

Direction (1-4): Study the following information and answer the questions that follow:

Her real name was Larysa Petrivna Kosach. "Lesya Ukrainka" was a carefully considered pseudonym that spoke volumes about the Ukrainian author's dominant priority in her personal and artistic endeavours— the preservation and evolution of her country's culture and literature. Her noble face appears on the 200 Ukrainian Hryvnias banknote, a symbol of her triumph. She left behind a legacy of poems, plays, and essays that solidified her influence on anything and everything in printed form.

Ukrainka was born in 1871...to a close-knit, intellectually accomplished, and patriotic family...Ukrainka's father, Petro Antonovych Kosach, was a landowner and activist of considerable means, which he used to campaign for Ukrainian nationalism against the Russian Tsarist autocracy that held control over his country at the time. The Kosach family's entire domestic life was dedicated to the cause... From her parents, Ukrainka would learn that literature and politics were tightly entwined and impossible to unravel; committing oneself to books and learning was also to social-progressive enterprises. A writer had to wield their pen with purpose, and publishers had a moral obligation to produce works that made a difference...

Ukrainka's portfolio contains an impressive array of poetry, drama, stories, literary criticism, and socio-political essays. She had a versatile pen and could write about anything that fell within her sphere of interest. Her most famous work is "The Forest Song," a three-act poetic play notable for being one of the earliest examples of fantasy fiction in the Ukrainian literary world. The work can be interpreted as a love letter to the natural wonders and folklore of Ukraine that added so much colour to her childhood...Ukrainka's subject matter and themes very often acted as metaphors for the unfavourable situation of Ukraine within the Russian Empire. Clarence A. Manning, in his study of Ukrainka's three-act dramatic poem "In the Wilderness", makes the connection between Ukrainka's artistically frustrated Richard Ayrton and her own equally embittered circle of acquaintances, whose efforts to freely create were thwarted by an overbearing regime: "The tsarist decree of 1876 had made it almost impossible to publish books in Ukrainian. Richard's plight in Massachusetts was similar to that of Ukrainian authors, who were forced to be silent or to write in Russian, or else to risk exile in Siberia."...

Ukrainka was a competent translator and laboured to translate foreign works into the Ukrainian language for her fellow countrymen to read, enjoy, and use as the basis for resistance. In 1902 she translated Karl Marx and Friedrich Engels's magnum opus, The Communist Manifesto, into Ukrainian. A devout Marxist, she also participated in organisations opposed to the tsarism that drained Ukraine's resources and stunted the development of Ukraine as an independent country. In 1907 she was arrested by the Russian authorities for her revolutionary sympathies and controversial publications. Though she was released, she was watched closely by tsarist spies for the rest of her life—a short six years. But those years were long enough to make an impact and to earn her fond remembrance and profound respect for her contributions to the cultural conservation of Ukraine.

Q 1. Which one of the following aspects of Ukrainka does the author appear to value most highly?

- 1) her versatility and her ability to write in a wide variety of genres <
- 2) her legacy and influence on the conservation of Ukrainian culture
- 3) her successful campaign for Ukrainian identity and nationalism
- 4) her being recognised through her photograph on Ukrainian currency

Q 2. It can be inferred from the third paragraph that Ukrainka, through her writing:

- 1) displayed the idea of romanticism that she encountered in her daily life.
- 2) showcased the moral obligation she had towards creating outstanding work.
- 3) encouraged fellow compatriots to rise and fight against the Tsarist regime.
- 4) highlighted her country's struggles at the hands of the Russian empire.

Q 3. Which one of the following best describes the primary purpose of the second paragraph?

