

# Selective High School Placement Test

Thinking Skills

*Explained answers for Practice Test 3*

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**1** When viewed from above the shape will be a square and the two tall sides of the puzzle piece will appear as a thick border along two of the sides. The remaining raised sections will be seen as a square positioned in the centre of the large square and the slightly raised part of that square will not be in contact with either of the tall sides of the piece. Therefore, option **B** is the correct answer.

**2** Since the train stops at Wadi before Anjur and at Anjur before Gadarpur, those three stations must be in that order. If Kavali station is also between Wadi and Gadarpur then it cannot be the second-last station, which must therefore be Gadarpur, so option **D** is the correct answer.

**3** The information in the box only states that taller adults tend to have larger feet, so it cannot be assumed that this will always be the case. Monaro does make this assumption, so his reasoning is not correct and Kevin's reasoning is correct. Therefore, option **B** is the correct answer.

**4** Since there are fewer occurrences of the letter o in the sentence, it is better to start by identifying the letter that is in position 8 if counting starts at today's starting position. The only option is that counting is starting at the first l in "will". The letters in positions 3 and 10 will then be b and e, so option **C** is the correct answer.

**5** The statement that no parrot that eats carrots also eats peas also means that any parrot that eats peas does not eat carrots. Similarly, if all parrots that eat apples also eat carrots, then a parrot that does not eat carrots does not eat apples. Therefore, if a parrot eats peas it does not eat carrots. Option **C** is an example of the this, so is the correct answer.

**6** The conclusion of the principal's argument is that PE classes should include non-competitive sports, because many students do not enjoy playing competitive sports against their friends and classmates. The argument could be strengthened by considering one of the purposes of PE classes: if non-competitive sports are just as effective as competitive sports in improving fitness then this would strengthen the argument, so option **B** is the correct answer.

**7** The order of the houses along the road can be worked out by counting the number of houses to the left in each case and then ordering them. Since the yellow house has two houses to the left, it must be the ones with one house (red) and three houses (green) to the left that are next to it. Therefore, option **D** is the correct answer.

**8** The information that is given shows that there is a relationship between the amount of reading at bedtime and the amount of sleep. John's mistake is to assume that this relationship exists because the amount of reading is causing the lower amount of sleep. It could be the case that the people who read are doing so because they cannot sleep, so option **A** is the correct answer.

- 9** If the only number that appears in both a square and a circle is 7, there can only be a total of 10 cards that contain either a square or circle: one card for each of the numbers 1 to 9, with an additional card with the number 7. This means that there must be at least five cards with triangles on them, so option **B** is the correct answer.
- 10** Bobby had two shots in the same zone and scored 4 points, so that zone (the third smallest) must be worth 2 points. If the second smallest zone were worth 4 points, then Gabi's score would mean that the smallest zone is worth 3 points, which is not possible. Therefore, the second smallest zone is worth 3 points and the smallest zone is worth 5 points. From Zoe's score it can then be worked out that the largest zone is worth 1 point. Hermione must have scored  $1 + 2 + 3 = 6$  points, so option **A** is the correct answer.
- 11** If Robert has not completed his homework, then he would not be allowed to go to the party, but there could also be other reasons why Robert is not at the party, so Natalie's reasoning is not correct. It must be correct that Jake has completed his homework since he would not be at the party if he had not, so Daniel's reasoning is correct. The correct answer is therefore option **B**.
- 12** CAN has a letter in common with all of the other words, so it must be at one end of the list with the missing word next to it. Of the remaining three words, AGE and PAD have a letter in common, so COT must be positioned between them. The missing word cannot share a letter with CAN and one of AGE and PAD. SUD is the only word that satisfies this, so option **A** is the correct answer. The order of the words is CAN, SUD, AGE, COT, PAD.
- 13** 1 enit is 4 duits, which is  $4 \times 2 = 8$  cottis,  $8 \times 2 = 16$  bayos,  $16 \times 4 = 64$  azzes. Therefore, option **C** is the correct answer.
- 14** Ying's argument is that we should stop buying palm oil to help save rainforests and the animals that live in them. The alternative that she suggests is to use soybean oil, but if this also involves the destruction of rainforests then the change would not help to save rainforests, so option **C** is the correct answer.
- 15** Since anyone who can ice-skate can also roller-blade and anyone who can roller-blade can also roller-skate, Wei's reasoning must be correct. Since not everyone who can roller-skate can roller-blade, there must be people who are unable to roller-blade but can roller-skate. Therefore, Talia's reasoning is not correct. Therefore, option **A** is the correct answer.
- 16** The last two symbols of the string are & @. The first time this pair of symbols occurs it is followed by #. The second time it occurs it is followed by \$. The third time it occurs it is followed by @. It must therefore be followed by & on the fourth time it occurs, so option **B** is the correct answer.

