# **AILET**

### ALL INDIA LAW ENTRANCE TEST

### **SOLVED PAPER 2023**

Duration: 90 Minutes Maximum Marks: 150

### INSTRUCTIONS TO CANDIDATES

- 1. No clarification on the Question Paper can be sought. Answer the questions as they are.
- 2. There will be 150 Multiple Choice Questions (MCQ) of one mark each to be answered in the OMR Response Sheet only. Total marks are 150. Answer ALL the Questions.
- 3. There will be Negative Marking for Multiple Choice Questions (MCQ). For every wrong answer 0.25 marks will be deducted.
- 4. Candidates have to indicate the most appropriate answer by darkening one of the four responses provided, with only BLACK/BLUE BALL POINT PEN in the OMR Response Sheet.
- **5.** Answering the question by any method other than the method mentioned above shall be considered wrong answer.
- **6.** More than one response to a question shall be counted as wrong answer.
- 7. The candidate shall not write anything on the OMR Response Sheet and Answer Booklet other than the details required and in the spaces provided for.
- **8.** After the examination is over, the candidate can carry the Question Booklet along with candidate's copy of the OMR Response Sheet. Candidate will hand over the original OMR Response Sheet to the invigilator.
- 9. The use of any unfair means by any candidate will result in the cancellation of his/her candidature.
- 10. Impersonation is an offence and the candidate, apart from disqualification, may have to face criminal prosecution.
- 11. Electronic gadgets like mobile phones, digital watch, pagers and calculators etc. are strictly not permitted inside the Test Centre/Hall.
- 12. The candidates shall not leave the hall before the end of the Test.

BREAK-UP OF MARKS

Section	Subject	Marks	Q. No.
A	English	50	1 - 5, 13 - 17, 25 - 29, 37 - 41, 49 - 53, 61 - 65, 73 - 77, 85 - 89, 97 - 101, 109 - 113
В	Logical Reasoning	70	6 – 12, 18 – 24, 30 – 36, 42 – 48, 54 – 60, 66 – 72, 78 – 84, 90 – 96, 102 – 108, 114 – 120
С	Current Affairs and General Knowledge	30	121 – 150
	Total Marks	150	

**Directions: Q. I to X:** Each set of questions in this section are based on the passage. The questions are to be answered on the basis of what is stated or implied in the passage. Choose the most appropriate response that accurately and completely answer the question.

I. Aristotle, an ancient philosopher, was one of the first to discuss syllogisms. In *Prior Analytics*, published around 350 BCE, Aristotle outlined the basic form of syllogism which represented the earliest branch of formal logic. For Aristotle, logic revolved around deduction: "Speech in which certain things having been supposed something different from those supposed results of necessity because of their being so."

If that sounds confusing – that's ancient philosophy for you! Let's break it down. "The things that have been supposed" are what we now call "premises". "What results necessarily" from those premises being true is a conclusion.

To Aristotle, if an argument was valid, it would be impossible for premises X and Y to be true and for conclusion Z to be false. Aristotle named this method of proving validity "reductio ad impossibile": a syllogism is valid when the denial of the conclusion but acceptance of the premises would lead to a contradiction.

Aristotle divided syllogistic propositions into four different categories: universal affirmative, particular affirmative, universal negative and particular negative.

A universal affirmative syllogistic sentence: All humans need food.

A particular affirmative syllogistic sentence: Some birds can fly.

A universal negative syllogistic sentence: No dogs are cats.

A particular negative syllogistic sentence: Not all cars have four doors. During the rise of modern formal logic, German philosopher Gottlob Frege refined Aristotle's syllogistic theory through the addition of non-categorical syllogisms. These are syllogisms that rely on premises and can be hypothetical, or which include disjunctions like 'or'. The hypothetical form of syllogisms can be traced back to Stoic philosophy, but modern philosophers tend to attribute the theory to Frege. In the 19th century, British philosopher and economist John Neville Keynes also helped make non-categorical syllogisms popular.

Here's an example of a hypothetical syllogism:

- 1. If it is sunny tomorrow, I can go running.
- 2. It is sunny.
- 3. Therefore, I can go running.

Here's an example of a disjunctive syllogism:

- 1. Patrick studies English or Linguistics.
- 2. Patrick is not studying Linguistics.
- 3. Therefore, he is studying English.

In the *Begriffsschrift* (German for "Concept-Script"), he refined Aristotle's system by developing a logical system that explained how quantifiers (words like "all" and "some") work. His system also became the basis for modern computer science.

### SECTION - A: ENGLISH

1. Select the appropriate option to fill in the b	blank
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In the line, 'Aristotle outlined the basic form of syllogism...' in paragraph 1, the writer means that Aristotle \_\_\_\_\_\_ the topic.

- (a) shared an introductory insight on
- **(b)** paraphrased features of
- (c) wrote a detailed discussion on
- (d) presented the main aspects of
- 2. The writer's uses an exclamation mark in the line '... that's ancient philosophy for you!', in paragraph 2. What is the most likely tone this indicates?
  - (a) derogatory
- **(b)** humorous
- (c) sarcastic
- (d) provocative
- 3. Select the option that is true for both (1) and (2) below, according to paragraph 3:

- (1) A conclusion is the main feature of a premise.
- (2) Premises need to be proven true for a conclusion to occur.
- (a) (1) is true but (2) is false.
- **(b)** Both (1) and (2) are true.
- (c) (2) is true but (1) cannot be inferred from the text.
- (d) (1) is true but (2) cannot be inferred from the text.
- **4.** Select the option that substitutes the underlined word correctly in the given line.

'These are syllogisms that rely on premises being <a href="https://www.nc.ni.nlm.ni.nl

- (a) conjectural
- (b) climatic
- (c) conciliatory
- (d) corroborative

- **5.** Select the option that uses a 'quantifier', as mentioned in the last paragraph.
  - (a) We saw a lot of birds at the sanctuary.
- **(b)** The sanctuary is located beyond the city walls.
- (c) The birds migrate to the sanctuary in March.
- (d) We planned the trips to the bird sanctuary.

### **SECTION – B: LOGICAL REASONING**

- 6. Let the following premises be true: "If it is sunny on any given day, I can go running." and "It is not sunny today." Which of the following must be true?
  - (a) I cannot go running today.
  - (b) I can go running today.
  - (c) I can go walking today.
  - **(d)** None of the above.
- 7. If a majority of spoons are forks, then which of the following *could be true?* 
  - (a) A majority of forks are spoons.
  - (b) A minority of forks are spoons.
  - (c) All forks are spoons.
  - (d) All the above
- 8. Assume that (A) a majority of blankets are sheets, (B) a majority of blankets are tablecloths, and (C) no non-blanket sheet (i.e., a sheet that is not a blanket) is a non-blanket tablecloth (i.e., a tablecloth that is not a blanket). Which of the following is true?
  - (a) No sheets are tablecloths.
  - **(b)** Some sheets are tablecloths.
  - **(c)** All sheets are tablecloths.
  - (d) Cannot be determined
- **9.** A minority of wallets are purses. A majority of wallets are perfumes. Which of the following could be true?
  - (a) No purses are perfumes
  - (b) All purses are perfumes
  - (c) Both (a) and (b)
  - (d) Neither (a) nor (b)

- 10. A majority of Formula 1 cars are race-cars. All race-cars drive on four wheels. All four-wheeled cars are twenty times as fast as cars that drive on any other number of wheels. Speed is the only determining factor for winning a race that involves cars. Which of the following is/are correct?
  - (a) In a Formula 1 race, a non-four-wheeled car (i.e., a car that does not drive on four wheels) will never be able to win.
  - (b) In a Formula 1 race, the winner of a race among 20 cars can be predicted using only the number of wheels that a car drives on.
  - (c) In an Indy500 race, where all participating cars are race-cars, the winner of a race among 50 cars can be predicted.
  - (d) Both (a) and (b).
- **11.** A minority of folders are documents. Which of the following is not true?
  - (a) If there are folders, there are documents.
  - (b) If there are documents, there are at least 2 folders.
  - (c) If there are no documents, there are no folders.
  - (d) All of the above are true.
- 12. All moons are asteroids. All planets are celestial bodies. Some planets are moons. Therefore,
  - (a) All asteroids are celestial bodies.
  - (b) All asteroids are planets.
  - (c) Some asteroids are planets.
  - (d) None of the above.
- II. During her grandfather's reign, Elizabeth was third in the line of succession to the British throne, behind her uncle Edward and her father. Her younger and only sister Margaret was next in the line of succession. When her grandfather died in 1936 and her uncle succeeded as Edward VIII, she became second in line to the throne, after her father. Later that year, Edward abdicated without any issue (i.e., child), after his proposed marriage to divorced socialite Wallis Simpson provoked a constitutional crisis. Consequently, Elizabeth's father became king, taking the regnal name George VI. Since Elizabeth had no brothers, she became heir presumptive. If her parents had subsequently had a son, he would have been heir apparent and above her in the line of succession, which was determined by the male-preference primogeniture (as against female-preference primogeniture or primogeniture simpliciter) in effect at the time.

George VI's health declined during 1951, and Elizabeth frequently stood in for him at public events. When she toured Canada and visited President Harry S. Truman in Washington, D.C., in October 1951, her private secretary, Martin Charteris, carried a draft accession declaration in case of the King's death while she was on tour. In early 1952, Elizabeth and Philip set out for a tour of Australia and New Zealand by way of the British colony of Kenya. On 6 February 1952, they had just returned to their Kenyan home, Sagana Lodge, after a night spent at Treetops Hotel, when word arrived of the death of George VI and Elizabeth's consequent accession to the throne with immediate effect. Philip broke the news to the new queen. She chose to retain Elizabeth as her regnal name; thus she was called Elizabeth II, which offended many Scots, as she was the first Elizabeth to rule in Scotland. She was proclaimed queen throughout her realms and the royal party hastily returned to the United Kingdom. Elizabeth and Philip moved into Buckingham Palace.

### **SECTION - A: ENGLISH**

- **13.** Elizabeth's father had to ascend the throne because Edward had to step down. Select the correct reason he had to step down.
  - (a) Edward was a king without an heir.
  - (b) Edward was involved in a controversy.
  - (c) Edward objected to the line of succession.
  - (d) Edward wished to marry the same year as his father's death.
- **14.** The word 'provoked' in the line 'provoked a constitutional crisis', refers to \_\_\_\_\_\_.
  - (a) deliberately rousing anger
  - (b) giving rise to a reaction
  - (c) pressuring for a response
  - (d) denying responsibility
- **15.** What can be inferred as common between the understanding of *heir apparent* and *heir presumptive?* 
  - (a) brothers
- (b) parental support
- (c) age
- (d) birth of another

- **16.** The phrasal verb 'stood in' is used in the line, '... stood in for him at public events.' Select the option that DOES NOT display a phrasal verb.
  - (a) get by
  - (b) break down
  - (c) double minded
  - (d) fall apart
- 17. Select the option that negates the given opinion, based on the textual information.

The Scots objected to Elizabeth's accession.

- (a) No, Elizabeth became the undisputed monarch as the heir of George VI.
- (b) No, the Scottish people embraced Elizabeth because of her Scottish lineage.
- (c) No, Elizabeth was hastily crowned Queen at Buckingham Palace.
- (d) No, Philip only shared the news of the death of George VI with Elizabeth.

### **SECTION - B: LOGICAL REASONING**

- 18. Which of the following is true for Queen Elizabeth in the period described in the first sentence of the passage, "During her grandfather's reign, Elizabeth was third in the line of succession to the British throne, behind her uncle Edward and her father."?
  - (a) Her uncle Edward had a child.
  - (b) She was not the oldest child of her father.
  - (c) Her uncle Edward was younger than her father.
  - (d) Her father was younger than her uncle Edward.
- 19. If, during the reign of George VI, George VI and his queen-consort had given birth to a boy, then: [for the purpose of this question, assume that heir presumptive and heir apparent are conceptually the same]
  - (a) The boy would have been third in line of succession – behind Elizabeth and Margaret (Elizabeth's younger sister).
  - **(b)** The boy would have been the heir presumptive.
  - (c) Elizabeth would have been the heir presumptive since she was the oldest among the George VI's children and the succession was determined by primogeniture, i.e., the eldest child is the heir presumptive.
  - (d) Both (a) and (c)
- **20.** X was the reigning monarch of a country, which followed the rule of primogeniture for determining succession. The law of succession also holds that children born out of wedlock cannot be in the line of succession. Looking at a picture of the heir

- presumptive, he, i.e. X, said, "He is the son of my mother's daughter." Which of the following is correct? [for the purpose of this question, assume that heir presumptive and heir apparent are conceptually the same]:
- (a) X is married to his sister.
- (b) X does not have any children.
- (c) X does not have any siblings.
- (d) Both (b) and (c)
- **21.** Which of the following can be deduced from the passage?
  - (a) Elizabeth II ruled over Scotland.
  - (b) Elizabeth I did not rule over Scotland.
  - (c) Both (a) and (b)
  - (d) Neither (a) nor (b)
- 22. X and Y were married. They had three children: P, Q and R (in increasing order of ages). P had three children with her husband Q: A, B and C (in increasing order of ages). R had one child with her husband W: J. A, B, C and J do not have any children of their own. Which of the following is the correct line of succession after the death of X (the current monarch) assuming that the law regulating succession follows the rule of primogeniture?
  - (a) R, J, Q, A, B, C, P
- **(b)** R, J, Q, C, B, A, P
- (c) P, A, B, C, Q, R, J
- (d) Q, A, B, C, P, R, J
- 23. Viserys is the current monarch of a country that follows the law of primogeniture. The laws of the country also prevent children born out of wedlock from being in the line of succession. Viserys' family is as follows: his brother Daemon, his daughter Rhaenyra from his marriage with Aemma (who died while giving birth to a stillborn child, Baelon),

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his sons Aegon and Aemond, and his daughter Halaena (the three of them being born from his marriage with Alicent, who is currently the queenconsort). Rhaenyra, Aegon, Aemond and Halaena are unmarried and do not have any children. Alicent wants to make her eldest son, Aegon, the heir presumptive. Which of the following options would help her succeed in her plan? [for the purpose of this question, assume that heir presumptive and heir apparent are conceptually the same]:

- (a) Kill Rhaenyra
- (b) Kill Viserys
- **(c)** Both (a) and (b)
- (d) Neither (a) nor (b)
- 24. In the facts of the question above, assume that Rhaenyra had the following children out of wedlock: Jacaerys, Lucerys and Joffrey (in decreasing order of ages). None of them have any children of their own. What would be the place of Daemon in the line of succession during Viserys' lifetime?
  - (a) Fourth
- (b) Fifth
- (c) Eighth
- (d) Ninth

### III. What is phishing?

Phishing is one of the easiest forms of cyber attackers for criminals to carry out, and one of the easiest to fall for. It's also one that can provide everything hackers need to ransack their targets' personal and work accounts.

