Student application number

S	2	2	0				

First name(s)

Family name

Selective High School Placement Test

Thinking Skills Question Paper

March 2022   **40 minutes**

INSTRUCTIONS FOR CANDIDATES

Please read this page carefully.

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE TOLD TO DO SO.

A separate answer sheet is provided for this test. Please fill in the following information on your answer sheet and on this question paper:

- Student application number
- First name(s)
- Family name

There are **40** questions in this paper. For each question there are four possible answers, **A**, **B**, **C**, and **D**. Choose the **one** correct answer and record your choice on the separate answer sheet. If you make a mistake, erase thoroughly and try again.

You will **not** lose marks for incorrect answers, so you should attempt **all 40** questions.

You **must** complete the answer sheet within the time limit. There will **not** be any extra time at the end of the exam to record your answers on the answer sheet.

You can use the question paper for working out, but no extra paper is allowed.

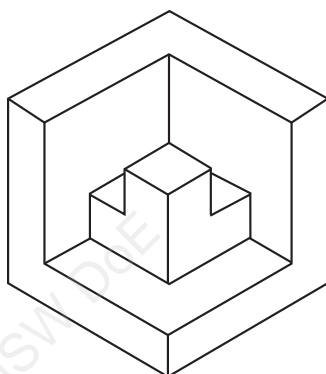Calculators and dictionaries are **NOT** allowed.

Cambridge Assessment
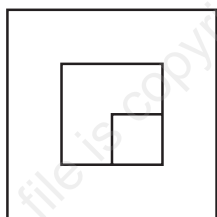**Admissions Testing**

PV3

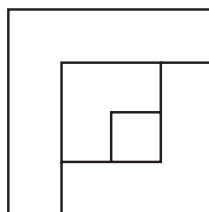**BLANK PAGE**

1 One piece of a puzzle is shown below:

Which one of the following shows a view of the piece from above?
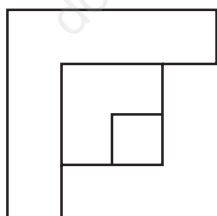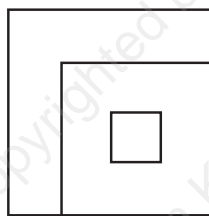
A

B

C

D

3

2   The train journey from Jaspur to Salumbar stops at four other stations along the way. Jennifer boarded the train at Jaspur and got off at the second-last station.
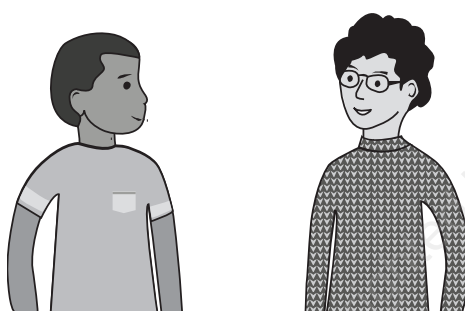
Kavali station is located between Wadi and Gadarpur.

The train stops at Wadi before Anjar.

The train stops at Anjar before Gadarpur.

Which station did Jennifer get off at?

A   Anjar

B   Kavali

C   Wadi

D   Gadarpur

3 | Taller adults tend to have larger feet. |

Monaro: "Your dad wears size 9 shoes, and he's not as tall as my dad. So my dad's shoe size must be at least 10."

Kevin: "No that's not right. My dad's feet might be bigger than your dad's."

If the information in the box is true, whose reasoning is correct?

A   Monaro only

B   Kevin only

C   Both Monaro and Kevin

D   Neither Monaro nor Kevin

4 Access to the meeting room for a secret club is only possible by answering two security questions. The questions are based on the following sentence:

Only members will be allowed in.

Each day everyone is given a number, which is the starting position. When anyone arrives at the door they are given two numbers and have to say the letters that appear in those positions if counting starts at that day's starting position.

Today, the first person was given the numbers 4 and 8 and responded with the letters e and o, which was correct.

The second person was given the numbers 3 and 10. What letters should be given as the response?

A   e and e

B   o and m

C   b and e

D   m and w

5 A bird sanctuary has four parrots: Cliff, Echo, Muse, and Sky. Staff at the sanctuary are keeping track of the treats the parrots like to eat.