- 1) articulating the struggles of Ukrainka in her formative years
 - 2) highlighting the nationalism and activism of Ukrainka's family
 - 3) pointing to the genesis of Ukrainka's artistic motivations
 - 4) describing the colourful and meaningful childhood of Ukrainka
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Q 4. Each of the following is an aspect of Ukrainka that the author discusses EXCEPT that:

- 1) she had a role in the preservation of Ukrainian literature.
 - 2) she is recognised for her contribution to Ukraine.
 - 3) her literary work is designed toward a specific moral obligation.
 - 4) she was looked at favourably by her Russian contemporaries.
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Direction (5-8): Study the following information and answer the questions that follow:

Shi is the goal of strategy's objective and subjective aspects: to create and attain an advantage over an opponent after evaluating and influencing a situation. *Shi* can be found in chapters one, five, six, and ten of the ancient Chinese military classic by Sun Tzu, *The Art of War*. Chapter six notes that "the military is without fixed *shi* and without lasting form," implying flexibility in attaining strategic advantage.

The Chinese book *Campaign Stratagems* defines *shi* as the combination of the friendly situation, enemy situation, and the environment; the integrated situation that impacts the effective performance of military strength; and the sum of all factors impacting the performance of the operational efficiency of both sides. The Chinese Encyclopedia of Philosophical Terms explains *shi* as "availing oneself of advantage to gain control, a natural interest." Chapter five (*Shi*) in Chinese General Tao Hanshang's translation of *The Art of War* translates *shi* as "posture of the army," which implies seeking advantage. Tao notes that *shi* is "the strategically advantageous posture before a battle that enables it to have a flexible, mobile, and changeable position during a campaign."

Thus, the complexity of the term *shi* is apparent from the definitions. The posture of the army, strategic advantage, a strategic configuration of power, the alignment of forces, and availing oneself of advantage to gain control were all used to define *shi*. Whether or not *shi* is the key and defining idea of the *Art of War*, as Roger Ames contends, is hard to ascertain; he defines *shi* as a strategic advantage. Surely, however, his point is worthy of consideration. Certainly, anyone reading Sun Tzu's classic will note he often repeated the concept of "attaining an advantage," especially when determining whether or not to act.

The Chinese strategic game of Go is all about attaining strategic advantage. David Lai has published one of the clearest explanations of the game and its meaning. In agreement with the points made above, he notes, "Both players have tried to develop an advantageous situation that is consistent with Sun Tzu's third aspect [which is about developing a favourable situation] of *shi*."

Mao would approve of Vinnie's response to his father's letter concerning the essence of strategy. Years earlier, Mao provided a similar analogy when he described three ways to make a cat eat a hot pepper: stuff it down the cat's throat, disguise the pepper by wrapping it in cheese, or grind the pepper up and spread it on the cat's back. In the latter case, the cat will lick itself, thinking it is doing something for itself when it is actually doing what you want. This is the essence of strategy.

Interestingly, this same concept is in *The Art of War*, yet, scholars rarely refer to it as a key concept. Rather, winning without fighting, knowing the enemy and knowing yourself. Other such key phrases are usually underscored. In chapter six, Sun Tzu notes "how to make the enemy arrive of their own accord—offer them advantage." The enemy thinks it is doing something for itself, but it is actually doing what you want.

Q 5. Which, according to the passage, is the essence of strategy?

- 1) your opponent is unwilling to come to terms with the reality that you are in control
- 2) your opponent is inflexible when your core strategy is based on flexibility in action
- 3) your opponent is unaware that the action that they are doing has dire consequences

4) your opponent believes that their action is their design when in reality, it is yours

Q 6. "... the military is without fixed *shi*..."

Which one of the following best describes the essence of the above statement?

