

# XAT 2023

## Verbal Ability & Logical Reasoning

**1. Read the following statements.**

The leave policy is bound to be unpopular either with the management or among workers. If the leave policy is unpopular with the management, it should be modified.

We should adopt a new policy if it is unpopular with workers.

If the above statements are true, which one of the following **MUST** also be true?

- A** We should attempt to popularize the leave policy among either the management or workers.
- B** We should modify the leave policy only if this will not reduce its popularity among workers
- C** If the leave policy is popular with the management, then we should adopt a new policy
- D** We should modify the leave policy if modification will not reduce its popularity with the management.
- E** If the leave policy is popular among workers, then we should adopt a new policy

**2. Arrange the following into a meaningful sequence:**

1. I'm not sure when I first became aware of the Singularity.
2. In the almost half century that I've immersed myself in computer and related technologies, I've sought to understand the meaning and purpose of the continual upheaval that I have witnessed at many levels.
3. Gradually, I've become aware of a transforming event looming in the first half of the twenty first century.
4. I'd have to say it was a progressive awakening.
5. Just as a black hole in space dramatically alters the patterns of matter and energy accelerating toward its event horizon, this impending Singularity in our future is increasingly transforming every institution and aspect of human life, from sexuality to spirituality.

- A** 3,1,2,4,5
- B** 1,3,4,5,2
- C** 4,3,1,5,2
- D** 1,2,3,4,5
- E** 4,1,2,3,5

**3. Read the following passage and answer the question that follows.**

More people signed up for Harvard's online courses in a year, for example, than have attended the university in its 377 years of existence. In the same spirit, there are more unique visits each month to the WebMD network, a collection of health websites, than to all the doctors working in the United States. In the legal world, three times as many disagreements each year amongst eBay traders are resolved using 'online dispute resolution' than there are lawsuits filed in the entire US court system. On its sixth birthday, the Huffington Post had more unique monthly visitors than the website of the New York Times, which is almost 164 years of age. The British tax authorities use a fraud-detection system that holds more data than the British Library (which has copies of every book ever published in the UK). In 2014, the US tax authorities received electronic tax returns from almost 48 million people who had used online tax preparation software

rather than a tax professional to help them. The architectural firm Gramazio & Kohler used a group of autonomous flying robots to assemble a structure out of 1500 bricks. The consulting firm Accenture has 750 hospital nurses on its staff, while Deloitte, founded as an audit practice 170 years ago, now has over 200,000 professionals and its own full-scale corporate university set in a 700,000-square-foot campus in Texas.

The author of the above paragraph is trying to conclude something by citing different pieces of evidence. What could the author be trying to prove?

- A How new organizational forms are emerging
- B How automation is taking away jobs traditionally done by humans.
- C How professionals are getting replaced by technology
- D How old firms are dying.
- E What old firms can do to survive.

4. When facing various challenges, people in today's digital world heavily rely on private, online information-seeking behaviour. Individuals who experience depression will often attempt to understand their predicament and seek remedy by searching the Internet for depression-related information and treatment. A recent report says that there exists evidence of many searches comprising the word depression, during and just after the elections, in country Y. So, it can be concluded that the election is experienced by many people in country Y as a truly psychologically traumatizing event—and as such as being potentially depressionogenic.

Which of the following statements MOST seriously weakens the conclusion drawn in the passage?

- A Election is a festival in some countries, people happily choose their leader by casting votes.
- B A survey in country Y shows that an election can cause a significant increase in the average level of depression.
- C Depression-related advertisements are on the rise during and just after the election in country Y.
- D Many people do not use the Internet in country X.
- E Per day sale of anti-depression drugs is constant across the years in country Y.

5. Read the following sentences carefully.

1. The boss accused her employee for stealing information.
2. The boss had better discuss the issue with the employee concerned.
3. The India of 2022 is very different from the India of 1947.
4. The government is committed to providing people with food.
5. He is good in playing the piano.

From the following, identify the option with INCORRECT sentences.

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

6. Read the following passage and answer the question that follows.

As a generation, we are rethinking what we are to others. Our technological prowess has become a wireless lifeline for others. Some of us apply ourselves to innovation: hackathons and other forms of technological creativity. Our families look to us to know how to use technology both to waste time and to make meaning. Some of us set up Facetime for those denied face-to-face time. We show them it will be OK, that digital relationships are real relationships - though in fact we are not always sure.

Which of the following will be the most MEANINGFUL conclusion of the passage?

- A Technological advancement helps society derive meaning from work
- B The Pandemic has increased societal dependence on technology
- C Technology is destroying families and communities
- D Technology usage has changed social relations for this generation
- E Change is the only constant in life, so people must embrace technology

7. Read the following sentences carefully.

1. The exam will begin from 2:00 p.m. on January 8th.
2. While entering into the college building, he saw the statue of Mahatma Gandhi.
3. The government has entered into a discussion with the local bodies for keeping the streets clean.
4. I will start my world tour from Sri Lanka.
5. Amitabh Bacchan is married with Jaya Bacchan
6. I have been working on this project for three weeks.

From the following, choose the option having all the CORRECT sentences.

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

8. Arrange the following into a meaningful sequence:

1. Our knowledge about life developed over the centuries thanks to the many philosophers, physicists, chemists and biologists, who examined such complex matters according to their different points of view.
2. Out of this long history, I wish to quote here only one date, the year 1953.
3. In that year, Miller and Urey carried out their famous experiment about the primordial universal soup, whose foundations had already been expounded by the Russian chemist Alexandre Oparin in 1924.
4. From a mixture of five gases, methane, ammonia, carbon dioxide, hydrogen and water vapor, and an electric discharge as the source of energy, complex molecules were produced, including amino acids.

- A 1,4,2,3
- B 1,3,4,2
- C 2,3,1,4
- D 3,1,2,4

E 1,2,3,4

9. Fill up the blanks with appropriate words.

Oil painting did to appearance what capital did to social\_\_\_\_\_. It reduced everything to the \_\_\_\_\_of objects. Everything became \_\_\_\_\_because everything became a commodity. All reality was mechanically\_\_\_\_\_ by its materiality

- A Construction, minuteness, commercial, evaluated
- B Relations, equality, exchangeable, measured
- C Setup, understanding, useless, identified
- D Reality, randomness, saleable, located
- E Justice, level, expensive, understood

10. Read the following excerpt carefully.

In the future, hydrogen may form a significant part of our energy systems. Today it is mostly used in oil refineries and fertiliser but in the future hydrogen could power our cars, heat our homes, and fuel industry. A recent McKinsey study suggested that in less than 25 years, hydrogen could account for 18% of global energy consumption and reduce carbon dioxide emissions from current levels by some 6 gigatons....

Which of the following sentences will MOST logically complete the above excerpt?

- A The impact of such a change in the energy system would be huge, potentially generating \$2,500 billion in revenue globally and creating more than 30 million jobs.
- B Germany unsuccessfully experimented with trains fuelled by hydrogen.
- C Hydrogen can be made through reformation, electrolysis, or pyrolysis, comes labelled in different colours from simple green to more complicated turquoise, can be stored as a gas, cryogenic liquid, converted to ammonia or even borane and then finally made useful through a fuel cell, engine, or burner.
- D Despite the potential, 90% of the general population knew nothing about hydrogen technology.
- E Earlier, experts thought that hydrogen fuel would be too expensive

11. Which of the following sentences have the CORRECT usage of punctuation?

- A Italy is famous for its composers and musicians. France, for its chefs and philosophers. Poland for its mathematicians and logicians.
- B Italy is famous for its composers and musicians, France, for its chefs and philosophers, Poland for its mathematicians and logicians.
- C Italy is famous for their composers and musicians; France, for their chefs and philosophers; Poland for their mathematicians and logicians
- D Italy is famous for their composers and musicians; France, for their chefs and philosophers; Poland for their mathematicians and logicians.
- E Italy is famous for its composers and musicians, France, for its chefs and philosophers, and Poland, for its mathematicians and logicians.

12. Read the following paragraph and answer the question that follows.

The fundamental laws that govern the smallest constituents of matter and energy, when applied to the Universe over long enough cosmic timescales, can explain everything that will ever emerge. This means that the formation of literally everything in our Universe, from atomic nuclei to atoms to simple molecules to complex molecules to life to intelligence to consciousness and beyond, can all be understood as something that emerges directly from the fundamental laws underpinning reality, with no additional laws and forces.

Which of the following can be BEST inferred from the paragraph above?

- A Everything in the Universe fundamentally occurs randomly.
- B Fundamental laws undergo a change from atom to the Universe.
- C Fundamental laws operating in the Universe and in an atom are the same.
- D All phenomena in the Universe are fundamentally dependent on long cosmic timescales.
- E All phenomena in the Universe fundamentally occur spontaneously

### Instructions [13 - 15]

Read the following passage and answer the THREE questions that follow.

Interpretation in our own time, however, is even more complex. For the contemporary zeal for the project of interpretation is often prompted not by piety toward the troublesome text (which may conceal an aggression), but by an open aggressiveness, an overt contempt for appearances. The old style of interpretation was insistent, but respectful; it erected another meaning on top of the literal one. The modern style of interpretation excavates, and as it excavates, destroys; it digs "behind" the text, to find a sub-text which is the true one. The most celebrated and influential modern doctrines, those of Marx and Freud, actually amount to elaborate systems of hermeneutics, aggressive and impious theories of interpretation. All observable phenomena are bracketed, in Freud's phrase, as manifest content. This manifest content must be probed and pushed aside to find the true meaning—the latent content beneath. For Marx, social events like revolutions and wars; for Freud, the events of individual lives (like neurotic symptoms and slips of the tongue) as well as texts (like a dream or a work of art)—all are treated as occasions for interpretation. According to Marx and Freud, these events only seem to be intelligible. Actually, they have no meaning without interpretation. To understand is to interpret. And to interpret is to restate the phenomenon, in effect to find an equivalent for it.

Thus, interpretation is not (as most people assume) an absolute value, a gesture of mind situated in some timeless realm of capabilities. Interpretation must itself be evaluated, within a historical view of human consciousness. In some cultural contexts, interpretation is a liberating act. It is a means of revising, of transvaluing, of escaping the dead past. In other cultural contexts, it is reactionary, impertinent, cowardly and stifling.

**13.** What does the author mean by "Thus, interpretation is not...a gesture of mind situated in some timeless realm of capabilities?"

- A Interpretation is being evaluative of the meaning created by an authority.
- B Interpretation is an act of mind which is situated in a changeless domain.
- C Interpretation is about erecting another meaning on top of the literal one.
- D Interpretation is act of understanding, developed by timeless experts.
- E Interpretation is about revisiting and reinventing meanings.

**14.** According to the passage, which of the following is NOT an act of interpretation?

- A Searching for underlying themes in a historical document
- B Finding underlying causes of a social evil described in a book
- C Labelling a text as blasphemous
- D Critical appreciation of a literary text
- E Investigating class-conflict in Charles Dicken's novels

15. Which of the following BEST differentiates manifest content from the latent content?

- A Manifest content is apparent whereas latent content is hidden
- B Manifest content is loaded whereas latent content is elusive
- C Manifest content is natural whereas latent content is cultural
- D Manifest content is obscure whereas latent content is lucid
- E Manifest content is a superset whereas latent content is a subset

**Instructions [16 - 18]**

Socrates believed that akrasia (meaning procrastination) was, strictly speaking, impossible, since we could not want what is bad for us; if we act against our own interests, it must be because we don't know what's right. Loewenstein, similarly, is inclined to see the procrastinator as led astray by the "visceral" rewards of the present. As the nineteenth-century Scottish economist John Rae put it, "The prospects of future good, which future years may hold on us, seem at such a moment dull and dubious, and are apt to be slighted, for objects on which the daylight is falling strongly, and showing us in all their freshness just within our grasp." Loewenstein also suggests that our memory for the intensity of visceral rewards is deficient: when we put off preparing for that meeting by telling ourselves that we'll do it tomorrow, we fail to take into account that tomorrow the temptation to put off work will be just as strong.

Ignorance might also affect procrastination through what the social scientist Jon Elster calls "the planning fallacy." Elster thinks that people underestimate the time "it will take them to complete a given task, partly because they fail to take account of how long it has taken them to complete similar projects in the past and partly because they rely on smooth scenarios in which accidents or unforeseen problems never occur."

16. According to the passage, in regard to time, which of the following statements gives the BEST reason for procrastination?

- A Time is estimated according to the new task
- B Time is taken as linear in the task
- C Time is not planned according to the task
- D Time is underestimated for a particular task
- E Time is not taken into account

17. Which of the following statements can be BEST inferred from the passage about procrastination?

- A It is a success of self-regulation and planning.
- B It is a mistake that happens due to myopic vision and linear thinking.

- C** It is an act against our own interests because of our ignorance.
- D** It is a tendency of postponing the present work to the future.
- E** It is an irrational delay of task despite potentially negative consequences.

**18.** Which of the following is the meaning that comes CLOSEST to “our memory for the intensity of visceral rewards is deficient” as suggested by Loewenstein?

- A** Our brain does not differentiate memories of different rewards we get by procrastinating.
- B** Our brain does not support us with memories which can stop us from procrastinating further.
- C** Our brain partially captures the memory of rewards we get by procrastination.
- D** Our brain does not support us in recalling intense memories while procrastinating further.
- E** Our brain does not capture the intensity of pleasure we get by procrastination.

**Instructions [19 - 20 ]**

Read the poem and answer the TWO questions that follow.

The slow person you left behind when, finally,  
 you mastered the world, and scaled the heights you now command,  
 where is he while you  
 walked around the shaved lawn in your plus fours,  
 organizing with an electric clipboard  
 your big push to tomorrow?  
 Oh, I have come across him, yes, I have, more than once,  
 coaxing his battered grocery cart down the freeway meridian,  
 Others see in you sundry mythic types distinguished  
 not just in themselves but by the stories  
 we put in with beginnings, ends, surprises:  
 the baby Oedipus on the hillside with his broken feet  
 or the dog whose barking saves the grandmother  
 flailing in the millpond beyond the weir,  
 dragged down by her woolen skirt.  
 He doesn't see you as a story, though.  
 He feels you as his atmosphere. When your sun shines,  
 he chortles. When your barometric pressure drops  
 and the thunder heads gather,  
 he huddles under the overpass and writes me long letters with  
 the study little pencil he steals from the public library.  
 He asks me to look out for you.

**19.** Which of the following BEST captures the theme of the poem?

- A** The poem is exploring the lives of the rich and the poor
- B** The poem is examining a loss of trust between old friends
- C** The poem is meaninglessly brooding over the past
- D** The poem is analysing a person's past and present
- E** The poem is celebrating success and moaning losses

20. Which of the following statements BEST interprets the lines “He doesn’t see you as a story, though/He feels you as his atmosphere”?

- A You are haunted by your past
- B You are larger than life
- C You are not a narrative of the past
- D Your present subsumes your past
- E You are an extension of the past

**Instructions [21 - 23]**

Read the following passage and answer the THREE questions that follow.

Corporations continue to ignore the threat of global warming, probably because global warming is a hyper-object, very difficult to touch and feel. Because hyper-objects have much wider time-space boundaries than human beings, we tend to consider hyper-objects as given and non-existent. Therefore, it is very difficult to deal with hyper-objects as their common understanding is lacking. Some of us continue to believe that global warming is blown out of proportion-it is not a serious threat. Even those who understood hyper-objects have yet to figure out right response to them.

The lack of understanding and response from corporations to “climate change” is evident from the fact that most of businesses have remained largely human-centric. Some businesses have adopted green practices-voluntarily, or involuntary. These efforts attempt to reduce emissions through better energy efficiency. Though laudable, the efforts have failed to make any significant dent at the global level; the planet continues to get warmer. Moreover, most of the efforts are still in the sphere of “business as usual” and “what is good for us”.