They have found that if a parrot eats apples, it also eats carrots. If a parrot eats carrots, it also eats melons. No parrot that eats carrots also eats peas.

Based on the above information, which one of the following must be true?

A   If Cliff eats peas, he also eats apples.

B   If Echo does not eat peas, he does not eat carrots.

C   If Muse eats peas, she does not eat apples.

D   If Sky does not eat apples, she does not eat carrots.

5

6 The principal of a school says, "PE classes should include non-competitive sports such as bushwalking and dance, and not just focus on competitive sports like football and tennis. Many students do not enjoy playing against their friends and classmates, as it often leads to unhealthy rivalries."

Which one of these statements, if true, most strengthens the principal's argument?

A Playing a competitive sport is a great way to learn the importance of teamwork.

B Non-competitive sports are just as effective as competitive sports at improving fitness.

C PE classes are compulsory for students to attend.

D Students like to have a range of different sports that they can choose to play.

7 A street has a line of five houses next to each other on one side of the road. The five houses all have front doors that are painted a different colour.
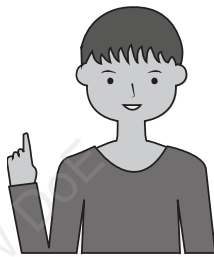
A student looks at the houses from the opposite side of the road. The student labels them according to the colour of the front door, and records which houses are to the left and which houses are to the right of each house.

	blue	green	pink	red	yellow
houses to the left		blue red yellow	blue green red yellow	blue	blue red
houses to the right	green pink red yellow	pink		green pink yellow	green pink

Which two houses are next to the yellow house?

A blue and pink

B blue and red

C green and pink

D green and red

6

8

Children at John's school were asked to complete a questionnaire about their sleeping habits, to find out if they were getting enough sleep. The survey found that people who read a lot at bedtime slept fewer hours (on average) per night than people who didn't.

John: "This shows that reading at night does not help you to get to sleep."

Which one of the following sentences shows the mistake that John has made?

A It could be that people are reading more because they are having trouble sleeping.

B It could be that people who don't read as much spend more time playing computer games.

C It could be that some children are not allowed to stay up late reading books.

D It could be that some books are more exciting to read than others.

9 Each card in a set of fifteen cards has one of three shapes on it: a triangle, a square or a circle. Inside the shape a number from 1 to 9 is written. No two cards are identical.

The only number that appears in both a square and a circle is 7.

Which one of the following statements must be true?

A Each shape appears on five cards.

B There are at least five cards with triangles on them.

C There are at least five cards with squares on them.

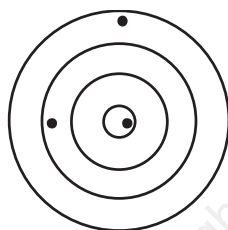**D** There are at least five cards with circles on them.

10 Hermione and her friends each had three shots at a target:
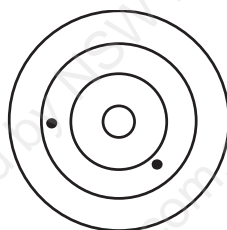
Zoe scored 8

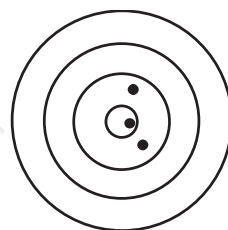Bobby missed one and scored 4

Gabi scored 11.

All four zones of the target are worth a different whole number of points. The middle zone is worth the most points and each zone is worth fewer points than the one inside it.
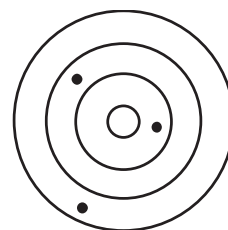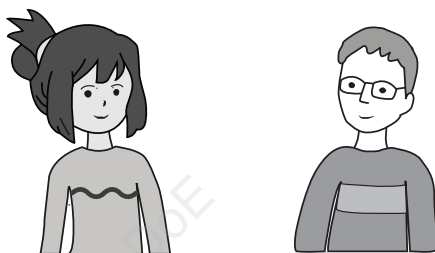

Zoe Bobby Gabi Hermione

What did Hermione score?