Usually carried out over email – although the phishing scam has now spread beyond suspicious emails to phone calls (so-called 'vishing') social media, messaging services (aka 'smishing') and apps – a basic phishing attack attempts to trick the target into doing what the scammer wants. That might be handing over passwords to make it easier to hack a company, or altering bank details so that payments go to fraudsters instead of the correct account.

Phishing is also a popular method for cyber attackers to deliver malware, by encouraging victims to download a document or visit a link that will secretly install the malicious payload in attacks that could be distributing trojan malware, ransomware or all manner of damaging and disruptive attacks. The aim and the precise mechanics of the scams vary: for example, victims might be tricked into clicking a link through to a fake web page with the aim of persuading the user to enter personal information – it's estimated that an average of 1.4 million of these websites are created every month.

More complex phishing schemes can involve a long game, with hackers using fake social media profiles, emails and more to build up a rapport with the victim over months or even years in cases where specific individuals are targeted for data that they would only ever hand over to people they trust.

That data can range from personal or corporate email address and password, to financial data such as credit card details or online banking credentials or even personal data such as date of birth, address and a social security number.

### How does a phishing attack work?

A basic phishing attack attempts to trick a user into entering personal details or other confidential information, and email is the most common method of performing these attacks.

The sheer number of emails sent every single day means that it's an obvious attack vector for cyber criminals. It's estimated that 3.7 billion people send around 269 billion emails every single day.

Researchers at Symantec suggest that almost one in every 2,000 of these emails is a phishing email, meaning around 135 million phishing attacks are attempted every day.

Most people simply don't have the time to carefully analyse every message that lands in their inbox – and it's this that phishers look to exploit in a number of ways.

Scams vary in their targets – some are aiming at unwary consumers. Here, their email subject line will be designed to catch the victim's eye – common phishing campaign techniques include offers of prizes won in fake competitions such as lotteries or contests by retailers offering a 'winning voucher'.

In this example, in order to 'win' the prize, the victims are asked to enter their details such as name, date of birth, address and bank details in order to claim. Obviously, there's no prize and all they've done is put their personal details into the hands of hackers.

### **SECTION - A: ENGLISH**

25.	Select the option that correctly completes the	(a)	lotteries : victims
	following. Doctors: cardiologist ::	( )	malware : victims social media : scam
		` '	criminals · hackers

**26.** Select the appropriate option to complete the sentence.

This text is most likely to be published as a

- (a) news item
- **(b)** personal narrative
- (c) speech draft
- (d) magazine article
- **27.** Select the appropriate option to complete the sentence.

The purpose of the prolonged phishing game is to

- (a) develop believable profiles
- **(b)** research the victims

- (c) gain in-depth information
- (d) establish faith
- **28.** What about the victims often works favourably for phishers using emails?
  - (a) They face language issues
  - **(b)** They remain very busy
  - (c) They lack tech savviness
  - (d) They have delayed access
- **29.** Replace the underlined word with its correct meaning from the given options.

'Phishers scam people.'

- (a) loot
- (b) dupe
- (c) harm
- (d) betray

### **SECTION – B: LOGICAL REASONING**

- **30.** Which of the following logical relations is/are correct?
  - (a) Scamming is a superset of which phishing, vishing and smishing are mutually-exclusive subsets.
- (b) Scamming and phishing are mutually exclusive sets; vishing and smishing are subsets of phishing.
- (c) Vishing and smishing are subsets of scamming.
- (d) None of the above.

#### For Questions 31 – 36:

A company has designed a bot to filter scam emails. The method used by the filter is to convert emails to a code using a proprietary software, and then to check the code to see if it meets the following conditions. If the converted code meets each of the said conditions, then it is filtered out as scam.

- i. The code should not contain special characters (i.e. non-alphanumeric characters).
- **ii.** The code should not contain any character appearing twice consecutively.
- iii. The code should not contain any character appearing thrice consecutively.
- iv. The code should not contain any string that contains a numeric character followed by an alphabetical character.
  - **31.** Which of the following emails (converted to code) is scam according to the filter?
    - (a) 55923423
    - (b) ersfjtncjlx
    - (c) 243434p123
    - (d) 3454xxx
  - **32.** Which of the following emails (converted to code) is scam according to the filter?
    - (a) Thisemailisscam
    - (b) Thisemailisnotscam
    - (c) Thisemaillikelyisscam
    - (d) None of the above
  - **33.** Which of the following statements is correct about the conditions used in the filter?
    - (a) Condition (ii) is redundant in light of Condition (iii)
    - **(b)** Condition (iii) is redundant in light of Condition (ii)
    - (c) Condition (i) is redundant because no codes have special characters in them in any event
    - (d) Both (a) and (b)
  - **34.** Can this bot be used to filter phishing emails?
    - (a) This bot will necessarily filter some (but not all) phishing emails.

- (b) This bot may filter only some (but not all) phishing emails.
- (c) This bot will not filter any phishing emails.
- (d) This bot will filter all phishing emails.
- 35. A scammer has figured out a way to manipulate the working of the bot. However, he has not yet figured out the manner in which the bot categorises email as scam or not scam. The loophole works by using a certain "macro" in an email. The "macro" transforms the code of the email into a new code using the following sequential steps: first, letters t z are transformed into numbers 1 7, respectively; second, numbers 1 9 are transformed into letters a i, respectively; and third, number 0 is transformed into the letter j. Which of the following can be codes generated by the "macro"?
  - (a) Abcgiijg2s
- (b) Abcgiijgzs
- (c) Abc0iijgs
- (d) Abcoiijgs
- **36.** The company that created the bot reverse-engineered the scheme of the scammer. The company wants to use the following steps to transform the "macro"-generated code into the original code.
  - i. Transform numbers 1 7 to letters t z, respectively

- ii. Transform letters a i to numbers 1 9, respectively
- iii. Transform letter j to number 0

What is the order in which these steps should be undertaken to fulfil the company's aim?

- (a) (i) followed by (ii) followed by (iii)
- (b) (iii) followed by (ii) followed by (i)
- (c) (ii) followed by (i) followed by (iii)
- **(d)** These steps, in whichever order, cannot achieve the company's aim.
- IV. Great Pacific Garbage Patch, a zone in the <u>Pacific Ocean</u> between <u>Hawaii</u> and <u>California</u> that has a high concentration of <u>plastic waste</u>. The extent of the patch has been compared to the U.S. State of <u>Texas</u> or <u>Alaska</u> or even to the country of <u>Afghanistan</u>.

Garbage that reaches the ocean from the west coast of the <u>United States</u> and from the east coast of <u>Japan</u> is carried by currents – including the <u>California Current</u>, the North Equatorial Current, the North Pacific Current, and the <u>Kuroshio</u> – into the North Pacific <u>subtropical gyre</u>, the clockwise rotation of which draws in and traps solid matter such as plastics. Some 80 percent of the plastics in the garbage patch come from the land. It takes years for <u>debris</u> to travel from the coasts to the gyre, and as it is carried along, photodegradation causes the plastics to break down into tiny, nearly invisible bits. While there are some larger objects that come from ships and offshore oil rigs, the garbage patch could more accurately be described as a soup of <u>microplastics</u>. The dimensions and depth of the patch are continuously changing.

Scientists had been aware of the growing problem of plastic debris in the world's oceans since the late 1980s. However, the Great Pacific Garbage Patch came to public attention only after 1997, when yachtsman Charles Moore, returning home after participating in the biennial Transpacific Race, chose a route that took him through the North Pacific subtropical gyre. He found himself traversing a sea of plastics. When he returned to the area the following year, he discovered that the patch had grown in both extent and density. Moore began making speeches and writing articles – notably a 2003 essay in *Natural History* magazine – and he changed the mission of the Algalita Research Foundation, which he had founded in 1994 to improve water quality along California's coast. The organisation now focuses on studying and publicising the problem of plastics in oceans, in particular in the Great Pacific Garbage Patch. A 2006 series of articles in the Los Angeles Times about the garbage patch won a Pulitzer Prize and raised general awareness of the problem.

In 2015 and 2016, the Dutch-based organisation Ocean Cleanup found that the <u>density</u> of the debris in the garbage patch was much greater than expected and that the plastics absorbed pollutants, making them poisonous to marine life. The Great Pacific Garbage Patch is the best known of several such zones, others of which exist in the <u>Atlantic</u> and <u>Indian oceans</u>.

### **SECTION – A: ENGLISH**

37.	Select	the	app	ropriate	option	to	complete	the
	senten	ce.	- 6					

The word 'Great' in the name 'Great Pacific Garbage Patch' alludes to the

- (a) vastness of the ocean
- (b) magnitude of the issue
- (c) uniqueness of the location of the garbage patch
- (d) extent of the garbage patch
- **38.** Which is the contextual clue that best helps us understand the meaning of 'gyre'?
  - (a) continuously changing
  - (b) carried along
  - (c) clockwise rotation
  - (d) invisible bits

39. Select the appropriate option to fill in the blank.

The 'photo' in *photodegradation* points to the role of \_\_\_\_\_ in the degradation of the plastic.

- (a) water
- (b) sun
- (c) type of plastic (d) duration of plastic at coast
- **40.** Which of the given literary devices does the writer use in the line, 'He found himself traversing a sea of plastics.'?
  - (a) pun
- (b) symbolism
- (c) irony
- (d) imagery
- **41.** Select the option that displays a title likely to belong to an article of the 2006 series.
  - (a) Marine Life Conservation
  - (b) Trash to Infiltrate the Food Chain
  - (c) Marine Debris and Trash
  - (d) Ocean Cleanups Around the World

### **SECTION - B: LOGICAL REASONING**

**42.** Which of the following assumptions is/are necessary to conclude that plastic waste emerging

from land would be the smallest in size as it accumulates in the Great Pacific Garbage Patch?

- (a) Extent of photodegradation is inversely related to time spent by plastic in oceanic water.
- **(b)** Plastic waste emerging from land and other sources are of somewhat equivalent sizes at the source of origin.
- (c) Both (a) and (b)
- (d) Neither (a) nor (b)
- 43. A researcher showed that for every thousand kilometres a piece of plastic travels through oceanic water, it breaks down into 100 pieces. Each of those pieces would then also break down into 100 more pieces upon travelling a thousand kilometres. This phenomenon is analogically equivalent to:
  - (a) Reproduction of amoeba each amoeba splits into two in a certain period of time; which then again split into two in the same period of time.
  - **(b)** A train locomotive accumulating two coaches at each station it crosses.
  - (c) Case-load of a Court increasing as a result of more fresh cases being fled every day compared to cases being disposed in the same day.
  - (d) All the above.
- **44.** It was found that between two pieces of plastic, the lighter one travels at twice the speed of the heavier one. If there are ten pieces of plastic (each with a different weight) that start from the same geographical location, the speed of the fastest piece would X times the speed of the slowest piece. X is:
  - **(a)** 10
- **(b)**  $2 \times 10 = 20$
- (c)  $2 \times 9 = 18$
- (d)  $2^9 = 512$
- **45.** Theoretically, filtering out all plastics from water bodies flowing into the sea and preventing direct disposal of any plastic from land into sea would:
  - (a) Eliminate the Great Pacific Garbage Patch over a sufficiently long time period.
  - (b) Stop the growth of the size and depth of the Great Pacific Garbage Patch over a sufficiently long time period.
  - (c) Stop the speed of growth of the size and depth of the Great Pacific Garbage Patch over a sufficiently long time period.
  - (d) All the above
- 46. A teacher wants to demonstrate the futility of Ocean Cleanup. She believes that unless plastic-removal is faster than plastic-accrual, the overall size and depth of the Great Pacific Garbage Patch would stay stagnant or may even increase. Which of the following analogies can she draw to drive home her argument?
  - (a) A filled bucket eventually empties as a result of an open outlet at the bottom of the bucket.
  - **(b)** Water level in a partially filled bucket with an outlet at its bottom rises if the amount of

- water coming through the inlet is faster than the amount of water that goes out through the outlet.
- (c) Water level in a partially filled bucket with an outlet at its bottom goes down if the amount of water coming through the inlet is slower than the amount of water that goes out through the outlet.
- (d) Both (b) and (c)
- 47. From the passage, it is clear that both plastic accumulation and oceanic pollution are negatively affecting marine life. As a scientist, you conduct a series of experiments to determine the extent (if any) of their contribution to degradation of marine life. The details of the experiments and their results are below:
  - I. Check if plastic accumulation in sterile, non-polluting conditions affects marine life. It turns out that marine life is negatively affected. The measurement of the effect is X units.
  - II. Separately, check if any kind of pollution in some non-plastic environment affects marine life. It turns out that marine life is not affected at all.
  - III. Separately, check if pollution absorbed by accumulated plastic affects marine life. It turns out that marine life is negatively affected. The measurement of the effect is 2X units.