- 1) There is a need to be adaptable to achieve strategic advantage.
 - 2) There is a clear path towards achieving strategic advantage.
 - 3) There isn't an easy way of achieving strategic advantage.
 - 4) There is a need to create a path for strategic advantage.
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Q 7. The author suggests that Roger Ames' view of *shi* as defining idea of *Art of War*:

- 1) can be partly corroborated by the texts in *Art of War*.
 - 2) is inconsistent with the concept of *shi* by Sun Tzu.
 - 3) is accurate based on the writings of Sun Tzu.
 - 4) cannot be accurate because of a lack of evidence.
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Q 8. The author mentions *Go* as a strategic game where:

- 1) the winner is the one who attains strategic advantage.
 - 2) the flexibility of strategic objectives is key to winning.
 - 3) the design of the game is based on the concept of *shi*.
 - 4) the application of the concept *shi* can be illustrated.
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Direction (9-12): Study the following information and answer the questions that follow:

The electric eel generates large electric currents by way of a highly specialised nervous system that has the capacity to synchronise the activity of disc-shaped, electricity-producing cells packed into a specialised electric organ. The nervous system does this through a command nucleus that decides when the electric organ will fire. When the command is given, a complex array of nerves makes sure that the thousands of cells activate at once, no matter how far they are from the command nucleus.

Each electrogenic cell carries a negative charge of a little less than 100 millivolts on its outside compared to its inside. When the command signal arrives, the nerve terminal releases a minute puff of acetylcholine, a neurotransmitter. This creates a transient path with low electrical resistance connecting the inside and the outside of one side of the cell. Thus, each cell behaves like a battery, with the activated side carrying a negative charge and the opposite side a positive one.

Because the cells are oriented inside the electric organ like a series of batteries piled into a flashlight, the current generated by an activated cell "shocks" any inactive neighbour into action, setting off an avalanche of activation that runs its course in just two milliseconds or so, this practically simultaneous start-up creates a short-lived current flowing along the eel's body, if the eel lived in the air, the current could be as high as one ampere, turning the creature's body into the equivalent of a 500-volt battery. But eels live in water, which provides additional outlets for the current. They thus generate a larger voltage but a divided, and therefore diminished, current.

To my knowledge, there are no specific studies on why eels can shock other animals without shocking themselves, but one possible explanation could be that the severity of an electric shock depends on the amount and duration of the current flowing through any given area of the body. For the purposes of comparison, an eel's body has roughly the same dimensions as an adult man's arm. To cause an arm to spasm, 200 milliamps of current must be flowing into it for 50 milliseconds. An eel generates much less energy than that

because its current flows for only 2 milliseconds. Additionally, a large part of the current dissipates into the water through the skin. This probably reduces the current even more near internal structures like the central nervous system or heart.

Of course, the current received by any small prey is also only a small portion of the total current generated by the eel. Nevertheless, the current discharged into their smaller bodies is much larger proportionally. For example, a prey 10 times smaller in length than an eel is about 1,000 times smaller in volume. Therefore, the small animals close to the eel get shocked rather than the discharging eel itself.

Q 9. The passage, as a whole, is mainly attempting to answer which one of the following questions?

- 1) What studies have been conducted on the electric eels' voltage generating power, and what are its key findings?
 - 2) What is the process by which eels generate electric current, and what impact does it have on small prey?
 - 3) How do electric eels generate a voltage, and why do the electric eels not get shocked in the process?
 - 4) How do the organs of electric eels facilitate voltage generation, and would anything change if they lived on air?
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Q 10. It can be inferred from the passage that the electric eels' short-lived current has:

- 1) a change in potential of fewer than 500 volts and current produced more than one ampere
 - 2) a change in potential of more than 500 volts and current produced around one ampere
 - 3) a change in potential of fewer than 500 volts and current produced fewer than one ampere
 - 4) a change in potential of more than 500 volts and current produced is up to one ampere
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Q 11. According to the author, which one of the following is the possible reason why electric eels do not shock themselves?

- 1) The structure of the nervous system of the electric eels can insulate their organs.
 - 2) The water prevents the shocks from harming the electric eels' internal organs.
 - 3) The current flowing through the electric eel's body does not have enough energy.
 - 4) The organs of the electric eels do not allow the electric charge to cause shock.
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Q 12. Which one of the following keyword sequences best describes how electric eels generate a voltage?

