the other two will bowl 3 overs each.

Thus, the minimum a non-specialist bowler can bowl is two overs.

Since the above calculation did not need either of S1 and S1,

The correct answer is E.

64. **D**

As per Statement given paragraph the economy rates are 6,6,7,9 which exclude best bowler and worst bowler

And Economy rates of specialist bowlers are lower than that of nonspecialist bowlers.

Let's take economy rates of specialist bowlers as 5, 6, 6.

Hence their cumulative runs would be $(5 \times 4) + (6 \times 4) + (6 \times 4) = 68$

As per Statement 2, Total runs for non specialist bowlers = 69. And their

economy rates are 7, 9. Let's take economy rate of worst bowler be x

$$(7 \times 3) + (9 \times 2) + (x \times 3) = 69$$

$$\Rightarrow x = 10$$

For the lowest values of the specialist bowler we take 4. Then value of the worst bowler will be less than 9 which is incorrect.

Hence only a single case is possible.

So we can find the economy rate of worst bowler using both the statements.

Hence answer is option D.

65. **A**

Profit = selling price - raw materials cost - selling cost - labor cost

Hence, raw materials cost = selling price - profit - selling cost - labor cost

A worker takes 2 hour to produce a kurta.

Labor cost for Kurta = $2 \times (\text{Labor cost/ hour})$

Raw materials cost per Kurta

$$\text{for factory 2, } 5300 - 800 - 45 - 400 \times 2 = 3655$$

$$\text{for factory 3, } 5800 - 900 - 60 - 550 \times 2 = 3740$$

$$\text{for factory 4, } 5500 - 800 - 68 - 450 \times 2 = 3732$$

$$\text{for factory 5, } 5400 - 600 - 75 - 600 \times 2 = 3525$$

$$\text{for factory 6, } 6000 - 875 - 65 - 400 \times 2 = 4260$$

$$\text{for factory 7, } 4900 - 500 - 85 - 350 \times 2 = 3615$$

$$\text{for factory 8, } 5300 - 600 - 70 - 420 \times 2 = 3790$$

66. **E**

Sales margin = Profit per kurta/ selling price per kurta

for factory 2, sales margin = $800/5300 = 0.151$

for factory 4, sales margin = $800/5500 = 0.145$

for factory 5, sales margin = $600/5400 = 0.111$

for factory 6, sales margin = $875/6000 = 0.146$

for factory 7, sales margin = $500/4900 = 0.102$

Factory 7 has lowest sales margin.

67. **D**

Profit = selling price - raw materials cost - selling cost - labor cost

Since selling cost is zero.

New Profit = Original Profit + Selling cost

Profit per Kurta

for factory 1, $775+60 = 835$

for factory 2, $800+45 = 845$

for factory 3, $900+60 = 960$

for factory 4, $800+68 = 868$

for factory 5, $600+75 = 675$

for factory 6, $875+65 = 940$

for factory 7, $500+85 = 585$

for factory 8, $600+70 = 670$

Arranging all factories in decreasing profits,

Factory (3>6>4>2>1>5>8>7)

Factories 3, 6 and 4 will ensure maximum profit.

68. **B**

Profit = selling price - raw materials cost - selling cost - labor cost

Hence, raw materials cost = selling price - profit - selling cost - labor cost

Raw materials cost per Kurta

for factory 2, $5300-800-45-400*2$ (1)

After technology is introduced, a worker takes 1.5 hour to produce a kurta.

Labor cost per Kurta = $1.5 * (\text{Labor cost/ hour})$

New Profit = selling price - raw materials cost - selling cost - new labor cost

Profit per kurta

for factory 2 = $5300-(5300-800-45-400*2)-45-400*1.5 = 800 + 400*0.5$ = Original Profit per kurta + $0.5*\text{Labour cost per hour}$

= 1000

Similarly,

for factory 3, $900+550*0.5 = 1175$

for factory 4, $800+450*0.5 = 1025$

for factory 5, $600+600*0.5 = 900$

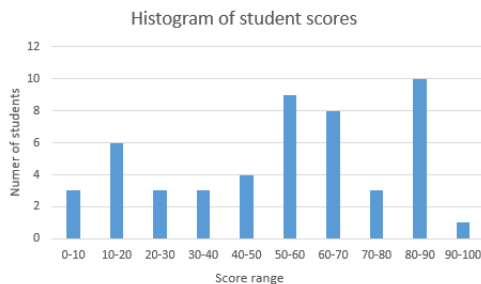
for factory 6, $875+400*0.5 = 1075$

Factory 3 will yield highest profit.