What, if anything, can be concluded from the experiment?

- (a) Pollution is always dangerous to marine life.
- (b) Pollution is dangerous for marine life only if it takes place in an environment where plastic has accumulated.
- (c) Plastic accumulation poses no threat in a nonpolluted environment.
- (d) None of the above conclusions can be drawn.
- 48. It is found in a series of experiments that big pieces of plastic (defined as being larger than 100 cm² in size) take T amount of time to break into halves due to photodegradation, and smaller pieces of plastic (defined as being smaller than 10 cm² in size) take T/3 amount of time to break into halves due to photodegradation, which of the following is correct?
  - (a) Rate of photodegradation is inversely related to size of original piece of plastic.
  - **(b)** Rate of photodegradation is directly related to size of original piece of plastic.
  - **(c)** Rate of photodegradation is independent of size of original piece of plastic.
  - **(d)** Rate of photodegradation is not dependent on any factor other than size of original piece of plastic.

### V. Primogeniture

All titles are inherited by the oldest eligible child. Note that a dead child's progeny takes precedence over younger siblings. If no eligible descendants exist, the ruler's oldest eligible sibling is preferred. If lateral branches provide no candidate, the line of succession moves up to the primary parent\* and repeats the aforementioned steps.

\*the father if patrilineal marriage, the mother if matrilineal marriage

#### Ultimogeniture

All titles are inherited by the youngest eligible child. Note that a dead child's progeny takes precedence over older siblings. If no eligible descendants exist, the ruler's youngest eligible sibling is preferred. If lateral branches provide no candidate, the line of succession moves up to the primary parent\* and repeats the aforementioned steps.

\*the father if patrilineal marriage, the mother if matrilineal marriage

### House seniority

All titles are inherited by the oldest eligible house member.

**Note:** The above rules of inheritance can take the following forms: gender-neutral; male preference, where younger men take precedence over older women; and vice versa for female preference.

#### **Disowning**

If a person is validly disowned, his/ her position in the line of succession ceases to exist. Only a person who has become a ruler in accordance with any of the rules of succession mentioned above can disown a person in the line of succession. A person in the line of succession may also choose to adopt monkhood, which automatically results in his/her permanent removal from the line of succession.

### **SECTION - A: ENGLISH**

**49. Select** the option that completes the following correctly.

Precedence: priority ::

- (a) progeny: offspring
- (b) lateral: vertical
- (c) eligible: privileged
- (d) primary: secondary
- **50.** Select the option that can be the most suitable introductory line to this text.
  - (a) Inheritance laws served as important means of preserving both the size of the property and the power and prestige.
  - (b) What distinguishes the Western Property System from the systems of most is that its category of private property is a default category.
  - (c) Public regulation of land use has increased drastically in the 20th century.
  - (d) A will is valid if it meets the formalities of the law, which usually, but not always requires that it be witnessed.

- **51.** Select the option that correctly refects in the given part of the line. "If lateral branches provide no candidates..."
  - (a) interrogation
- (b) consequence
- (c) condition
- (d) reason
- 52. Select the option that substitutes the underlined words in the given sentence without changing its meaning.

'If a person is <u>validly (1)</u> disowned, his/her position in the line of succession <u>ceases (2)</u> to exist.'

- (a) (1) technically; (2) begins
- **(b)** (1) unanimously; (2) tries
- (c) (1) justifiably; (2) desists
- (d) (1) functionally; (2) struggles
- **53.** Monkhood results in a permanent removal from the line of succession because of its feature of
  - (a) recognising a higher power
  - (b) renouncing the material world
  - (c) embracing a new home
  - (d) establishing new relationships

### **SECTION – B:** LOGICAL REASONING

- **54.** A ruler's first-born son, at the moment of his birth, is first in the line of succession. This statement is
  - (a) Always correct with respect to the rule of primogeniture.
- **(b)** Always correct with respect to the rule of house seniority.
- (c) Capable of being correct in case of ultimogeniture.
- (d) All the above

- **55.** A ruler's last-born son, at the moment of his birth, is first in the line of succession. This statement is
  - (a) Always correct with respect to the rule of ultimogeniture.
  - **(b)** Never correct with respect to the rule of house seniority.
  - (c) Capable of being correct in cases of primogeniture.
  - (d) All the above
- **56.** Different rules of inheritance can never create situations where the same person is first in the line of succession. This statement is
  - (a) Correct if seen only in context of the rules of primogeniture and ultimogeniture.
  - **(b)** Not correct even if it is seen only in context of the rules of primogeniture and ultimogeniture.
  - **(c)** Correct if seen only in context of the rules of primogeniture and house-seniority.
  - (d) Both (a) and (c)
- 57. Y is the youngest child of X, the current ruler, who has 5 other children (each of them older than Y). Y is first in the line of succession. Which of the following inferences can be drawn for certain about their realm from the above two statements?
  - (a) If the rule of primogeniture is followed, then Y's elder siblings have all been disowned.
  - (b) Even if one or more of Y's elder siblings were not disowned, it is possible that the rule of primogeniture is followed.

- (c) The only possible rule governing their realm is the rule of ultimogeniture.
- (d) All the above
- **58.** Which of the following scenarios is/are possible?
  - (a) A realm follows the rule of house-seniority. The ruler's eldest brother.
  - (b) Even if one or more of Y's elder siblings were not disowned, it is possible that the rule of primogeniture is followed.
  - (c) The only possible rule governing their realm is the rule of ultimogeniture.
  - (d) All the above.
- 59. X is the ruler of a realm. X has three younger sisters: W, Y and Z (in increasing order of ages). X is married to A, with whom he has three sons (B, C and D (in increasing order of ages)) and two daughters (E and F (in increasing order of ages)). F is younger than B. W is older than D. E is married to P and has two children: Q and R (in increasing order of ages). E dies. Stricken by grief after E's death, X dies. Assuming the realm follows gender-neutral ultimogeniture, the throne passes to
  - (a) W (b) F
  - (c) B (d) Q
- 60. In the facts of the question above, if the realm followed the rule of house seniority, the throne would pass to \_\_\_\_\_\_.
  - (a) Z
- (b) D
- (c) F (d) R
- VI. If you have ever watched a Grand Prix, you may have asked yourself, 'how do Formula One cars generate downforce?'

Motorsports is all about speed. Being the fastest around will mean victory. But there is a limit to how fast one can travel on the ground without the car taking off. For attaining great speeds, a car needs to remain firmly on the ground and have a good grip on the racing track. This means that all cars need to generate a downward force sufficient enough to keep them firmly on the ground for the speed that they intend to attain.

One way to remain on the ground at great speeds is to increase the weight of the car. But an increased weight will need more power to drive the car and make the handling of the car difficult. The alternative to this is to create the required force to stay grounded. Downforce can be generated from the air flowing around the car and will increase as the speed of the car increases.

The wings of an aeroplane help it to take off in the air at a specified speed. The same wing, if installed inverted on a car can make the car stay firmly on the ground. Just like in an aeroplane, as the speed of the car increases, the wings will press the car more firmly on the ground, thereby making handling of the car through twists and turns easier at high speed. This force that presses the car to the ground is called downforce.

Aerodynamic downforce plays an important role in the performance of Formula One cars, <u>DTM</u>, Indy cars and touring cars. Good grip on the racing track is equally important as the power generated by a racing car engine. Good ground adhesion gives the car stability and better cornering ability. Hence, a racing car must generate a ground force equal to several times its weight.

Modern Formula One cars can generate as much as 5G downforce. That means, at full speed, the effective weight pressing down on the track will be 5 times the weight of the car. Almost all the surfaces of a Formula One car are engineered to produce downforce. The downforce by the front portion of the car has to be balanced by the downforce produced by the rear portion.

While the downforce on either side of the car can be balanced by symmetry, the downforce between the front and the rear cannot. This downforce has to be balanced by design. Most of the downforce in Formula One cars is produced by the wings and by diffusers. The downforce required by the car for ultimate performance will vary from track to track and on the conditions of the track.

While too much front downforce could lead to understeer, too much downforce generated by the rear portion could lead to oversteer. The balancing of the downforce between the front and the rear can be done by careful designing of the body parts of the car. The balancing act of the downforce also comes with an increased drag on the car.

### **SECTION - A: ENGLISH**

- **61.** Select the option that correctly sorts facts (F) and opinions (O).
  - i. Grand Prix is worth watching.
  - **ii.** Formula One cars are beautifully designed unlike other types of cars.
  - **iii.** Symmetry is unable to address the downforce between the front and rear of a racing car.
  - iv. The weight of a racing car has to be far less than the ground force generated.
  - (a) F- (iii) & (iv); O- (i) & (ii)
  - **(b)** F- (i), (ii) & (iii); O- (iv)
  - (c) F- (ii) & (iii); O- (i) & (iv)
  - (d) F- (iv); O- (i), (ii) & (iii)
- **62.** Select the idiomatic expression that addresses the given text, most appropriately.
  - (a) A vicious cycle
  - (b) Two can play at the game
  - (c) Dot the i's and cross the t's
  - (d) The tip of the iceberg
- 63. What type of text could the given piece best be categorised under?

- (a) analytical
- (b) expository
- (c) descriptive
- (d) inspirational
- **64.** In the line, 'The alternative to this is to create the required force to stay grounded.' what is the nature of meaning for 'staying grounded', that the writer DOES NOT refer to?
  - (a) metaphorical
- (b) exact
- (c) non-figurative
- (d) literal
- 65. Select the most appropriate option as a concluding remark for the given text.
  - (a) Racing regulations make it hard to gain an advantage over competitors.
  - (b) The total aerodynamic package of the race car is emphasised now more than ever before.
  - (c) We can understand the downforce concept both mathematically and logically.
  - (d) Downforce ensures that cars are firmly planted on the road at speed.

### **SECTION – B:** LOGICAL REASONING

- 66. If the orientation of the wings in a Formula One car were reversed (and all other things remain equal), the effective weight pressing down on the track would be X times the weight of the car. X is:
  - (a) = 1
  - (b) > 1
  - (c) < 1
  - (d) Cannot be determined
- 67. A super car has a greater acceleration and topspeed compared to a Formula One car, but does not have wings that generate even half the downforce as compared to a Formula One car. The super car would still handily lose a race against a Formula one car. Which among the following statements is correct the race track?
  - (a) The race track is straight.
  - **(b)** The race track has at least a few turns.
  - (c) The race track is made of soft, rubber-y surface.
  - (d) The race track is made of asphalt.
- **68.** Without downforce-generating apparatus in a Formula One car, the drivers would \_\_\_\_\_\_.

- (a) Need a Formula One car without any apparatus affecting aerodynamics that would act like an aeroplane.
- **(b)** Need to slow their car down to make turns.
- (c) Need to gain a lot of weight (or add weight to the car) to keep the car on the ground.
- (d) All the above.
- **69.** Assume that an object enters into free-fall if the force attracting it towards the earth is less than the force pushing it away from the earth. Further assume that all objects on earth are pushed away from it with a force equal to 1G. A Formula One car, therefore, \_\_\_\_\_?
  - (a) Is in free-fall at all times during a race.
  - (b) Is not in free-fall at any time during a race.
  - (c) Is in free-fall at some (but not all) times during a race.
  - (d) Cannot be determined.
- **70.** Downforce generated by the wings of a Formula One car creates force towards the floor of the car, thereby keeping the floor of the car closer to the

surface it is being driven on. As mentioned in the passage, this downforce can be around 5 times the gravitational force exerted by the earth on the car. This implies that

- (a) A Formula One car, if driven at a high enough speed, can drive upside-down in a tunnel (i.e., on the roof of the tunnel) without falling down.
- (b) A Formula One car cannot drive upside-down in a tunnel (i.e., on the roof of the tunnel) at all
- **(c)** Gravity and downforce always act in the same direction.
- (d) Both (b) and (c)

- 71. In a race among ten drivers (A, B, C, D, E, F, G, H, I and J, who started in this order, i.e. A started 1st and J started 10th), D, E and F made 2, 2, and 5 overtakes, respectively. No one else made any overtakes. What are the new respective positions of D, E and F?
  - (a) 2nd, 3rd and 1st
  - (b) 3rd, 2nd and 1st
  - (c) 1st, 2nd and 3rd
  - (d) Cannot be determined
- 72. How many overtakes does a person starting 10th in a race need to make to get to 1st position, assuming no other person makes any overtakes?
  - (a) 9
- **(b)** 10
- (c) 11
- (d) 8
- VII. Mining cryptocurrency was a great way to use your best graphics card to make a little money on the side. Being able to use an idle GPU to crunch numbers when not playing games allows you to make the most of the performance available. Unfortunately, since we originally created this guide, the crypto markets have crashed and Ethereum has moved to a proof of stake.

While it's not as easy to make a tidy earning with your GPU mining cryptocurrencies as before, there may be some other coins that may be worth it if you're mindful of energy use and initial cost. The absolute best gaming graphics card does not equal the best value and returns for mining using your PC. We've got a recommendation for everyone here.