Business as usual, the current model of economic production and distribution is deeply flawed as it is based mainly on the capitalistic ethos of free-market legitimized through private property, competition, and unlimited consumption. The word “free” has come to mean that there are no constraints on individuals, and the word market has come to mean that buying and selling are the primary mechanisms, and everything is a transaction. Private property gives individuals/nations a chance to create legal rights to own more and more, subject to very little constraints. It is evident in income inequalities witnessed across the world. The very notion of ownership is control-oriented and human-centric that promotes unlimited extraction from environment, hyper-nationalism, and hyper-individualism. The extraction and exploitation of the environment has served our economic interests, and led to the growth and survival of businesses. However, it has also led to the destruction of environment. Global warming is the response of nature to human actions driven by businesses operating on the principles of surplus, predictability, control, hyper-rationality, linearity, and quantification. In other words, “business as usual” has yet to dance to the rhythm of nature.

21. According to the passage, which of the following will be closest to the idea of hyper-object?

- A How temperature fluctuates because of seasons.
- B How regular exercise makes our body healthy.
- C How hard work leads to better grades for students.
- D How the Earth, over centuries, takes less time to revolve around the Sun.
- E How a technology company contributed to the development of a mobile phone technology.

22. Based on the passage, which of the following is NOT an example of human-centric statement?

- A We should respect nature for its inherent intelligence.



- B We should use natural resources for economic growth.
- C We should plant trees as they provide us with Oxygen.
- D We should preserve nature for our future generations.
- E We should not cut trees as it causes excessive floods, destroying crops and human habitats.

23. Which of the following statement(s) is NOT in consonance with the author's views, as expressed in the passage?

1. Patents should be respected.
2. Trading of shares on the free stock markets should be promoted.
3. Building a beautiful resort on a hilltop.

- A 1 & 3 only
- B 3 only
- C 1, 2 & 3
- D 1 & 2 only
- E 2 & 3 only

#### Instructions [24 - 26 ]

Read the following passage and answer the THREE questions that follow.

It is harder and harder to make sense of life. Everything is changing, all the time, at a faster and faster pace. Our civilization is struggling to keep up with exponential technology and disruptive change. Our age-old institutions, politics, economics, ethics, religion and laws, even our environment, are so fundamentally challenged, that we risk collapse. Our stories have gotten so divorced from reality, so divisive, so inflexible and so inept to adapt to and explain our present, let alone guide us towards a better future, that we often feel like helpless passengers on a Titanic spaceship Earth. No wonder Aristotle observed that "When the storytelling goes bad in a society, the result is decadence."

But why is this the case? And, perhaps more importantly, how is it that bad storytelling can keep, if not bring, a whole society down? Is that not simply overstating the power of story? Literary theorist Kenneth Burke famously noted: "Stories are equipment for human living. We need storytelling in order to make certain sense out of life." If that is true then our equipment for living has gone obsolete. And unless we upgrade it we are going to go obsolete too.

It was this process that Fred Polak had in mind in 1961 while observing: Any student of the rise and fall of cultures cannot fail to be impressed by the role played in this historical succession by the image of the future. The rise and fall of images precede or accompany the rise and fall of cultures. As long as a society's image is positive and flourishing, the flower of culture is in full bloom. Once the image begins to decay and lose its vitality, however, the culture does not long survive.

That is why we desperately need a new story. A story that will not only help us make sense of the world today but also unite us as a species of human beings. A story that will motivate us to stop bickering and resolve our common problems. A story that will inspire us to achieve our common goals and guide us towards a better future for all sentient beings on our planet.

We have to rewrite the human story. Because the old stories that brought us thus far are no longer useful. They've lost their vision and grandeur. They've become petty and short-sighted. They're stuck in a past that never was at the expense of a future that can be. They divide us and keep us bickering while our civilization is facing unprecedented diversity and depth of existential challenges. Those stories are not simply our history. They are now our chains. And unless we break them, they will be our death sentence.

So, it is worth exploring if or how new stories, good stories can bring us up. The human story that brought us into the 21st century was written and rewritten several times. The latest major update was perhaps during the industrial revolution. It is time to rewrite it again. We need a new story. A brave story. An unreasonable story. A story that can inspire, unite and motivate us to break free from the past and create the best possible future.

**24.** According to the passage, which of the following is NOT associated with bad storytelling in a society?

- A** It's inability to create a future image that is positive and flourishing.
- B** They were written before 21st Century.
- C** It cannot stop bickering.
- D** It is inclusive.
- E** Its ability to create a compelling goal for some sections.

**25.** Which of the following options BEST captures the essence of a GOOD STORY?

- A** Everyone and I are a part of the universe.
- B** Compared to other nations, our nation has played a special role in progress of humanity.
- C** Laying of railways led to economic and industrial development of India.
- D** Life is full of sorrows and only death can provide a solution.
- E** India has a glorious past, it had 25% share of global economy before arrival of the British

**26.** Read the following statements:

1. A story without connections and coherence.
  2. A story that talks about recreating the past glory.
  3. A story may not be factually true.
  4. A story that is meaningful and compelling for humanity
- Which of the above statements can be ASSOCIATED with the meaning of "unreasonable story", as used in the passage?

- A** 1&2
- B** 2&3
- C** 2&4
- D** 1&3
- E** 3&4

## Decision Making

### Instructions [27 - 29 ]

Read the following scenario and answer the THREE questions that follow.

Bharat Business School (BBS), a premier business school, was renowned for the quality education it provided. Its faculty, known for their domain area expertise and excellence in teaching, competed with each other for a better student feedback. Of late, the institute was finding it difficult to upgrade its course content with rapidly changing global business scenario. The difficulties multiplied when the school realized that some of senior faculty would retire on regular basis, starting in the near future. To overcome these difficulties, BBS decided to recruit young faculty in all the departments (e.g., Economics, Finance, Marketing, HRM, Production etc).

When the Dean - Academics scanned the applications, she found three distinct types of aspirants viz. (i) A type candidates who were very good teachers, competent at teaching the courses taught by existing faculty members; (ii) B type candidates who were average teachers, competent at creating and teaching new courses that would complement existing courses, taught by the current faculty; (iii) C type candidates were not-so-good teachers, willing to teach any course BBS required.

Note1: A course is termed complementary when it covers latest content and complements existing courses offered by a department.

Note2: Each department decides the suite of courses to be offered.

**27.** Given the above context, which of the following options will be the BEST recruitment decision for BBS?

- A Hire B type candidates so that all types of courses can be offered to students
- B Don't recruit and request the existing faculty to develop complementary courses
- C Hire C type candidates, as they can teach any course
- D Hire A type candidates unconditionally and allow them to teach courses taught by the existing faculty
- E Hire A type candidates on a condition that they will have to develop complementary courses.

**28.** Suppose the Dean - Academics wanted to reduce future conflicts and political maneuvering to ensure harmony among faculty.

Which of the following options will BEST reduce conflicts and politicking amongst the faculty?

- A Hire B type candidates to teach complementary courses
- B Hire C type candidates and allow them to teach all types of courses
- C Hire A type candidates to teach existing courses and ask existing faculty to teach new courses
- D Hire A type candidates, and let the new as well as existing faculty offer same courses
- E Hire B type candidates and allow them to teach all kinds of courses

**29.** Suppose the Dean-Academics wanted to ensure the most efficient utilization of faculty resources.

Which of the following hiring decisions will ensure the MOST efficient utilization of faculty resources?

- A Hire A type candidates and let the new as well as existing faculty teach same courses
- B Hire B type candidates to teach complementary courses
- C Ask existing faculty to develop complementary courses
- D Hire C type candidates and assign them teaching-assistant responsibilities
- E Hire A type candidates, capable of developing complementary courses

### Instructions [30 - 32]

Read the following scenario and answer the THREE questions that follow.

During the floods of 2018-2019, a group of philanthropists led by Niyabuddin, wished to open free food centre for the needy. Their motto was that “no human should be hungry.” Nothing gives more satisfaction to the philanthropists than to see the hungry eat to the fullest.

Post Covid-19, the group started a food centre by the name Win Borne Life Care Food (WBLCF) in a small town called Palakkad. The centre started gaining popularity as the number of people enjoying free meals increased over time. Initially, WBLCF offered a standardized menu consisting of idli, upma, puttu for breakfast, curd rice for lunch, and idli or upma for supper. Six women were employed by WBLCF to prepare all the meals. As the number of diners increased, they started expecting a variety in the menu. At WBLCF, not all the diners eat “free”: while two-thirds of diners get free food, one-third would donate some amount to a transparent charity box kept at the entrance. For example, a man donated Rs. 500 after consuming two idlis, and a woman approached Niyabuddin and inquired about donating 10 kilogrammes of rice. Those who could not afford to donate, were often seen prostrating worshipfully in front of the charity box. Some caring individuals made monetary donation while others donated rice, fruits and vegetables to WBLCF. Further, the centre received enquiries from many locals on how they could contribute to the cause.

As the centre was lauded for its philanthropic work by people of the town, Niyabuddin intended to replicate the initiative in the nearby districts. However, he is concerned about the cost that goes into running the centre. Almost 75 percent of the donated amount goes into buying the cooking ingredients, while the rest goes into paying salaries, operations and maintenance costs.

**30.** From the following, choose the MOST important challenge that Niyabuddin has to overcome to sustain WBLCF.

- A** Getting enough finances and donations
- B** Paying salaries to employees
- C** Attracting enough diners
- D** Having enough cooks and employees
- E** Preparing only local dishes for diners

**31.** Niyabuddin realised that on some days the food was wasted while on other days diners went back hungry. He sought advice from a consultant friend on how to reduce wastage. The consultant suggested the following:

1. Launch a mobile app so that diners can pre-inform their arrival to WBLCF.
2. Ask diners who enjoy free meal to distribute excess food to hungry on streets
3. Ask diners to eat less as it is good for health
4. Preach people to eat less
5. Ration amount of food to be served to the diners

Which of the above ideas will not be consistent with the core ethos of WBLCF?

- A** 2, 3 & 5
- B** 3, 4 & 5
- C** 1, 3 & 4
- D** 2, 3 & 4

E 1, 2 & 3

32. Niyabuddin wanted to conserve local recipes that can be used to prepare mouth-smacking dishes for the diners.

Which of the following could be the BEST way to conserve local recipes?

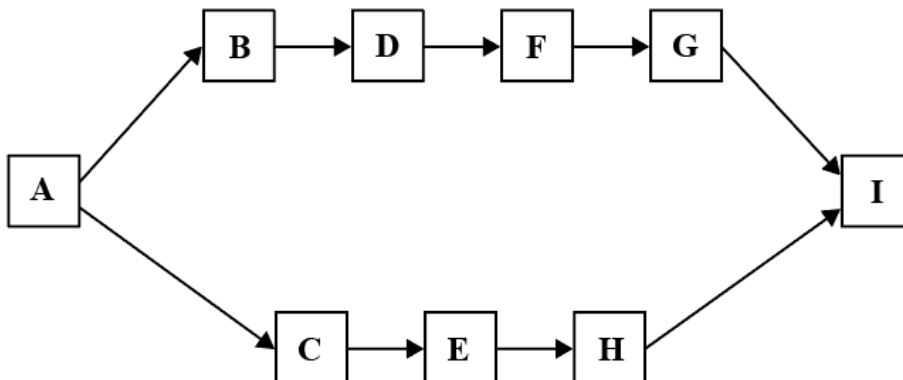
- A Hold a weekly competition for the best local dish and get it judged and documented by local volunteers
- B Request a lady once a week in Palakkad to cook food at WBLCF on voluntary basis and document the recipes
- C Tie up with one of food delivery partners to help them document the recipes
- D Tie-up with the chef of the best restaurant in Palakkad to document recipes
- E Ask free diners to contribute towards one recipe for a dish and give them the responsibility to document it

**Instructions [33 - 35]**

Go through the following scenario and answer the THREE questions that follow.

To prepare a dish (e.g., Dosa- Sambhar, Idli-chutney, Rajma-Chawal, Mawa-Bati), the chef has to finish nine activities, some of which could be done simultaneously, while others could not be done simultaneously (see diagram). One of the challenges faced by the chef was to precisely calculate the preparation time of a dish and communicate the waiting time to the customers.

However, based on the past data, the chef had an idea about approximate time taken to complete each activity. He had noted down the best (optimistic), worst (pessimistic) and most likely (most commonly observed) time to finish each of the nine activities. Further, the chef realised that frequency of occurrence of most likely time was 66.666%, and the frequency of occurrence of pessimistic and optimistic times were 16.666% each. The diagram below shows the activities involved and the table shows the optimistic, pessimistic, and most likely times for each activity. Time is indicated in minutes in the table below.



Activity	Optimistic (16.666%)	Pessimistic (16.666%)	Most Likely (66.666%)
A	1	1	1
B	2	3	3
C	10	13	12
D	5	5	5
E	3	6	4
F	1	1	1
G	5	10	7
H	9	13	10
I	5	5	5

**33.** The expected time to prepare the dish is the weighted average of optimistic, pessimistic and most likely time.

Which of the following is the expected wait time for the chef to communicate to the customers?

- A** Approx. 22.0
- B** Approx. 51.0
- C** Approx. 47.3
- D** Approx. 32.3
- E** Approx. 40.0

**34.** Customer dissatisfaction is the difference of actual waiting time (AWT) and expected waiting time (EWT). AWT is the actual time spent by customer before being served the dish. EWT of the customer is the time communicated by the chef.

What is the minimum waiting time (EWT) that the chef should communicate to minimise customer dissatisfaction?

- A** 38
- B** 33
- C** 40
- D** 42
- E** 35

**35.** Which of the following is the MOST volatile activity for the chef?

- A** G
- B** B
- C** C
- D** H
- E** E

### **Instructions [36 - 38 ]**

Read the following scenario and answer the THREE questions that follow.

Arti, CEO of an FMCG company, was under pressure from the Board of Governors (BoG) to increase diversity in the workforce. The board wanted the company to hire candidates with vision impairment\*, as it believed that they contributed to organizations in many unique ways.

The CEO was apprehensive of hiring visually impaired candidates; she was not sure about the feasibility of accommodating them in the current setting. Moreover, Arti was unsure as to how the visually impaired could contribute meaningfully to the organization. (\* A person, with a vision impairment in a range of 60-100 percent, is referred to as a visually impaired person. A person with 100 percent vision impairment cannot see at all.)

**36.** The following arguments were presented to Arti about the candidates with vision impairment:

1. Visually impaired can do some activities better than the normal people and hence complement other employees.
2. Visually impaired can motivate other employees to work harder.
3. Visually impaired can act as a role model for other disadvantaged people in the society
4. Visually impaired can work harder to prove themselves
5. Hiring visually impaired people may enhance organizational reputation which may consequently lead to better sales.
6. Visually impaired have to be paid 20 percent extra salary.

From the above arguments, which of the following options indicate that CEO's apprehensions are misplaced?

- A** 1,2,3,4,5 Only
- B** 1,2,3,4,5&6
- C** 1,2,3,4 Only
- D** 1,2,4,6 Only
- E** 1,2,4,5 Only

**37.** Arti wanted to follow the suggestion given by the Board of Governors; however, she was not sure if the company was ready to accommodate candidates with 100 percent visual impairment. Also, the concern of involving such employees in meaningful activities was constantly bothering her. Hence, she constituted a committee to come up with recommendations that would help the company in hiring 100 percent visually impaired employees

After two months of deliberations, the committee came up with the following recommendations:

1. Hire visually impaired employees unconditionally as it is any company's social responsibility
2. Hire visually impaired employees in the activities they can contribute
3. Ensure visually impaired friendly office space, food courts, restrooms, parking etc.
4. Allow guide dogs to assist employees with 100 percent vision impairment in the office premises

Which of the following options will BEST allay concerns as well as be fair to all stakeholders?

- A** 3 & 4 Only
- B** 2, 3 & 4 Only
- C** 1, 3 & 4 Only
- D** 1 & 3 Only
- E** 1, 2 & 3 Only

**38.** Suresh refuses to be served coffee by visually impaired baristas, but he does believe in donating to the visually impaired. The following statements could explain why Suresh does not want to be served by visually impaired baristas.

