

Selective High School Placement Test

Thinking Skills

Explained answers for Practice Test 2

Janison.

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- 1 The four triangles that are cut from the paper must all meet at the same corner of the folded piece. This means that it must be one of the following:
- All four are at the intersection of the dotted lines.
 - The four triangles are in the four corners of the paper.
 - Two triangles are at the middle of one side and the other two are at the middle of the opposite side.

Only option **B** does not fit any of these cases, so that is the correct answer.

- 2 Since no one arrived back after Bruce, he must have been in 4th place. Since only one person was faster than Ethan, he must have finished in 2nd place.

James finished after Ethan and the only such position that we do not know about is 3rd.

Therefore, Stephen must have finished 1st, so **A** is the correct answer.

- 3 Ms Walker has assumed that the difference in test scores is a result of whether or not the students were given milk with their lunch, but it could be the case that the difference already existed before she started her experiment – in other words the students might have been better at times tables before the experiment started, so **B** is the correct answer.

- 4 The fastest times for the students are:

<i>student number</i>	<i>attempt 1</i> (in seconds)	<i>attempt 2</i> (in seconds)	<i>result</i>
1	4.9	5.0	5.0
2	5.7	5.8	5.8
3	4.8	4.9	4.9
4	4.6	4.7	4.7
5	5.0	5.1	5.1
6	4.6	5.7	5.7
7	5.6	5.4	5.6
8	5.1	5.3	5.3
9	5.5	4.8	5.5
10	4.4	4.5	4.5
11	5.9	5.2	5.9

The fifth best result is 5.5 by student 9, so **C** is the correct answer.

- 5 The reason that Gabriella uses to support her argument is that animals should have the right to live in their natural habitats. If it were the case that the animals would die out in their natural habitats, then the support for Gabriella's argument is weakened, so **C** is the correct answer.
- 6 Both types of lizard will eat termites, so Keira is correct that feeding the lizard termites would not help them to work out whether it's a Beruga or an Indora.

The only species that we know would be eaten by one species but not the other is ants, so Jun's reasoning is correct.
Therefore, **C** is the correct answer.

- 7 The information shows that there should be one large square (6m x 6m) and two smaller squares (4m x 4m). The other four plots are rectangular, with one longer and wider than the other three.
Only option **C** contains all of these features, so that is the correct answer.
- 8 Since the sports coach was opening the hall, it must have been either a Sunday or Monday. Since it was in the morning, it must have been for training as the only other reason the coach would open the hall would be for events which would be in the afternoon. Since the coach must be opening the hall for training, there cannot be an event in the afternoon as they never occur on the same day.
So, **B** is the correct answer.
- 9 Ivy could only have seen the waterfall from Dwarda's crossing as she would not have been able to reach the lookout a month ago, so Ivy's reasoning is correct.
Annie's brother could only have reached the lookout if it was before the rope bridge fell down, so Annie's reasoning must be correct.
So, **C** is the correct answer.
- 10 A party for 12 children will have prices listed in the "11-15" column of the table. For a party lasting two and a half hours the charge is \$171.
 $\$171 / 12 = \14.25 , so **D** is the correct answer.
- 11 The information that we know about the speed of delivery from the shops, in order from fastest to slowest is as shown below.

Brennan Audio	KX Hi-Fi	Roberts Electricals
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The information provided does not allow us to deduce the position of Hughes Home in the list.

The information that we know about the prices at the shops, in order from most to least expensive is shown below.

Hughes Home	KX Hi-Fi	Brennan Audio	Roberts Electricals
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- Nathan will not buy his television from Hughes Home, so the fastest delivery from the others will be from Brennan Audio, so **C** is the correct answer.
- 12 Melissa is assuming that the number of each type of frog that was seen is representative of the total number in the reserve. However, it may be the case that they did not see some of the speckled greenbacks even though they were there. So **D** is the correct answer.

