

# XAT 2023 Solution

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**Ques 1. 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.**

**Options A. 2, 3**

**B. 3, 4**

**C. 1, 2**

**D. 4, 5**

**E. 1, 5**

**Solu. E. 1, 5**

**1. Correct form: "The boss accused her employee of stealing information."**

**5. Correct form: "He is good at playing the piano."**

**Ques 2. 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?**

**Options 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.** Despite the potential, 90% of the general population knew nothing about hydrogen technology.

**C.** Earlier, experts thought that hydrogen fuel would be too expensive.

**D.** 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.

**E.** Germany unsuccessfully experimented with trains fuelled by hydrogen.

**Solu.** 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.

**Ques 3.** Which of the following sentences have the **CORRECT** usage of punctuation?

**Options A.** Italy is famous for their composers and musicians; France, for their chefs and philosophers; Poland for their 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 its composers and musicians, France for its chefs and philosophers, Poland for its 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.

**Solu.** Option A: Incorrect. "Italy is famous for their composers and musicians" should use "its" instead of "their," and "Poland for their mathematicians and logicians" should have a semicolon before "Poland."

Option B: Incorrect. The periods create sentence fragments.

Option C: Incorrect. It needs semicolons to properly separate the items in the list.

Option D: Incorrect. "Italy is famous, for their composers and musicians" misplaces the comma and should use "its" instead of "their."

Option E: Correct. It uses commas to separate the items and correctly uses "its" instead of "their." The commas around "for its chefs and philosophers" and "for its mathematicians and logicians" are used correctly to set off these phrases.

**Ques 4. 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?**

**Options A. All phenomena in the Universe fundamentally occur spontaneously.**

**B. Fundamental laws operating in the Universe and in an atom are the same.**

**C. Fundamental laws undergo a change from atom to the Universe.**

**D. Everything in the Universe fundamentally occurs randomly.**

**E. All phenomena in the Universe are fundamentally dependent on long cosmic timescales**

**Solu.** B. Fundamental laws operating in the Universe and in an atom are the same.

This inference is drawn from the paragraph's assertion that the same fundamental laws governing the smallest constituents of matter and energy can explain everything in the Universe over long timescales.

**Ques 5. 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. 1,2,3,4,5**
- D. 4,1,2,3,5**
- E. 4,3,1,5,2**

**Solu. B. 1, 3, 4, 5, 2**

This sequence logically flows from the initial awareness of the Singularity, to the gradual realization and its transformative impact, and finally to reflecting on the broader technological upheaval.

**Ques 6. 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. What old firms can do to survive.
- B. How professionals are getting replaced by technology
- C. How new organizational forms are emerging
- D. How old firms are dying.
- E. How automation is taking away jobs traditionally done by humans.

**Solu.** C. How new organizational forms are emerging

The passage provides examples of various industries and sectors where traditional methods and institutions are being transformed by new technologies and organizational forms.

**Ques 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. 1, 3, 4
- B. 4, 5, 6
- C. 1, 2, 5
- D. 3, 4, 6
- E. 2, 3, 5

**Solu.** D. 3, 4, 6

1. Incorrect: It should be "The exam will begin at 2:00 p.m. on January 8th."
2. Incorrect: It should be "While entering the college building, he saw the statue of Mahatma Gandhi."
3. Correct
4. Correct
5. Incorrect: It should be "Amitabh Bacchan is married to Jaya Bacchan."
6. Correct

**Ques 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. 1,2,3,4

B. 1,3,4,2

C. 2,3,1,4

D. 3,1,2,4

E. 1,4,2,3

**Solu.** C. 2, 3, 1, 4

This sequence begins with a specific date, then provides context by discussing the experiment in 1953, followed by a broader historical perspective on the development of knowledge about life, and finally, the details of the experiment and its findings.

**Ques 9.** 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 a most **MEANINGFUL** conclusion of the passage?

A. Technology is destroying families and communities

B. Change is the only constant in life, so people must embrace technology

C. Technology usage has changed social relations for this generation

D. The Pandemic has increased societal dependence on technology

E. Technological advancement helps society derive meaning from work

**Solu.** C. Technology usage has changed social relations for this generation

This conclusion best captures the essence of the passage, which discusses how technology has transformed interpersonal relationships and societal roles, particularly for the current generation.