1. He thinks that visually impaired are inefficient at serving coffee.
2. His parents have taught him to donate, instead of accepting services from challenged individuals.
3. He believes that his refusal to be served will have adverse consequences.
4. He feels joyous amongst visually impaired; sharing his life and caring for them.

From the following, choose the option that BEST explains Suresh's biased behaviour

- A 1,3,4 Only
- B 1,2,4 Only
- C 1,2,3,4
- D 1,2 Only
- E 2,3,4 Only

### Instructions [39 - 40]

Read the following scenario and answer the TWO questions that follow.

Moonlighting is the practice of working for one organisation while also accepting additional responsibilities and jobs, typically without the employer's knowledge in another organization. It is named as such because it is typically performed at night or on the weekends. "Doing two remote jobs at once was already happening; it was the biggest open secret out there in tech," said a US techie.

Due to weaker margins, major Indian IT companies such as Infosys, TCS, and Wipro announced that they would delay, postpone, or reduce variable pay-outs to employees for the first quarter of fiscal year 2023. This drew attention to Moonlighting. The Indian IT industry was divided on the issue of Moonlighting. Some considered it unethical, while others viewed it as an urgent necessity. Infozeta Chairman Patrick's stance on this matter was crystal clear. "There is a great deal of talk about people working part-time in the tech industry. This is cheating, pure and simple," he had tweeted.

However, McMillan, CEO of Betauniverse, does not consider Moonlighting as "cheating.". "Employment is a contract between an employer who pays me for working 'n' number of hours per day," he explained. "Now, what I do after that time is entirely up to me; I can do whatever I please."

**39.** Which of the following options will have the LEAST negative consequence on Moonlighting employees?

- A Employer reducing daily working hours from eight hours to six hours
- B Increased family problems because employees will not spend quality time at home
- C Poor physical health of employees because of excess work
- D Employees's performance may be adversely affected because of over working
- E Employer reducing salaries of employees because of Moonlighting

**40.** Mr. Q is an IT professional who works for a small company in Bangalore. His office hours are from 2:00 p.m. to 10:00 p.m.; thus, he wants to utilize his morning time. He thought of taking up extra work; however, he is not sure about the righteousness of his decision. His company does not have any clear policy on Moonlighting. As he is confused, he seeks opinions of the people who work in his industry to understand ethical dimension of Moonlighting. The following opinions are shared with Mr. Q:

Opinion 1: Moonlighting is unacceptable since the employer has a complete right over the employee.

Opinion 2: Moonlighting is a choice of the employee, and that the employer has no authority over the employee's conduct after office hours.

Opinion 3: Moonlighting leads to employee missing out on important organizational work.

Opinion 4: While Moonlighting, the employee might unknowingly leak critical information gained from one organization to the other.

Opinion 5: It is OK to Moonlight as employers are exploitative and underpay employees.

Given the abovementioned opinions, which of the following combinations will BEST help Mr. Q to realize that Moonlighting is unethical?



- A Opinions 2 & 4
- B Opinions 3 & 4
- C Opinions 1 & 5
- D Opinions 2 & 3
- E Opinions 2 & 5

#### Instructions [41 - 42]

Read the following scenario and answer the TWO questions that follow.

The CEO of the Jamshedpur Tea Factory (JTF) was in a quandary over employees skipping work. It was becoming increasingly difficult for him to identify employees who faked illness to skip work. The work of the employees was complex and intricate, and they had to report to eight supervisors. "Faking illness" made it difficult for JTF to judiciously decide on "Promotion" and "Training" of employees. An employee could only be promoted on the completion of a multi-skilling training program. Further, to be nominated for the training program, an employee must be recommended by a minimum of six supervisors. JTF wanted to promote only sincere and deserving employees.

- 41.** The CEO was thinking of changing the policy regarding leave, training & promotion.  
Which of the following will be the MOST efficient course of action for JTF and yet be fair to the employees?
- A Let supervisors decide on the leave of an employee.
  - B Let the CEO office decide on promotion but each supervisor will decide on the leave.
  - C Let the CEO office decide on the leave as well as promotions.
  - D Let status quo continue
  - E Let the CEO office decide on leave but supervisors will recommend promotions
- 42.** Which of the following policies will be MOST prone to error while selecting deserving and sincere employees?
- A Outsource all leave decisions to a doctor whose judgment will be final
  - B Let the CEO office decide on promotions but supervisors will decide on the leave.
  - C Outsource all leave decisions to a lawyer whose judgement will be final
  - D Let the CEO office decide on leave but supervisors will recommend the promotion.
  - E Let the CEO office decide on the leave as well as promotions.

#### Instructions [43 - 45]

Read the following scenario and answer the THREE questions that follow.

Dhan, a poor but enterprising 15-year-old, resided in the world's largest slum in a metropolitan city, along with her widowed mother. The densely packed slum housed about a million people, mostly in rickety one room tenements, connected by labyrinthine lanes and by-lanes. Dhan's mother worked intermittently as a daily wager in a small savoury factory. For a 15-year-old, Dhan's life was hectic. She spends two hours every day in fetching

water for the household, packing breakfast and lunch for her mother. In addition, she had to prepare supper. On her mother's insistence, Dhan also attended an evening bridge school run by an NGO. Dhan's dream was to provide a comfortable life to her mother and take her family out of poverty. Of late, Dhan observed that the customers to a nearby tea-cum-savoury stall (TCS), were mostly the slum dwellers, who thronged the stall for its low prices and lack of alternatives. Further, Dhan gathered that the TCS could not cater to all of its customers, and the owner still made a neat Rs.800 profit per day. Dhan saw that a probable first step towards her family's economic independence could be to own her own TCS.

**43.** From the following, choose the BEST option that will increase Dhan's chances of realising her dream of starting a venture?

- A** Hire someone at Rs.10 per day to fetch water for the household
- B** Request mother to fetch water for the household
- C** Request mother to pack her own breakfast and lunch
- D** Request mother to stop working and be a partner in the new venture
- E** Stop going to the bridge school

**44.** Within two years of establishment, Dhan's TCS is not only outcompeting its nearest rivals in the slum but has also earned a goodwill for the quality and taste of its products. Hence, it has become famous within the slum as "Dhan Dhana Dhan" brand. Dhan now aspires to expand the reach of her savouries into the metropolitan region. Dhan wishes to scale up her savoury production from 100 kg to 1000 kg per day while maintaining quality. Dhan realizes that her establishment does not have the space for expansion on its own.

Which of the following options will BEST help Dhan to scale up production with least investment, tightly control quality, and also protect her business interests?

- A** Buy additional space within the slum and establish own manufacturing unit
- B** Outsource the production, along with secret recipes, to a mass savoury production unit outside the slum
- C** Lease space in the metropolitan region and establish a manufacturing unit of TCS
- D** Stop catering to the slum dwellers and start serving the metropolitan region exclusively
- E** Provide the savoury dough and preparation instructions to 100 willing women in the slum and co-opt them as business partners

**45.** Dhan with her ingenuity finds a way to scale up her production capacity on her own terms. Though Dhan's TCS has become the famous "Dhan Dhana Dhan" brand within the slum, it is still unknown to the outside world. Thus, Dhan embarks on the next challenge of creating a market for savouries amongst the masses in the metropolitan region.

From the following, choose the BEST option that will help Dhan to sell her products, at the lowest price, to a maximum number of metropolitan customers?

- A** Hire a celebrity who currently endorses a diamond jewellery brand to endorse the "Dhan Dhana Dhand" brand
- B** Overwhelm the metropolitan residents with digital advertisements on Instagram.
- C** Engage slum dwellers commuting daily to metropolitan region for work, to sell the products on commission basis
- D** Hire a few sales executives to sell products of Dhan Dhana Dhan brand

- E** Reach out to the malls and high-end retail stores in the metropolitan region through a few marketing executives to sell the products

**Instructions [46 - 48 ]**

Read the following scenario and answer the THREE questions that follow.

In recent years, complaints of sexual harassment at “Fair Consulting” had increased exponentially. Fair Consulting had a gender-neutral, anti-sexual harassment policy and a committee to adjudicate on complaints. During the hearing of complaints, allegations and counter-allegations would fly thick and fast. This made it difficult for the adjudicating committee to conclusively decide on the complaints.

- 46.** Fair Consulting was mulling over three interventions to reduce sexual harassment cases in the workplace.

They are:

1. Educate employees about the company’s anti-sexual harassment policy
2. Profile employees with a propensity to engage in acts of sexual harassment
3. Discipline sexual offenders

Which of the following options will the employees find LEAST ostracizing?

- A** 2 & 3
- B** 2 Only
- C** 1 Only
- D** 3 Only
- E** 1 & 2

- 47.** The CEO of Fair Consulting wanted the adjudicating committee to reduce the number of errors while deciding on sexual harassment complaints. The employees suggested that the committee could do the following to reduce errors in judgment.

1. Listen to the arguments of both the complainant and the accused together
2. Listen to the arguments of both the complainant and the accused separately
3. Involve a member of women’s commission
4. Take the help of a retired judge
5. Hire a forensic expert to verify evidences

From the following, choose the MOST effective sequence that would help the committee to arrive at the right decision.

- A** 2, 4, 1
- B** 1, 2, 4
- C** 2, 1, 5
- D** 2, 3, 4
- E** 1, 2, 3

- 48.** Of late, the adjudicating committee received a complaint from a junior female consultant. Her immediate boss cracked a bawdy joke about her in the office tuck shop. When the committee probed the alleged misconduct, they identified an independent witness. She agreed to give her testimony to the committee: however, she was unsure if she would like to be identified either by the complainant or the accused. The convenor of the committee was confused about the stance to be taken on the witness’s concern.

Which of the following will be the BEST stance to be taken by the convenor?

- A The convenor should ensure that the witness identifies herself because both the accused and the complainant must identify themselves.
- B The convenor should ensure that witness identify herself as it will ensure that she will not present frivolous proof related to the inquiry
- C The convenor should not let witness's identity be revealed as it might expose her to a threat either from the respondent or the accused.
- D The convenor should not allow witness's identity to be revealed as either the accused or the complainant can use the witness's arguments to their advantage
- E The convenor should not allow witness's identity to be revealed because complainant can sabotage the inquiry process.

## Quant

49. Amit has forgotten his 4-digit locker key. He remembers that all the digits are positive integers and are different from each other. Moreover, the fourth digit is the smallest and the maximum value of the first digit is 3. Also, he recalls that if he divides the second digit by the third digit, he gets the first digit.

How many different combinations does Amit have to try for unlocking the locker?

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

50. Suppose Haruka has a special key  $\triangle$  in her caculator called delta ke:

Rule 1: If the display shows a one-digit number, pressing delta key  $\triangle$  replace the displayed number with twice its value.

Rule 2: If the display shows a two-digits number, pressing delta key  $\triangle$  replace the displayed number with the number sum of two digits.

Suppose Haruka enters the valie 1 and then presses delta key  $\triangle$  repeated.

After pressing the key for 68 times, what will be the displayed number?

- A 7
- B 4
- C 10
- D 2
- E 8

51. Five students appeared for an examination. The average mark obtained by these five students is 40. The maximum mark of the examination is 100, and each of the five students scored more than 10 marks. However, none of them scored exactly 40 marks. Based on the information given, which of the following **MUST** BE true?
- A At least, three of them scored a maximum of 40 marks
  - B At least, three of them scored more than 40 marks
  - C At least, one of them scored exactly 41 marks
  - D At most, two of them scored more than 40 marks
  - E At least, one of them scored less than 40 marks
52. A painter draws 64 equal squares of 1 square inch on a square canvas measuring 64 square inches. She chooses two squares (1 square inch each) randomly and then paints them. What is the probability that two painted squares have a common side?
- A  $\frac{112}{2016}$
  - B  $\frac{1}{3}$
  - C  $\frac{512}{100034}$
  - D  $\frac{3}{97}$
  - E  $\frac{7}{108}$
53. The addition of 7 distinct positive integers is 1740. What is the largest possible “greatest common divisor” of these 7 distinct positive integers?
- A 42
  - B 60
  - C 74
  - D 140
  - E None of the above.
54. The problem below consists of a question and two statements numbered 1 & 2.  
You have to decide whether the data provided in the statements are sufficient to answer the question.
- In a cricket match, three slip fielders are positioned on a straight line. The distance between 1st slip and 2nd slip is the same as the distance between 2nd slip and the 3rd slip. The player X, who is not on the same line of slip fielders, throws a ball to the 3rd slip and the ball takes 5 seconds to reach the player at the 3rd slip. If he had thrown the ball at the same speed to the 1st slip or to the 2nd slip, it would have taken 3 seconds or 4 seconds, respectively. What is the distance between the 2nd slip and the player X?
1. The ball travels at a speed of 3.6 km/hour.
  2. The distance between the 1st slip and the 3rd slip is 2 meters.

- A** Statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient.
- B** Statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- C** Each statement alone is sufficient
- D** Both statements together are sufficient, but neither of them alone is sufficient
- E** Statements 1 & 2 together are not sufficient

**55.** Find the value of

$$\frac{\sin^6 15^\circ + \sin^6 75^\circ + 6 \sin^2 15^\circ \sin^2 75^\circ}{\sin^4 15^\circ + \sin^4 75^\circ + 5 \sin^2 15^\circ \sin^2 75^\circ}$$

- A**  $\sin 15^\circ + \sin 75^\circ$
- B**  $\frac{6}{5}$
- C** 1
- D**  $\sin 15^\circ \cos 15^\circ$
- E** None of the above

**56.** The problem below consists of a question and two statements numbered 1 & 2.

You have to decide whether the data provided in the statements are sufficient to answer the question.

Rahim is riding upstream on a boat, from point A to B, at a constant speed. The distance from A to B is 30 km. One minute after Rahim leaves from point A, a speedboat starts from point A to go to point B. It crosses Rahim's boat after 4 minutes. If the speed of the speedboat is constant from A to B, what is Rahim's speed in still water?

1. The speed of the speedboat in still water is 30 km/hour.
2. Rahim takes three hours to reach point B from point A.

- A** Statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient
- B** Statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- C** Each statement alone is sufficient
- D** Both statements together are sufficient, but neither of them alone is sufficient
- E** Statements 1 & 2 together are not sufficient

**57.** The Guava club has won 40% of their football matches in the Apple Cup that they have played so far. If they play another n matches and win all of them, their winning percentage will improve to 50. Further, if they play 15 more matches and win all of them, their winning percentage will improve from 50 to 60. How many matches has the Guava club played in the Apple Cup so far? In the Apple Cup matches, there are only two possible outcomes, win or loss; draw is not possible.

- A** 50
- B** 40

- C 30
- D Cannot be determined, as the value of  $n$  is not given
- E 60

58. ABC is a triangle with  $BC=5$ . D is the foot of the perpendicular from A on BC. E is a point on CD such that  $BE=3$ . The value of  $AB^2 - AE^2 + 6CD$  is:

- A 5
- B 10
- C 14
- D 18
- E 21

59. Jose borrowed some money from his friend at simple interest rate of 10% and invested the entire amount in stocks. At the end of the first year, he repaid  $\frac{1}{5}$ th of the principal amount. At the end of the second year, he repaid half of the remaining principal amount. At the end of third year, he repaid the entire remaining principal amount. At the end of the fourth year, he paid the last three years' interest amount. As there was no principal amount left, his friend did not charge any interest in the fourth year. At the end of fourth year, he sold out all his stocks. Later, he calculated that he gained Rs. 97500 after paying principal and interest amounts to his friend. If his invested amount in the stocks became double at the end of the fourth year, how much money did he borrow from his friend?

- A 250000
- B 200000
- C 150000
- D 125000
- E None of the above

60. Separately, Jack and Sristi invested the same amount of money in a stock market. Jack's invested amount kept getting reduced by 50% every month. Sristi's investment also reduced every month, but in an arithmetic progression with a common difference of Rs. 15000. They both withdrew their respective amounts at the end of the sixth month. They observed that if they had withdrawn their respective amounts at the end of the fourth month, the ratio of their amounts would have been the same as the ratio after the sixth month. What amount of money was invested by Jack in the stock market?