- 13** The two gaps that can be seen in the first piece would be a cuboid and a triangular prism. Since the other piece will need to be rotated from the image shown in any of the options, they should appear on the opposite sides of the shape compared to the first piece. The triangular prism should be arranged so that the point of the triangle is at the bottom. Option **C** is the only one with these features, so that is the correct answer.
- 14** Leo's conclusion is that violence on television is not harmless because what people see on television influences their attitudes and behaviour. His argument is therefore strengthened by anything that supports the idea that people are influenced by what is on television. If advertising is effective in influencing people's behaviour then this would strengthen the argument, so **C** is the correct answer.
- 15** The Tang family might go to the indoor market if it's overcast, but not raining, so Victor's reasoning is not correct.
The only possibility where the Tang family go to the beach is if it is sunny, so Aidan's reasoning is correct.
Therefore, **B** is the correct answer.
- 16** To have Friday afternoon free, Zach will have to choose art on Friday morning as none of his other subjects are available on Friday.
The only other of his subjects that is available on Wednesday is maths.
Of his remaining subjects, only geography is available on Thursday, so **C** is the correct answer.
- 17** The word DONE would have been written as 4-5-4-5, which means that there are other words that it could be – for example, NONE would also be written as 4-5-4-5. So **B** is the correct answer.
- 18** It might be the case that 50 slips were handed in before Megan's, which would mean that she would not get a place. So Megan's reasoning is not correct.
Similarly, it might be the case that fewer than 50 slips have been handed in before Kate is able to hand hers in on Friday, so Kate's reasoning is not correct.
Therefore, **D** is the correct answer.
- 19** There must be either a rectangular or square section between the two L-shaped parts of the net. This is not the case for option **B**, so that is the correct answer.
- 20** Ms White finished last and Mrs Black did not do as well as in the previous year, when she had finished in second place. Therefore, Mrs Black must have finished in third place. The only two places to be deduced are first and second, but Mr Green won the previous year, so must have been the runner-up last year.
Therefore, **A** was the correct answer.

- 21** Lucy is assuming that no team met more than one of the three conditions. The maximum number of teams in the finals would be 27, but this would only be the case if every team only met one of the conditions. So, **B** is the correct answer.

- 22** The first digit is 7, so the numbers formed by the middle two digits and the last two digits must both be multiples of 7. The multiples of 7 are:

07	14	21	28	35	42	49	56	63	70	77	84	91	98
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The only pair that does not lead to a repeat of digit in the final code is 28 and 56, giving a code of 742856, so **C** is the correct answer.

- 23** The reason that the archaeologist uses to support their conclusion is that large numbers of visitors causes lasting damage to the sites. However, the archaeologist also recognises that it is vital to encourage public interest in archaeology. Therefore, the argument is strengthened by showing that the interest can still be met without the risk of damage to sites, so **A** is the correct answer.

- 24** The Djorlom Bridge is not normally open on any of Saturday, Sunday or Monday, so if the ferry operates on these three days it could not necessarily true that both bridges are damaged – it might only be the Archer Bridge that is damaged. Therefore, Amanda’s reasoning is not correct.
Declan is not able to use either of the bridges, but he could still cross the river on a day other than Sunday if the bridge that is normally used on that day is damaged. So Declan’s reasoning is not correct.
Therefore, **D** is the correct answer.

- 25** 15 students is one quarter of the group, so the pie chart must have a section that represents one quarter. Of the other three sections, one section must be twice as big as another section. The only pie chart that has both of these features is option **D**, so that is the correct answer.

- 26** The principal will only let them put on another play if it is a success, but it cannot be a success if people don’t work hard and learn their lines. Therefore, it will not be possible for the principal to let them put on another play if they didn’t learn all their lines, so **D** is the correct answer.

- 27** Glen’s team cannot qualify based on their regional heat result, but it is still possible that they could qualify as a “wild card”, so Glen’s reasoning is not correct.
If the member who left the team comes back then it won’t matter that they didn’t do well enough in the regional heat, so Hayden’s reasoning is correct. Therefore, **B** is the correct answer.