A 6

B 7

C 9

D 10

11 Jake and Robert are brothers. Their parents have told them that they will not be allowed to go to the party tonight if they have not completed their homework.

Natalie: "Jake is coming to the party, but Robert is not, so Robert can't have completed his homework."

Daniel: "Jake must have completed his homework."

If the information in the box is true, whose reasoning is correct?

A   Natalie only

B   Daniel only

C   Both Natalie and Daniel

D   Neither Natalie nor Daniel

12 Some sets of three-letter words can be ordered so that no two consecutive words have any letters in common.

For example: BOG, CAT, DOG, MET, SUP

Another such set of words is given below, but one word is missing and they are not in the right order:

AGE, CAN, COT, PAD

Which one of the following could be the missing word from this set?

A   SUD

B   SUN

C   PAT

D   PET

13 In Oceantown there are five different coins: azzes, bayos, cotts, duits and enits.

There are 4 azzes in 1 bayo, 2 bayos in 1 cott, 2 cotts in 1 duit, and 4 duits in 1 enit.

How many azzes are in 1 enit?

A 16

B 32

C 64

D 128

14 Ying thinks we should all buy soybean oil instead of palm oil for cooking. "I found out that growing palm oil trees requires vast areas of rainforests to be cut down," Ying says. "To help save the rainforests and the animals that live in them, we must stop buying palm oil."

Which one of these statements, if true, most weakens Ying's argument?

A Palm oil is also used in bath products such as shampoo.

B People are using less oil in cooking than they used to.

C Growing soybeans also involves the destruction of rainforests.

D Palm oil is more frequently listed in recipes than soybean oil.

15

The skills required for roller-blading, roller-skating and ice-skating are very similar.

- Anyone who can roller-blade can also roller-skate.
- Anyone who can roller-blade can also ice-skate.
- Not everyone who can roller-skate can roller-blade.
- Anyone who can ice-skate can also roller-blade.

Wei: "Shane has been ice-skating for years. He will have no trouble roller-skating."

Talia: "Hannah is unable to roller-blade. She won't be able to roller-skate."

If the information in the box is true, whose reasoning is correct?

A Wei only

B Talia only

C Both Wei and Talia

D Neither Wei nor Talia

16 The string of symbols below contains only 4 symbols: $, &, @ and #.

$ # & & @ # $ & @ $ # @ & # & @ @ $ @ & @

What is the only one of these 4 symbols that can be added on the right-hand side of the string to ensure that there is no repetition of three consecutive symbols anywhere in the string?

A $

B &

C @

D #

17 Sara wants to persuade her cousin Rhiannon to come to the school play. Her only chance of persuading her is if Sara's brother, Sam, is playing in the school band. The problem is, it's very hard to get accepted into the band, since the standard is very high. Even some very talented musicians have been turned away. You need to really impress the music teacher at audition to stand a chance. Sam does not practice hard enough to get to that kind of level.

If the above information is correct, which one of the following is **not** possible?

A Sam impresses the music teacher at audition but is not invited to join the band.

B Sam practices hard but does not impress the music teacher at audition.

C Sam does not impress the music teacher at audition but Rhiannon still comes to the show.

D Sam is accepted into the band but Rhiannon does not come to the show.

18

> Scrub jays are a species of bird that will bury some of the nuts they collect in order to save some food for later.
>
> Scientists studying the species made an interesting discovery:
>
> - Some scrub jays move nuts they bury if they see other scrub jays watching them bury the nuts the first time.
> - It is only those scrub jays who have previously stolen nuts from other scrub jays that move their nuts.

Logan: "That means a scrub jay must be able to predict which other scrub jays will steal its nuts."

Kimberley: "If a scrub jay moves a nut it has buried, you can be sure it has had its nuts stolen before."

If the information in the box is true, whose reasoning is correct?

A Logan only

B Kimberley only

C Both Logan and Kimberley

D Neither Logan nor Kimberley

19 In a game called 'Splott' there are tokens that are worth 2 points, 5 points or 10 points.

I have one pile of 2-point tokens, one pile of 5-point tokens and one pile of 10-point tokens.

Each pile contains the same number of tokens.

The combined total of two of the piles of tokens is 96 points.

What is the total of the other pile of tokens?