- 1) command nucleus...command signal... neurotransmitter... transient path
 - 2) nervous system...cell activation... acetylcholine... electric organ
 - 3) complex cells...command nucleus...resistance...command signal
 - 4) nervous system...command nucleus...command signal...negative charge
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Direction (13-16): Study the following information and answer the questions that follow:

Jealousy is an emotion, and as with all emotions, it evolved to protect us, to alert us to a potential benefit or threat. It works its magic at three levels: the emotional, the cognitive and the behavioural. Physiology also throws its hat into the ring, making you feel nauseous, faint or flushed. When we feel jealousy, it is generally urging us to do one of three things: to cut off the rival, to prevent our partner's defection by redoubling our efforts, or to cut our losses and leave the relationship. All have evolved to make sure we balance the costs and benefits of the relationship. Investing time, energy and reproductive effort in the wrong partner is seriously damaging to your reproductive legacy and chances of survival. But what do we perceive to be a jealousy-inducing threat? The answer very much depends on your gender.

Men and women experience jealousy with the same intensity. However, there is a stark difference in what causes each to be jealous. One of the pioneers of human mating research is the American evolutionary psychologist, David Buss; in his book *The Evolution of Desire*

(1994), he details numerous experiments highlighting this gender difference. In one study in which subjects were asked to read different scenarios detailing incidences of sexual and emotional infidelity, 83 per cent of women found the emotional scenario the most jealousy-inducing, whereas only 40 per cent of men found this to be of concern. In contrast, 60 per cent of men found sexual infidelity difficult to deal with, compared with a significantly smaller percentage of women: 17 per cent.

Men also feel a much more extreme physiological response to sexual infidelity than women do. Hooking them up to monitors that measure skin conductance, muscle contraction, and heart-rate shows that men experience significant increases in heart-rate, sweating and frowning when confronted with sexual infidelity, but the monitor readouts hardly flicker if their partner has become emotionally involved with a rival.

The reason for this difference sits with the different resources that men and women bring to the mating game. Broadly, men bring their resources and protection; women bring their wombs. If a woman is sexually unfaithful and becomes pregnant with another man's child, she has withdrawn the opportunity from her partner to father a child with her for at least nine months. Hence, he is the most concerned about sexual infidelity. In contrast, women are more concerned about emotional infidelity because this suggests that if their partner does make a rival pregnant and becomes emotionally involved with her, his partner risks having to share his protection and resources with another, meaning that her children receive less of the pie.

Jealousy is an evolved response to threats to our reproductive success and survival – of self, children and genes. In many cases, it is of positive benefit to those who experience it as it shines a light on the threat and enables us to decide what is best. But in many cases, jealousy gets out of hand.

Q 13. The author would likely describe jealousy as which one of the following:

- 1) it is a double-edged sword
- 2) it is a culture-specific response
- 3) it is an immediate reaction to threats
- 4) it is a mature physiological action

Q 14. "When we feel jealousy, it is generally urging us to do one of three things: to cut off the rival, to prevent our partner's defection by redoubling our efforts, or to cut our losses and leave the relationship."

If the above statement is true, which one of the following words best describes what jealousy urges us to do?

- 1) combative, preventive, pragmatic
- 2) manipulative, imaginative, dogmatic
- 3) instinctive, protective, assertive
- 4) deliberate, damaging, delusional

Q 15. Which one of the following assumptions does the author make while arriving at the reasons for the difference in men and women regarding jealousy?

- 1) The concerns of an individual are in some ways linked to the resources that another individual provides.
- 2) The response of an individual has a direct correlation to the lack of resources available to that individual.
- 3) The outcome of the action of an individual is not related to the justification made for that action.
- 4) The resources that an individual offers do not necessarily give sufficient reason for another individual to act.

Q 16. Each of the following can be inferred from the passage EXCEPT that:

- 1) some men consider an emotional scenario jealousy-inducing.