- A Rs. 100000
- B Rs. 120000
- C Rs. 150000
- D Rs. 180000
- E None of the above

61. Rajnish bought an item at 25% discount on the printed price. He sold it at 10% discount on the printed price. What is his profit in percentage?
- A 10  
B 15  
C 17.5  
D 20  
E None of the above
62. Given  $A = |x + 3| + |x - 2| - |2x - 8|$ . The maximum value of  $|A|$  is:
- A 111  
B 9  
C 6  
D 3  
E  $\infty$
63. ABC is a triangle and the coordinates of A, B and C are  $(a, b-2c)$ ,  $(a, b+4c)$  and  $(-2a, 3c)$  respectively where a, b and c are positive numbers. The area of the triangle ABC is:
- A  $6abc$   
B  $9abc$   
C  $6bc$   
D  $9ac$   
E None of the above
64. Let x and y be two positive integers and p be a prime number. If  $x(x - p) - y(y + p) = 7p$ , what will be the minimum value of  $x - y$ ?
- A 1  
B 3  
C 5  
D 7  
E None of the above



65. Consider  $a_{n+1} = \frac{1}{1 + \frac{1}{a_n}}$  for  $n = 1, 2, \dots, 2008, 2009$  where  $a_1 = 1$ . Find the value of  $a_1a_2 + a_2a_3 + a_3a_4 + \dots + a_{2008}a_{2009}$ .
- A  $\frac{2009}{1000}$
- B  $\frac{2009}{2008}$
- C  $\frac{2008}{2009}$
- D  $\frac{6000}{2009}$
- E  $\frac{2008}{6000}$
66. A non-flying ant wants to travel from the bottom corner to the diagonally opposite top corner of a cubical room. The side of the room is 2 meters. What will be the minimum distance that the ant needs to travel?
- A 6 meters
- B  $(2\sqrt{2} + 2)$  meters
- C  $2\sqrt{3}$  meters
- D  $2\sqrt{6}$  meters
- E  $2\sqrt{5}$  meters
67. Raju and Sarita play a number game. First, each one of them chooses a positive integer independently. Separately, they both multiply their chosen integers by 2, and then subtract 20 from their resultant numbers. Now, each of them has a new number. Then, they divide their respective new numbers by 5. Finally, they added their results and found that the sum is 16. What can be the maximum possible difference between the positive integers chosen by Raju and Sarita?
- A 67
- B 58
- C 49
- D 40
- E None of the above
68. ABCD is a trapezoid where BC is parallel to AD and perpendicular to AB. Kindly note that  $BC < AD$ . P is a point on AD such that CPD is an equilateral triangle. Q is a point on BC such that AQ is parallel to PC. If the area of the triangle CPD is  $4\sqrt{3}$ , find the area of the triangle ABQ.
- A  $2\sqrt{3}$
- B  $4\sqrt{3}$
- C 4
- D  $8\sqrt{3}$

E None of the above

69. A small jar contained water, lime and sugar in the ratio of 90:7:3. A glass contained only water and sugar in it. Contents of both (small jar and glass) were mixed in a bigger jar and the ratio of contents in the bigger jar was 85:5:10 (water, lime and sugar respectively). Find the percentage of water in the bigger jar?

A 70

B 75

C 80

D 72.5

E 85

70. There are three sections in a question paper and each section has 10 questions. First section only has multiple-choice questions, and 2 marks will be awarded for each correct answer. For each wrong answer, 0.5 marks will be deducted. Any unattempted question in this section will be treated as a wrong answer. Each question in the second section carries 3 marks, whereas each question in the third section carries 5 marks. For any wrong answer or un-attempted question in the second and third sections, no marks will be deducted. A student's score is the addition of marks obtained in all the three sections. What is the sixth highest possible score?

A 92.5

B 94

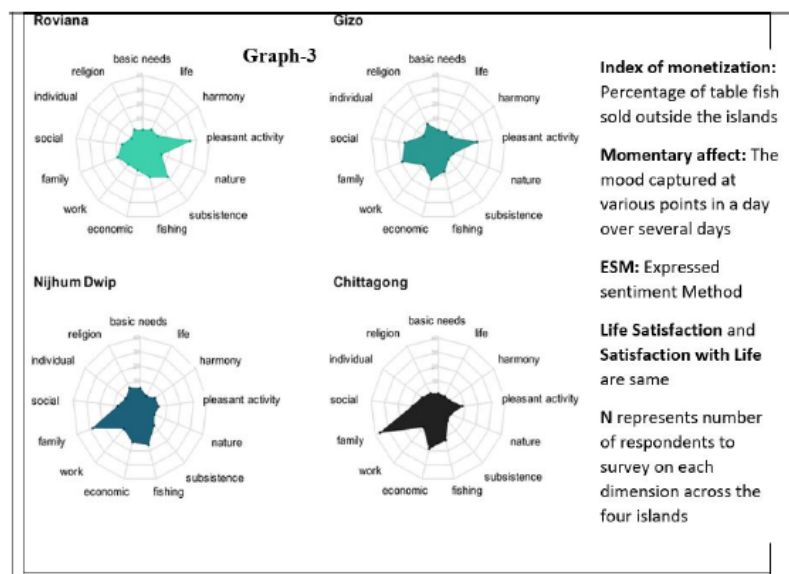
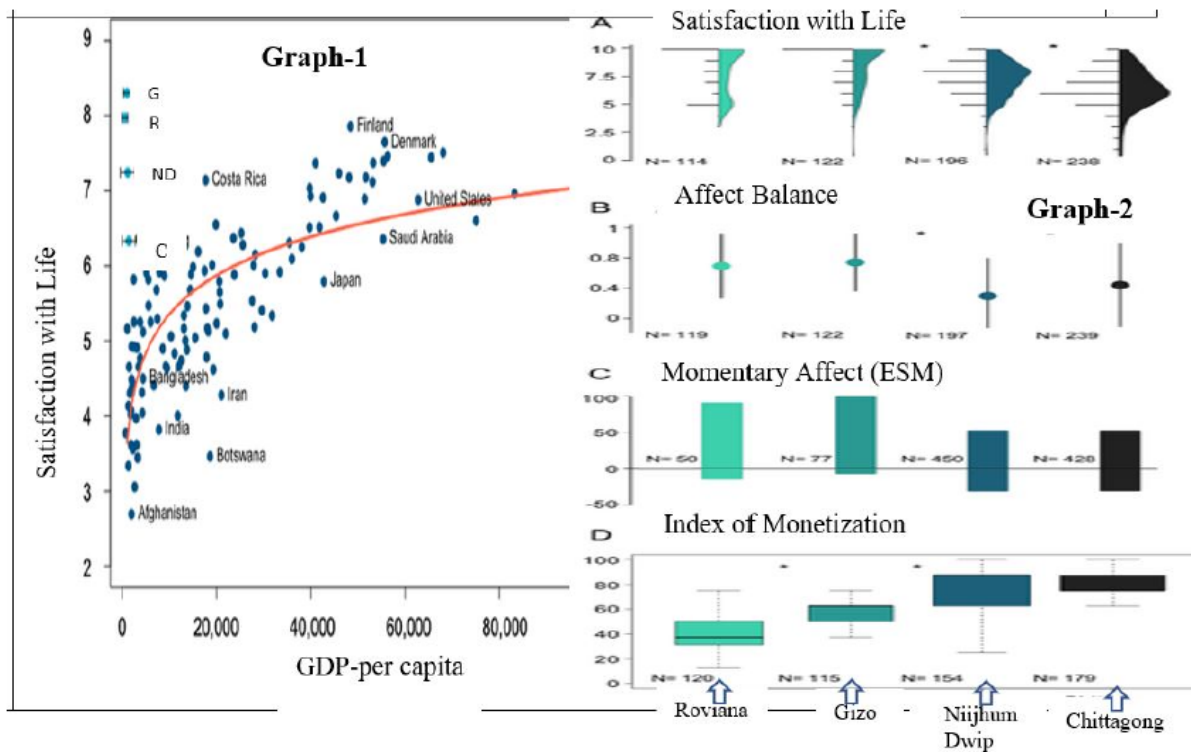
C 95.5

D 95

E None of the above

### Instructions [71 - 73]

Go through the information given below, and answer the THREE questions that follow. **Comprehension:** The three graphs below capture relationship between economic (and social) activities and subjective well-being. The first graph (Graph-1) captures relationship between GDP (percapita) and Satisfaction with life, across different countries and four islands: Gizo, Roviana, Nijhum Dwip, and Chittagong. The Graph-2 captures three different measures of subjective well-being (Satisfaction with life, Affect Balance and Momentary Affect) across the four islands, which have different levels monetization (Index). The Graph-3 captures levels of thirteen different socio-economic activities across four islands.



71. Which of the following will BEST capture the relationship between GDP (x-axis) and Life Satisfaction (y-axis) of countries?

- A  $y = x$
- B  $y = x^2$
- C  $y = \log(x)$
- D  $y = \frac{1}{x^2}$
- E  $y = e^x$

72. Which of the following, about the four islands, can be BEST inferred from the graphs?

- A Whenever affect balance increases, satisfaction with life decreases

- B Whenever Pleasant activities increase, satisfaction with life decreases
- C Whenever Religion increases, satisfaction with life decreases
- D Whenever satisfaction with life increases, family also increases
- E Index of monetization varies maximum in Niijhum Dwip

73. Which of the following site has the highest fishing to economic ratio?

- A Gizo
- B Chittagong
- C Roviana
- D Niijhum Dwip
- E All four islands have equal dependence

### Instructions [74 - 76 ]

Go through the information given below, and answer the THREE questions that follow.

Comprehension:

The table captures Age and Gender distribution of Covid Positive Cases in a country. However, a part of data is missing, represented through unknown categories.

		Total Confirmed Covid Positive Cases	Gender		
			Female	Male	unknown
Age	All	117,586*	62,434	53,825	1,327
	Unknown	235			
	0-18	22,362	11,147	10,880	
	19-30	32,860	18,768	13,743	
	31-40	24,110	12,693	11,118	
	41-50	14,120	7,264	6,688	
	51-60	11,174	5,567	5,523	
	61-70	7,300	3,756	3,513	
	71-80	3,429	1,875	1,534	
	81+	1,996	1,276	708	

\*Includes <5 cases in age group 19-30 and 51 -60 who reported gender as Other/Transgender. \* In unknown age category, the ratio of males (unknown age category) and females (unknown age category) to total unknown cases (unknown age category) is same as the ratio of males (All) and females (All) to the total (Total Confirmed Covid Positive Cases).

74. In unknown age category, the ratio of males (unknown age category) and females (unknown age category) to total unknown cases (unknown age category) is same as the ratio of males (All) and females (All) to the total (total confirmed covid positive cases). How many females were in the unknown age category (rounded to nearest integer)?

- A 120
- B 140
- C 110

D 125

E 130

75. In which age category, the percentage of female covid patients is the HIGHEST?

A 61-70

B 31-40

C 41-50

D 51-60

E 81+

76. Which of the following is true for "unknown gender Category"?

1. Unknown age group patients are less likely (percentage term) to provide information about gender than any other age category
2. Between 31 and 80, when age increases patients, in percentage terms, are less likely to provide information about gender
3. Elderly (81+) category patients are more likely to give information about gender than 0-18 age group

A 3 only

B 2 only

C 1 and 2

D 1 and 3

E 2 and 3

## Mock Keyboard Testing

### Instructions [77]

Mock Keyboard Testing

77. Please type following sentence and symbols

"The quick brown fox jumps over the lazy dog."

'(?,!,:%:/)'

## General Knowledge

78. Who has been appointed as the Chief Justice of India in November 2022?

A Justice U. U. Lalit

B Justice Dhananjay (D.Y) Chandrachud

- C** Justice S.J. Mukhopadhaya
- D** Justice Yashwant (Y.V.) Chandrachud
- E** Justice N. V. Ramana

**79.** Which institution was renamed as “Niti Aayog”?

- A** Policy Aayog of India
- B** Planning Commission of India
- C** Infrastructural and Development Commission
- D** Government Policy Commission
- E** Economic Planning Council

**80.** Which institution published the cartoon book titled Raju & The Forty Thieves - A Booklet on Modus Operandi of Financial Fraudsters?

- A** The Punjab National Bank
- B** The Ministry of Corporate Affairs, Government of India
- C** The Ministry of Finance, Government of India
- D** The Reserve Bank of India
- E** The State Bank of India

**81.** Identify the sectors into which the Indian economy is divided, for the calculation of GDP?

- A** Agriculture, Manufacturing and Services
- B** Government, Private and Social
- C** Agriculture, Manufacturing and E-commerce
- D** Agriculture, Defence, Information Technology and Manufacturing
- E** Primary and non-primary

**82.** Which of the following was NOT a reason associated with Sri Lankan economic crisis of 2022?

- A** Decline in FOREX reserves
- B** Shift towards organic agriculture

- C COVID-19
- D Decline of fisheries
- E Decline of tourist inflow

**83.** From the following, choose the Article in the Constitution of India that proclaims: "It shall be the obligation of every citizen of India to safeguard and develop the natural environment, including forests, lakes, rivers, and animals, and to have compassion for living beings."

- A Article 14A
- B Article (13b)
- C Article 51A (g)
- D Article 15
- E Article 21

**84.** Match the United Nation's Secretary Generals with their citizenships, at the time of appointment.

A. Kurt Waldheim	1. Austria
B. Kofi Annan	2. South Korea
C. Antonio Guterres	3. Portugal
D. Ban Ki Moon	4. Ghana

- A A2, B3, C4, D1
- B A4, B3, C1, D2
- C A1, B4, C2, D3
- D A2, B4, C1, D3
- E A1, B4, C3, D2

**85.** BTS (Bangtan Boys), the pop-music band, belongs to which country?

- A South Korea
- B USA
- C India
- D UK
- E Australia

**86.** Which company developed Vikram-S, India's first private space rocket, that was launched from Satish Dhawan Space Centre in Sriharikota on November 18, 2022?

- A Brahmos Aerospace Private Limited
- B Lockheed Martin India Private Limited

- C Mahindra Aerospace
- D Skyroot Aerospace
- E Indian Rotorcraft

87. Which of the following animals are on the State Emblem of India?

- A Lion, Tiger, and Bull
- B Lion, Bull, and Elephant
- C Lion, Bull, and Horse
- D Lion, Elephant, and Horse
- E Lion, Tiger, and Cow

88. Which of the following is the world's largest River delta?

- A The Mississippi River delta
- B The Mekong River delta
- C The Nile River delta
- D The Amazon River delta
- E The Ganges River delta

89. Which of the following breakthrough decisions was taken at the COP 27 (8-20 Nov 2022, Sharm el-Sheikh, Egypt)?

- A Establish and operationalize a "loss and damage" fund
- B Establish and operationalize a "global ecosystem services payments mechanism"
- C Establish and operationalize a "global early warning system" for weather events
- D Accept and operationalize a "global carbon tax and trading mechanism"
- E Accept and operationalize a "Net zero" target for every country

90. Match the famous CEOs with the title of their biographies.

A. Indra Nooyi	1. Zero to one
B. Gregory Zuckerman	2. The man who solved the market
C. Peter Thiel	3. My life in full: work Family and our futur
D. Sheryl Sandberg	4. Lean In: Women work and will to lead

- A A1, B2, C3, D4
- B A3, B2, C1, D4
- C A4, B3, C1, D2
- D A1, B3, C4, D2



**E** A2, B1, C4, D3

**91.** The first ever Wildlife conservation bond (a financial instrument) in the world, was floated to conserve which of the following critically endangered species?