#### What is the best GPU for crypto mining?

Choosing the <u>best graphics card</u> for crypto mining isn't as simple as picking the absolute most expensive card you can locate and calling it a day. There are various factors to consider when shopping around for a new GPU to (hopefully) make some money with. The most important factor of any GPU for crypto mining is efficiency — you want a high hash rate for as little electricity as possible.

Take our highest recommendation here, for example. It's the NVIDIA GeForce 3060 Ti, an incredible GPU for gaming, but it's also excellent for crypto mining. It won't win awards for the highest hash rate, but for the more affordable price, it'll get you up and running without issue. If you wanted something a little cheaper without sacrificing too much in performance, the NVIDIA GeForce RTX 2070 is your guy.

But there are countless other GPUs that are worth considering and not only from NVIDIA. The AMD Radeon RX 5700 XT is our favorite GPU for value, offering an impressive hash rate for the asking price. Then, there's the AMD Radeon RX 580, which is perfect for those on a tight budget who wish to save a few Bitcoins or Ethereum to weather a financial storm.

You don't have to spend much at all to make money mining cryptocurrency. So long as the hash rate will pull in coins for you to sell and make enough to cover electricity costs, you're already in the green. Once you factor in a few months to pay off the GPU, you're in profit — and that's not taking into account the resale value of the card itself.

When deciding on a GPU for crypto mining, you need to bear in mind a few factors. Do you want to pay more upfront now and potentially earn higher returns? Or do you feel as though the mining scene will dissipate slightly with lower returns and wish to spend only a small amount on a GPU to make a little extra on the side?

The cryptocurrency market is a financial one, and that means it's extremely susceptible to media coverage and human emotion. Take the damning environmental reports about Bitcoin that coincided with the Chinese crackdown to send the price spiraling. If you're about to spend \$2,000 on a GPU to mine cryptocurrencies, you best be sure you can at least recuperate the initial purchase cost.

This is why we're not recommending only the most powerful (and expensive) GPUs available today. That doesn't make sense in the current climate, but it's also outright bad advice for those new to the wonderful world of mining digital currency. Unlike gaming, where only the best GPU you can afford will do, choosing one for crypto mining is a little more challenging.

### What about all other GPUs for crypto mining?

There are plenty of GPUs out there, and many of them offer considerably high hashrates, making them ideal for cryptocurrency mining. We couldn't include every graphics card here, and so this collection only includes handpicked recommendations that cover multiple price ranges.

So long as the GPU you consider buying will make more money than the electrical cost to run the PC, you're good to go. Leave it running for a few months, and you'll have accumulated enough to pay off the card. You could stop here and sell the card to recuperate some of the initial cost or continue with passive income.

### **SECTION – A: ENGLISH**

**73.** Select the appropriate option to complete the sentence.

The writer uses the word 'crunch numbers' in the first paragraph to communicate that it involves

- (a) generating unique algorithms to develop recreation products
- (b) solving algorithms that help solve moneymatters
- (c) large-scale processing of numerical data
- (d) gathering numerical data for financial research
- **74.** Select the option that correctly reflects what the idiom in the given sentence means.

'Choosing the best graphics card isn't as simple as picking the absolute most expensive card, you can locate and calling it a day.'

- (a) not compromising on quality
- **(b)** making informed choices
- (c) getting confused
- (d) ceasing work
- **75.** Select the option that displays what aspect the text titled 'What is the best GPU for crypto mining' DOES NOT present.

- i. information
- ii. prediction
- iii. suggestion
- iv. precaution
- v. introduction
- (a) i, ii and iv (b) ii and v
- (c) Only iii (d) i and iii
- **76.** What is the writer's most likely intent of using question headings in this text?
  - (a) retain a certain measure of deniability
  - (b) compel the reader to agree with explanation that follows
  - (c) create an atmosphere of uncertainty and suspense
  - (d) present information in a systematic chronology
- 77. Select the option that displays words similar in meaning to 'recuperate', from the last line of the text.
  - (a) represent, remove, regain
  - (b) renew, return, represent
  - (c) remove, retain, reinstall
  - (d) regain, recover, retrieve

### **SECTION – B:** LOGICAL REASONING

- **78.** On the basis of this article, a rational person decided that X was a better GPU for crypto mining than Y. He found that the initial cost of X was much lower than Y. It therefore follows that:
  - (a) X's hashrates were higher than Y's
  - **(b)** X's hashrates were lower than Y's
  - (c) X's hashrates were the same as Y's
  - (d) Cannot be determined
- **79.** If the total cost of mining N bitcoins using GPU X was lower than the total cost of mining the same number of bitcoins using GPU Y, then it follows that:
  - (a) X's per-unit-time electricity consumption is lower than Y's per-unit-time electricity consumption.
  - **(b)** X's per-unit-time electricity consumption is more than Y's per-unit-time electricity consumption.
  - (c) X's cost price is lower than Y's cost price.
  - (d) Cannot be determined
- **80.** What is the relationship between profits made using crypto-mining and hashrates?

- (a) High hashrates necessarily lead to high profits
- (b) High hashrates necessarily lead to some profits
- (c) Low hashrates cannot lead to profits
- (d) None of the above
- 81. Assuming that the cost price and hashrates of two GPUs are identical, which of the following statements is true?
  - (a) The profits made by crypto-mining using the GPUs in different time-periods and thereafter selling the GPUs would be identical.
  - **(b)** The profits made by crypto-mining using the GPUs in the same time-period and thereafter selling the GPUs would be identical.
  - (c) The profits made by crypto-mining using the GPUs in the same time-period and thereafter selling the GPUs could be different.
  - (d) None of the above
- **82.** GPUs are made of infinitesimally small chips made out of semiconductors. Due to the pandemic, companies manufacturing these chips had to shut down. Assuming that the prices of cryptocurrencies and electricity remained constant, this would lead to:

**84.** A goes to a shop. At the shop are two salesmen – X and Y. X always says the truth. Y always speaks

falsehoods. X and Y are aware of each other's

tendencies. A does not know which salesman is X

- i. Higher cost prices of GPUs
- **ii.** Lower profits made by people mining cryptocurrency
- iii. Lesser hashrates of GPUs
- iv. Losses for people mining cryptocurrency
- (a) i, iii, iv
- (b) i, ii
- (c) i, iv
- (d) i only
- **83.** A certain extremely expensive GPU has the best hashrates among all GPUs. This GPU would:
  - (a) Have high resale value
  - (b) Have high electricity consumption
  - (c) Give less profit in crypto-mining
  - (d) None of the above

### VIII. Who are your first cousins?

- and which salesman is Y. Both salesmen say to A, "If you asked the other salesman, he would tell you that GPU G1 is better than GPU G2." What can be said about G1 and G2?

  (a) G2 is better than G1
  - (b) G1 is better than G2
  - (c) G1 is the same as G2
  - (d) Cannot be determined

Family members who are considered first cousins share grandparents with you. If your mom or dad have siblings, and those siblings have children, the kids are your first cousins! To your mom and dad, they're nephews and nieces, but to you, they're first cousins. Often these are the relatives people mean when they say, "she's my cousin." If they're not adopted, you share about 1/8 of your DNA with your first cousins!

#### So what are second cousins?

Second cousins have the same great-grandparents as you. Think of it this way: your mom's first cousin's child is your second cousin. Or, your grandpa's brother's grandchild (your dad's aunt's grandchild) is your second cousin. You're in the same generation, they're just not as closely related.

### What about a second cousin once removed?

A cousin once removed means they're from the generation immediately above or below you. So, your first cousin once removed would be your first cousin's child or your parent's first cousin. Your second cousin once removed is your second cousin's child or your parent's second cousin.

#### So a cousin twice removed is...?

"Twice removed" means that there's a two generation gap: this cousin is from either your grandparents' generation, or your grandchild's generation. So, your first cousin twice removed would be your grandparent's first cousin or your first cousin's grandchild. Your second cousin twice removed is your second cousin's grandchild or your grandparents' second cousin.

#### And what about third cousins?

Third cousins share the same great-great-grandparents! Your third cousin is your mom's great aunt's great-grandkid. OK, that's a little confusing. How about this: your great-great-uncle's great-grandchild is your third cousin. You might need another look at the chart. Or you can just call them "cousin."

There's a knack to remember which cousin is which. First, second, and third cousins (and so on unto infnity cousins) are an equal number of generations removed from the common ancestor. First cousins are both the second generation removed from their shared grandparents. Second cousins are the third generation removed from shared great-grandparents. So: cousin plus one is the number of generations back.

#### So "grand" doesn't mean cousins?

The word "grand" means that there's a two-generation gap between the people: your brother's grandchild is your grand-niece, and your mom's father is your grandfather. There is an exception: Your parents' sibling is your aunt or uncle, but your parents' aunt or uncle is usually referred to as a great-aunt or -uncle, despite the two-generation gap rule. Grand-aunt just sounds a bit weird.

### But "great" usually goes with "grand"?

The use of "great" is usually paired with grand, and it means that there is a three-generation gap between you and your relative. Your niece's grandchild is your great-grandniece or -nephew, and your grandkid's kid is your great-grandchild! Of course, there's another exception for aunts and uncles: Your mom's uncle is your great-uncle, but your mom's great-uncle is your great-great-uncle.

### **SECTION – A:** ENGLISH

- **85.** What does the writer convey via the use of exclamation marks in the first paragraph of the text?
- (a) dramatic effect
- (b) ambiguity
- (c) astonishment
- (d) conviction

### AILET 2023 SOLVED PAPER

Right

Duty

Privilege

No-right

88.	<ul><li>what does the word 'cha</li><li>(a) pictures or photogra</li><li>(b) anecdotes</li><li>(c) pedigree</li><li>(d) family communication</li></ul>	aphs	w th (a (b)	hich cousin in whic e information can b ) dense and a met ) mind-bogg <mark>ling a</mark>	fers a 'knack' to remember h, she recognises the fact that e will be welcome. hod to paraphrase it nd a tip to simplify it a reminder suggesting digression
		<b>SECTION</b> – B: LOG	ICAL R	EASONING	
91.	I do miss my great-aunt! in this picture? You know mother taught me how the following assumption to determine that the wo great-aunt on the matern (a) The woman in the aunt.  (b) The woman in grandmother's aunt (c) X's great-aunt's dawere siblings.  (d) None of the above X's grandson's paternal grather's father is X's:  (a) Son  (c) One of (a) or (b)	the picture was X's to the picture and X's mother are grandson's sister's father's (b) Daughter (d) Grandson X's grandson's niece. Y is (b) Great-great-aunt	94. X cc (a (b (c) (d) (c) (a (c) (d) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	ousin, once removed  X's father's fathe  X's father's fathe  X's father's fathe  X's father's fathe  None of the above  Sis A's first cousin. Yes  Sibling  Second cousin  Second cousin  Sis first cousin  Yes  Sis first cousin  Yes  Sibling  Second cousin  Yes  Sis first cousin  Yes  Sibling  Second cousin  Yes  Sibling  Second cousin  Yes  Sibling  Second cousin  Yes  Sibling  Second cousin  Yes  Sibling  Neither (a) or (b)  Neither (a) or (b)  Neither's aunt is X'  Great-aunt	er's brother's grandchild. er's brother's son. er's sister's granddaughter. er's sister's granddaughter. er's sister's granddaughter. er's brother's granddaughter. er's brother's granddaughter. er's brother's grandship possible (b) First cousin (d) Third cousin ancestor between X and Y, entwice removed? ent's grandparent and Y's ent and Y's grandparent's
IX.	Wesley Hohfeld, a Har framework for underst	vard law professor in the anding interests in proper	early part ty. Hohfel	of the 20th Centu d's eight terms ar	ary, developed an analytical e arranged in two tables of different fundamental legal
	Right	Privilege	Power		Immunity
	No-right	Duty	Disability	7	Liability

"Correlatives" signifies that these interests exist on opposing sides of a pair of persons involved in a legal relationship. If someone has a right, it exists with respect to someone else who has a duty. If someone has a privilege, it exists with respect to someone else who has no-right. If someone has a power, it exists with respect

Power

Liability

Immunity

Disability

101. Select the option that includes information that is

(a) Hegel, Kant, Hume and others say that

'right' refers to the power of self-expression.

However, Duguit opposes this vehemently.

Another theorist of Rights is Ihering, a great

**(b)** A privilege

(d) None of the above

an appropriate ft into the passage.

German jurist.

to someone else who has a liability. If someone has an immunity, it exists with respect to someone else who has a disability.

A right can be enforced by a lawsuit against the person who has the correlative duty. A privilege negates that right and duty, and typically would be asserted as an affirmative defense in the lawsuit. A power is the capacity to create or change a legal relationship. For example, when someone makes an offer of a contract, that gives the offeree the power to create a contract by accepting the offer (or not). If the power to create the contract is exercised, then both parties have rights and duties with respect to each other. Courts have power, only if plaintiffs or prosecutors exercise their power to commence a lawsuit. Sovereign states are immune because courts lack power over them, in which case courts are said to have a disability with respect to sovereigns.

If I "own" property, it means that I have various rights with respect to the thing constituting my property--the "bundle" of sticks or rights. I probably have the right to exclude and everyone else in the world has a correlative duty not to use my property. Some people may have a privilege, however, as to fly over it. I also have power with respect to my property because I can create rights in others, as by transferring some or all of the property to them, as by creating an easement, which gives the grantee certain rights vis-a-vis others and certain rights and privileges vis-a-vis me.