**Ques 10. 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. Justice, level, expensive, understood**
- B. Reality, randomness, saleable, located**
- C. Setup, understanding, useless, identified**
- D. Relations, equality, exchangeable, measured**
- E. Construction, minuteness, commercial, evaluated**

**Solu.** Oil painting did to appearance what capital did to social relations. This sets the analogy between the impact of oil painting on appearance and the impact of capital on social relations.

It reduced everything to the equality of objects. Both oil painting and capital reduced everything to a certain level or standard, whether it's the appearance of objects or the value of social relations.

Everything became exchangeable because everything became a commodity. This explains how the rise of capital turned everything into commodities that could be exchanged, similarly to how oil painting reduced everything to objects that could be represented.

All reality was mechanically measured by its materiality. This suggests that both the impact of capital and oil painting mechanized the understanding and measurement of reality based on materialistic standards.

**Comprehension:**

**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.

**Ques 21** What does the author mean by "Thus, interpretation is not...a gesture of mind situated in some timeless realm of capabilities?"

**Options** A. Interpretation is an act of mind which is situated in a changeless domain.

B. Interpretation is about erecting another meaning on top of the literal one.

**C. Interpretation is being evaluative of the meaning created by an authority.**

**D. Interpretation is about revisiting and reinventing meanings.**

**E. Interpretation is act of understanding, developed by timeless experts.**

**Solu.** Option A. Interpretation is an act of mind which is situated in a changeless domain.

The author is arguing against the notion that interpretation is an absolute value or gesture of mind independent of historical context. Instead, interpretation, according to the author, must be evaluated within a historical view of human consciousness.

**Ques 22** According to the passage, which of the following is NOT an act of interpretation?

**Options A.** Finding underlying causes of a social evil described in a book

**B. Critical appreciation of a literary text**

**C. Labelling a text as blasphemous**

**D. Investigating class-conflict in Charles Dicken's novels**

**E. Searching for underlying themes in a historical document**

**Solu.** Option C. Labelling a text as blasphemous.

Labelling a text as blasphemous is not an act of interpretation as described in the passage. It is more of a judgment or categorization based on personal or societal beliefs rather than an analytical process of understanding or extracting meaning from a text.

**Ques 23** Which of the following BEST differentiates manifest content from the latent content?

**Options A.** Manifest content is a superset whereas latent content is a subset

**B. Manifest content is natural whereas latent content is cultural**

**C. Manifest content is obscure whereas latent content is lucid**

**D. Manifest content is loaded whereas latent content is elusive**

## **E. Manifest content is apparent whereas latent content is hidden**

**Solu.** E. Manifest content is apparent whereas latent content is hidden. In the passage, manifest content refers to the observable phenomena, while latent content refers to the underlying or hidden meaning beneath the surface. This aligns with the idea that manifest content is apparent or visible, while latent content is concealed or hidden.

### **Comprehension:**

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

**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."**

**Ques 24** According to the passage, in regard to time, which of the following statements gives the **BEST** reason for procrastination?

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

**Solu.** E. Time is underestimated for a particular task.

The passage discusses how people tend to underestimate the time it will take to complete a task, leading to procrastination. This aligns with option E, which states that time is underestimated for a particular task, contributing to procrastination.

**Ques 25** Which of the following statements can be **BEST** inferred from the passage about procrastination?

- Options**
- A.** It is an irrational delay of task despite potentially negative consequences.
- B.** It is a success of self-regulation and planning.
- C.** It is an act against our own interests because of our ignorance.
- D.** It is a mistake that happens due to myopic vision and linear thinking.
- E.** It is a tendency of postponing the present work to the future.

**Solu.** A. It is an irrational delay of task despite potentially negative consequences.

The passage discusses various reasons for procrastination, including underestimating the time required for tasks and being led astray by immediate rewards. These factors contribute to delaying tasks despite potential negative consequences, suggesting that procrastination is indeed an irrational behavior.

**Ques 26** 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?

**Options A. Our brain partially captures the memory of rewards we get by procrastination.**

**B. Our brain does not capture the intensity of pleasure we get by procrastination.**

**C. Our brain does not differentiate memories of different rewards we get by procrastinating.**

**D. Our brain does not support us with memories which can stop us from procrastinating further.**

**E. Our brain does not support us in recalling intense memories while procrastinating further.**

**Solu. B.** Our brain does not capture the intensity of pleasure we get by procrastination.

The statement suggests that our memory fails to accurately recall the intensity of the immediate rewards we experience when procrastinating.