- 2) the physiological response to sexual infidelity differs based on gender.
 - 3) the degree of jealousy is more or less the same across gender.
 - 4) women are not concerned with the sexual infidelity of their partners.
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Q 17. Directions for question (17): The four sentences (labelled 1, 2, 3, and 4) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentences and key in this sequence of four numbers as your answer.

1. When the architects of our republic wrote the magnificent words of the Constitution and the declaration of Independence, they were signing a promissory note to which every American was to fall heir.
 2. We have come to cash this check — a check that will give us upon demand the riches of freedom and the security of justice.
 3. America has given the African American a bad check which has come back marked “insufficient funds”, but we refuse to believe that the bank of justice is bankrupt.
 4. It is obvious today that America has defaulted on this promissory note insofar as her citizens of color are concerned.
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Q 18. Directions for question (18): The four sentences (labelled 1, 2, 3, and 4) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentences and key in this sequence of four numbers as your answer.

1. To compensate for the change, charged particles called ions move through the fluid, paste or solid material that separates the two sides of the battery.
 2. When the battery is connected to an external circuit, electrons travel from one side of the battery to the other through that circuit, generating electricity.
 3. Most conventional batteries store energy as chemical reactions waiting to happen.
 4. But even when the battery is not in use, the ions gradually diffuse across this material, which is called the electrolyte.
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Q 19. Directions for question (19): The passage given below is followed by four summaries. Choose the option that best captures the author’s position.

Listening (distinct from, but, incorporating the physiological process of hearing along with cognition and response) is the near-forgotten dimension of communication. Many scholars contend that leadership starts with listening. Gandhiji was a virtuoso listener—he would listen to the problems faced by people, his opponents and the subtext beneath every word spoken. He cultivated not just listening to others but also listening to his inner self, which helped him keep his moral compass and integrity and respond to others’ messages (including subliminal) and causes with empathy.

- 1) Gandhiji showcased his leadership quality by listening to others with empathy.
- 2) Gandhiji was a highly skilled listener who listened to others and his inner self.
- 3) Gandhiji had a unique listening skill which he cultivated through deliberate action.
- 4) Gandhiji incorporated the physiological listening process by listening to his inner self.

Q 20. Directions for question (20): Five sentences related to a topic are given below. Four of them can be put together to form a meaningful and coherent short paragraph. Identify the odd one out.

1. In the English version that was read out at Madurai Medical College, there were two references that are repugnant – ‘Submitting myself to my Guru (teachers) with complete dedicated feeling,’ and ‘I, (especially a male doctor) shall treat a woman only in the presence of her husband or a near relative’.
2. Standing on ceremony, particularly, does not quite fit in with the roles and the responsibilities of a medical professional, and the Charak Shapath row in Tamil Nadu, in which a top official of a government medical college was put on a waitlist, has clearly dragged one ceremony beyond its original intent and purpose.
3. But launching severe action for what might have been just procedurally deviant, rather than a crime or violation of ethics, seems a knee-jerk reaction, or worse, the pursuit of a political agenda.
4. Subsequent investigations have revealed that the dean was not even part of the decision to substitute the Charak Shapath for the Hippocratic Oath (the Students’ Council claimed responsibility), and he has since been reinstated.
5. The rest of the oath stresses, in simple language, the very principles of the Hippocratic Oath, including serving the sick, a pleasant bedside manner, and not being corrupt.

Q 21. Directions for question (21): The four sentences (labelled 1, 2, 3, and 4) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentences and key in this sequence of four numbers as your answer.

1. Most parents of autistic children become aware of the atypicality of these and other behaviours only gradually.
2. The infants may have feeding problems, dislike being changed or bathed, or fuss over any change in routine.
3. They may hold their bodies rigid, making it difficult for parents to cuddle them, or they may fail to anticipate being lifted, lying passively while the parent reaches for them, rather than holding their arms up in return.
4. Many parents of autistic children sense that something is not quite right even when their children are infants.

Q 22. Directions for question (22): The passage given below is followed by four summaries. Choose the option that best captures the author’s position.