### SECTION - A: ENGLISH

**97.** The text is an example of a passage that is:

98. Select the words from the text that correctly

substitutes the underlined words in the following

(b) descriptive

(d) informative

(a) literary

(a) Immunity

(c) Power

(b) Right

(d) Disability

(c) argumentative

99.	She gained exemption from the accountability of paying excessive maintenance, when the apartment owner changed.  (a) power, defence (b) privilege, offeree (c) respect, contract (d) immunity, liability Which option includes a foreign word used in the English language from the text?  (a) correlative (b) plaintiff (c) vis-a-vis (d) grantee  Select the option that can be used as a title from the text.  (a) All Rights Reserved (b) Fine Print (c) Letter of the Law (d) Burden of Proof	(b) (d)	Human rights are those which considering their rationality, faith, age, race is intrinsic to all human beings. One of the great achievements of the U.N. is the creation of a comprehensive body of human rights law.  A legal right is an interest accepted and protected by law. If these rights get violated, then the person has the right to move the Court for enforcing rights.  Any debasement of any legal right is punishable by law. Employment and discrimination laws provide the legal framework defining an employee's rights to freedom from being discriminated against by the employer.
	SECTION – C: LOGI	CAL RE	ASONING
	If X has a right <i>vis-à-vis</i> everyone else, and Y has a privilege <i>vis-à-vis</i> X, then X has a	bloo per the (a) (b) (c) (d)	ery person can travel on any road, unless it is cked by a person who owns that road. Every son has vis-à-vis the owner of road.  A right A privilege An immunity None of the above the facts of the question above, the owner of the
	contract." Here. A has vis-à-vis X and Y.		d has vis-à-vis everyone else.

(a) A right

(c) An immunity

#### **AILET 2023 SOLVED PAPER**

106.	If A has a right to claim damages from B, then B has	(a) Right (b) Power	
	to pay damages to A.	(c) Immunity (d) Liability	
	(a) Duty (b) Liability	<b>108.</b> If X infringes Y's copyright, Y can sue X. Y	has
	(c) Immunity (d) Disability	vis-à-vis X.	
107.	The owner of land can lease the property to any	(a) Right	
	other person. Under that lease, the owner can	(b) Power	
	allow sub-leasing. The owner of the land has	(c) No-duty	
	vis-à-vis the property.	(d) Immunity	
Κ.	The compass is one of the oldest navigational tools w	ve have. Since mankind began to understand more ab	out
	navigation, compasses have been crucial to the achiev	ement of major feats such as the first transoceanic voya	ıges

X. The compass is one of the oldest navigational tools we have. Since mankind began to understand more about navigation, compasses have been crucial to the achievement of major feats such as the first transoceanic voyages and the circumnavigation of the globe. None of this would have been possible without the aid of the compass in performing navigation calculations over long distances.

Early explorers had to use local landmarks and the stars to navigate. This made it very difficult to travel to far or unknown destinations. Compasses were one of the key breakthroughs that made such voyages possible. So how exactly does a compass work?

A compass works by detecting and responding to the Earth's natural magnetic fields. The Earth has an iron core that is part liquid and part solid crystal, due to gravitational pressure. It is believed that movement in the liquid outer core is what produces the Earth's magnetic field. Like all such fields, the Earth's magnetic field has two poles - North and South. These magnetic poles are slightly off from the Earth's axis of rotation, which is used as the basis of the geographic poles - however the magnetic and geographic poles are close enough to allow a compass to serve as a valuable navigation tool, especially when adjustments are made for the polar differences - such adjustments being referred to as declination.

In September 2019, for the first time in over 360 years, compasses at Greenwich pointed true north. Most of the time, however, compasses don't actually point precisely towards the North Pole.

True north is the direction that points directly towards the geographic North Pole. This is a fixed point on the Earth's globe. Magnetic north is quite different: it is the direction that a compass needle points to as it aligns with the Earth's magnetic field.

The magnetic North Pole shifts and changes over time in response to changes in the Earth's magnetic core: it isn't a fixed point.

This difference between true North and the North heading on a compass forms an angle, referred to as declination. Declination varies from place to place because the Earth's magnetic field is not uniform - it dips and undulates.

	SECTION – A	A: ENGLISH	
109.	Select the option that corresponds to a 'feat'.  (a) The diversion of traffic	<ul><li>(a) uniform, magnetic, point</li><li>(b) Only uniform</li><li>(c) uniform and core</li></ul>	
440	<ul><li>(b) A student's tribute to the mentor</li><li>(c) An acrobatic performance</li><li>(d) The cancellation of a fight booking</li></ul>	<ul> <li>(c) uniform and core</li> <li>(d) point, iron and core</li> <li>112. Identify the meaning of the adjective in the given from the tout.</li> </ul>	
110.	The writer refers to the compass as a "key" breakthrough, to highlight its  (a) importance (b) scientific nature (c) ease of use (d) novelty	line from the text.' compasses at Greenw pointed true north.'  (a) aimed (b) precise (c) topmost (d) sharp	ICH
111.	Select the option that can be used, both as a noun	113. Which action suitably corresponds with 'undulate	es'?

### **SECTION - C: LOGICAL REASONING**

(a) praying

(c) sharing a secret

**(b)** walking a dog

(d) dancing

#### **For Questions 114 – 117:**

as well as a verb, in the given form.

5 towers made by civilisation X were declared to be protected heritage building. Uniquely, four of them are placed geographically such that they are the vertices of a square. The fifth is placed at the point of intersection of the two

diagonals of the square. Let the towers be named A, B, C, D and E. The following information is given to you about the five towers:

i.

(c) Both (a) and (b)

(b) Jehan Daruvala

(a) Narain Karthikeyan

125. The following Indian driver is currently

participating in Formula Two series:

(d) Neither (a) nor (b)

- C, A and B are in a straight line (in no particular order) that runs from south-east to north-west. ii. If one looks directly east from B, no tower is visible. This is not true for A and D. If one looks directly north from D, a tower is visible. iii. 114. Based on the above information, which tower is in (a) Approximately east the centre? (b) Exactly east (c) Approximately west (a) A (d) Exactly west **(b)** B (c) C 119. A is holding a compass at the time of sunrise. (d) Insufficient information He points it towards the direction of the sunrise and sees that it reads "SW". This means that the **115.** If one seeks to travel to D from A, one has to go: compass has rotated (b) South-east (a) East (c) West (d) South (a) 135 degrees counter-clockwise or 225 degrees clockwise **116.** If one seeks to travel to B from A, one has to go: (b) 135 degrees clockwise or 225 degrees counter-(a) East **(b)** South-east clockwise (d) Cannot be determined (c) West (c) 45 degrees clockwise or 315 degrees counter-**117.** At sunset, A's shadow points clockwise (a) Towards B (b) Towards C (d) 45 degrees counter-clockwise or 315 degrees (d) Towards E (c) Towards D clockwise 118. A compass (circular in shape) consists of two 120. In the facts of the question above, what actual parts: a magnetic needle that points towards the direction is "NW" on the compass pointing magnetic north, and a circular piece of paper with towards? directions written on it. If, somehow, the piece of (a) North (b) South paper rotates a quarter-circle counter-clockwise, (c) East (d) West which geographic direction does needle point towards? SECTION - B: GENERAL KNOWLEDGE AND CURRENT AFFAIRS **121.** Who won the Nobel Peace Prize, 2022? (c) Jack Doohan (d) Karun Chandhok (a) Ales Bialiatski (b) Annie Ernaux (c) Svantee Paabo (d) John Clauser 126. Before adopting Riyal as its currency, Qatar's currency was equivalent to which foreign (to 122. In order to reduce plastic waste in India, the Indian Qatar) currency? government in July, 2022 banned (a) All plastic bags (a) US Dollars **(b)** Canadian Dollars (c) Indian Rupee (d) UAE Dirham (b) Single-use plastic (c) Only polyethene bags 127. As a result of air pollution and nearby sewage, the (d) Only toothbrushes is reported to be turning yellow. Built in the 17th century, it is one of the seven wonders 123. There is a fear that certain nanoplastics would of the world. become a part of human food, thereby causing severe harm to the human body. What is the size (a) The Taj Mahal of one nanometre? **(b)** The Statue of Liberty (c) Christ the Redeemer (statue) (a) 10<sup>-9</sup> m **(b)** 10<sup>-6</sup> m (d) The White House (c) 10<sup>-12</sup> m (d) 10<sup>-3</sup> m 128. Who among the following rely on medicines to 124. X water body connects the Pacific Ocean to the cure mental illnesses? Atlantic Ocean. Identify X. (a) Psychologists (b) Psychiatrists (a) Panama Canal (b) Strait of Magellan
  - (a) Solar City

**(c)** Both (a) and (b)

(b) Neuralink

129. Twitter, a social media platform, was recently

acquired by Elon Musk. Which of the following

entities is not owned/controlled by Elon Musk?

(d) Neither (a) nor (b)

- (c) Waymo
- (d) The Boring Company

### AILET 2023 SOLVED PAPER

130.	Which of the following statements is correct about	140. The Supreme Court in upheld
	Fundamental Duties in the Constitution of India?  (a) Fundamental Duties were part of the original	the constitutional validity of the EWS reservation.  (a) State of Tamil Nadu v. Union of India
	Constitution	(b) EWS Association v. Union of India
	(b) A person can be sued merely for failure to	(c) Janhit Abhiyan v. Union of India
	abide by Fundamental Duties	(d) State of Maharashtra v. Union of India
	(c) Both (a) and (b) (d) Neither (a) nor (b)	<b>141.</b> The new Election Commissioner who joined in
121	Human Rights Day is celebrated on:	November 2022 is:
131.	(a) 26 January (b) 10 December	<ul><li>(a) Rajiv Kumar</li><li>(b) Arun Goel</li><li>(c) Sushil Chandra</li><li>(d) Justice Kuldeep Singh</li></ul>
	(c) 1 March (d) None of the above	142. How many World Heritage sites are there in India?
132.	How many Youth World Titles in Chess have been	(a) 12 (b) 28
	won by Grand Master Praggnanandhaa?	(c) 40 (d) 52
	(a) None (b) One	143. India's rank in the Global Hunger Index out of 121
	(c) Two (d) Three	countries is:
133.	The first Indian to have won a Medal in Asian Cup	(a) 89 (b) 107
	Table Tennis is:	(c) 98 (d) 112
	(a) Sreeja Akula (b) Archana Kamat	144. The 2022 G20 Meeting was held in November
	(c) Manika Batra (d) S. Gnanasekaran	2022 in:
134.	After winning the Gold Medal in Olympics, Neeraj	(a) Bali (b) Rome
	Chopra has also won the Javelin throw in:	(c) Beijing (d) New Delhi
	(a) Commonwealth (b) Diamond League (c) Both (a) and (b) (d) None	145. The National Education Policy, 2020, excluded the
135	The first Indian to win a Medal in Olympics	following disciplines from its ambit:  (a) Law (b) Medicine
100.	Badminton is:	(c) Technical (d) Both (a) and (b)
	(a) P. V. Sindhu	146. Which among the following states admitted more
	(b) Prakash Padukone	foreign tourists in 2021?
	(c) Saina Nehwal	(a) Goa (b) Karnataka
	(d) Gopichand Pullela	(c) Maharashtra (d) Kerala
136.	The first Indian to have won the All England	147. Recently the IMF approved a loan of US\$ 2.9
	Badminton Championship is: (a) Gopichand Pullela	billion to:
	(b) Prakash Padukone	(a) Myanmar (b) Sri Lanka
	(c) P. V. Sindhu	(c) India (d) Nepal
	(d) Saina Nehwal	148. The Foreign Universities can set up their institutions in:
137.	The Prime Minister of which country was in news	(a) GIFT city
	for dancing in a 'wild party'?	(b) Metropolitan Cities
	(a) Finland (b) New Zealand	(c) District Headquarters
	(c) Canada (d) None	(d) Municipal Towns
138.	The present Chairman of the National Human	149. The name of the privately built rocket that was
	Rights Commission is:	launched from Sriharikota in November 2022 is:
	<ul><li>(a) Justice Arun Kumar Mishra</li><li>(b) Justice H. L. Dattu</li></ul>	(a) Skyroot (b) Vikram – S
	(c) Justice Pinaki Chandra Ghose	(c) Arya – B (d) Chand – I
	(d) Justice P. C. Pant	<b>150.</b> The Voters Day in India is celebrated on:
139.	How many Amendments have been made to the	(a) 26 <sup>th</sup> January (b) 26 <sup>th</sup> November
	Indian Constitution so far?	(c) 25 <sup>th</sup> January
	(a) 103 (b) 104	(d) 25 <sup>th</sup> November
	(c) 105 (d) 106	•••

## **AILET 2023**

# **Answer Key**

### Section – A and B: English and Logical Reasoning

1.	(d)	2.	(c)	3.	(c)	4.	(a)	5.	(a)	6.	(d)	7.	(d)	8.	(d)	9.	(c)	10.	(a)
11.	(a)	12.	(c)	13.	(b)	14.	(b)	15.	(d)	16.	(c)	17.	(a)	18.	(d)	19.	(b)	20.	(a)
21.	(c)	22.	(b)	23.	(a)	24.	(b)	25.	(d)	26.	(d)	27.	(d)	28.	(b)	29.	(b)	30.	(c)
31.	(b)	32.	(b)	33.	(b)	34.	(d)	35.	(d)	36.	(c)	37.	(d)	38.	(c)	39.	(b)	40.	(d)
41.	(c)	42.	(d)	43.	(a)	44.	(d)	45.	(c)	46.	(d)	47.	(b)	48.	(a)	49.	(a)	50.	(a)
51.	(c)	52.	(c)	53.	(b)	54.	(c)	55.	(c)	56.	(b)	57.	(b)	5 <b>8</b> .	(b)	59.	(b)	60.	(a)
61.	(a)	62.	(c)	63.	(b)	64.	(a)	65.	(b)	66.	(c)	67.	(b)	68.	(d)	69.	(a)	70.	(a)
71.	(d)	72.	(a)	73.	(c)	74.	(d)	75.	(b)	76.	(c)	77.	(d)	78.	(d)	79.	(d)	80.	(d)
81.	(c)	82.	(d)	83.	(d)	84.	(a)	85.	(c)	86.	(d)	87.	(c)	88.	(b)	89.	(b)	90.	(a)
91.	(a)	92.	(b)	93.	(d)	94.	(a)	95.	(c)	96.	(a)	97.	(d)	98.	(d)	99.	(c)	100.	(c)
101.	(c)	102.	(a)	103.	(c)	104.	(d)	105.	(a)	106.	(a)	107.	(b)	108.	(a)	109.	(c)	110.	(a)
111.	(d)	112.	(b)	113.	(d)	114.	(c)	115.	(d)	116.	(b)	117.	(d)	118.	(a)	119.	(b)	120.	(b)

# Section – C: General Knowledge and Current Affairs

121.	(a)	122.	(b)	123.	(a)	124.	(c)	125.	(b)	126.	(c)	127.	(a)	128.	(b)	129.	(c)	130.	(d)
131.	(b)	132.	(d)	133.	(c)	134.	(b)	135.	(c)	136.	(b)	137.	(a)	138.	(a)	139.	(c)	140.	(c)
141.	(b)	142.	(c)	143.	(b)	144.	(a)	145.	(d)	146.	(c)	147.	(b)	148.	(a)	149.	(b)	150.	(c)

# **AILET**

### ALL INDIA LAW ENTRANCE TEST

### **SOLVED PAPER 2023**

# **Answers with Explanation**

### **SECTION - A: ENGLISH**

### 1. Option (d) is correct.

To provide an outline of something means to list or describe only the most important parts. Since Aristotle created the very basics of syllogism, he gave it all the main aspects.