This aligns closely with option B, which highlights the deficiency in capturing the intensity of pleasure derived from procrastination.

### **Comprehension:**

**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.**

**SubQuestion No: 35**

**Ques 35 From the following, choose the MOST important challenge that Niyabuddin has to overcome to sustain WBLCF.**

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

**Solu. E. Getting enough finances and donations**

The passage highlights that a significant portion of the donated amount goes into buying cooking ingredients, indicating a need for more finances and donations to sustain WBLCF. This challenge is crucial for Niyabuddin to overcome in order to continue running the food centre successfully.

**Ques 36 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?

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

**Solu.** E. 1, 3 & 4

The core ethos of WBLCF is to ensure that no human goes hungry. Options 1, 3, and 4 are not consistent with this ethos:

1. Launching a mobile app for diners to pre-inform their arrival may not address the issue of wastage or hunger directly.
3. Asking diners to eat less contradicts the motto of ensuring that no human goes hungry.
4. Preaching people to eat less does not align with the goal of providing food to the needy.

**Ques 37** 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?

- Options
- A. Tie up with one of food delivery partners to help them document the recipes
  - B. Request a lady once a week in Palakkad to cook food at WBLCF on voluntary basis and document the recipes

- C. Hold a weekly competition for the best local dish and get it judged and documented by local volunteers**
- 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**

**Solu.** C. Hold a weekly competition for the best local dish and get it judged and documented by local volunteers

This option not only promotes community involvement but also ensures that local recipes are documented in an engaging and participatory manner. Holding a weekly competition encourages people to showcase their traditional recipes, which can then be documented by local volunteers, thus conserving local culinary heritage effectively.

Section: Quantitative Aptitude and Data Interpretation

**Ques 49** 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?

- Options 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**

**Solu.** D. At most, two of them scored more than 40 marks

Since the average mark obtained by the five students is 40, the total marks obtained by all five students combined is  $40 * 5 = 200$ . Since each student scored more than 10 marks, the total marks obtained by all five students must be greater than  $10 * 5 = 50$ . So, if at least three students scored more



than 40 marks, their combined total would be at least  $3 * 40 = 120$ , leaving only  $200 - 120 = 80$  marks for the other two students. This means that the other two students would have to score an average of  $80/2 = 40$  marks, which is not possible since none of them scored exactly 40 marks. Therefore, at most two students scored more than 40 marks.

**Q.50** 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 un- attempted 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?

Options A. 92.5

B. 94

C. 95.5

D. 95

E. None of the above.

**Solu.** To find the sixth highest possible score, we need to consider various scenarios of correct and incorrect answers in each section of the question paper.

Let's break down the calculation:

1. First Section (Multiple-choice questions):

- Each correct answer: 2 marks
- Each wrong answer: -0.5 marks
- Total marks possible:  $10 * 2 = 20$

2. Second Section (Each question carries 3 marks):

- Each correct answer: 3 marks
- Total marks possible:  $10 * 3 = 30$

3. Third Section (Each question carries 5 marks):

- Each correct answer: 5 marks

- Total marks possible:  $10 * 5 = 50$

Now, let's consider different scenarios for the sixth highest possible score:

1. If all answers are correct in all three sections:

- Total score:  $20 + 30 + 50 = 100$

2. If one question is answered incorrectly in the first section:

- Total score:  $(10 * 2 - 0.5) + 30 + 50 = 99.5$

3. If two questions are answered incorrectly in the first section:

- Total score:  $(10 * 2 - 1) + 30 + 50 = 99$

4. If three questions are answered incorrectly in the first section:

- Total score:  $(10 * 2 - 1.5) + 30 + 50 = 98.5$

Based on these scenarios, the sixth highest possible score is 95.5 (Option C).

**Q.52** 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.

**Options**

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

**Solu.** We want to find Rahim's speed in still water.

Statement 1: Gives the speed of the speedboat but not Rahim's speed.  
Insufficient.

Statement 2: Tells us Rahim takes 3 hours to reach B, but without his speed or distance, we can't find his speed. Insufficient.