Schools by now must have moved on to teaching kids maths and science in kindergarten instead of the usual nursery rhymes. As much as one empathises with today’s children, who are learning by leaps and bounds what previous generations must have crammed in their heads in school, it’s probably true that kids today are smarter than ever. Remember the time when you used to sing nursery rhymes. All those memories would probably come crashing down considering that several nursery rhymes taught at school once upon a time were not in the least appropriate for children—quite a few of them were about misery and pain. "Baa Baa, Black Sheep" is one such rhyme that fits in. It has been claimed that the song is neither about black sheep nor about a little boy but about the Great Custom, which was taxes on wool that sheep farmers had to pay their King in 1275. While one part of the wool went to the King, one part went to the Church and one to the farmer; it left the shepherd boy with nothing.

1)

Schools now moved away from teaching nursery rhymes like “Baa Baa, Black Sheep” because it is inappropriate for children due to racial undertones.

2)

“Baa Baa, Black Sheep” has nothing to do with sheep but has to do with the taxes collected from sheep farmers that left them with nothing.

3)

Nursery rhymes are not appropriate for children, and this can be seen in how “Baa Baa, Black Sheep” portrays misery and pain instead of learning.

4)

The nursery rhyme “Baa Baa, Black Sheep” is one among many erstwhile nursery rhymes taught in schools that are not appropriate for children.

Q 23. Directions for question (23): Five jumbled up sentences related to a topic is given below. Four of them can be put together to form a coherent paragraph. Identify the odd one out and key in the number of the sentence as your answer.

1. Most celebrated of all was the creature seen in the South Atlantic in 1848 by the crew of HMS Daedalus.
2. Darwin’s theories had thrown up such uncertainties, and while the poet Matthew Arnold wrote of the “melancholy, long, withdrawing roar” of the sea of faith, newspapers carried serious sea monster reports from around the empire.
3. The characters in *The Essex Serpent* declare the coming of the beast to be a punishment for their sins, or a symptom of their times, while the main character, Cora Seaborne, believes it to be a surviving dinosaur.
4. The Victorians had an obsession with sea serpents; it was the dark side of their moral certainty.
5. As depicted in his widely known book *On The Origin of Species*, Charles Darwin gives humanity a view of how his scientific discoveries brought him to figure out the mechanism by which genes and traits are passed down through generations within a species.

Q 24. Directions for question (24): The passage given below is followed by four summaries. Choose the option that best captures the author’s position.

Art is “generally” considered to be beautiful, and “usually” is the reason why people are attracted to it. However, there is another side of art which tells the truth. Here it is not necessarily beautiful; it might be critical, sarcastic, satirical, paradoxical, or even ugly. Yet, truth, in itself, has a sense of beauty. When John Keats was mesmerised by a Grecian Urn, at the end of his Ode, he wrote: “Beauty is Truth, Truth Beauty”. We might arrogantly claim that the history of art is the history of depicting truth. In this sense, at first sight, considering Umberto Eco’s essay “On Ugliness”, we might disagree with Keats because some scenes in the art are not beautiful to a common viewer. But, on another level, truth in itself is beautiful, even if it depicts ugliness. Art freezes the moment of truth in the mind of the artist. The artist becomes a storyteller and a philosopher who tells a story or a piece of truth in the static immobility of art. Art is passed down through generations and centuries. It exists beyond temporality. Indeed, art endures the test of time or, better to say, it is free from time while being frozen in time.

- 1) Artist, through his art, tells a piece of truth which is beautiful in one sense, and this then is passed down through generations.
 - 2) Art is considered beautiful as well as truthful, and it is this truth that creates value in the art that is independent of the artist.
 - 3) Art is meant to be truthful, and this arrogance in truth makes the art beautiful even if it is, in fact, ugly, making it priceless.
 - 4) Art is immobile, and this is because of the truth that it holds, which is then passed down generations and centuries.
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