### 2. Option (c) is correct.

The author uses it to show sarcasm because the author says that if you are not able to understand it, it is probably old philosophy for you, and then he goes on to explain it in detail.

### 3. Option (c) is correct.

The third paragraph states that the conclusion is a necessary result of the premises, but it doesn't say that the conclusion is the main feature of the premises. Hence, (a) can't be inferred from the paragraph. The premises are supposed to be true for the conclusion to take place; hence, (b) is true.

### 4. Option (a) is correct.

The line stresses that there is a type of syllogism that is based on premises that are hypothetical. This means premises are conditional; if a premise takes place, the conclusion will occur. Here hypothetical can be replaced by 'conjectural' because conjectural means suppositional.

### 5. Option (a) is correct.

The statement "We saw a lot of birds at the sanctuary" uses a quantifier, 'a lot of, meaning 'some or most.'

### **SECTION – B:** LOGICAL REASONING

### 6. Option (d) is correct.

This sentence is of sufficient condition. In the given sentence: "If it is sunny on any given day, I can go running." There are four possibilities:

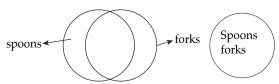
- (i) It is sunny today; I will go running.
- (ii) It is not sunny; I may or may not go running because being sunny is one of the reasons to go running; it is not a mandatory reason; there could be other reasons as well.
- (iii) I go running; It may or may not be a sunny day because other reasons may be present for running.
- (iv) I did not go running; definitely, no sunny day because no reason is present for running and being a sunny day is one of them.

Hence, if it is not a sunny day, we cannot do anything about going for running.

### 7. Option (d) is correct.

The question states: "A majority of spoons are forks." There are two possibilities:

- (i) Spoons and forks are overlapping.
- (ii) Spoons and forks are intersecting.



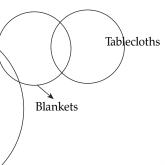
Thus, we can say all the possibilities exist.

### 8. Option (d) is correct.

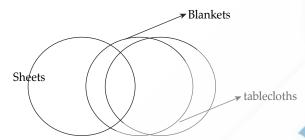
We can infer from possibility 2 that some sheets are tablecloths, because not some, but a majority of blankets are sheets and a majority of blankets are tablecloths, so at least few sheets will be blankets.

### Possibility 1:

We can infer from possibility 2 that some sheets are tablecloths, because not some, but a majority of blankets are sheets and a majority of blankets are tablecloths, so at least few sheets will be blankets.



#### **Possibility 2:**

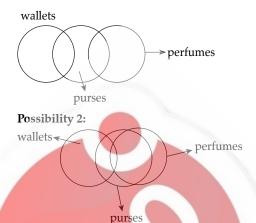


From statement (c), we can deduce that any sheet that is not a blanket can't be a part of a tablecloth that is not a blanket. The only possibility is that the sheet that is a blanket is a common with the tablecloth that is a blanket. Since both option (b) and (c) are probable choices, it is better to go for a safer option- cannot be determined.

### 9. Option (c) is correct.

The propositions are: 1. A minority of wallets are purses. 2, A majority of wallets are perfumes. The possibilities are:

Possibility 1:



Since the question to select the option that can be inferred, both (a) and (b) are possibilities.

### 10. Option (a) is correct.

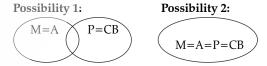
The argument says that speed is the only the determining factor for winning a race and all four-wheeled cars are twenty times faster than other cars. From this, we can deduce that the only cars to win a race are four-wheeled cars and no non-four-wheeled car can win the race.

#### 11. Option (a) is correct.

The statement says a minority of folders are documents, which means at least one folder is a document and vice versa. This suggests that if there are folders, there are documents.

#### 12. Option (c) is correct.

The argument is: All moons are asteroids. All planets are celestial bodies. Some planets are moons.



From this, we can say some asteroids are planets.

### SECTION – A: ENGLISH

#### **13.** Option (b) is correct.

Refer to the line, "Later that year, Edward abdicated without any issue (i.e., child), after his proposed marriage to divorced socialite Wallis Simpson provoked a constitutional crisis." From this line, it is apparent that Edward was involved in a controversy; hence, he stepped down.

### 14. Option (b) is correct.

The line refers to the situation when Edward decided to marry a divorced socialite, this decision provoked a constitutional crisis. Here, 'provoked' is used to express giving rise to a reaction. The rest of the options can be outright eliminated.

#### 15. Option (d) is correct.

If the holder of a property or titles dies without an heir apparent—a son—the inheritance usually falls to the eldest male relative. If no male relatives are living, it falls to the eldest female relative. Both of these individuals would be considered heirs presumptive, not heirs apparent. The only commonality between these two is they are connected by birth, it can be brother or sister.

#### 16. Option (c) is correct.

A phrasal verb is a phrase or expression that consists of a verb plus another word or two. The

whole phrase acts as a verb and has a different meaning from the original verb. For example, look up, look after, etc. Stood in is a phrasal verb that means to serve as a replacement, usually for a limited time. Get by is a phrasal verb, it means to manage with difficulty to live or accomplish something. Break down means stop functioning. Fall apart means to break up, come apart, or disintegrate. Double-minded is an adjective; it is not a phrasal verb because the first word is not a verb

### 17. Option (a) is correct.

You have to select an option that negates the fact that the Scots objected to Elizabeth's accession. The option that negates the given opinion is to say that nobody objected to Elizabeth's accession.

### **SECTION - B: LOGICAL REASONING**

#### 18. Option (d) is correct.

The statement mentions that Elizabeth was third in the line of succession to the British throne, behind her uncle Edward and her father. This means that in succession, the first was Edward, then Elizabeth's father, and then Elizabeth.

### 19. Option (b) is correct.

The paragraph says that if a son had been born, he would have been the one who ascended the throne. In this case, the heir presumptive and heir apparent is the same person. Thus, it is easy to conclude that the boy would have been the heir presumptive.

#### 20. Option (a) is correct.

Since the passage states that heir presumptive and heir apparent are conceptually the same. Based on this principle, X looks at the picture of the heir presumptive (heir apparent), and claims that: "He is the son of my mother's daughter." This implies the picture is that of his son, born of his sister. Since heir apparent refers to the first son of a lawfully wedded couple. Therefore, it is safe to conclude that X is married to his sister.

#### 21. Option (c) is correct.

The paragraph mentions that Elizabeth II ascended the throne, and this offended many people. Thus, she ruled Scotland, and since she was the first lady to rule the country, we can say Elizabeth I did not rule Scotland.

### 22. Option (b) is correct.

The paragraph mentions that X has three children: P, Q, and R in ascending order. That

means the eldest is R, then Q, and then P. According to the regal law, the succession line will be the eldest, then the kids of the eldest, and then the others in decreasing order of age. Thus, the line of succession will be R, then his son J, since R has only one son after his son, and the line of succession will take the siblings of R, so the eldest sibling is Q, then his kids C, B, and A, then P. Thus, the correct line of succession is: R, J, Q, C, B, A, Q.

### 23. Option (a) is correct.

The paragraph asserts that Alicent wants to make her eldest son, Aegon, the heir presumptive. According to the law of primogeniture, the eldest child will be the first in line under the law of succession. Here, the eldest child of the king is Rhaenyra, and after her, the second eldest is Aegon. So, if Alicent wants Aegon to be the presumed heir, she has to kill the eldest one, i.e., Rhaenyra. She doesn't need to kill the king because after the king's death, Aegon will become king, not the heir presumptive.

### 24. Option (b) is correct.

The paragraph mentions that Rhaenyra had children out of wedlock. Children born out of wedlock don't become part of the line of succession. Hence, her children will not change the line of succession. King Viserys' line of succession will be: Rhaenyra (the eldest child of the king), Aegon (the second-eldest child of the king), Aemond, Halaena, and Daemon (his brother). So, Daemon will be in the fifth position in the line of succession.

### **SECTION - A: ENGLISH**

### 25. Option (d) is correct.

Analogy is drawing similarities. In the given question, the relation between the given words is: cardiologist is a type of doctor. In a similar manner, a hacker is a type of criminal.

### 26. Option (d) is correct.

The text probably is an excerpt from a magazine article because it provides detailed information on a particular topic, and has proper sub-heads to highlight the transition. It can't be a news item

because news items are usually very brief, crisp, and formal personal narrative and speech are ruled out because there is no use of personal pronoun, and no assumed listeners/ audience.

### 27. Option (d) is correct.

From the lines, "More complex phishing .............
people they trust." One can understand that the purpose of prolonged phishing games is to gain the trust of the people, so they can easily hand over the needed information. Option (c) is eliminated because in-depth information is not required; only needed information is required.

### 28. Option (b) is correct.

This is a direct question. The lines from the passage, "Most people simply don't have the time to carefully analyse every message that lands in their inbox—and it's this that phishers look to exploit in a number of ways," make it clear that the business of people helps as a contributing factor that makes phishers work easy.

### 29. Option (b) is correct.

A scam means a dishonest scheme; a fraud; or a dupe. Loot means to steal goods from (a place), typically during a war or riot. Betray means treacherously reveal (information).

### **SECTION – B: LOGICAL REASONING**

### 30. Option (c) is correct.

From the line of the passage, "although the phishing scam has now spread beyond suspicious emails to phone calls (so-called 'vishing') social media, messaging services (aka 'smishing') and apps," we can deduce that phishing is a subset of scamming, and we also cannot really differentiate between phishing and vishing on the basis of the information given in the passage. Thus, we can rule out options (a) and (b). And from the same line, we can deduce that vishing and smishing are subsets of scamming.

#### 31. Option (b) is correct.

From statement (2), option (a) is wrong. From statement (3), option (d) is wrong. From statement (4), option (c) is wrong.

### 32. Option (b) is correct.

Options (a) and (c) have characters appearing twice and option (b) has special characters.

### 33. Option (b) is correct.

Statement 2- The code should not contain any character appearing twice consecutively. So, statement 3 is redundant.

### **34.** Option (d) is correct.

This bot will filter all phishing mails.

### 35. Option (d) is correct.

From the given options, only code 'Abcoiijgs' can be generate by the "macro".

### 36. Option (c) is correct.

The steps, in whichever order, cannot achieve the company's aim. Because for letters K – S, there is no code.

### SECTION - A: ENGLISH

### 37. Option (d) is correct.

The passage talks about the issue of plastic pollution and suggests that it is a big problem. The given line talks about the vastness of the patch because in the given line, the passage draws a similarity (in terms of size) between the patch and Texas or Alaska. Hence, the word 'great' refers to the extent of the garbage patch.

### 38. Option (c) is correct.

Refer to the line, ", the clockwise rotation of which draws in and traps solid matter such as plastic." Gyre means whirl or vortex. The contextual clue here is the 'clockwise rotation of solid matters.

#### 39. Option (b) is correct.

This is a direct question. The line refers to the process of breaking down plastic waste into micro

particles because of the heat and light of the sun. Hence, the photo' in 'photo degradation' refers to the sun.

### 40. Option (d) is correct.

Pun is a joke exploiting the different possible meanings of a word or the fact that there are words that sound alike but have different meanings. Symbolism means the use of symbols to represent ideas or qualities. Irony is the expression of one's meaning by using language that normally signifies the opposite, typically for humorous or emphatic effect. Imagery means visually descriptive or figurative language, especially in a literary work. In the passage, the author is talking about a huge garbage patch and picturing it as a sea of garbage. Thus, we can say the author is using imagery here.

### 41. Option (c) is correct.

The passage is about plastic waste reaching the ocean and polluting it. So, we can say we are talking about marine trash. Hence, the correct answer is option (c). It can't be option (a) because the passage is not about marine life conservation.

