



What it assesses

- Problem-solving skills (includes numerical and spatial reasoning)
- Critical thinking skills (includes understanding arguments and reasoning, using everyday language)

Question types

- 40 MCQs, consisting of:
 - 20 problem-solving questions
 - 20 critical thinking questions

Duration

- 90 minutes

How to prepare

- Designed to be taken with minimal preparation (a sample paper/model test has been uploaded on the website)

The Ashoka Aptitude Assessment is mandatory for all applicants and a part of the application process.

Applicants are assessed on both academic and non-academic parameters within the round in which they apply. Within the academic parameters, since most applicants only submit their predicted scores/grades, the Ashoka Aptitude Assessment provides the Office of Admissions the ability to further assess all applicants in a more holistic manner. For those who are shortlisted for the interview, in the absence of their final class/grade XII scores, chances of getting a confirmed offer are higher with the inputs from the Ashoka Aptitude Assessment alongside their performance in all other parameters.

Ashoka Aptitude Assessment: Sample Questions with Solutions

- 1 You are allowed to vote in the general election only if you are at least 18 years old. You have reached 18 so you will be able to vote in the forthcoming election.

Which one of the following most closely parallels the reasoning used in the above argument?

- A** You cannot obtain foreign currency from this bank if you cannot produce acceptable identification. You cannot produce the required identification, therefore we cannot let you have the foreign currency.
- B** You can visit your grandmother in hospital providing you have no illness yourself. As you have no illness, you will be able to visit your grandmother.
- C** We can afford to go to America this year only if you save up sufficient money. You haven't saved enough so we will not be able to go.
- D** To win the jackpot prize in the national lottery you need a ticket with all six prize-winning numbers. When I heard you had won the jackpot, I knew you had the lucky ticket that matched all the numbers from the draw.
- E** Passport applications can only be accepted if photographs are witnessed as a likeness by someone in a professional job. Your application was refused so your witness cannot have been a professional person.

The passage and option **B** share the same underlying structure: P is necessary for Q; P is true; therefore Q must be true.

In the passage: P = 'You are 18 years old' and Q = 'You can vote in the general election'.
In option **B**: P = 'You are not ill' and Q = 'You can visit your grandmother in hospital'.

Option **A** has the underlying structure: P is necessary for Q; P is not true; therefore Q is not true.
P = 'You can produce acceptable identification' and Q = 'You can obtain foreign currency'.

Option **C** has the underlying structure: P is necessary for Q; P is not true; therefore Q is not true.
P = 'You have saved up sufficient money' and Q = 'We can go to America this year'.

Option **D** has the underlying structure: P is necessary for Q; Q is true; therefore P must be true.
P = 'You have a ticket with all six prize-winning numbers' and Q = 'You win/won the jackpot in the lottery'.

Option **E** has the underlying structure: P is necessary for Q; Q is not true; therefore P is not true.
P = 'Photograph is witnessed as a likeness by someone in a professional job' and Q = 'A passport application is accepted'.

- 2 The Pentarathon Challenge is a competition in which five athletes compete against each other in five marathon races, run on consecutive days.

Points are awarded in each race, as follows:

first place 7 points

second place 5 points

third place 3 points

fourth place 2 points

fifth place 1 point

This table shows the total points of the competitors in this year's Pentarathon Challenge after each race.

<i>name</i>	<i>total points after race 1</i>	<i>total points after race 2</i>	<i>total points after race 3</i>	<i>total points after race 4</i>	<i>total points after race 5</i>
Colin	7	9	10	12	17
Jason	1	4	6	13	14
Kyle	3	10	15	18	25
Noel	2	7	14	15	18
Ray	5	6	9	14	16

Who finished in a different position in each of the five races?

- A Colin
- B Jason
- C Kyle
- D Noel
- E Ray

There is a lot of data here, but all you need to consider is that a different position in each of the five races will result in a total score of $7 + 5 + 3 + 2 + 1 = 18$ points. Only Noel has this total after race 5. The totals after each of the first four races are unnecessary information (unless you wish to reassure yourself that Noel's points are indeed different in each race). The correct answer is option **D**.