- A** Black Rhino in South Africa
- B** Opossum in Australia
- C** Cheetah in India
- D** Giant Panda in China
- E** Water Buffalo in Africa

**92.** Which of the following is the right description of INS-Arihant?

- A** Destroyer
- B** Corvette
- C** Frigate
- D** Aircraft Carrier
- E** Nuclear powered Submarine

**93.** Which price index is being used to measure inflation by the Reserve Bank of India?

- A** Industrial Cost and Price Indices
- B** GDP Deflator
- C** Consumer Price Index
- D** Purchasing Power Parity based Index
- E** Wholesale Price Index

**94.** Who scored the maximum number of goals in the recently concluded FIFA world cup, 2022?

- A** Marcus Rashford
- B** Kylien Mbappe
- C** Neymar da Silva Santos Junior
- D** Lionel Messi
- E** Olivier Giroud

**95.** Match the new names of the given companies with their respective old names.

Old Name	New Name
A. Google	1. Altria
B. Facebook	2. Alphabet
C. Phillippe Morris	3. Meta
D. McAfee	4. Intel Security

- A A1 B3, C4, D2
- B A2, B3, C1, D4
- C A3, B2, C1, D4
- D A2, B1, C4, D3
- E A1, B2, C3, D4

96. Which of the following is NOT attributed as a reason for Russian invasion of Ukraine?

- A Ukraine's refusal to export wheat to Russia
- B NATO's expansion into East Europe and Ukraine
- C Ukraine has citizens of different ethnicities
- D Saving people of Russian origin in the eastern region of Ukraine
- E Russia fears that Ukraine, with the support of NATO, will claim back Crimea

97. Which organization, in October 2022, imposed a penalty on Alphabet for violating anti-trust laws in India?

- A Monopolies and Restrictive Trade Practices
- B Supreme Court of India
- C Niti Aayog
- D Government of India
- E Competition Commission of India

98. Which of the following is not a site associated with the Indus Valley Civilization?

- A Mohenjo-Daro
- B Lothal
- C Harappa
- D Ropar
- E Bhimbetka

99. Which former Prime Minister of India wrote "Kaidi Kavirai Ki Kundalian," a poetic compilation, while being lodged in jail?

- A Jawaharlal Nehru

- B Chandra Shekhar
- C I.K. Gujral
- D Lal Bahadur Shastri
- E Atal Bihari Vajpayee

**100.** Match the following animals/birds with the Wildlife Sanctuary, National Park or a region that they naturally occur.

A. Great Indian bustard	1. Manas National Park
B. Negapode	2. Sri Lankamalleswara Wildlife Sanctuary
C. Jerdon's Courser	3. Desert National Park
D. Pigmy Hog	4. Nicobar Island Sanctuary

- A A3, B4, C2, D1
- B A2, B3, C4, D1
- C A4, B3, C1, D2
- D A1, B4, C3, D2
- E A2, B4, C1, D3

**101.** Who of the following is not a Gig worker?

- A Zomato delivery Boy
- B Plumber on call
- C Freelance worker
- D Person running a salon
- E Uber driver

**102.** Which of the following countries did not qualify for FIFA World Cup Qatar 2022?

- A Senegal
- B Morocco
- C Italy
- D Switzerland
- E Australia

## Essay

**103.** Choose ONE of the three arguments given below and develop a coherent essay that critically evaluates it. Support your analysis with relevant claims, reasons and/or examples. The essay should not exceed 250 words.

Argument I. Risk is the essential need of soul. The absence of risk produces a kind of boredom which paralyses in a different way from fear, but almost as much.

Argument II. Rapid decarbonization to fulfill India's Net Zero commitment will have business consequences.

Argument III. Someone with half your IQ is making 10X as you because they aren't smart enough to doubt themselves.

Answer Question no. 1 if you choose Argument I.

Answer Question no. 2 if you choose Argument II.

Answer Question no. 3 if you choose Argument III.

In today's world, when people talk of risk, they are mostly discussing a financial investment or a business decision. However, there are several types of risk - many of which are never considered or factored in while making decisions. For example, most people understand credit risk or financial risk, but rarely do we consider the moral risk or social risk of a decision. However, when it comes to the mind and soul of a person, these are exactly the types of risks that are relevant. And as people are risk-taking or risk-averse in a financial sense, they are similarly risk-taking or risk-averse when it comes to the other risks. Often, risk-averse behaviour, in moral or social spheres, leads to an atrophy of the mind and a decay of the soul. When one thinks of social risk, the first example that comes to mind is the oft-repeated refrain - 'what will people say'. This one refrain prevents people from seeking out happiness and doing things that would truly make them happy. When people choose not to take any social risk, they end up being inauthentic versions of themselves - an imposter of their true self. Similarly, when someone cannot risk failure in life choices, be it by leaving a job to start a business or choosing a field that they are well-suited for which isn't mainstream, they risk ossifying in life choices that prevent them from reaching their true potential. At a society level, when people refuse to testify to the truth or refuse to rise up to a tyrant because they cannot take the risk of failure, the society and the individual both suffer. Thus, risk is essential to reach one's true potential and to become one's authentic self. Without risk, there is no growth, and without growth, an individual will be a stunted version of themselves. The risk-reward framework that is often quoted for investment returns is also true for other forms of risk - the higher the risk, the greater the reward; for a person's mind and soul.

**104.** Argument II. Rapid decarbonization to fulfill India's Net Zero commitment will have business consequences.

**105.** Argument III. Someone with half your IQ is making 10X as you because they aren't smart enough to doubt themselves.

# Answers

## Verbal Ability & Logical Reasoning

1.C	2.B	3.A	4.E	5.C	6.D	7.B	8.E
9.B	10.A	11.E	12.C	13.E	14.C	15.A	16.D
17.C	18.B	19.D	20.D	21.D	22.A	23.C	24.D
25.A	26.E						

## Decision Making

27.E	28.A	29.E	30.A	31.B	32.A	33.D	34.A
35.A	36.A	37.B	38.D	39.A	40.B	41.E	42.B
43.D	44.E	45.C	46.C	47.C	48.C		

## Quant

49.E	50.A	51.E	52.A	53.B	54.A	55.C	56.D
57.A	58.E	59.D	60.A	61.D	62.B	63.D	64.E
65.C	66.E	67.B	68.A	69.E	70.B	71.C	72.E
73.C	74.D	75.E	76.D				

## Mock Keyboard Testing

77.e

## General Knowledge

78.B	79.B	80.D	81.A	82.D	83.C	84.E	85.A
86.D	87.C	88.E	89.A	90.B	91.A	92.E	93.C
94.B	95.B	96.A	97.E	98.E	99.E	100.A	101.D
102.C							

## Essay

103.e	104.e	105.e
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# Explanations

## Verbal Ability & Logical Reasoning

### 1. C

In this question, the statements say that the leave policy is bound to be unpopular either with the management or among workers.

In Option C, it is given that the leave policy is popular with the management => it should be unpopular among the workers.

The statement says that we should adopt a new policy if it is unpopular with workers.

Therefore, Option C is correct.

### 2. B

1 introduces the author's uncertainty about when their awareness of the Singularity began and 3 builds on the first one, indicating that the author's awareness has developed gradually, and it specifies that the transforming event (the Singularity) is expected in the first half of the twenty-first century. 4 further emphasizes the gradual nature of the author's awareness, describing it as a "progressive awakening". 5 expands on the analogy of a black hole, drawing a parallel between a black hole's impact on space and the Singularity's transformative effect on various aspects of human life. 2 provides background information, explaining that over almost half a century, the author has been immersed in computer and related technologies, seeking to understand the meaning and purpose behind the continual upheaval witnessed.

### 3. A

The passage provides various examples of how technological advancements and online platforms are changing traditional ways of doing things, such as education, healthcare, legal dispute resolution, news consumption, tax preparation, architecture, and the structure of organizations. The examples collectively suggest a shift toward new organizational forms and approaches.

Therefore, Option A is the correct choice.

### 4. E

If the sale of anti-depression drugs remains constant across the years in country Y, it suggests that there is no significant increase in the demand for such drugs during and after the elections. The conclusion in the passage is based on the premise that the election is a psychologically traumatizing event, leading to increased searches related to depression.

In summary, option E weakens the conclusion by providing evidence that contradicts the expected increase in the demand for anti-depression drugs during and after the elections in country Y.

### 5. C

Statement-1

The correct preposition to use with "accused" is "of" instead of "for." The sentence should be: "The boss accused her employee of stealing information."

Statement-5

The correct preposition to use with "good" in this context is "at" instead of "in." The sentence should be: "He is good at playing the piano."

Therefore, C is the correct answer.

### 6. D

The passage discusses how the current generation is rethinking its role in relation to others, emphasizing the impact of technological prowess as a lifeline, the role of innovation, and the use of technology in both wasting time and making meaning. Additionally, the passage highlights the setting up of FaceTime for remote

interactions and the assertion that digital relationships are real, though uncertainties exist. This suggests a transformation in social relations due to technology use.

Therefore, D is the correct answer.

**7. B**

Sentence-1

The correct sentence would be, "The exam will begin at 2:00 p.m. on January 8th."

Sentence-2

The correct preposition to use with "entering" is "the." The sentence should be: "While entering the college building, he saw the statue of "Mahatma Gandhi."

Statement-5

The correct preposition to use with "married" is "to." The sentence should be: "Amitabh Bacchan is married to Jaya Bacchan."

Therefore, 3,4 and 6 are the correct sentences.

**8. E**

1 sets the stage by acknowledging the collective efforts of various thinkers over centuries. 2 introduces a specific date, 1953, suggesting a pivotal moment in the history of our understanding. 3 provides context for the significance of 1953, mentioning the experiment conducted by Miller and Urey and its relation to the ideas proposed by Alexandre Oparin in 1924. 4 details the experiment conducted in 1953 and its outcomes, contributing to the development of knowledge about the origin of life.

**9. B**

Option B is the correct answer because it accurately fills the blanks with terms that align with the context and convey the intended meaning. The sentence draws a parallel between the impact of oil painting on appearance and the impact of capital on social relations. The term "relations" aptly describes the complexity of social connections, while "exchangeability" aligns with the idea that both oil painting and capital reduce diverse elements to a commercial, commodified form. "Measured" effectively concludes the sentence, emphasizing the mechanistic quantification of reality based on its material aspects. This option provides a coherent and contextually fitting completion.

**10. A**

Option A is the correct answer because it logically extends the information provided in the excerpt about the future potential of hydrogen in energy systems. The excerpt discusses how hydrogen may play a significant role in our energy systems, and Option A complements this by introducing the potential impact of such a change. It mentions the economic aspects, stating that the impact could be huge, potentially generating \$2,500 billion in revenue globally and creating more than 30 million jobs. This additional information aligns with the broader implications of adopting hydrogen as a significant part of energy systems, making Option A the most logical completion of the excerpt.

**11. E**

Option E is the correct answer because it effectively uses commas to separate items in a series, providing clarity and proper punctuation. Each country and its associated notable figures are appropriately delineated by commas within the overall series, ensuring a clear and grammatically correct presentation.

**12. C**

The paragraph suggests that the fundamental laws governing the smallest constituents of matter and energy, when applied to the Universe over long enough cosmic timescales, can explain everything that will ever emerge. This implies a continuity and consistency of fundamental laws from the smallest constituents, like atoms, to the entire Universe. Option C best captures this inference.

Option A: The paragraph does not state or imply that everything in the Universe occurs randomly

Option B: The paragraph suggests continuity in fundamental laws from the smallest constituents to the entire Universe, not a change.

Option D: The paragraph doesn't imply that all phenomena are dependent on long cosmic timescales

Option E: The paragraph does not use the term "spontaneously" but emphasizes emergence from fundamental laws, suggesting a more structured process.

**13. E**

The phrase *"interpretation is not...a gesture of mind situated in some timeless realm of capabilities"* implies that interpretation is not a static or unchanging mental process. Instead, it is a dynamic and context-dependent activity that involves revisiting and reinventing meanings based on the historical and cultural context. Option E best expresses the idea that interpretation is about engaging with and reshaping meanings in response to evolving contexts, aligning well with the author's intent in the passage.

Option A: The passage does not specifically discuss evaluation in terms of authority but emphasizes the act of interpretation itself.

Option B: The passage suggests the opposite, highlighting the dynamic and historical nature of interpretation.

Option C represents the old style of interpretation, which the passage contrasts with the modern style of excavation and destruction.

Option D: The passage does not attribute interpretation to timeless experts but rather explores its historical and cultural variability.

**14. C**

Option C is the correct answer because labeling a text as blasphemous is not an act of interpretation in the context discussed in the passage. The passage emphasizes a dynamic and context-dependent approach to interpretation, involving the exploration and excavation of meanings within texts. Labelling a text as blasphemous is more of a judgment or categorization based on personal or cultural beliefs, and it does not align with the nuanced and exploratory nature of interpretation as described in the passage. Interpretation, as presented in the passage, involves a deeper engagement with the content, seeking underlying themes, causes, or appreciating the complexity of literary texts rather than simply assigning a label.

**15. A**

Option A is correct because it accurately differentiates between manifest content and latent content as described in the passage. Manifest content refers to the apparent, surface-level content, while latent content is hidden, requiring interpretation. The words "apparent" and "hidden" effectively capture this distinction, making Option A the best choice.

Option B mischaracterizes manifest content and latent content by introducing terms like "loaded" and "elusive" that do not align with the passage's description.

Option C: The passage doesn't make a distinction based on natural or cultural elements but focuses on the visibility and hidden nature of the content.

Option D misinterprets the nature of manifest and latent content; manifest content is not necessarily obscure, and latent content is not inherently lucid.

Option E: They are not hierarchical in a superset-subset relationship but rather represent different layers of meaning in interpretation.

**16. D**

The passage suggests that procrastination can be influenced by the tendency of individuals to underestimate the time required to complete a given task. This underestimation is attributed to a failure to consider past experiences with similar projects and a reliance on overly optimistic scenarios where potential obstacles or unforeseen problems are not taken into account. Therefore, the passage implies that one of the reasons for procrastination is a systemic miscalculation of the time needed for specific tasks, making option D the most accurate and comprehensive choice.



The passage doesn't emphasize estimation based on the novelty of the task (Option A) nor does it discuss a linear perception of time within a task (Option B).

Option C: The passage discusses the planning fallacy, where time is inadequately planned, not the absence of planning.

Option D: The passage highlights the planning fallacy, indicating that time is considered but often underestimated for specific tasks.

**17. C**

Option C is a correct inference based on the passage's discussion of Socrates' perspective on akrasia (procrastination). The passage suggests that Socrates believed procrastination to be strictly impossible because individuals would not willingly choose what is bad for them. Instead, procrastination, according to this view, is attributed to ignorance of what is right. Therefore, the inference that procrastination is an act against our own interests due to ignorance aligns with the passage's exploration of philosophical perspectives on the phenomenon.

Option A: The passage emphasizes the planning fallacy and underestimation of time, portraying procrastination as a failure in planning rather than a success.

Option B: While myopic vision and linear thinking are discussed, the passage suggests that procrastination involves more than just a simple mistake, encompassing complex psychological factors.

Option D is somewhat accurate but lacks the depth of understanding that procrastination involves irrational delays influenced by various factors beyond simple postponement.

Option E, while generally accurate, does not highlight the ignorance aspect as explicitly as Option C.

**18. B**

Option B aligns with the idea that Loewenstein suggests: deficient memory for the intensity of visceral rewards. It implies that our brain lacks the support or ability to furnish memories that would act as deterrents to further procrastination. In other words, the deficiency in memory inhibits our capacity to recall negative aspects or consequences associated with past procrastination experiences, potentially contributing to the continuation of procrastinating behavior. While it doesn't explicitly address the deficient memory for the pleasure intensity, it captures the impact of this deficiency on our ability to use memories as a deterrent to procrastination.

**19. D**

Option D is the correct answer because the poem primarily focuses on analyzing the past and present of a person who has achieved success. The narrative explores the contrast between the current state of success, as depicted by images of walking around a shaved lawn and organizing with an electric clipboard, and the past where the person left someone less fortunate behind. The poem reflects on the consequences of success, the disparity between the two individuals, and the emotional impact on both. It doesn't merely celebrate success or moan losses but provides a thoughtful analysis of the dynamics between the successful person and the one left behind, making Option D the most fitting choice.