If the focus of the passage had been marine life conservation, the passage would have elaborated on so many other reasons as well, along with plastic pollution. The passage does not focus on the food chain, so option (b) is also eliminated. Option (d) is out of scope.

### SECTION - B: LOGICAL REASONING

#### 42. Option (d) is correct.

The paragraph mentions that photo degradation causes the plastics to break down into tiny, nearly invisible bits. So, the more the plastic photodegrades, the smaller the pieces will be. Statement (A) is contradictory to the fact given in the passage. Statement (B) is irrelevant because even if it were true, one couldn't conclude that plastic waste emerging from land would be the smallest in size as it accumulates in the Great Pacific Garbage Patch.

#### 43. Option (a) is correct.

The argument states that the plastic breaks into pieces, and every piece further breaks down into pieces. The same reasoning is applied in option (a), it states that each amoeba splits into two, further dividing into two, and this process continues. Option (b) is incorrect because it mentions adding coaches, not dividing anything.

### 44. Option (d) is correct.

Given that the number of pieces = 10Let the heaviest piece of plastic have a speed 1 unit. According to question, Speeds of other pieces will be 2, 4, 8, 16, 32, 64, 128, 256, 512 units, respectively. So, value of X = 29 = 512

### 45. Option (c) is correct.

The question suggests that two channels through which the plastic garbage was entering the oceans have been eliminated, but there could be other channels present to spill the garbage into the oceans. So, we can't say the garbage patch can be eliminated completely, so options (a) and (b) are

ruled out. Option (c) states that the growth of the garbage patch will be decreased. This is definitely going to happen.

### 46. Option (d) is correct.

The teacher believes that unless plastic-removal is faster than plastic accumulation, the overall size and depth of the Great Pacific Garbage Patch will stay stagnant or may even increase. This point can be explained through options (b) and (c). Option (b) proves that unless the speed of input is lower than the speed of output, the water in the bucket will never run out. Option (c) proves that if the speed of input is less than the speed of output, the water in the bucket will be finished.

### **47.** Option (b) is correct.

The results make it clear that plastic accumulation in sterile, and non-polluting conditions affects marine life negatively. Also, any kind of pollution in a non-plastic environment does not affect marine life. And pollution absorbed by accumulated plastic affects marine life negatively. From these results, we can deduce that the presence of plastic is harmful for marine environments. So, we can't say all pollutants are harmful for marine life. Hence, options (a) and (c) are ruled out. The paragraph suggests that if plastic is present, it poses a threat to marine environments.

### 48. Option (a) is correct.

Given:

For big pieces, time taken to break in halves = T For small pieces, time taken to break into halves = T/3 So, it is clear that rate of photo degradation is inversely related to the size of original pieces of plastic.

### **SECTION – A:** ENGLISH

### 49. Option (a) is correct.

Analogy is drawing similarities. Precedence is the condition of being considered more important than someone or something else; priority in importance, order, or rank. In a similar manner, progeny refers to a descendant or the descendants of a person, animal, or plant; offspring.

### 50. Option (a) is correct.

The passage is about various inheritance laws, and the introductory line will be related to that only. Hence, option (a) is the correct answer. Options (c) and (d) are outright ruled out because they are not hinted at in the passage. Option (b) is also ruled out because the passage is not about distinguishing the Western property system.

### 51. Option (c) is correct.

This is a conditional sentence; the use of 'if' shows that the result will depend upon the phrase or clause followed by 'if.'

### 52. Option (c) is correct.

The word 'validly' can be replaced by words with similar meanings, such as unanimously or

justifiably. The later word 'cease' means to come to an end. It can be replaced by 'desist.'

### 53. Option (b) is correct.

Though the passage doesn't hint at the reason for or feature of 'monkhood. We know by meaning that in monastic life people give up the material world.

### **SECTION - B: LOGICAL REASONING**

#### 54. Option (c) is correct.

It is to be noted that according to the passage, by dint of primogeniture, titles are inherited by the oldest eligible child (NOT SON). While all titles are inherited by the youngest eligible child, which is Ultimo geniture, so a ruler's first-born son, at the moment of his birth, is first in the line of succession , may be the last child of the ruler. Therefore, the statement is capable of being correct in case of ultimo geniture.

### 55. Option (c) is correct.

It is to be noted that according to the passage, by dint of primogeniture, titles are inherited by the oldest eligible child (NOT SON). Even though, all titles are inherited by the youngest eligible child, which is Ultimo geniture, but here the statement specifically mentions as 'son', not 'child'. Thus, (a) is eliminated. So a ruler's last-born son, at the moment of his birth may be the first in the line of succession, when the preceding children are dead or have been disowned. Therefore, the statement is capable of being correct in case of primogeniture.

### 56. Option (b) is correct.

All titles are inherited by the oldest eligible child by virtue of primogeniture. All titles are inherited by the youngest eligible child, which is Ultimo geniture. All titles are inherited by the oldest eligible house member according to house seniority. From the given information, we can deduce that the same person can be the first in the line of succession in the case of primogeniture and ultimo geniture if the person is the only eligible child of the ruler. The same person is first in the line of succession in the case of primogeniture and house seniority or Ultimo geniture and house seniority. Therefore different rules of inheritance can create situations where the same person is first in the line of succession.

### 57. Option (b) is correct.

All titles are inherited by the oldest eligible child by virtue of primogeniture. All titles are inherited by the youngest eligible child, which is Ultimo geniture. All titles are inherited by the oldest eligible house member according to house seniority. Y is the youngest child, and he is still first in the line of succession. This is possible in so many conditions, such as, the elder ones are dead, not mentally stable, or disowned. Thus, option (a) is not correct because it says Y can be the first in the line of succession only if elders are disowned. This option discards other possibilities. Option (c) is not correct because it also overlooks the other circumstances where Y can be the first in the line of succession. Option (b) aptly mentions that even if the elder siblings are not disowned, there is a possibility that the youngest is the first in the line of succession.

#### 58. Option (b) is correct.

All titles are inherited by the oldest eligible child by virtue of primogeniture. All titles are inherited by the youngest eligible child, which is Ultimo geniture. All titles are inherited by the oldest eligible house member according to house seniority. Thus, option (a) is not correct because it says the ruler's eldest brother, but it is not clear what it is trying to convey. Option (b) aptly mentions that even if the elder siblings are not disowned, there is a possibility that the youngest is the first in the line of succession.

#### 59. Option (b) is correct.

The paragraph describes the following: X is married to A, and E is married to P. But since the rule follows ultimo geniture, the throne passes to the youngest in the lineage, which means from the ruler to his children. Also, the condition given is that the rule is gender-neutral. So, the youngest child is E, and after her death, the next youngest is F. Hence, the throne passes to F.

X (ruler) $\rightarrow$ siblings in increasing order W < Y < Z (eldest sister)

Children in increasing order  $\downarrow$  E < F < B < C < D

### 60. Option (a) is correct.

The paragraph describes the following: X is married to A, and E is married to P. But since the rule follows

seniority, the throne passes to the senior-most member of the family, which means that from the ruler, it will pass to whoever is the eldest of the children or the siblings. And W is older than D, which means the senior-most member will be Z. Also, the condition given is that the rule is gender-neutral. Hence, the throne passes to Z.

 $\begin{array}{c} X \text{ (ruler)} {\rightarrow} \text{siblings in increasing order} \\ | W{<}Y{<}Z \text{ (eldest sister)} \\ \text{Children in increasing order} \end{array}$ 

E < F < B < C < D

### **SECTION - A: ENGLISH**

### 61. Option (a) is correct.

Statements (i) and (ii) are opinions because they are not stated in the passage and can vary from person to person. Statement (iii) is a fact that can be verified and is also stated directly in the passage.

#### 62. Option (c) is correct.

A vicious cycle is a chain of events in which the response to one difficulty creates a new problem that aggravates the original difficulty. Two can play at that game used to assert that one person's bad behaviour can be copied to that person's disadvantage. 'Dot the i's and cross the t's means to ensure that all details are correct. The tip of the iceberg is the visible part of a much larger situation or problem that remains hidden. The passage elaborates on all the cautions and requirements that are required in a good race car. Hence, the best idiomatic expression will be "Dot the i's and cross the t's."

### 63. Option (b) is correct.

The author tries to explain the technique and nuisances required for a good racing car. Hence, the style of the passage can be classified as expository.

In an analytical type of passage, usually, an issue or theory is examined. In a descriptive style of writing, a detailed description of any object or incident is provided.

### 64. Option (a) is correct.

In the passage, 'stay grounded' is used in a literal sense. The author wants to say that at high speeds, a car should not float in the air but be grounded to the earth. All the words—literal, exact, and non-figurative are close-meaning words. The author, by stating 'stay grounded' does not refer to 'metaphorical.'

### 65. Option (b) is correct.

Options (a) and (c) can be easily eliminated because they introduce new elements, and in the concluding paragraph, we don't include any new information. The passage discusses the importance of having an adequate amount of down force to keep a racing car grounded. The last paragraph details the cons of any kind of imbalance in down force. The best concluding line will be option (b). Option (d) is ruled out because it is a mere repetition of the facts mentioned earlier.

### SECTION – B: LOGICAL REASONING

#### 66. Option (c) is correct.

The wings of a car make the car stay firmly on the ground. As the speed of the car increases, the wings will press the car more firmly on the ground, thereby making handling the car through twists and turns easier at high speed. This is known as ground force. Hence, a racing car must generate a ground force equal to several times its weight. If the wings are reversed, the down force will decrease. So, definitely, the effective weight pressing down on the track would be less than the weight of the car.

#### 67. Option (b) is correct.

The wings of race cars make handling the car through twists and turns easier at high speed and increase their cornering ability. If a supercar has speed but does not have wings that generate even half the down force, the supercar would still handily lose a race against a Formula One car because the race track will have at least some twists and turns.

#### 68. Option (d) is correct.

The passage mentions that the wings of an aeroplane help it take off in the air at a specified speed. The same wing, if installed inverted on a car, can make the car stay firmly on the ground. And the wings of cars provide them with better cornering ability. If the car has no wings, the driver

has to slow down to turn it. Or the weight of the car has to be increased to keep it grounded.

### 69. Option (a) is correct.

If an object enters free fall, the force attracting it towards the earth is less than the force pushing it away from it. And the situation given for the car mentions that all objects on earth are pushed away from it with a force equal to 1 G, along with the car. And since all objects live normal lives, we can deduce that they are in free fall at all times during a race.

#### 70. Option (a) is correct.

The paragraph suggests that the down force created by a car can be around 5 times the gravitational force exerted by the earth on the car.

That means the car will be glued to the floor of the car closer to the surface it is being driven on. Thus, the car will be glued to with the tunnel because of the down force. Hence, the correct answer is option (1).

### 71. Option (d) is correct.

We can't determine their respective positions, as this is not clear whether D, E and F are overtaking each other or not.

### 72. Option (a) is correct.

A total 9 overtakes are required for a person starting 10th in a race need to make to get to the 1st position, assuming no other person makes any overtakes.

### SECTION – A: ENGLISH

### 73. Option (c) is correct.

The passage is about 'data mining'. "Number crunching" refers to the large-scale processing of numerical data.

#### 74. Option (d) is correct.

The idiom used in the sentence is "calling it a day." "Calling it a day" means to stop working for the day.

### 75. Option (b) is correct.

The title of the given test can be used to present information, give a suggestion, or suggest a

precaution. It can't be used for prediction or introduction.

#### 76. Option (c) is correct.

The purpose of the question is more about getting readers thinking or soliciting feedback than providing a concrete answer to the headline query.

### 77. Option (d) is correct.

"Recuperate" means to recover or regain. In the last line of the passage, 'recuperate' is used in the sense of 'regain or 'recover'.

### **SECTION – B:** LOGICAL REASONING

### 78. Option (d) is correct.

It is to be noted that the line, "the most important factor of any GPU for crypto mining is efficiency—you want a high hash rate for as little electricity as possible" does not necessarily suggest high hash rates.

### 79. Option (d) is correct.

The total cost of mining Bitcoin using a GPU depends upon multiple factors like hash rate, the cost of the GPU, and electricity consumption. In the given question, nothing is said about hash rate. Thus, we can't draw any conclusion about the perunit-time electricity consumption of X or Y.

### 80. Option (d) is correct.

Though profits made using cryptocurrency and the hash rate have a certain relationship. The cryptocurrency market is a financial one, and that means it's extremely susceptible to media coverage and human emotion. Hence, nothing can be ascertained with certainty by only considering hashrates. Options (a), (b), and (c) are extreme options, hence they can't be the answers.

#### 81. Option (c) is correct.

Refer to the lines: There are various factors to consider when shopping around for a new GPU to (hopefully) make some money with. The most important factor of any GPU for crypto mining is efficiency — you want a high hash rate for as little electricity as possible. From this, we can understand that even if the cost and hash rates of two GPUs are identical, the profit may vary depending on electricity consumption and other factors. Hence, options (a) and (b) are ruled out.

### 82. Option (d) is correct.

If companies manufacturing the chips had to shut down, GPU manufacturing would be obstructed. Definitely, the price of GPUs will increase. Statement 2 is ruled out because a decrease in profit is subjective; if a person is entering the market, maybe he will make less profit, but again, it depends upon the rest of the variables, such as

electricity, hash rate, etc., but people who already have GPUs might continue doing so without getting impacted.

### 83. Option (d) is correct.

In the given conditions, a high resale value is possible, but even this is not a guarantee because resale is also a function of time and market emotions.