- 3 Microscopic malaria parasites enter a person's bloodstream through mosquito bites and infect red blood cells. They replicate in these cells and penetrate other organs. Until recently, microbiologists sought to block the parasites from entering red blood cells. Rhode Island University studied 700 Tanzanian children infected with malaria and found the parasites use a protein, since named PfSEA-1, to escape from the red blood cells they infect. Having investigated a subgroup of children immune to malaria, the researchers realised these children were producing an antibody that locked protein PfSEA-1 into their red blood cells. Trapped in the red cells, the parasites were destroyed by immune system cells. Scientists have reproduced the antibody and successfully tested it on mice. Experts believe that, after trials, the antibody will be certified for use in the treatment of humans.

Which one of the following can be drawn as a conclusion from the above passage?

- A Rhode Island University is a world leader in medical research.
- B After the discovery of protein PfSEA-1, the traditional approaches to fight malaria will be abandoned as ineffective.
- C The discovery of protein PfSEA-1 is likely to help scientists to develop a new way of combatting malaria.
- D World leaders should support and fund the research being conducted by Rhode Island University.
- E A unique feature of the Tanzanian children helped in the discovery of protein PfSEA-1 and its function in spreading malaria.

The passage describes a new method for preventing the replication of malaria parasites in red blood cells. The PfSEA-1 protein prevents malaria parasites from escaping from the blood cells they penetrate and they are subsequently eliminated by the immune system. Researchers discovered that a group of children immune to malaria had an antibody that prevented malaria parasites from accessing the PfSEA-1 protein.

From this information we can draw option **C** as a conclusion. If it's true (and sentences 4 and 5 tell us this) that the antibody limits malaria parasites' access to a crucial protein, then the ability to reproduce the antibody in a form that could be given to patients promises a treatment against malaria.

We cannot draw option **A** as a conclusion because although Rhode Island University carried out the promising research, it doesn't follow that the institution is necessarily a world leader in medical research.

We cannot draw option **B** as a conclusion because the development of a new treatment for malaria does not mean doctors will automatically abandon existing therapies.

We cannot draw option **D** as a conclusion because the passage does not make any specific claims about what world leaders ought to support and fund. This option goes beyond the factual information in the passage without support.

We cannot draw option **E** as a conclusion because the passage does not provide further information about whether what was found in the blood cells of the immune Tanzanian children was unusual or not.

- 4 A builder has 32 kg of a mix of sand and cement, of which 25% is sand. For a new job, he needs 120 kg of a mix of sand and cement in which the ratio of sand to cement is 2 : 1. To obtain this, he starts with his initial 32 kg mix and adds more sand and cement.

What is the ratio of the masses of sand and cement that he needs to add?

- A 4 : 7
- B 3 : 4
- C 5 : 3
- D 9 : 2
- E 12 : 1

The builder has 32 kg of a mix made up of 8 kg of sand (25%) and therefore 24 kg of cement. He needs his final mix to be 120 kg, made up of 80 kg of sand and 40 kg of cement (2 : 1 ratio). This means that he needs to add 72 kg of sand and 16 kg of cement to his original mix. This is a ratio of 72 : 16, which, in simplest terms, is 9 : 2. The correct answer is option **D**.

- 5 I am planning to buy a new laptop. The following table shows the specifications and the prices of my shortlist.

<i>laptop</i>	<i>processor speed (GHz)</i>	<i>memory (GB)</i>	<i>storage (GB)</i>	<i>graphics card memory (GB)</i>	<i>screen size (inches)</i>	<i>price (£)</i>
<i>Racer</i>	2.7	4	500	2	15.6	600
<i>Ledd</i>	2.8	8	1000	4	17.3	850
<i>SNSV</i>	2.5	4	750	6	15.6	500
<i>Pear</i>	2.8	8	1000	4	13.3	1300
<i>Elovon</i>	3.0	16	1000	8	15.6	700