69. **A**

Histogram is a graph which depicts the frequency of occurrence of values in different ranges.

For example, let's consider 50 students attended an exam. The distribution of number of students in different score ranges is depicted by the following histogram



In this question we have histograms for different personality dimensions.

However the x and y co-ordinates are not given.

Since the y co-ordinate gives us frequency/number of occurrences of a certain value, we can use a histogram to calculate mean median and mode even without details of x-y co ordinate axes

Option A : "Extraversion" has 2 modes.

We can calculate mean of a histogram table by averaging all the values

We can calculate the median of a histogram table by arranging the histograms in ascending order and the bar/value which is in the middle will get the median.

Median for "arousal_plac" = -3

Average for "arousal_plac" = $(-4-3-2+1+0-3-4)/7 = -15/7 = -2.143$

Median for "arousal_caff" = 0

Average for "arousal_caff" = $(-1.5-1.5+2+1.75+1.5+1.75+1+0-0.5-2-2)/11 = 0.0454$

Median for "performance_plac" = 0.075

Average for "performance_plac" = $(0.025+0.075+0.05+0.1+0.2)/5 = 0.09$

Median for "performance_caff" = 0.075

Average for "performance_caff" = $(0.05+0.25+0.09+0.075+0.08+0.075+0.085+0.1+0.1+0.15+0.18)/11 = 0.1122$

70. **A**

+1 being the extreme linear positive relation and -1 being the extreme linear negative relation. Relationship is weakest when the value is closest to 0.

Among the given options, A is the weakest.

OR

Among the given plots, scattered plot between "extraversion" and "performance_caff" is the most scattered. Therefore weakest relationship.

71. **C**

Scatterplot between "true_arousal_plac" and "performance_plac" is least scattered, which shows strong relationship between two dimensions.

72. **B**

0.94 is quantitative relationship between true_arousal_plac and arousal_plac. Scatterplot that shows this relationship is the second one in fourth row on the left side of the diagonal.

General Knowledge

73. **E**

Tamil is an official language in both Singapore and Sri Lanka. Therefore, option E is the right answer.

74. **B**

The International Court of Justice is located in the Hague, Netherlands. Therefore, option B is the right answer.

75. **B**

SAARC stands for South Asian Association for Regional Cooperation. Afghanistan, Bangladesh, Bhutan, India, Nepal, the Maldives, Pakistan, and Sri Lanka are the members of SAARC. Myanmar is not a member of SAARC and hence, option B is the right answer.

76. **E**

The International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD - world bank) are known as the Bretton Woods twins. Both of these institutions were conceived at the Bretton woods conference which took place in 1944. Therefore, option E is the right answer.

77. **D**

Army Day is celebrated on the 15th of January.

International Yoga day is celebrated on the 21st of June.

National Integration day is celebrated on the 19th of November on the birth anniversary of Indira Gandhi.

National Science Day is celebrated on the 28th of February to commemorate the discovery of Raman effect by Sir C.V.Raman.

Sadbhavana Divas is celebrated on the 20th of August.

Therefore, option D is the right answer.

78. **B**

Barak 8 is a surface to air missile jointly developed by India and Israel. DRDO and Israel Aerospace Industries (IAI) work in tandem to develop the missile. Therefore, option B is the right answer.

79. **E**

The Aravali mountain range is nearly 2000 million years old and is one of the oldest mountain ranges in the world.

The Himalayas are formed only before 50 to 60 million years.

Therefore, option E is the right answer.

80. **B**

'Satyameva Jeyate', which means 'Truth alone triumphs', was taken from Mundak Upanishad. Therefore, option B is the right answer.