### 84. Option (a) is correct.

The given fact is: X is always truthful. And Y always lies. X says to A that if you ask Y, he will say G1 is better than G2. Since X always tells the truth, it is definite that Y will say this. And since Y always lies, if he says G1 is better than G2, it is false. Which turns out to be G2 is better than G1.

### **SECTION - A: ENGLISH**

### 85. Option (c) is correct.

Exclamation marks are used to show strong emotions. In the given paragraph, it is used to show astonishment.

### 86. Option (d) is correct.

The headlines show that the author is engaging with readers. The headlines are in the interrogative form, which is used to grab readers' attention and create curiosity among readers.

### 87. Option (c) is correct.

Here, the word 'chart' refers to the recorded ancestry or lineage of a person. The word for

the recorded ancestry or lineage of a person is pedigree.

### 88. Option (b) is correct.

The confusing relationships are very weird and difficult to understand and can create confusion and humour. Thus, they can be used in stand-up shows.

### 89. Option (b) is correct.

Since the passage expresses the complexity of understanding relationships and finds the web of relations confusing, hence, the author will welcome any suggestion to simplify it.

### **SECTION - B: LOGICAL REASONING**

### 90. Option (a) is correct.

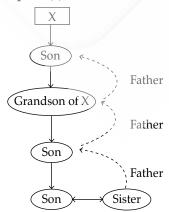
Aunt of X's Mother

Mother of X

As shown in the above diagram,

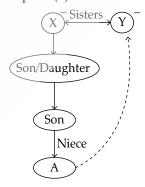
The woman in the picture was X's Mother's aunt.

### 91. Option (a) is correct.



As shown in the above diagram, the person is X's son.

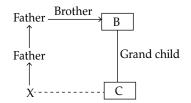
### 92. Option (b) is correct.

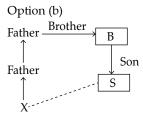


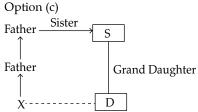
As shown in the above diagram, Y is great-greataunt.

#### 93. Option (d) is correct.

Option (a)

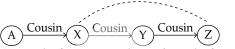






None of above options have X's second cousin.

### 94. Option (a) is correct.



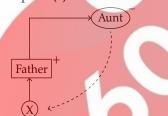
As Y is the first cousin of X and Z is the first cousin of Y

So, X and Z are siblings.

### 95. Option (c) is correct.

Either option (a) or option (b) is true.

### 96. Option (a) is correct.



It is clean that X's father's aunt is X's great aunt.

### **SECTION - A: ENGLISH**

### 97. Option (d) is correct.

The author has explained various terms such as 'jural correlatives' and 'jural opposites.' Hence, the passage is an example of an informative passage. The author is not trying to prove anything; thus, it can't be an argumentative passage. There is no detailed description given, so it can't be a descriptive passage.

### 98. Option (d) is correct.

In the given statement, 'exemption' means immunity from paying maintenance. And 'accountability' means 'liability, duty.'

### 99. Option (c) is correct.

The only foreign word used in the passage is 'vis-à-vis', which means against each other.

### 100. Option (c) is correct.

In the fine print, we text a formal agreement that is printed smaller than the rest of the text, sometimes in the hope that it will not be noticed. All Rights Reserved is part of the copyright notices. The burden of proof is the obligation to prove one's assertion. The text can't be categorised in any of these ways. Hence, the text can be the letter of the law, which means an explanation of the law.

#### 101. Option (c) is correct.

The information in option (c) can be included in the passage because the passage explains legal rights and duties, etc. Thus, the correct answer is option (c). In option (a), the names of so many philosophers make it a misfit in the passage. Option (b) mentions the UN, which makes it a misfit in the passage. Option (d) talks about punishment, which is not consistent with the information in the passage.

### SECTION - B: LOGICAL REASONING

#### 102. Option (a) is correct.

Since X has rights vis-à-vis everyone else, everyone else has duties vis-à-vis X, but Y has privileges over X, which means X has no rights vis-à-vis Y. Because Y is exempt from X's duties.

### 103. Option (c) is correct.

Since the quantum and timing of payment, if any, shall be determined by A, we can say A has power vis-à-vis X and Y.

#### 104. Option (d) is correct.

The sentence says that every person can travel unless it is blocked by a person who owns that road. This does not signify that every person has any kind of right, privilege, or immunity vis-à-vis the owner of that road.

#### 105. Option (a) is correct.

The sentence says that every person can travel unless it is blocked by a person who owns that road. This suggests that the owner of the road has rights vis-à-vis everyone.

### 106. Option (a) is correct.

The correlative of right is duty. If A has a right to claim damages from B, then B has a duty to pay damages to A.

#### 107. Option (b) is correct.

The owner of the land can lease the property to any other person. This suggests that the owner of the land has power over the property.

### 108. Option (a) is correct.

If Y can sue X, Y has rights vis-à-vis X.

### **SECTION – A: ENGLISH**

### 109. Option (c) is correct.

"Feat" means a deed that shows great strength, skill, and courage. Acrobatic means a difficult deed that needs great strength and skill. In the passage, the word 'feat' is followed by 'such as the first transoceanic voyages and the circle 'Undulates means to move or go with a smooth navigation of the globe, which shows 'feat' is used to express tasks that demand skill and courage.

#### 110. Option (a) is correct.

The author says that compasses were one of the key breakthroughs that made such voyages possible. Here, the author is trying to explain the importance of 'compasses'.

### 111. Option (d) is correct.

"Point" can be used as a noun as well as a verb.

"You have to reach the furthermost point (noun)

of the gallery." "The lads were nudging each other and pointing (verb) at me." Iron and core can be used as a noun as well as a verb.

### 112. Option (b) is correct.

The sentence is: In September 2019, for the first time in over 360 years, compasses at Greenwich pointed true north. The previous part of the sentence tells about the point in time; hence, the apt adjective to define it is 'precise'.

### 113. Option (d) is correct.

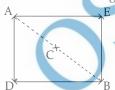
'Undulates means to move or go with a smooth up-and-down motion. Example: Her body undulated to the thumping rhythm of the music." Hence, the action that suitably corresponds with 'undulates' is 'dancing'.

### **SECTION – B: LOGICAL REASONING**

### Instruction for 114 to 120

### 114. Option (c) is correct.

As shown in the diagram, tower C is in the centre.



### 115. Option (d) is correct.

As shown in the diagram, a person has to travel in the south direction for going to D from A.

### 116. Option (b) is correct.

As shown in the diagram, a person has to travel in the South-east direction for going to D from A.

#### 117. Option (d) is correct.

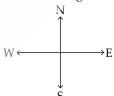
At sunset, the location of the sun is in the west direction. So, the shadow will be in the east direction.

As shown in the diagram, tower E is in the east direction from A.

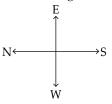
So, A's shadow points towards tower E.

### 118. Option (a) is correct.

Before rotating directions,

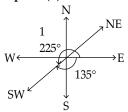


After rotating directions,



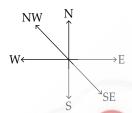
So, needle will points towards East.

### 119. Option (b) is correct.



As shown in the diagram, Compass has rotated 135° clockwise or 225° counter clock-wise.

#### 120. Option (b) is correct.



So, the compass will point toward the South.

### SECTION - C: GENERAL KNOWLEDGE AND CURRENT AFFAIRS

### 121. Option (a) is correct.

Ales Bialiatski won the Nobel Peace Prize, 2022. He is a human rights advocate from Belarus. He was one of the initiators of the democracy movement in Belarus in the mid-1980s. He is also credited with founding the organisation Viasna (Spring) in 1996. In 2020, he was one of the three recipients of the Right Livelihood Award.

#### 122. Option (b) is correct.

In order to reduce plastic waste in India, the Indian government in July 2022 banned single-use plastic to prevent its harmful effects on environment and in pursuance of its global climate goals.

#### 123. Option (a) is correct.

The size of one nanometre is 10<sup>-9</sup> m. nanometer are used to measure wavelengths of light and distances between atoms in molecules.

### 124. Option (c) is correct.

Both the Panama Canal and the Strait of Magellan connect the Pacific Ocean to the Atlantic Ocean. Panama Canal is an artificial 82 km waterway in Panama that connects the Atlantic Ocean with the Pacific Ocean. The Strait of Magellan is considered the most important natural passage between the Atlantic and Pacific oceans.

### 125. Option (b) is correct.

Jehan Daruvala an Indian driver is currently participating in Formula Two series. Currently, he is serving as a reserve driver for the Mahindra Racing Formula E team.

#### 126. Option (c) is correct.

Before adopting Riyal as its currency, Qatar's currency was equivalent to Indian Rupee. Until 1966, Qatar used the Indian rupee as its currency.

### 127. Option (a) is correct.

As a result of air pollution and nearby sewage, the Taj Mahal is reported to be turning yellow. It is an Islamic ivory-white marble mausoleum. It was commissioned in 1631 by Shah Jahan to house the tomb of his wife Mumtaz Mahal. The

construction of the mausoleum was completed in 1643.

### 128. Option (b) is correct.

Psychiatrists rely on medicines to cure mental illnesses. A psychiatrist specialises in mental health, including substance use disorders.

### 129. Option (c) is correct.

Waymo is not owned/controlled by Elon Musk. He acquired twitter on October 27, 2022. He is the founder, CEO and chief engineer of SpaceX. He is the founder of The Boring Company; co-founder of Neuralink and OpenAI.

### **130.** Option (d) is correct.

Fundamental Duties were not the part of the original Constitution. They were added to the Constitution by the 42nd Amendment in 1976 upon the recommendations of the Swaran Singh Committee. A person cannot be sued merely for failure to abide by Fundamental Duties.

### 131. Option (b) is correct.

Human Rights Day is celebrated annually around the world on 10 December. It commemorates the day in 1948 the United Nations General Assembly adopted the Universal Declaration of Human Rights.

### 132. Option (d) is correct.

Three Youth World Titles in Chess have been won by Grand Master Rameshbabu Praggnanandhaa. He earned the international master title at the age of 10 and the Grandmaster title at age 12.

### 133. Option (c) is correct.

The first Indian to have won a Medal in Asian Cup Table Tennis is Manika Batra. She was awarded the Major Dhyan Chand Khel Ratna in 2020.

#### 134. Option (b) is correct.

After winning the Gold Medal in Olympics, Neeraj Chopra has also won the Javelin throw in Diamond League. He is the first Asian athlete to win an Olympic gold medal in Men's Javelin throw.

### 135. Option (c) is correct.

The first Indian to win a Medal in Olympics Badminton is Saina Nehwal. She has won 24 international titles, which includes ten Superseries titles.

### 136. Option (b) is correct.

The first Indian to have won the All England Badminton Championship is Prakash Padukone. He is a former Indian badminton player. He was ranked World No. 1 in 1980.

### 137. Option (a) is correct.

The Prime Minister of Finland, Sanna Marin, was in news for dancing in a 'wild party'. She is a member of the Social Democratic Party of Finland.

### 138. Option (a) is correct.

The present Chairman of the National Human Rights Commission is Justice Arun Kumar Mishra. He is the eighth Chairperson of National Human Rights Commission of India. Earlier, he has served as the Chief Justice of Calcutta and Rajasthan High Court.

### 139. Option (c) is correct.

105 Amendments have been made to the Indian Constitution so far. The 105<sup>th</sup> Amendment Act amends Articles 342A, 366, and 338B to state the power of the President to specify the socially and educationally backward classes in the Central List.

#### 140. Option (c) is correct.

The Supreme Court of India upheld the constitutional validity of the EWS reservation in Janhit Abhiyan v. Union of India. In a 3-2 majority, the Supreme Court upheld the 103rd Constitutional Amendment providing EWS reservation.

### 141. Option (b) is correct.

Former bureaucrat Arun Goel joined as the new Election Commissioner on 21st November 2022. He is a former IAS officer of Punjab cadre.

### 142. Option (c) is correct.

In total, there are 40 UNESCO World Heritage Sites in India. Among them, Dholavira and Ramappa Temple are the latest addition to the list.

### 143. Option (b) is correct.

India's rank in the Global Hunger Index out of 121 countries is 107. With a score of 29.1, India has a level of hunger that is serious.

### 144. Option (a) is correct.

G20 Meeting was held in November 2022 in Bali, Indonesia. It was the seventeenth meeting of Group of Twenty.

#### 145. Option (d) is correct.

The National Education Policy, 2020, excluded Law and Medicine from its ambit. NEP 2020 has emphasised on the use of mother tongue or local language as the medium of instruction till Class 5.

### 146. Option (c) is correct.

Maharashtra admitted more foreign tourists in 2021. Maharashtra and Tamil Nadu had the highest numbers of foreign tourist visits, with 1.26 million and 1.23 million, respectively in 2021.

### 147. Option (b) is correct.

Recently, the International Monetary Fund (IMF) approved a loan of US\$ 2.9 billion to Sri Lanka over a four-year period to help the island nation overcome the unprecedented economic turmoil.

### 148. Option (a) is correct.

The Foreign Universities can set up their institutions in GIFT city to offer courses in Financial Management, FinTech, Science, Technology, Engineering and Mathematics, free from domestic regulations.

### 149. Option (b) is correct.

The name of the privately built rocket that was launched from Sriharikota in November 2022 is Vikram – S. Mission titled 'Prarambh' (the beginning) is carrying three payloads. This launch vehicle is expected to place the payloads in about 500 kms low inclination orbit.

### 150. Option (c) is correct.

Voters Day in India is celebrated on 25th January. Government of India has decided to celebrate 25<sup>th</sup> January every year as National Voter's Day to encourage more young voters to take part in the electoral process.