- 17** Rhiannon will only come to the school play if Sam is playing in the school band. Since Sam cannot be in the school band if he does not impress the school teacher at audition, it would not then be possible for Rhiannon to come to the show. Therefore, option **C** is the correct answer.
- 18** Logan is assuming that scrub jays are moving nuts that they buried because they assume that the other scrub jay watching will steal the nuts, but this may not be the correct explanation. Therefore, Logan's reasoning is not correct. It is scrub jays who have previously stolen nuts that move their nuts, not those that have had nuts stolen from them, so Kimberley's reasoning is incorrect. Therefore, option **D** is the correct answer.
- 19** The total of the piles of 2-point tokens and 5-point tokens would have to be a multiple of 7. The total of the piles of 2-point tokens and 10-point tokens would have to be a multiple of 12. The total of the piles of 5-point tokens and 10-point tokens would have to be a multiple of 15. Since 96 is not a multiple of 7 or 15, it must be the total of the piles of 2-point and 10-point tokens and there must be 8 tokens in each pile. The pile of 5-point tokens will have a total of 40 points, so option **B** is the correct answer.
- 20** The conclusion of the argument is that space exploration is a waste of time. The reason provided for this is that the money that is spent would be better used to make life better on Earth. The argument is therefore weakened if the work that is done for space exploration provides benefits for people on Earth. Option **B** provides an example of this and so is the correct answer.
- 21** If all of the movies got 4 votes, then there would still only be 20 votes. Therefore, the movie that they watch will need to get at least 5 votes, so Kate's reasoning is correct.  
If a movie gets 11 votes, then there are only 10 other votes. This means that no other movie could get more than 11 votes, so Samira's reasoning is correct.  
Therefore, option **C** is correct.
- 22** A width of 3 metres can be tiled using whole tiles, so the gap of 0.2 metres at the edge will need to be tiles using four-fifths of a tile. Therefore, option **B** is the correct answer.
- 23** Although players must be at least 140 centimetres tall to qualify for the team, it is not necessarily the case that someone who is taller than this is guaranteed to get a place on the team, so option **C** shows the mistake Miriam has made.
- 24** Any switch that controls the red light also controls the green light and any switch that controls the green light also controls the red light, so they must either be both on or both off. Therefore, it is impossible for the red light to be on when the green light is off so option **D** is the correct answer.
- 25** Since COAT and BOAT can both be made, one of the cards must have the C and B on its two sides. Since LACK and SOCK can both be made, the card

that contains the A must have either the S or the O on the other side. However, the O and A must be on different cards so that COAT can be made. Since the A must have S on the other side, it must be the case that the L has the O on the other side. The four cards must be B/C, A/S, L/O and K/T. The only word in the options that can be made is COST so option **D** is the correct answer.

- 26** Two teachers would be enough if exactly 20 students go on the excursion, but are not enough if there are more students, so Rohan's reasoning is not correct.

The excursion would be cancelled if either not enough students signed up or not enough teachers were able to accompany them, so Megan's reasoning is not correct.

Therefore, option **D** is the correct answer.

- 27** Since no one liked history the least, Emily must have liked maths the most. Wesley and Rohit must have liked history more than English (since only Gemma liked English more than history), so they could both have liked maths the most. Since Gemma liked English more than history, but did not like history the least, she must have liked maths the least.

The maximum number of students who could have liked maths the most is 3, so option **C** is the correct answer.