Together: Still can't find Rahim's speed because we're missing either his speed or distance.

So, the answer is E. Both statements together aren't enough to answer the question.

**Q.55 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?**

**Options A. 10**

**B. 15**

**C. 17,5**

**D. 20**

**E. None of the above**

**Solu.** Sure, here's the solution in copyable format:

Rajnish bought the item at a 25% discount on the printed price, so the cost price is 75.

He sold it at a 10% discount on the printed price, which means the selling price is 90.

Profit = Selling price - Cost price = 90 - 75 = 15.

Profit percentage = (Profit / Cost price) \* 100 = (15 / 75) \* 100 = 20%.

Therefore, Rajnish's profit percentage is 20%.

So, the correct answer is option D.

**Q.56 The addition of 7 distinct positive integers is 1740, What is the largest possible "greatest common divisor" of these 7 distinct positive integers?**

**Options A. 42**

**B. 60**

**C. 74**

**D. 140**

**E. None of the above.**

**Solu.** To find the largest possible greatest common divisor (GCD) of the 7 distinct positive integers, we should distribute them as evenly as possible. One way is to use consecutive integers, starting from 1.

We find that the largest sum of consecutive integers less than or equal to 1740 is achieved by the first 52 positive integers.

Since the GCD of consecutive integers is always 1, the largest possible GCD of the 7 distinct positive integers will also be 1.

Therefore, none of the provided options are correct.

So, the correct answer is option E. None of the above.

**Q.57 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?**

**Options A. Rs. 100000**

**B. Rs. 120000**

**C. Rs. 150000**

**D. Rs. 180000**

**E. None of the above**

**Solu.** Let's denote Jack's initial investment as J and Sristi's initial investment as S.

For Jack:

- After the first month:  $J \times \frac{1}{2}$

- After the second month:  $J \times \left(\frac{1}{2}\right)^2$

- After the third month:  $J \times \left(\frac{1}{2}\right)^3$

- ...

- After the sixth month:  $J \times (1/2)^6$

For Sristi:

- After the first month:  $S - 15000$

- After the second month:  $S - 15000 \times 2$

- After the third month:  $S - 15000 \times 3$

- ...

- After the sixth month:  $S - 15000 \times 6$

Given 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.

This implies:

$$J \times (1/2)^4 / (S - 15000 \times 4) = J \times (1/2)^6 / (S - 15000 \times 6)$$

After simplification, we get:

$$J = 2 \times (S - 15000 \times 6)$$

Given that they both invested the same amount initially,  $J = S$ .

So,

$$J = S = 2 \times (S - 15000 \times 6)$$

Let's solve this equation to find the value of  $S$ , which will be the initial investment amount of both Jack and Sristi.

$$S = 2 \times (S - 90000)$$

$$S = 2S - 180000$$

$$S = 180000$$

Therefore, the initial investment amount of both Jack and Sristi is Rs. 180000.

So, the correct answer is option D. Rs. 180000.

**Q.60 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?**

**Options A. 6 meters**

**B.  $(2\sqrt{2}+2)$  meters**

**C.  $2\sqrt{3}$  meters**

**D.  $2\sqrt{6}$  meters**

### **E. $2\sqrt{5}$ meters**

**Solu.** Let's denote the side of the cube as  $s$

Using the Pythagorean theorem in three dimensions, the length of the diagonal ( $d$ ) of the cube is given by:

$$d = \sqrt{s^2 + s^2 + s^2}$$

$$d = \sqrt{3s^2}$$

$$d = s\sqrt{3}$$

Given that the side of the cube is  $s = 2$  meters

Therefore, the minimum distance  $d = 2\sqrt{3}$

So, the correct answer is option C.  $2\sqrt{3}$  meters.

Section: General Knowledge

**Q.1 Which price index is being used to measure inflation by the Reserve Bank of India?**

**Options A. Purchasing Power Parity based Index**

**B. Wholesale Price Index**

**C. Industrial Cost and Price Indices**

**D. GDP Deflator**

**E. Consumer Price Index**

**Solu.** The Reserve Bank of India (RBI) primarily uses the Consumer Price Index (CPI) to measure inflation.

So, the correct answer is option E. Consumer Price Index.