**20. D**

The lines *"He doesn't see you as a story, though/He feels you as his atmosphere"* suggest that the person in question is not perceived as a narrative or story but is rather felt as a pervasive and ever-present influence akin to an atmosphere. This implies that the present experience and impact of the person are more significant than a retrospective narrative, aligning with the idea that the present subsumes the past. Therefore, Option D is the correct answer.

Option A: The lines don't imply a sense of haunting; instead, they emphasize the person's present influence.

Option B: While the person may have achieved success, the lines focus on their immediate impact, not necessarily portraying them as larger than life.

Option C: This option oversimplifies the message the author is trying to convey.

Option E: The lines emphasize the person's present impact, suggesting a more immediate and encompassing influence rather than being merely an extension of the past.

**21. D**

Option D is the correct answer because it aligns with the concept of a hyper-object as described in the passage. A hyper-object is characterized by extensive time-space boundaries that are challenging for humans to fully comprehend. The changing orbit of the Earth over centuries involves a broad time-scale and complex spatial dynamics, making it closer to the idea of a hyper-object compared to the other options.

Option A involves a cyclical and relatively more immediate phenomenon, not reflecting the extensive time-space boundaries associated with hyper-objects.

Option B is a more localized cause-and-effect relationship, lacking the complexity and broader scope of a hyper-object.

Option C represents a specific cause-and-effect scenario within a limited context, not meeting the criteria of a hyper-object.

Option E involves a specific and relatively more immediate technological contribution, not encompassing the extensive time-space boundaries characteristic of hyper-objects.

**22. A**

The passage criticizes a human-centric perspective that prioritizes human interests and exploits nature for economic growth. Option A, on the other hand, suggests an approach that values nature for its inherent intelligence, emphasizing a more intrinsic and non-exploitative perspective. Therefore Option A is the correct answer.

Option B reflects a human-centric perspective by emphasizing the utilization of natural resources for economic gain, which is in line with the passage's critique of human-centric approaches contributing to environmental degradation.

Option C is incorrect as while promoting tree planting for oxygen is environmentally positive, the statement still centers on the benefit to humans, aligning with a human-centric viewpoint.

Option D, although advocating for preservation, is still framed in terms of human interests, focusing on the well-being of future generations.

Option E, despite addressing environmental consequences, is ultimately centered around the negative impacts on humans.

**23. C**

Statement 1 The passage does not explicitly discuss patents, and there is no clear indication of the author's view on this matter. Without information on the author's stance, it cannot be concluded whether this statement is in consonance with the author's views or not.

Statement 2 The passage criticises the flaws in the current economic model, particularly the capitalist ethos of free-market trading, suggesting that it contributes to environmental problems. Therefore, this statement is not in line with the author's views either.

Statement 3: This is also not in line with the author's views as the passage implies a critique of human-centric activities that exploit nature for economic gain, and building a resort on a hilltop could be seen as an example of such exploitation.

Therefore the correct answer is Option C : 1,2 and 3

**24. D**

Option D is the correct answer because the passage does not attribute bad storytelling in a society to its lack of inclusivity. The passage highlights issues with existing stories, such as their inability to create a positive future image, their divisiveness leading to bickering, and their outdated nature. However, the concept of inclusivity is not explicitly linked to the problems associated with bad storytelling. Instead, the passage emphasizes the need for a new, unifying narrative to address societal challenges and inspire collaborative efforts. Therefore, the absence of inclusivity as a problem aligns with the passage's context and makes Option D the correct choice.

Options A, B, C and D have been mentioned in the passage and hence can be associated with bad storytelling.

**25. A**

Option A is the correct answer as it captures the essence of a good story by emphasizing the theme of universal interconnectedness. A compelling narrative often transcends individual perspectives, fostering a sense of unity and shared experience among diverse individuals. This option implies a broader, inclusive worldview, aligning with the idea that a good story should resonate with the common humanity that connects everyone, highlighting the interconnected nature of individuals and the universe. It reflects a positive and unifying theme, which is a characteristic often associated with powerful and impactful storytelling.

Option B emphasizes a national perspective, which might not resonate universally and could be seen as exclusive rather than inclusive.

Option C focuses on a specific event and its consequences, lacking the universal and inclusive nature often associated with a broader, impactful narrative.

Option D leans towards a pessimistic perspective, lacking the uplifting and unifying qualities typically associated with a good story.

Option E highlights a specific historical aspect, but its emphasis on a national achievement may not encompass a universally resonant theme, potentially excluding a global audience.

## 26. E

Statement 3 aligns with the concept of an "unreasonable story" because an unreasonable story may prioritize emotional or symbolic truth over strict factual accuracy. It suggests a departure from conventional or rational narratives, allowing for creative or unconventional interpretations that might not strictly adhere to factual details.

Statement 4 is associated with an "unreasonable story" as the passage calls for a new, unreasonable narrative that inspires and unites humanity. An unreasonable story, in this context, goes beyond conventional or predictable narratives and seeks to be compelling in a way that motivates positive action and fosters a sense of shared purpose among diverse individuals.

Therefore the correct answer is Option E: 3&4

## Decision Making

### 27. E

Option-E

This option ensures that the new faculty (A type candidates) not only maintains the quality of education in existing courses but also contributes to updating the course content by developing complementary courses. It strikes a balance between leveraging the expertise of the existing faculty and bringing in fresh perspectives to adapt to the changing business landscape.

Option-A

This option focuses on diversity in teaching styles but doesn't explicitly address the need for developing complementary courses.

Option-B

This option assumes that the existing faculty can develop complementary courses, but it might be challenging for them to manage this alone, especially considering their existing teaching responsibilities.

Option-C

Hiring candidates solely because they are willing to teach any course may compromise the quality of education. The focus should be on recruiting individuals who are both good teachers and capable of contributing to course development.

Option-D

While hiring A type candidates is a good idea, doing so unconditionally without ensuring their contribution to developing complementary courses may not fully address the challenge of adapting to the changing global business scenario.

Therefore, E is the best choice.

**28. A**

The correct option is A because it focuses on complementary courses, reducing direct competition and fostering collaboration between new and existing faculty members. It strikes a balance between maintaining the strengths of the current faculty and introducing innovation through new hires, thereby minimizing conflicts and politicking.

Option B is not correct because they are described as not-so-good teachers. Allowing them to teach all types of courses may compromise the overall quality of education, potentially leading to dissatisfaction among students and conflicts within the faculty.

Option C is not the most suitable option because while it maintains the excellence of existing courses by assigning A type candidates to teach them. However, it may face resistance from existing faculty members who might not be comfortable or interested in teaching new courses. This approach may lead to conflicts and challenges in implementing changes smoothly.

Option D is not correct because it creates a scenario where new A type candidates and existing faculty members are offering the same courses. This can potentially lead to conflicts and political maneuvering as faculty members compete for teaching assignments and student attention. The direct competition may hinder collaboration and harmony among the faculty.

Option E is incorrect B type candidates are described as average teachers but competent in creating and teaching new courses that complement existing ones. Allowing them to teach all kinds of courses, including existing ones, might not leverage their strengths effectively, potentially leading to a compromise in the quality of education for existing courses.

**29. E**

option E is the most efficient choice by combining the teaching excellence of A type candidates with their capability to develop complementary courses, ensuring a well-rounded and resource-efficient approach.

Option A is incorrect because it may result in redundancy, as both new A type candidates and existing faculty members would be teaching the same courses. It can lead to inefficient resource allocation and potential competition for teaching assignments.

Option B is not the most efficient because B type candidates are average teachers but competent in creating and teaching new courses. Hiring them exclusively for complementary courses might not efficiently utilize their skills in teaching existing courses.

Option C is not the correct answer because the existing faculty members may not have the expertise or inclination to develop complementary courses. This approach might lead to inefficiencies in course development and potentially compromise the quality of new courses.

Option D is incorrect because C type candidates, described as not-so-good teachers, may not be the best fit for teaching-assistant responsibilities. This option may result in challenges in maintaining teaching quality and efficient utilization of faculty resources.

The correct option is E

**30. A**

The correct option is A because the success of the food center heavily relies on having sufficient funds to cover the costs of ingredients, salaries, operations, and maintenance. Without an adequate financial foundation, WBLCF may struggle to continue its philanthropic work and expand to nearby districts. Paying salaries, attracting diners, having enough cooks, and offering local dishes are all interconnected challenges that can be addressed more effectively with a robust financial base.

Option B is not the most critical because while paying salaries is crucial for retaining dedicated employees, it is a component of the overall financial challenge. If there are not enough finances to cover salaries, it becomes a subset of the broader issue of obtaining adequate funds and donations.

Option C is not the most critical one because while attracting diners is essential for the success of the food center, but it's not the primary challenge. Even if there are many diners, the initiative's sustainability depends on having the necessary financial resources to continue providing free meals.

Option D is not correct because having enough cooks and employees is an operational challenge but can be addressed within the broader context of financial stability. If there are sufficient funds, hiring and retaining staff becomes more manageable.

Option E is not crucial because while offering variety in the menu may be a desire expressed by diners, it is not as critical as ensuring the financial sustainability of the food center. Menu diversification can be considered once the core financial challenges are addressed.

The correct option is A

### 31. B

The correct option is B.

Suggestion 3 goes against the core ethos of WBLCF, which focuses on providing meals to the needy without imposing restrictions on their food intake. Encouraging diners to eat less may contradict the principle of ensuring that everyone has enough to eat.

Suggestion 4 is similar to Suggestion 3. Preaching people to eat less is not aligned with the ethos of WBLCF, which is centered around addressing hunger rather than promoting dietary restrictions.

Suggestion 5 may also contradict the mission of WBLCF. While rationing may be a practical approach to reduce wastage, it could conflict with the principle of providing enough food for those who are hungry. Imposing strict limits on the amount of food served may contradict the mission of ensuring that "no human should be hungry."

### 32. A

Option A is the best choice because it combines community engagement, local volunteers, a judging process, and a regular competition, providing a holistic and inclusive approach to conserving local recipes while aligning with the ethos of WBLCF.

Option B is not correct because while this involves individuals from the community, it may not capture a diverse range of local recipes. Relying on one person per week may not be sufficient to document a wide variety of dishes.

Option C is not correct because food delivery partners may not prioritize the documentation of local recipes, and their primary focus is on delivering food. The documentation process may not be as comprehensive or community-oriented as in option A.

Option D is incorrect because while a professional chef can provide expertise, this approach may not involve a broad representation of the local community. Additionally, restaurant recipes may differ from traditional home-cooked dishes that WBLCF aims to conserve.

Option E is not correct because while involving diners is a good idea, relying solely on them may not ensure a systematic and consistent approach to documentation. It may also exclude non-diners who may hold valuable knowledge about local recipes.

The correct option is A

### 33. D

From the points given in the question, we can calculate the expected time for each activity.

The table is given below:

Activity	Optimistic (16.66%)	Pessimistic (16.66%)	Most Likely (66.66%)	Weighted Average
A	1	1	1	1
B	2	3	3	2.83
C	10	13	12	11.83
D	5	5	5	5
E	3	6	4	4.16
F	1	1	1	1
G	5	10	7	7.16
H	9	13	10	10.33
I	5	5	5	5

First activity A will be started, and then B, and C can be started simultaneously. E and H will be dependent on C.

Similarly, D, F, and G will be dependent on B.

D, F, and G will not depend on C, H, E, and vice versa.

I activity will be started after all the 8 activities are done.

A takes = 1 min

Then B, D, F, and G will take 16 minutes.

In these 16 minutes, C and E will also be completed simultaneously.

Hence, in the first  $(16+1) = 17$  minutes, A, B, C, D, E, F, and G will be completed. Now H will take another 10.33 minutes. After that I will take 5 minutes.

Hence, the total time taken =  $(17+10.33+5) = 32.33$  minutes

**34. A**

To minimize customer dissatisfaction, the chef will follow a pessimistic schedule (worst-case scenario).

Activity	Optimistic (16.66%)	Pessimistic (16.66%)	Most Likely (66.66%)	Weighted Average
A	1	1	1	1
B	2	3	3	2.83
C	10	13	12	11.83
D	5	5	5	5
E	3	6	4	4.16
F	1	1	1	1
G	5	10	7	7.16
H	9	13	10	10.33
I	5	5	5	5

First activity A will be started, and then B, and C can be started simultaneously. E and H will be dependent on C.

Similarly, D, F, and G will be dependent on B.

D, F, and G will not depend on C, H, E, and vice versa.

I activity will be started after all the 8 activities are done.

Based on the pessimistic schedule,

A takes = 1 min

Then B, D, F, and G will take 19 minutes.

In these 19 minutes, C and E will also be completed simultaneously.

Hence, in the first  $(19+1) = 20$  minutes, A, B, C, D, E, F, and G will be completed. Now H will take another 13 minutes. After that, I will take 5 minutes.

Hence, the total time taken =  $(20+13+5) = 38$  minutes.

The correct option is A

**35. A**

The most volatile activity = |The difference between the maximum or minimum time taken and the weighted average of the time taken| is maximum.

Activity	Optimistic (16.66%)	Pessimistic (16.66%)	Most Likely (66.66%)	Weighted Average
A	1	1	1	1
B	2	3	3	2.83
C	10	13	12	11.83
D	5	5	5	5
E	3	6	4	4.16
F	1	1	1	1
G	5	10	7	7.16
H	9	13	10	10.33
I	5	5	5	5

From the table, we can see that G has the highest difference, which is  $(10-7.16) = 2.83$

**36. A**

1: This suggests that visually impaired individuals can bring unique skills and strengths to the workplace, complementing the abilities of other employees.

2: Indicates that their presence can have a positive motivational impact on the entire workforce.

3: Suggests a potential positive impact on societal perceptions and can serve as an inspiration for others facing challenges.

4: Highlights a strong work ethic and determination among visually impaired individuals, challenging stereotypes.

5: Implies that an inclusive approach can positively influence the company's reputation and, subsequently, its sales.

6: Brings up a potential cost related concern which would validate the CEO's apprehensions.

Therefore the correct answer is Option A: 1, 2, 3, 4, 5 only

**37. B**

Option B is the correct answer.

2: This recommendation addresses the concern of involving visually impaired employees in meaningful activities by ensuring they are hired based on their abilities and contributions. It aligns with the idea of maximizing their potential in areas where they can make a valuable impact.

3: This recommendation addresses the practical aspects of creating a supportive and inclusive environment for visually impaired employees. It ensures that the workplace infrastructure is accessible and accommodating to their needs, enhancing their overall experience.

4: This recommendation recognizes the assistance that guide dogs can provide to employees with complete vision impairment. Allowing guide dogs contributes to the well-being and independence of visually impaired individuals.

These recommendations collectively address the concerns of meaningful employment, workplace accessibility, and assistance for employees with 100 percent vision impairment.

**38. D**

(1): This statement suggests a negative stereotype that visually impaired individuals may be perceived as inefficient or incapable of performing certain tasks. Suresh's reluctance to be served by visually impaired baristas could be rooted in this stereotype.

(2): Suresh's upbringing and the values instilled by his parents may contribute to his preference for donating rather than accepting services from individuals he perceives as "challenged." This attitude may stem from a belief in charity over direct interaction.

(3): This statement does not directly address why Suresh refuses to be served by visually impaired baristas. It suggests a belief in adverse consequences, but the nature of these consequences and their relation to his biased behavior is unclear.

(4): This statement portrays a positive sentiment towards visually impaired individuals. It implies that Suresh feels joyous when interacting with them. This positive feeling contradicts the negative bias suggested by his refusal to be served by visually impaired baristas.

Therefore Option D: 1, 2 Only is the correct answer.

**39. A**

Option A is the least negative among all the options because it suggests a reduction in daily working hours, which, while impacting income, may provide employees with more time for personal and moonlighting activities. It is considered the least negative among the given options because it addresses the potential time constraints without directly impacting health, family life, or financial stability to the same extent as the other options.

Option B is not correct because moonlighting often involves working additional hours beyond a primary job, which can lead to less time spent with family. Increased family problems may arise due to a lack of quality time and attention.