In terms of storage, the operating system and my files take up 300 GB. I would also like a laptop with a screen size of at least 15 inches. I am looking for the cheapest laptop that can run the following games (the minimum system requirements indicate the lowest possible value for each characteristic that would enable me to play these games):

MINIMUM SYSTEM REQUIREMENTS OF GAMES				
<i>game</i>	<i>processor speed (GHz)</i>	<i>memory (GB)</i>	<i>storage (GB)</i>	<i>graphics card memory (GB)</i>
<i>OTAD</i>	2.7	6	70	4
<i>Kickman</i>	2.5	4	80	4
<i>Earthcraft</i>	2.2	4	50	2
<i>Near Scream</i>	2.6	8	100	4

Which laptop should I buy?

- A Racer
- B Ledd
- C SNSV
- D Pear
- E Elovon

The most efficient approach to this question is to eliminate the laptops that don't satisfy the essential requirements and then select the cheapest of those you have not eliminated.

Racer does not have enough memory or graphics card memory to run all of the games.
SNSV has a processor speed that is too low to run all of the games as well as not enough memory.
Pear has a screen size that is too small.
Elovon is the cheaper of the other two laptops.

The correct answer is option **E**.

- 6 A combination lock has three dials, each dial has eight letters. It is known that the following combinations have been used - one, who, two, bob, add, owl, fab, den, mia and tat.

Which one of the following words is not possible to use on this combination lock?

- A win
- B deb
- C hat
- D men
- E bad

From the combinations that have been used, you can establish that the first dial contains the eight letters o, w, t, b, a, f, d, and m. There is no h, so it cannot be possible to use 'hat' as a combination.

It is not necessary to consider the second and third dials, though it can be confirmed from the combinations used that the other four words are possible. The correct answer is option **C**.

- 7 Sometimes we are mistreated by others, and forgiveness is one kind of response to those who wrong us. However, sometimes we do things that appear to be morally wrong but, in fact, are not. If we are reproached, we can give an explanation for our action that justifies it. In these cases, we are claiming that, despite appearances to the contrary, what we did was morally permissible. Forgiveness and justification ought to be distinguished. When conduct is justified, the implication is that it was not morally wrong, but when conduct is forgiven, there is no such implication. What we are forgiven for is the morally wrong things we do.

Which one of the following best expresses the main conclusion of the above argument?

- A Sometimes we do things that appear to be morally wrong but, in fact, are not.
- B Forgiveness and justification ought to be distinguished.
- C What we are forgiven for is the morally wrong things we do.
- D Forgiveness is one kind of response to those who wrong us.
- E When conduct is justified, the implication is that it was not morally wrong.

The main conclusion of the argument is that forgiveness should be distinguished from justification.

The reasoning that supports this conclusion is:

- 1 Forgiveness and justification are responses to actions.
- 2 Forgiveness implies that an action was wrong.
- 3 If an action is justified then it is not wrong.
- 4 Sometimes a justified action appears to be wrong.

Option **B** states the main conclusion.

Option **A** expresses reason 4.

Option **C** expresses reason 2.

Option **D** expresses part of reason 1.

Option **E** expresses reason 3.

- 8 Every week I buy 12 cans of lemonade. The shop that I always buy them from sells individual cans for 80p each and packs of 4 cans for £2.60, so I buy three packs of cans.

Last week the shop had a special offer, as follows:

Individual cans – buy one, get another half price

Pack of 4 cans – buy one pack, get a 5th can free

I didn't want more than 12 cans, and I managed to get 12 cans for the lowest possible total price.

How much less than usual did I pay for my 12 cans last week?

- A 20p
- B 60p
- C 80p
- D £1.00
- E £1.40

I usually pay $3 \times £2.60 = £7.80$ for my 12 cans.

I bought exactly 12 cans last week, so it seems likely that I bought two packs of 4 +1 and 1 can + another half price. The cost of this = $(2 \times £2.60) + 80p + 40p = £6.40$, which is £1.40 less than usual. The correct answer is option **E**.