A   32 points

B   40 points

C   48 points

D   56 points

20 Space exploration is a waste of time. When governments spend money on sending people into space, there is less to spend on helping people in need and on improving services for everyone. Scientists say that when they do experiments in space, they learn more about the universe. But their work would be more useful if it made life better here on Earth.
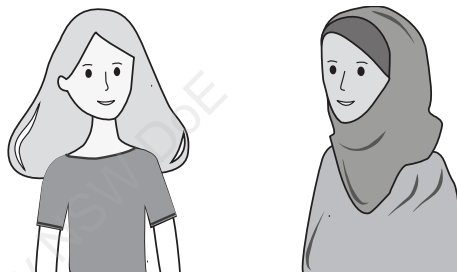
Which one of these statements, if true, most weakens the above argument?

A   Governments worldwide are increasing levels of education spending.

B   Work by space scientists on aviation has increased the safety of flying.

C   The 1969 Moon landing cost over 280 billion dollars in today's money.

D   Experiments on plants in space have shown how we could grow them on other planets.

21 | At the start of the meeting, every member of the movie club gets one vote on the movie to be watched. Everyone must use their vote. The movie that gets the most votes is the one that is watched that evening.

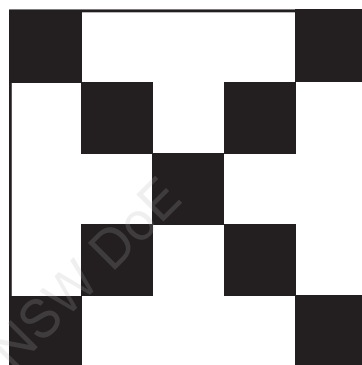This evening, there are 21 people at the meeting, and there are 5 movies to choose from.

Kate: "The movie that we watch will need to get at least 5 votes."

Samira: "If a movie gets 11 votes then we will definitely be watching it."

If the information in the box is true, whose reasoning is correct?

A   Kate only

B   Samira only

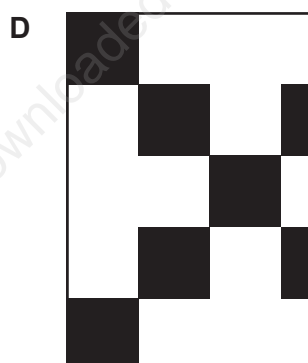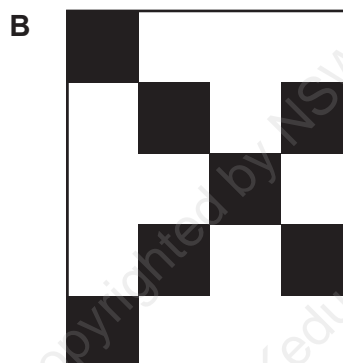**C**   Both Kate and Samira

D   Neither Kate nor Samira

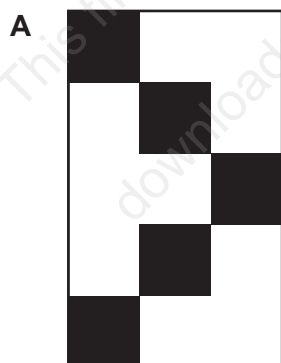**22** A room measuring 3.2 metres by 3 metres is to be tiled with a patterned tile like the one shown below.

The tile is square with a side length of 0.25 metres.

The tiles are laid in lines from one edge of the room to the other. The last line of the tiles will need to be cut for it to fit in.

Which one of the following tiles shows how the last tile on the floor could look?

A

B

C

D

23 | Lauren wants to join her school's basketball team. To qualify, players must be at least 140 centimetres tall.

Miriam: "Lauren was 139 centimetres tall last year, but she has now grown to be 141 centimetres tall. So, she will definitely be chosen to be part of the team this year."

Which one of the following sentences shows the mistake Miriam has made?

A   Lauren might not actually enjoy playing basketball.

B   There might not be enough players to form a complete basketball team.

C   Height might not be the only thing used to choose players for the basketball team.

D   Other sports teams might also have a height requirement.

24   Three switches are connected to a set of four lights. When a switch is changed, each of the lights that it controls turns on (if it was off) or off (if it was on).

Switch one controls the red and green lights.