Option C is not correct because moonlighting can lead to an increase in workload, potentially resulting in excessive stress, fatigue, and poor physical health. The strain of managing multiple jobs may negatively impact an employee's overall well-being.

Option D is not correct because overworking, especially when juggling multiple jobs, can lead to burnout and a decline in performance. Employees may find it challenging to maintain a high level of productivity and focus when stretched too thin.

Option E is incorrect because if an employer decides to reduce salaries due to moonlighting, it can have a direct financial impact on employees. This may result in financial strain and dissatisfaction among employees, potentially leading to decreased morale and motivation.

The most suitable option is A

**40. B**

The correct answer is option B.

Opinion 3 suggests that Moonlighting leads to employees missing out on important organizational work, highlighting potential negative consequences for the primary job. This emphasizes the impact on the employee's commitment and performance in their main role. Opinion 4 points out the risk of unknowingly leaking critical information gained from one organization to another while Moonlighting. This highlights a potential ethical concern related to confidentiality and the potential harm to the interests of the primary employer. Together, these opinions provide a balanced perspective on the negative consequences and ethical dimensions of Moonlighting, helping Mr. Q understand the potential risks and downsides associated with taking up extra work outside his primary job.

Option A is incorrect because Opinion 2 suggests that Moonlighting is a choice of the employee, and the employer has no authority over the employee's conduct after office hours. This perspective leans towards individual freedom. However, when combined with Opinion 4, which highlights the risk of leaking critical information, it doesn't strongly emphasize the potential negative consequences and ethical concerns related to Moonlighting.



Option C is incorrect because Opinion 1 asserts that Moonlighting is unacceptable since the employer has complete control over the employee, emphasizing a strong employer-centric perspective. However, Opinion 5 suggests that Moonlighting is okay because employers are exploitative and underpay employees. These opinions present conflicting views and may not provide a coherent and balanced understanding of the ethical dimensions of Moonlighting.

Option D is not correct because Opinion 2 reiterates the idea that Moonlighting is the choice of the employee, while Opinion 3 highlights the consequence of employees missing out on important organizational work. While Opinion 3 provides a potential negative consequence, the emphasis on individual choice in Opinion 2 may not strongly convey the ethical concerns related to Moonlighting.

Option E is not correct because Opinion 2 emphasizes the employee's right to make choices after office hours, while Opinion 5 suggests that Moonlighting is okay due to perceived exploitation by employers. These opinions again provide conflicting perspectives and may not effectively address the ethical considerations associated with Moonlighting.

The correct option is B

**41. E**

Option E is the correct answer because it strikes a balance between centralized control and decentralized input. Allowing the CEO office to decide on leave ensures consistency and fairness in leave policies, preventing individual supervisors from making subjective decisions. On the other hand, involving supervisors in recommending promotions utilizes their insights into individual employee performance, dedication, and suitability for multi-skilling training. This dual approach ensures that decisions on leave and promotions are well-informed, fair, and consider both the broader organizational perspective and the specific performance at the supervisor level.

Option A: Leaves and promotions require different considerations, and leaving both to supervisors may lack consistency.

Option B: Centralizing promotion decisions with the CEO office and delegating leave decisions to supervisors may lead to inconsistencies and lack of coordination.

Option C: Complete centralization of leave and promotion decisions may not consider the nuanced understanding supervisors have of individual employee performance.

Option D: Maintaining the status quo may not address the challenges of identifying employees faking illness and may not ensure fair promotions.

**42. B**

Option B is the most prone to error because it allows supervisors to decide on leave. This introduces the risk of favoritism, biases, or inconsistencies in granting leave, potentially affecting employees' chances of promotion. Supervisors may be influenced by personal relationships or subjective judgments, leading to a less fair and objective evaluation process.

**43. D**

Option D not only addresses the need for assistance in the household chores but also involves Dhan's mother as a partner in the new venture. By combining efforts, they can share responsibilities and contribute to the success of the tea-cum-savoury stall, increasing their chances of realizing the entrepreneurial dream together.

Option A would help ease her day-to-day activities but not increase her chances.

Options B and C don't make sense as her mother has to work to provide for them so asking her to do more work would be irresponsible.

Option E would help her as it would enable her to devote more time to her venture, but it does not necessarily increase her chances. This could also hamper her future education prospects.

**44. E**

Option E is the correct answer as it allows Dhan to scale up production while maintaining quality control. By involving willing women in the slum as business partners, she can expand the reach of "Dhan Dhana Dhan" brand without significant investment in additional space or outsourcing. This decentralized model not only fosters community participation but also empowers local women, providing a sustainable and inclusive approach to scaling up the savoury production.

Option A may limit scalability and doesn't leverage external resources efficiently.

Option B risks compromising the quality and uniqueness of Dhan's savouries.

Option C involves additional costs and logistics, potentially affecting quality control.

Option D may alienate the existing customer base in the slum, impacting goodwill.

**45. C**

Option C is the correct answer as it leverages the existing connection between the slum and the metropolitan region, utilizing slum dwellers who commute daily. Engaging them on a commission basis not only ensures a direct link to potential customers but also keeps the cost low, allowing Dhan to sell her products at competitive prices to a maximum number of metropolitan customers.

Option A: Hiring a celebrity endorser is likely expensive and may not align with Dhan's goal of selling at the lowest price.

Option B: Overwhelming with digital advertisements may incur high costs and might not reach the target audience effectively.

Option D may increase operational costs and may not be as effective in reaching the masses.

Option E may involve high entry barriers and potentially limit the outreach to the masses.

**46. C**

Educating employees about the company's anti-sexual harassment policy (Option 1) is likely to be the least ostracizing as it focuses on providing information and awareness rather than singling out individuals or taking disciplinary action. This approach promotes a broader understanding of the policy and encourages a preventive approach to reduce sexual harassment cases without directly targeting specific employees.

Option 2 could be perceived as stigmatizing and invasive, potentially leading to a sense of ostracization among employees.

Option 3 involves punitive measures and might be perceived as ostracizing without a preventive or educational component.

Therefore Option C is the correct answer.

**47. C**

Option C is an effective sequence for the adjudicating committee to reduce errors in judgment in sexual harassment complaints

2: This step allows the committee to gather individual perspectives without potential influence from the other party, ensuring a thorough understanding of each side of the story.

1: Bringing both parties together after listening to them separately fosters a collaborative discussion. It provides an opportunity for clarification, cross-examination, and a more comprehensive view of the case, potentially uncovering additional information or nuances.

5: Introducing a forensic expert at this stage enhances the committee's ability to objectively assess evidence. The forensic expert can provide a specialized analysis, helping to verify or challenge the credibility of the presented evidence.

This sequence combines individual perspectives, collaborative discussions, and expert analysis, aiming to minimize errors by ensuring a comprehensive and well-informed decision-making process.

**48. C**

Option C is the correct answer, as it prioritises the safety and well-being of the witness by keeping her identity confidential. Protecting the witness from potential threats or harm ensures a more secure environment for providing testimony. It acknowledges the sensitivity of the situation and aims to create a protective space for individuals who come forward to give their accounts.

Option A doesn't consider potential safety concerns and may discourage truthful testimony.

Option B overlooks the importance of protecting the witness and may create an unsafe environment.

Option D doesn't prioritize the witness's safety and well-being.

Option E doesn't justify compromising the witness's safety or the integrity of the inquiry process.

Quant

49. **E**

Let the 4-digit locker key be  $abcd$ , where  $9 \geq a, b, c, d > 0$ , and they are all unique.

It is given that  $a \leq 3$  &  $\frac{b}{c} = a$

It is also given that 'd' is the smallest number.

Case (i):  $a = 1$

Not possible, as 'd' is the smallest number, 'a' cannot be 1.

Case (ii):  $a = 2$

Then 'd' can take only one value, i.e.  $d = 1$

$b = 2c$

*if  $c = 3$ , then  $b = 6$*

*if  $c = 4$ , then  $b = 8$*

for  $c \geq 5$ , 'b' will not be a single-digit number.

Hence, two cases are possible, i.e. (2631, 2841).

Case (iii):  $a = 3$

'd' can take two values, i.e.  $d = 1$  or  $d = 2$

&  $b = 3c$

If  $d = 1$ , then 'c' can take only one value. i.e.  $c = 2$ , then  $b = 6$

If  $d = 2$ , then 'c' cannot take any value.

Hence one case is possible, i.e. (3621)

Amit has to try 3 different combinations. Option (E) is correct.

50. **A**

The first number Haruka entered is 1.

From Rule-1, the series will be 2, 4, 8, 16

From Rule 2, 16 will be followed by 7

Like-wise, the series will be 1, 2, 4, 8, 16, 7, 14, 5, 10, 1, 2, 4,.....

The series is repeating itself for every 9 iterations.

Initially, input is 1 and after first iteration, result is 2.

This implies,

$$9n = 1$$

$$9n + 1 = 2$$

$$9n + 2 = 4$$

.

.

.

.

$$9n + 7 = 5$$

$$9n + 8 = 10$$

In the question, it is given that key is pressed 68 times.

$$68 = 9(7) + 5$$

68 is in the form of  $9n + 5$

This implies, 7 is the output.

The answer is option A.

51. **E**

Option A) False, as it is mentioned no-one scored exactly 40 marks.

Option B) False, as only 1 student or only 2 students can score above 40 and group average can be 40.

Case i:- 44, 39, 39, 39 & 39.

Case ii:- 42, 41, 39, 39 & 39.

Option C) False, student's scores could be 44, 39, 39, 39 & 39.

Option D) False, student's scores could be 44, 43, 42, 32 & 39.

Option E) True, if scores of all students are more than 40. The average will be more than 40.

52. **A**

From the given information, we get that it is  $8 \text{ inch} \times 8 \text{ inch}$  square grid.

	C1	C2	C3	C4	C5	C6	C7	C8
R1								
R2								
R3								
R4								
R5								
R6								
R7								
R8								

Total ways of selecting 2 squares out of 64 in  ${}^{64}C_2$ .

Two squares with a common side can be selected in the following ways.

(i) Horizontal Pairs.

In the first row, R1, we can select 7 pairs of squares with a common side.

They are (R1C1,R1C2), (R1C2,R1C3),.....(R1C7,R1C8).

It applies to other rows as well.

Hence the total number of squares =  $7 \times 8 = 56$

(ii) Vertical Pairs.

In the first column, C1, we can select 7 pairs of squares with a common side.

They are (R1C1,R2C1), (R2C1,R3C1),.....(R7C1,R8C1).

It applies to other columns as well.

Hence the total number of squares =  $7 \times 8 = 56$

The probability of two painted squares having a common side =  $\frac{56+56}{{}^{64}C_2} = \frac{112}{2016}$ .

Option (A) is correct.

53. **B**

Let 'm' be the Greatest common divisor and A, B, C, D, E, F & G be the 7 unique numbers.

When 'm' divides A, B, .....& G, we get seven unique quotients. Let the quotients be a, b, c, d, e, f, and g.

It is given,

$$A + B + C + D + E + F + G = 1740$$

$$m(a + b + c + d + e + f + g) = 1740$$

$$1740 = 2^2 \times 3 \times 5 \times 29$$

$$m(a + b + c + d + e + f + g) = 1740 = 2^2 \times 3 \times 5 \times 29$$

29 is a prime number and cannot be factorised further.

Therefore, largest possible value m can take is 60.

Least possible sum of 7 unique numbers is  $1 + 2 + 3 + \dots + 7 = 28$

Replacing 7 with 8, we will get 29.

$$\text{This implies } 60(1 + 2 + 3 + \dots + 6 + 8) = 1740$$

Largest possible G.C.D is 60.

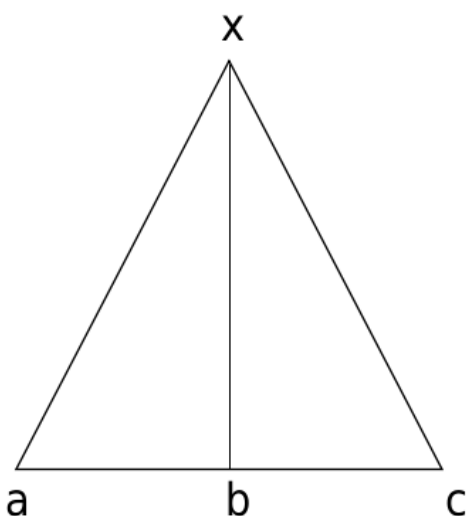
The answer is option B.

54. **A**

Let players at slips 1, 2 and 3 be a, b, and c, respectively.

Let the speed of the ball be m.

The trajectory of the ball is not specified in the question. But let's take it as straight line.



The distance between the 1st and 2nd slips is the same as the distance between the 2nd and 3rd slips.

The length of 'ab' = The length of 'bc'. It implies Xb is the median of triangle Xac.

It takes 3 sec, 4 sec and 5 sec for the ball to reach a, b and c, respectively.

Hence,  $Xa = 3m$ ,  $Xb = 4m$  and  $Xc = 5m$ .

Using Apollonius's theorem,

$$2 \times ((4m)^2 + (ab)^2) = (3m)^2 + (5m)^2$$

$$16m^2 + (ab)^2 = 17m^2$$

$$ab = m$$

$$\text{Hence, } ac = 2m$$

Using the properties of triangle, the sum of two sides should be greater than the third side,

$$\text{But, } Xa + ac = Xc$$

$$3m + 2m = 5m.$$

Hence, this arrangement is not possible.

As this question has ambiguity, XAT officials awarded full marks to all candidates for this question.

**55. C**

$$\text{Let } \sin^2 15^\circ = a \text{ and } \sin^2 75^\circ = b$$

Then the given equation becomes,

$$\frac{a^3 + b^3 + 6ab}{a^2 + b^2 + 5ab} = \frac{(a+b)^3 - 3ab(a+b) + 6ab}{(a+b)^2 - 2ab + 5ab} \quad \therefore a^3 + b^3 = (a+b)^3 - 3ab(a+b), \therefore a^2 + b^2 = (a+b)^2 - 2ab$$

$$\text{Using } \sin(\theta) = \cos(90 - \theta)$$

$$\text{we get, } \sin^2 75^\circ = \cos^2 15^\circ$$

$$\text{now, } a+b = \sin^2 15^\circ + \sin^2 75^\circ = \sin^2 15^\circ + \cos^2 15^\circ = 1.$$

$$\text{The equation becomes, } = \frac{1-3ab+6ab}{1-2ab+5ab} = \frac{1+3ab}{1+3ab} = 1$$

**56. D**

Let 'a' and 'b' be the speeds of Rahim and the speed boat in still water, respectively

Let 'c' be the speed of the stream.

Speed boat starts after 1 minute of Rahim's departure and crosses him after 4 minutes.

It implies that the speed boat covered the same distance in 4 minutes that Rahim took 5 minutes.

$$\text{Hence, the ratio of upstream speeds of Rahim and Speed boat} = \frac{a-c}{b-c} = \frac{4}{5}$$

Using Statement 1, we get  $b = 30 \text{ kmph}$ . But, it's not sufficient to get the value of 'a'.

Using Statement 2, we get  $a - c = \frac{30}{3} = 10 \text{ kmph}$ . But it's also not sufficient to get the value of 'a'.

using both statements, we get

$$\frac{a-c}{b-c} = \frac{4}{5}$$

$$\frac{10}{30-c} = \frac{4}{5}$$

$$50 = 120 - 4c$$

$$c = 17.5$$

$$a = 17.5 + 10 = 27.5 \text{ kmph}$$

**57. A**

Let 'm' be the number of matches Guava played till now. They won '0.4m' matches.

After playing another 'n' matches and winning all of them, their winning percentage will improve to 50.

i.e,

$$\frac{0.4m+n}{m+n} = 0.5$$

$$m = 5n$$

Playing 15 more matches and wining all of them, their winning percentage will improve from 50 to 60.

$$\text{i.e } \frac{0.4m+n+15}{m+n+15} = 0.6$$

$$\text{Solving, we get } 6 + 0.4n = 0.2m$$

Substituting  $m = 5n$ ,

$$\text{we get } 6 + 0.4n = n$$

$$n = 10 \text{ \& } m = 50$$

Hence, Guava club played 50 matches so far.