81. **B**

The academy award winning film 'Gandhi' was directed by Richard Attenborough in the year 1982. Ben Kingsley played the lead in the film. Therefore, option B is the right answer.

82. E

The given options give the new name of the company and its old name.

The word before ':' gives the old name and the word after ':' gives the new name.

KPMG consulting was renamed bearing point. Option E gets the relationship the other way around. Therefore, option E is the right answer.

83. D

Rajesh exports is a company exporting Gold and diamond jewellery. The company was ranked 295th among the fortune 500 companies in 2017 and has a revenue of 36 billion dollars. Therefore, option D is the right answer.

84. B

Allen Solly is owned by the Aditya Birla Group.

La Opala is an Indian tableware company based out of Kolkata.

Monte Carlo is owned by the Oswal wools company based out of Ludhiana, Punjab.

Royal Enfield is owned by Eicher motors based out of Delhi.

Dettol is owned by Reckitt Benckiser, an MNC based out of Netherlands.

Therefore, option B is the right answer.

85. C

The Battle of Cajamarca was fought in 1532 between the Incas and Spaniards.

The Battle of Huai Hai was fought in 1948. It was a part of the Chinese civil war.

The Battle of Plassey was fought in 1757 between the British East India Company and the Nawab of Bengal.

The Battle of Stalingrad was fought between 1942 and 1943. It was fought between the German and the Soviet forces. It is considered to be the largest battle of World War II.

The Battle of Waterloo was fought in 1815 between the French and the British. Napoleon Bonaparte was defeated in the battle of Waterloo.

The Battle of Yorktown was fought in 1781.

Therefore, the correct order is 1-3-6-5-4-2. Therefore, option C is the right answer.

86. A

The currency of Maldives is Maldivian Rufiyaa. The currency of Maldives has been incorrectly specified and hence, option A is the right answer.

87. A

The options match the inventors with their inventions.

Willis Haviland Carrier invented modern air conditioner. He did not invent microwave compatible tiffin carrier.

Therefore, option A is incorrect and hence, option A is the right answer.

88. D

Employees of Wells Fargo opened over 2 million phony accounts to hit their targets and earn bonuses. When the issue came to light in 2016, Wells Fargo fired over 5300 of its employees. Therefore, option D is the right answer.

89. C

The solar system consists of the Sun, the 8 planets, Pluto, the asteroid belt and the Oort cloud. Andromeda galaxy and the Orion Nebula are not a part of the solar system. The asteroid belt is located between Mars and Jupiter. The Oort cloud forms the boundary of the solar system. Therefore, option C is the right answer.

90. D

Fraiser is an American Sitcom which was first aired in 1993.

That '70s show is an American sitcom which was aired in 1998.

Veep is a recent American political satire show aired in 2012 on HBO.

Buniyaad is an Indian TV series which was broadcast in the 1986.

Star Trek is an American TV series first televised in 1966. Star Trek celebrated its 50th year anniversary in 2016 and hence, option D is the right answer.

91. **A**

Bogota is the capital of Colombia.

Lima is the capital of Peru.

Quito is the capital of Ecuador.

Therefore, option A is the right answer.

92. **C**

Yazidis are a religious minority who live primarily in the northern parts of Iraq. Therefore, option C is the right answer.

93. **D**

The Hadrian wall is also known as the Roman wall. The Roman emperor Hadrian built the wall in Britannia (present day England) in AD 122. The wall marked the northern limit of the Roman empire then. Therefore, option D is the right answer.

94. **A**

The population of the Giant Panda increased by over 16.8%. Following the development, the International Union for Conservation of Nature (IUCN) declared the Giant Panda as vulnerable, an upgrade from the endangered status it enjoyed. Therefore, option A is the right answer.

95. **A**

Equator is the 0° latitude and Tropic of Capricorn is 23.5°S latitude.

Argentina, Chile, and Peru are situated to the South of Equator.

Tropic of Capricorn does not pass through Venezuela.

Brazil is the only country in the given list through which both the equator and the tropic of Capricorn pass through.

Therefore, option A is the right answer.

97. **C**

Rodrigo Duterte is the President of Philippines. Therefore, option C is the right answer.