Switch two controls the red, green and blue lights.

Switch three controls the blue and yellow lights.

If all three switches are off then all four lights are off.

Which one of the following is true?

A   It is not possible to have all four lights on.

B   The blue light cannot be on when the yellow light is on.

C   The green light cannot be on when the blue light is on.

D   The red light cannot be on when the green light is off.

25 I have just 4 cards.

The cards have a letter printed on each side. The cards can be set out to make the following words. No letter appears twice on the cards.

C O A T   L A C K

B O A T   S O C K

Which one of the following words could be made using the cards?

A BATS

B BLOT

C CABS

D COST

26 A school excursion to watch a musical at the theatre is scheduled to take place next month. However, it will be cancelled if fewer than twenty students sign up for it. On top of that, even if twenty students or more sign up, there must be enough teachers to accompany them. The school's policy states that there must be at least one teacher looking after every ten students on an excursion.

Rohan: "As long as two teachers are available to accompany the students, the excursion can still go ahead."

Megan: "If the excursion is cancelled, it must be because not enough students signed up for it."

If the information in the box is true, whose reasoning is correct?

A   Rohan only

B   Megan only

C   Both Rohan and Megan

D   Neither Rohan nor Megan

27   Four students were comparing how much they enjoyed English, history and maths.

Emily liked maths more than history.

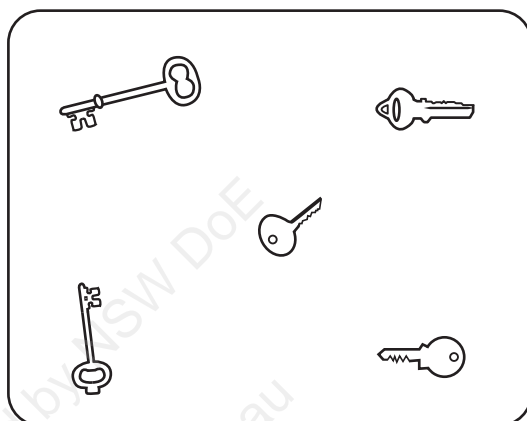Only Gemma liked English more than history.

Wesley and Rohit both liked maths more than English.

No one liked history the least.

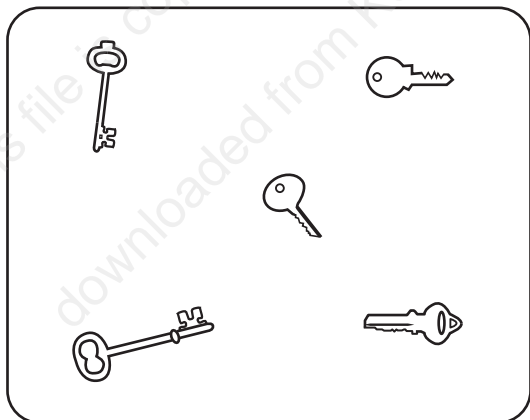What is the maximum number of students who could have liked maths the most?

A   1

B   2

C   3

D   4

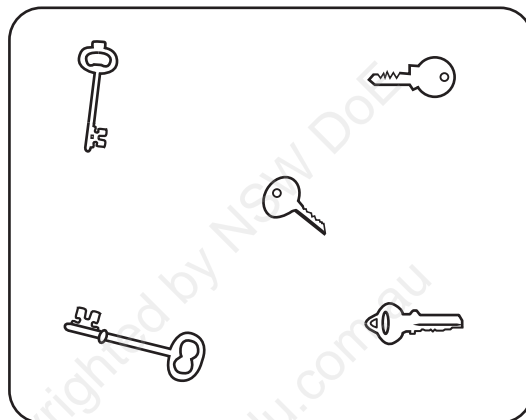**28** Five keys are placed on a glass table. The image below shows the view of the table from above.