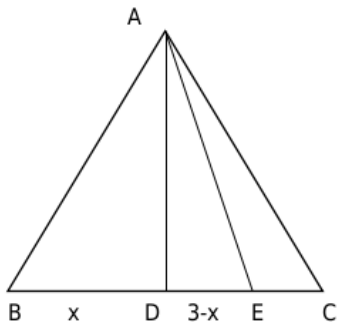
The answer is option A.

58. **E**

Given that,  $AD \perp BC$

$$BE = 3$$

$$BC = 5$$



Using Pythagoras' theorem,

$$AD^2 + BD^2 = AB^2 \text{ .....(1)}$$

$$AD^2 + DE^2 = AE^2 \text{ .....(2)}$$

$$AD^2 + DC^2 = AC^2 \text{ .....(3)}$$

(1) - (2) gives

$$BD^2 + DE^2 = AB^2 - AE^2$$

$$x^2 - (3 - x)^2 = AB^2 - AE^2$$

$$AB^2 - AE^2 = 6x - 9$$

$$AB^2 - AE^2 + 6CD = 6x - 9 + 6(5 - x) \quad (CD = (5 - x))$$

$$AB^2 - AE^2 + 6CD = 6x - 9 + 30 - 6x$$

$$AB^2 - AE^2 + 6CD = 21$$

59. **D**

Let the amount Jose borrowed be 'x'. The rate of interest is 10%

$$\begin{aligned} \text{Interest occurred on 'x' is} &= \frac{x \times 1 \times 0.1}{5} + \frac{2x \times 2 \times 0.1}{5} + \frac{2x \times 3 \times 0.1}{5} \\ &= \frac{1.1x}{5} \end{aligned}$$

The invested amount doubled at the end of the fourth year, i.e. 2x.

Jose's profit after paying principal and interest amounts to his friend at the end of the fourth year is Rs 97500.

$$\text{i.e., } 2x - x - \frac{1.1x}{5} = 97500$$

$$\frac{3.9x}{5} = 97500$$

$$x = 125000$$

The amount that Jose borrowed is Rs 1,25,000.

Option (D) is correct.

60. **A**

Let the amount invested by Jack and Sristi be ' $x$ '.

Jack's amount after four months will become  $\frac{x}{2^4}$  and after six months it will become  $\frac{x}{2^6}$ .

Sristi's amount after four months will become  $x - (4 \times 15000)$  and after six months it will become  $x - (6 \times 15000)$

From the given information,

$$\frac{\frac{x}{2^4}}{x - (4 \times 15000)} = \frac{\frac{x}{2^6}}{x - (6 \times 15000)}$$

$$(x - (4 \times 15000)) \times 2^2 = x - (6 \times 15000)$$

$$3x = 300000$$

$$x = 100000.$$

The amount invested by Jack and Sristi is 100000.

Option 'A' is correct.

61. **D**

Let printed price be 100.

Rajnish bought it at 25% discount, C.P of Rajnish = 75% of 100 = 75.

He sold it at 10% discount on printed price, S.P of Rajnish = 90% of 100 = 90

$$\text{Hence, Rajnish, profit\%} = \frac{90-75}{75} \times 100 = 20.$$

The answer is option D.

62. **B**

$$\text{Given equation, } A = |x + 3| + |x - 2| - |2x - 8|.$$

$$\text{Case (i):- } x + 3 \geq 0, x - 2 \geq 0 \text{ \& } 2x - 8 \geq 0$$

$$\text{then, } A = x + 3 + x - 2 - 2x + 8 = 9.$$

The maximum value of  $|A| = 9$

$$\text{Case (ii):- } x + 3 \geq 0, x - 2 \geq 0 \text{ \& } 2x - 8 < 0$$

$$x \geq -3, x \geq 2 \text{ \& } x < 4$$

$$\text{then } A = x + 3 + x - 2 + 2x - 8 = 4x - 7.$$

The range of  $x$  is  $[2, 4)$ . Hence the value of  $A$  varies from  $[1, 9)$ .

The maximum value of  $|A| < 9$

$$\text{Case (iii):- } x + 3 \geq 0, x - 2 < 0 \text{ \& } 2x - 8 < 0$$

$$x \geq -3, x < 2 \text{ \& } x < 4$$

$$\text{then } A = x + 3 - x + 2 + 2x - 8 = 2x - 3.$$

The range of  $x$  is  $[-3, 2)$ . Hence the value of  $A$  varies from  $[-9, 1)$ .

The maximum value of  $|A| = 9$

$$\text{Case (iv):- } x + 3 < 0, x - 2 < 0 \text{ \& } 2x - 8 < 0$$



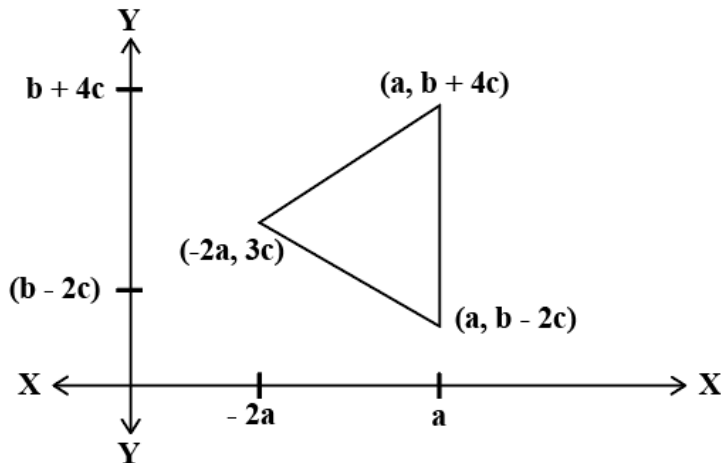
$$x < 3, x < 2 \text{ \& } x < 4$$

$$\text{then } A = -x - 3 - x + 2 + 2x - 8 = -9.$$

The maximum value of  $|A| = 9$

From the above cases, The maximum value of  $|A| = 9$ . Option (B) is correct.

63. D



The length of  $AB = (b + 4c) - (b - 2c) = 6c$  (X-coordinates of A&B are same).

The altitude of triangle ABC,  $CD = a - (-2a) = 3a$ .

$$\text{Area of triangle ABC} = \frac{AB \times CD}{2} = \frac{6c \times 3a}{2} = 9ac$$

Option (D) is correct.

64. E

The given equation is,

$$x(x - p) - y(y + p) = 7p$$

$$x^2 - px - y^2 - py = 7p$$

$$x^2 - y^2 - px - py = 7p$$

$$(x + y)(x - y) - p(x + y) = 7p$$

$$(x - y - p)(x + y) = 7p$$

As '7' & 'p' both are prime numbers

$$(x - y - p)(x + y) \text{ can be expressed as } (7 \times p) \text{ or } (7p \times 1)$$

$$\text{Case (i) - } (x + y) \times (x - y - p) = 7 \times p$$

$$x + y + x - y - p = 7 + p$$

$$2x - p = 7 + p$$

$$x = \frac{7}{2} + p$$

But it's given that 'x' is a positive integer. This case is not possible.

$$\text{Case (ii) - } (x + y) \times (x - y - p) = 7p \times 1$$

$$x + y + x - y - p = 7p + 1$$

$$2x - p = 7p + 1$$

$$x = \frac{1}{2} + 4p$$

But it's given that 'x' is a positive integer. This case is not possible.

The given equation is not possible with given conditions.

Option (E) is correct.

65. **C**

Given that  $a_1 = 1$  &  $a_{n+1} = \frac{1}{1+\frac{1}{a_n}}$

$$a_2 = \frac{1}{1+\frac{1}{1}} = \frac{1}{2}, a_3 = \frac{1}{1+\frac{1}{\left(\frac{1}{2}\right)}} = \frac{1}{3}, \dots$$

This implies,  $a_n = \frac{1}{n}$ .

Required value =  $a_1 a_2 + a_2 a_3 + \dots + a_{2008} a_{2009}$

$$= \frac{1}{1} \times \frac{1}{2} + \frac{1}{2} \times \frac{1}{3} + \dots + \frac{1}{2008} \times \frac{1}{2009}$$

$$= \left(\frac{1}{1} - \frac{1}{2}\right) + \left(\frac{1}{2} - \frac{1}{3}\right) + \dots + \left(\frac{1}{2008} - \frac{1}{2009}\right)$$

$$= 1 - \frac{1}{2009}$$

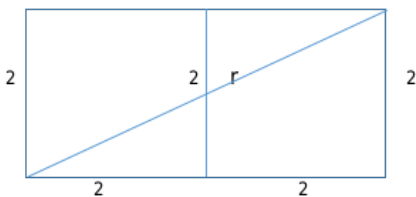
$$= \frac{2008}{2009}$$

The answer is option C.

66. **E**

The shortest route ant takes to travel from the bottom corner to the diagonally opposite top corner is shown below.

The route goes through lateral faces (vertical faces) of the cubical room.



$$\text{The length of route, } r = \sqrt{(2+2)^2 + 2^2} = \sqrt{20} = 2\sqrt{5}$$

67. **B**

Let the positive integers Raju & Sarita chose be 'r' & 's'.

After doing the given operations, the final numbers they get are  $\frac{2r-20}{5}$  &  $\frac{2s-20}{5}$

$$\text{Adding results we get, } \frac{2r-20}{5} + \frac{2s-20}{5} = 16$$

$$2r - 20 + 2s - 20 = 80$$

$$2r + 2s = 80 + 40 + 40 = 120$$

$$r + s = 60$$

For maximum value of  $|r-s|$ , one of 'r' & 's' has to be maximum and other has to be minimum.

As r & s are positive integers minimum value they can take is "1".

If  $r = 1$ , then  $s = 59$

$$|r - s| = |1 - 59| = 58.$$

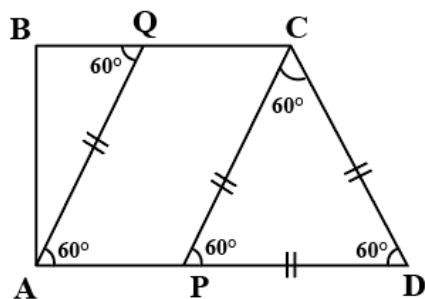
If  $s = 1$ , then  $r = 59$

$$|r - s| = |59 - 1| = 58$$

Hence maximum value of  $|r - s|$  is 58. Option B is correct.

68. **A**

Given that, CPD is an equilateral triangle



$$\angle CPD = \angle PDC = \angle DCP = 60^\circ$$

As AQ is parallel to PC  $\angle CPD = \angle QAP = 60^\circ$

As BC is parallel to AD  $\angle QAP = \angle AQB = 60^\circ$  (alternate interior angles).

Given, Area of equilateral triangle CPD is  $4\sqrt{3}$

$$\text{This implies, } \frac{\sqrt{3}a^2}{4} = 4\sqrt{3}$$

Solving, we get  $a = 4$ .

From figure, length of  $AB = \text{Height of } \triangle CPD = \frac{\sqrt{3}a}{2} = 2\sqrt{3}$ .

$$\text{From } \triangle ABQ, BQ = \frac{AB}{\tan 60^\circ} = \frac{2\sqrt{3}}{\sqrt{3}} = 2$$

$$\text{Area of } \triangle ABQ = \frac{1}{2} \times AB \times BQ = \frac{2 \times 2\sqrt{3}}{2} = 2\sqrt{3}$$

Option A is correct.

69. **E**

The ratio of contents in the bigger jar was 85:5:10 (water, lime and sugar respectively).

Let volume of water be  $85x$

$$\text{Percentage of water in bigger jar} = \frac{85x}{85x+5x+10x} \times 100 = 85\%$$

Option E is correct.

70. **B**

From the given information we get the following table,

	Section A	Section B	Section C
Total Questions	10	10	10
Marks for correct answers	2	3	5
Deduction for wrong answers	-0.5	0	0
Deduction for Unattempted answers	-0.5	0	0

The possible maximum marks are shown below.

S.No	Marks	Case	Explanation
1	100	All answers are correct	$10 \times 2 + 10 \times 3 + 10 \times 5 = 100$
2	97.5	one answer in Sec-A is wrong.	$9 \times 2 + 10 \times 3 + 10 \times 5 - 0.5 = 97.5$
3	97	one answer in Sec-B is wrong.	$10 \times 2 + 9 \times 3 + 10 \times 5 = 97$
4	95	one answer in Sec-C is wrong.	$10 \times 2 + 10 \times 3 + 9 \times 5 = 95$
5	94.5	one answer is wrong in each section A & B.	$9 \times 2 + 9 \times 3 + 10 \times 5 - 0.5 = 94.5$
6	94	Two answers in Sec-C are wrong.	$10 \times 2 + 8 \times 3 + 10 \times 5 = 94$

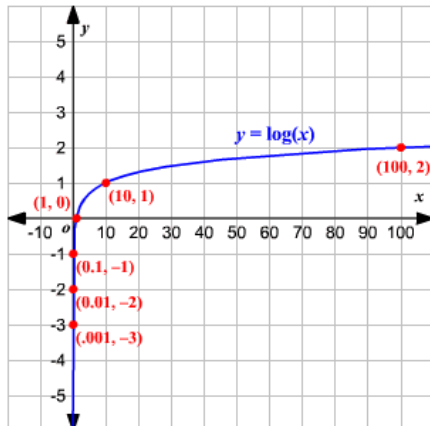
Therefore, sixth highest possible score is 94.

Option B is correct.

71. **C**

From the graph, we can say that the graph is similar to  $y = \log(x)$ .

$y = \log(x)$  graph is given below-



The correct option is C

72. **E**

We will check the options and figure out which option is more suitable.

Option A is not correct since it is not evident from the figure that there is a direct correlation between life satisfaction and affect balance.

Options B, C, and D are not correct since we cannot definitely conclude the correlation between the two mentioned factors.

Option E is correct because from the figure, and the fish selling distribution we can conclude the randomness than the others.

The correct option is E

73. **C**

In this case, we need to calculate for which state (fish/economic) is the maximum. To get the answer, we need to check the maximum fish-selling state and the corresponding economic status.

From the figure, we can say that Roviana has the maximum ratio.

74. **D**

			Gender		
		Total confirmed Covid positive cases	Female	Male	Unknown
Age	All	117586	62434	53825	1327
	Unknown	235	88	118	29
	0-18	22362	11147	10880	335
	19-30	32860	18768	13743	349
	31-40	24110	12693	11118	299
	41-50	14120	7264	6688	168
	51-60	11174	5567	5523	84
	61-70	7300	3756	3513	31
	71-80	3429	1875	1534	20
	81+	1996	1276	708	12

We get the above table after filling in the data from the given question.

**This question has ambiguity and was deleted.**

75. **E**

			Gender		
		Total confirmed Covid positive cases	Female	Male	Unknown
Age	All	117586	62434	53825	1327
	Unknown	235	88	118	29
	0-18	22362	11147	10880	335
	19-30	32860	18768	13743	349
	31-40	24110	12693	11118	299
	41-50	14120	7264	6688	168
	51-60	11174	5567	5523	84
	61-70	7300	3756	3513	31
	71-80	3429	1875	1534	20
	81+	1996	1276	708	12

From the given table, we can say that the 81+ age group has the highest female-to-male ratio.

The correct option is E

76. **D**

			Gender		
		Total confirmed Covid positive cases	Female	Male	Unknown
Age	All	117586	62434	53825	1327
	Unknown	235	88	118	29
	0-18	22362	11147	10880	335
	19-30	32860	18768	13743	349
	31-40	24110	12693	11118	299
	41-50	14120	7264	6688	168
	51-60	11174	5567	5523	84
	61-70	7300	3756	3513	31
	71-80	3429	1875	1534	20
	81+	1996	1276	708	12

This question was deleted for ambiguous phrasing.

Mock Keyboard Testing

General Knowledge

Essay