Another possibility would be 6 individual cans + another 6 half price, but this would cost $6 \times £1.20 = £7.20$, which is only 60p less than usual.

- 9 Despite the government's promise to be more business friendly, plans have been announced to change the law regarding the paid leave that couples are entitled to take following the birth of a child. This will allow new parents to take more time off work than under the current regulations. It is claimed that the current legislation makes it difficult for those with family commitments to manage all of their responsibilities, but it needs to be recognised that businesses (and in particular small businesses) need to operate in a way that guarantees that staff are available to do the jobs that need doing. The new proposals are undoubtedly going to make the system more complicated and could dissuade businesses from employing certain groups of people. They should be opposed.

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

- A The example given is only one of a range of measures being proposed.
- B Many businesses now allow their employees to choose to work from home.
- C The proposals from the government provide support for businesses to help with the cost of covering the work of staff taking leave.
- D The problems associated with covering the work of absent members of staff become increasingly difficult the longer the absence goes on.
- E The proposals will increase the amount of leave that employees are allowed to take in other circumstances as well as following the birth of a child.

The main conclusion of the argument is that new proposals to increase the entitlement to paid leave following the birth of a child should be opposed. The basis for this conclusion is that certainty around staffing is necessary for businesses to operate. Since the proposal would extend leave for new parents, the author draws the intermediate conclusion that the change would make staffing more complicated and might lead to discriminatory recruitment practices.

Option **C** weakens the inference to the intermediate conclusion: if the proposal includes support from government to help with covering leave, the negative effects on businesses are not inevitable.

Option **A** does not weaken the argument because it is focused on the effect of extending parental leave and not on any of the other measures being proposed.

Option **B** does not weaken the argument because the issue is not where employees are working, but whether businesses have staff available to do the work at all.

Option **D** has the potential to strengthen the argument: if the negative effect of leave increases with its duration, the proposed extension of parental leave may be more problematic than the existing arrangements.

Option **E** provides a further reason to reject the plans. The threat to business certainty may be greater if employees are entitled to take leave in a broader range of circumstances than at present.

- 10** Campaigners have long been calling for a change in the law to force social media companies to take racist, sexist, terrorist, or obscene material posted on their platforms more seriously. They want the government to bind Facebook, Google, etc. to the same strict rules that apply to newspapers and magazines. But that would be wrong. The proprietors of newspapers and magazines are classified as ‘publishers’, and all publishers are responsible for the content that is printed or displayed on their pages, whoever has contributed it. But the operators of social media platforms are not publishers in the proper sense of the word, and therefore they are not accountable for what individuals post on their platforms.

Which one of the following best expresses the flaw in the above argument?

- A** The fact that social media operators are not classified as publishers does not mean they cannot have some of the same responsibilities.
- B** The fact that the government wants to bind the media giants to strict rules is not a reason to conclude that they will be successful.
- C** The fact that communication platforms have not been subject to the same standards as publishers in the past does not mean that they will continue to be so in the future.
- D** The fact that newspaper and magazine proprietors are classified as publishers does not make it right to hold them responsible for what their contributors write.
- E** The fact that Facebook and Google do not take their responsibility seriously does not necessarily apply to all social media providers.

The main conclusion of the argument is that it would be wrong to apply the same rules to social media platforms that are applied to magazine and newspaper publishers. The basis for this conclusion is that owners of newspapers and magazines are classified as publishers who are responsible for what they print. But since social media companies are not classified as publishers, they are not accountable for what people post on their site.

But just because publishers have a set of responsibilities, it does not follow that only publishers have such responsibilities. Option **A** expresses this erroneous step in the argument.

Option **B** misses the point of the argument, which is about whether social media companies are responsible for their content and not about whether they can be successfully held to account.

Option **C** does not identify a flaw because the argument does not involve an inference from how things have been to how they will be in the future.

Option **D** does not identify a flaw and merely questions the legitimacy of holding newspaper owners responsible for what they print.

Option **E** does not identify a flaw because the campaign is based on offensive material having been published at all, which does not involve a generalisation from particular cases to widespread occurrence.