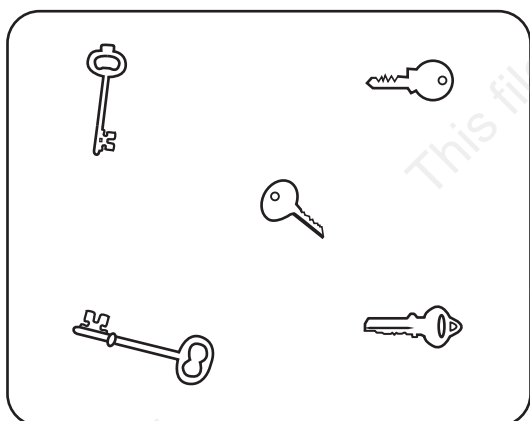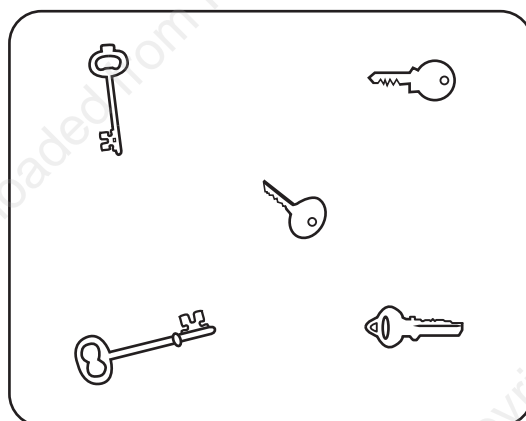Which one of the following is a view from under the glass table?
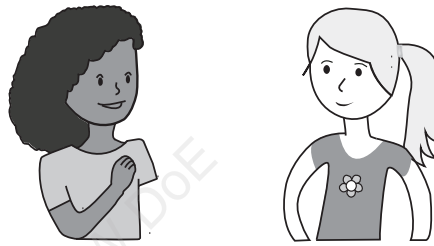
A

B

C

D

29

When players are dropped from the school football team, it is usually because the coach thinks they have not been playing well enough. Sometimes a player will be dropped for not attending training every week.

Kylie: "The coach said she's going to drop Katya, even though she's been playing well! She can't have been coming to all the weekly training sessions."

Fiona: "If she came to the sessions and started playing even better, the coach definitely wouldn't drop her."

If the information in the box is true, whose reasoning is correct?

A   Kylie only

B   Fiona only

C   Both Kylie and Fiona

D   Neither Kylie nor Fiona

30   'Solid' glass can actually be better described as a slow-moving liquid. The particles in glass can move, just like in a regular liquid, because they are not fixed in an orderly structure. In glass, this movement is so slow that it cannot be detected during a person's lifetime or even over the course of several generations. Medieval window glass which has survived to the present day is often found to be thicker at the bottom than at the top. This clearly shows that glass flows.

Which one of these statements, if true, most weakens the above argument?

A   Glass can be melted and melted glass, like every liquid, flows and obtains the shape of the vessel into which it is poured.

B   The human eye cannot detect tiny differences in the thickness of glass.

C   Modern buildings such as skyscrapers are often constructed from glass.

D   Glass objects from Ancient Egypt or Greece which have remained untouched for millennia are not thicker at the bottom than at the top.

31 Alice is having some fun typing dates into her calculator.

She types them in the format DDMMYYYY, so that, for instance, the date 7th March 1996 is entered as follows:

0703 1996

When Alice enters the date 12th February 2021, she notices that it reads as the same date when she turns her calculator upside down.

Which of the following other dates will also read as the same date when the calculator is turned upside down?

A   19th January 1061

B   26th November 1992

C   20th February 2020

D   8th March 3080

32 Six friends are standing in a circle in the playground, facing inwards. Grace is standing to the left of Catherine and is opposite Willow. Max is facing Karri and is standing next to Catherine. Liam is in between Willow and Karri.

They've been playing a game in which they throw a bean bag to one another in a specific pattern. Someone throws the bean bag to the person opposite. They then hand it to the friend on their left. In the first round, after three repetitions of this pattern Willow is holding the bean bag.

Who was holding the bean bag at the start?

A   Grace

B   Karri

C   Willow

D   Catherine

33

Matt and Yash play chess together every day at lunch. They are at around the same skill level, and they have each won around half of the matches they've played against each other.

Mr Stead: "I can't remember how many games Matt and Yash played last week, but I know Matt won five, so they must have played about ten games."

Which one of the following sentences shows the mistake Mr Stead has made?

A Either Matt or Yash might have played unusually well last week.