- 28** The largest number of snakes will occur if there is the largest number of horses in the 9 animals. To have a total of 10 legs the largest number of horses possible is 2, with just 1 eagle. This would mean that there are 6 snakes, so **C** is the correct answer.

- 29** Either Darren or Bobby must be telling the truth as Bobby must either be guilty or not guilty. Therefore, Arthur must be one of the men who is lying. Since it is not true that Arthur is not guilty, he must be guilty and so Darren is lying, so **D** is the correct answer.
- 30** Linda is assuming that the ticket inspectors are only worth having if they catch some people who have not bought a ticket. However, if it is the case that some people are only buying tickets because they know that they might be caught without one and have to pay a fine then this would show that there is value in having the inspectors. Therefore, **A** is the correct answer.
- 31** The white pieces are made of 6 squares each. The black piece in option **C** will take up the full width of the square, so the space above must be made of either 8, 14 or 20 squares, none of which is a multiple of 6. Therefore it will not be possible to make a square using this black piece.
- 32** Natalie's argument is that you should be more careful when driving between 4pm and 7pm because more people are injured in car crashes between those times than at other times. However, the explanation for the increased number of injuries may simply be that more accidents happen between those time. If that is the case then the chance that you are hurt in a car crash at other times might not be any different. So, **A** is the correct answer.
- 33** If a word is the same in Mekani and Kaiana then it must be the same in Sekludi, but Kaiana and Sekludu always have different words for animals, so Patricia's reasoning is correct.
Although any word that is the same in Mekani and Kaiana is also the same in Sekludi, it is not necessarily true that a word that is the same in Mekani and Sekludi is also the same in Kaiana. It is therefore possible for there to be a word for an animal that is the same in Mekani and Sekludi, but different in Kaiana, so Yilin's reasoning is not correct.
Therefore, **A** is the correct answer.
- 34** The cheapest way to buy 67 small cards is to buy one pack of 100 for \$18. The cheapest way to buy 130 medium cards is to buy one pack of 100 and one pack of 50 for $\$20 + \$12 = \$32$.
The total amount is \$50, so **B** is the correct answer.
- 35** It cannot be the case that anyone passed Physics and Maths, because if they had they could not have failed Computing and so would have passed all three subjects, which we know is not possible. Therefore, **B** is the correct answer.
- 36** While the information would tell us whether someone had read *Noon* based on the other books that they have read, none of the information provided tells us anything for certain about the other books that someone who has read *Noon* will have read. Therefore, we do not know whether he has read either *Morning* or *Night*, so **D** is the correct answer.

- 37** From the diagram we can see that the third object moves to the front of the image and is rotated through 180 degrees.
The first object moves to the second position, but we do not know if it is rotated through 180 degrees or left unchanged.
The second object moves to the third position as is rotated through 180 degrees.
The only image that follows these changes is option **D**, so that is the correct answer.
- 38** Since shopkeepers always decorate their windows with the national flag when the national team is playing, the fact that Rob cannot see any flags in shop windows means that the national team cannot be playing. Therefore, Rob's reasoning is correct.
It is possible that shopkeepers decorate their windows with the national flag on other occasions as well, so the fact that Paul saw flags in the shops on Wednesday does not show that the national team were playing that day. Therefore, Paul's reasoning is not correct.
Therefore, **A** is the correct answer.
- 39** Since only two people read fewer books than Carlos, he must have written the second highest number of books.
Bryan read fewer books than Sharon, so Sharon did not read the fewest books. Olivia also did not read the fewest books, so it must be Bryan that read the fewest books, which means that **A** must be true and so is the correct answer.
- 40** The only sides of the sculpture that are part of a circle contain three-quarters of the circle, but the section that is visible in option **A** is less than three-quarters, so that is the correct answer.