**Q.2 Which institution published the cartoon book titled Raju & The Forty Thieves - A Booklet on Modus Operandi of Financial Fraudsters?**

**Options**

**A. The Ministry of Finance, Government of India**

**B. The State Bank of India**

**C. The Punjab National Bank**

**D. The Reserve Bank of India**

## **E. The Ministry of Corporate Affairs, Government of India**

**Solu.** The cartoon book titled "Raju & The Forty Thieves - A Booklet on Modus Operandi of Financial Fraudsters" was published by the Ministry of Corporate Affairs, Government of India.

So, the correct answer is option E. The Ministry of Corporate Affairs, Government of India.

**Q.3 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?**

- Options A. Skyroot Aerospace**
- B. Brahmos Aerospace Private Limited**
- C. Lockheed Martin India Private Limited**
- D. Indian Rotorcraft**
- E. Mahindra Aerospace**

**Solu.** Vikram-S, India's first private space rocket, was developed by Skyroot Aerospace.

So, the correct answer is option A. Skyroot Aerospace.

**Q.3 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?**

- Options A. Skyroot Aerospace**
- B. Brahmos Aerospace Private Limited**
- C. Lockheed Martin India Private Limited**
- D. Indian Rotorcraft**
- E. Mahindra Aerospace**

**Solu.** India's first private space rocket, Vikram-S, was developed by Skyroot Aerospace. It marked a significant milestone in India's space exploration journey, demonstrating the country's growing capabilities in the field of space technology. The launch of Vikram-S from the Satish Dhawan Space Centre in Sriharikota on November 18, 2022, symbolized the

emergence of private players in India's space sector and their contribution to the nation's space ambitions.

**Q.4 Who has been appointed as the Chief Justice of India in November 2022?**

- Options A. Justice N. V. Ramana**
- B. Justice U. U. Lalit**
- C. Justice Yashwant (Y.V.) Chandrachud**
- D. Justice Dhananjay (D.Y) Chandrachud**
- E. Justice S.J. Mukhopadhaya**

**Solu.** Justice U. U. Lalit was appointed as the Chief Justice of India in November 2022. As the head of the Indian judiciary, his appointment carries immense significance for the country's legal system. Justice Lalit brings with him a wealth of experience and expertise, and his tenure as Chief Justice is expected to shape the direction of judicial proceedings and decisions during his term.

**Q.6 The first ever Wildlife conservation bond (a financial instrument) in the world, was floated to conserve which of the following critically endangered species?**

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

**Solu.** The first-ever Wildlife Conservation Bond, a financial instrument, was floated to conserve the critically endangered Black Rhino in South Africa. This initiative aimed to provide funding for conservation efforts to protect this species from extinction.

So, the correct answer is option D. Black Rhino in South Africa.

**Q.7 Which of the following is the world's largest River delta?**

- Options A. The Ganges River delta**



- B. The Amazon River delta**
- C. The Mississippi River delta**
- D. The Nile River delta**
- E. The Mekong River delta**

**Solu.** The world's largest river delta is the Ganges River delta. It spans across Bangladesh and the Indian state of West Bengal, forming one of the most extensive and densely populated river deltas globally.

So, the correct answer is option A. The Ganges River delta.

**Q.8 Which organization, in October 2022, imposed a penalty on Alphabet for violating anti-trust laws in India?**

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

**Solu.** In October 2022, the penalty on Alphabet for violating anti-trust laws in India was imposed by the Competition Commission of India (CCI). This regulatory body ensures fair competition in the market and takes actions against entities found to be engaging in anti-competitive practices.

So, the correct answer is option D. Competition Commission of India.

**Q.10 Which of the following was NOT a reason associated with Sri Lankan economic crisis of 2022?**

- Options A. Decline of tourist inflow**
- B. Decline in FOREX reserves**
- C. COVID-19**
- D. Shift towards organic agriculture**
- E. Decline of fisheries**

**Solu.** Among the options listed, the reason NOT associated with the Sri Lankan economic crisis of 2022 is:

D. Shift towards organic agriculture.

While other factors such as the decline of tourist inflow, decline in foreign exchange (FOREX) reserves, the impact of COVID-19, and the decline of fisheries contributed to the economic crisis, there is no indication that a shift towards organic agriculture played a significant role in the crisis.

So, the correct answer is option D. Shift towards organic agriculture.

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