B The players have each won around half, not exactly half, of their games.

C Matt and Yash may have had lots of homework last week.

D It doesn't matter who wins, because the important thing is that they both have fun.

34 Jody and Todd frequently message each other in code. They always use the same code, in which each letter of the alphabet is always represented by a unique symbol. For example, Jody is $!@= and Todd is ∧!@@.

When Todd asked Jody to name her favourite season of the year, she replied:

$$Δ?#>\&÷$$

What is Jody's favourite season of the year?

A Spring

B Summer

C Autumn

D Winter

35 The code to open a door in a computer game is a sequence of four pictures in a row. You have found the following clues about the code:

The bell is next to the book.

The apple is somewhere between the bell and the cat.
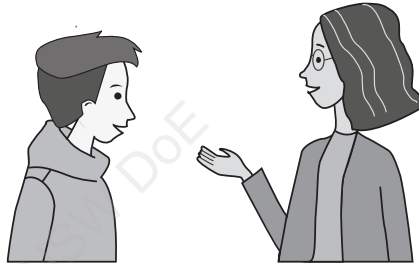
The book is somewhere to the right of the cat.

You have to choose one of four possible questions to ask. When the question has been answered you must deduce the code.

Which one of the following questions would allow you to deduce the code?

A Is the apple next to the book?

B Is the cat next to the apple?

C Is the bell next to the cat?

D Is the book next to the cat?

36

Although many birds are fiercely territorial, they are typically very sensitive when nesting. If they feel their nest has been disturbed, they often abandon it altogether even if the female has already laid her eggs.

Lorenzo: "My dad accidentally disturbed a nest when he was cleaning the roof. So there's a good chance it may now be abandoned."

Katarina: "There's an abandoned nest in the pomegranate tree in our garden. That must have been disturbed too."

If the information in the box is true, whose reasoning is correct?

A   Lorenzo only

B   Katarina only

C   Both Lorenzo and Katarina

D   Neither Lorenzo nor Katarina

37 There are six coins in a collection. There are 3 large coins and 3 small coins. For each size of coin, there is one coin with a circular hole in the middle, one with a square hole in the middle and one with a star-shaped hole in the middle.

Each coin is kept in a box. All of the boxes are the same size. Each box has two symbols drawn on it. One of the symbols identifies the size of the coin and the other determines the type of hole in the coin, but they may be in either order.

The box for the large coin with a circular hole has the symbols Ω and e on it.

The box for the small coin with a square hole has the symbols △ and Δ on it.

A third box has the symbols ◊ and △ on it.

Which coin could be placed in the third box?

A   The large coin with a square hole.

B   The large coin with a star-shaped hole.

C   The small coin with a circular hole.

D   The small coin with a star-shaped hole.

38

> In an athletics competition there are four heats, and every participant runs in two of the heats. The finalists are all of the participants who finished in the top two in at least one of the heats.

Chloe: "Tim was faster than Leon in the first heat, so if Leon qualifies for the final, so will Tim."

Which one of the following sentences shows the mistake Chloe has made?

A   Tim may not run as fast in his other heat.

B   Leon may not race against Tim again in his other heat.

C   Leon may qualify based on his performance in his other heat.

D   Tim may have had more chance to practise for the competition than Leon.

39   P, Q, R, S and T are friends. They all have either blue eyes or brown eyes. They each enjoy two of the following four activities: fishing, reading, playing the piano and drawing.

P likes reading and fishing.

Q likes playing the piano and fishing.

S likes drawing.

Everyone likes fishing except one person with blue eyes.

Everyone with brown eyes likes reading.

Which one of the following statements must be true?

A   There are more people with brown than blue eyes in the group.

B   Q and S have blue eyes.

C   P and Q have brown eyes.

D   T likes reading.

40 When the children in Freezetown arrived for class yesterday, the teacher saw that 15 were wearing beanies, 8 were wearing scarves and 12 were wearing gloves.

On closer inspection, he could see that all of the children wearing scarves were also wearing gloves, and that half of the children with a scarf also had a beanie. There were 4 children wearing a beanie who also had gloves but no scarf. There were 2 children with no beanie, no scarf and no gloves.

How many children arrived for class yesterday?

A 18

B 19

C 20

D 21

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