- 28** The key at the centre of the table "points" at the key in the top left. This key is pointing at the correct type of key in three of the options, but it is only in option **B** that the key being pointed to is in the correct direction, so that is the correct answer.

- 29** Kylie is assuming that the only two reasons for the coach to drop a player are the ones listed in the box. Therefore, her reasoning is not correct.

Fiona is making the same assumption, so her reasoning is also incorrect.

Therefore, option **D** is the correct answer.

- 30** The conclusion of the argument is that glass can be better described as a slow-moving liquid. The example of medieval window glass is used to show that glass flows because it is thicker at the bottom than at the top. If examples of older glass did not have this feature this would weaken the argument.

Therefore, option **D** is the correct answer.

- 31** The digits that will look like a digit when the calculator is turned upside down are:

- 0, which will look like a 0
- 1, which will look like a 1
- 2, which will look like a 2
- 5, which will look like a 5
- 6, which will look like a 9
- 8, which will look like an 8
- 9, which will look like a 6.

The digits from the DDMM part of the data will be reversed in the YYYY part. The only option that will read the same when the calculator is turned upside down is 19th January 1061, so option **A** is the correct answer.

**32** The person who threw the bean bag at the start of each round must be opposite the person to the right of the one who finished the round with it. This is the person two places to the left of the person who finished the round with it. After three repetitions of the pattern the person with the bean bag will be the person who started with it, so option **C** is the correct answer.

**33** Although Matt and Yash have each won around half of the matches they've played against each other, it is not necessarily true that they win about the same number of games each week. If one plays particularly well in one of the weeks and wins far more than half of the games in one week it may be that the other plays particularly well in another week. Therefore, option **A** is the correct answer.

**34** The symbol to represent each of the letters from the names Jody and Todd can be seen from the examples. None of these symbols appears in the Jody's favourite season of the year, so the correct word cannot contain any of the letters D, O, J, T, Y. The only season that contains none of these letters are Spring and Summer. Since Jody's answer has different letters in the third and fourth positions, it cannot be Summer, so option **A** is the correct answer.

**35** Since the book is to the right of the cat and is also next to the bell, the bell must be to the right of the cat. The apple is somewhere between the bell and the cat, so the cat must be on the far left of the sequence. The only two possibilities are:

cat	apple	bell	book
cat	apple	book	bell

A question that determines whether it is the bell or book that is next to the apple will allow the correct sequence to be deduced. Therefore, option **A** is the correct answer.

**36** Since the nest had been disturbed by Lorenzo's dad, there is a good chance that it will have been abandoned, so Lorenzo's reasoning is correct. There may be other reasons why nests might be abandoned, so the fact that the nest in the pomegranate tree has been abandoned does not necessarily mean that it was disturbed. Katarina's reasoning is not correct. Therefore, option **A** is the correct answer.

**37** The symbols on the third box are both different to the symbols on the first box, so the coin in the third box cannot be large or have a circular hole. There is one symbol that is on both the second and third boxes, so the coin in the third box must be either small or with a square hole, but not both. The coin must be a small coin with a star-shaped hole, so option **D** is the correct answer.

**38** Chloe has assumed that if one person qualifies for the final then anyone who has run faster than them in a heat would also qualify. If Leon qualified based

on his performance in his other heat it could be the case that Tim did not finish in the top two from the first heat. Therefore, option **C** is the correct answer.

**39** Since Q does not like reading, they cannot have brown eyes. If S had brown eyes then they would have to like reading, but they would then not like fishing and this would mean that they have to have blue eyes. Therefore, Q and S must both have blue eyes, so option **B** is the correct answer.

**40** All of the children wearing scarves were also wearing gloves and half of the children wearing scarves were wearing beanies. This means that:

Scarf, gloves, beanie: 4 children

Scarf, gloves, no beanie: 4 children

The other information that is provided is:

No scarf, gloves, beanie: 4 children

No scarf, no gloves, no beanie: 2 children

All of the children wearing scarves or gloves are already counted, but only 8 children wearing beanies have been counted, so there must be another 7 children wearing a beanie, but no scarf or gloves. The total number of children is  $4 + 4 + 4 + 2 + 7 = 21$ , so option **D** is the correct answer.