

INTERNATIONAL BACCALAUREATE (IB) DIPLOMA PROGRAMME (DP) SAMPLE ADMISSIONS EXAMINATION PAPER GENERAL KNOWLEDGE /CRITICAL THINKING SKILLS

IMPORTANT NOTICE

The sample questions below are designed to illustrate the **types and styles of questions** candidates may encounter in the admissions examination. They can use them to familiarize themselves with the format and overall experience of taking the exam.

Please note that these sample questions **do not fully represent the number of questions, range of content, or level of difficulty** of the actual examination.

Questions in the admissions examination may vary in **wording, length, and difficulty**. They will assess skills and knowledge across the following areas:

- **General Knowledge**
- **Critical Reasoning**
- **Logic and Problem Solving**

The examination has been designed so that all questions can be completed within the allotted time.

Following the sample questions, you will find an **answer key** and **exam guidelines** to help you prepare effectively for the admissions examination.

GENERAL KNOWLEDGE

General knowledge is defined as knowledge about a wide range of subjects rather than detailed knowledge of a particular subject. Therefore, you do not need to study anything in particular for this part of the examination but just use your background knowledge and reasoning skills.

GENERAL KNOWLEDGE SAMPLE QUESTIONS

1. Who is known as the father of epic poetry?
 - a. Plato
 - b. Homer
 - c. Herodotus
 - d. Socrates
2. The Scottish bacteriologist who discovered penicillin was:
 - a. Alexander Fleming
 - b. Isaac Newton
 - c. Aryabhatta
 - d. Archimedes
3. When were the first Olympic games of the Modern World held?
 - a. 1821
 - b. 1896
 - c. 1900
 - d. 2004
4. Which word is the odd one out (different from the others)?
 - a. Euro
 - b. Dollar
 - c. Yen
 - d. Kilogram
5. You want to make green paint. Which colors do you mix together?
 - a. Red and Yellow
 - b. Blue and Yellow
 - c. Orange and Purple
 - d. None of the above
6. The Headquarters of the United Nations is located in
 - a. New York City, United States of America
 - b. Tokyo, Japan
 - c. Geneva, Switzerland
 - d. Vienna, Austria
7. Tourism development has both positive and negative effects on
 - a. the environment
 - b. the society
 - c. the economy
 - d. all the above

CRITICAL THINKING SKILLS

This part of the exam includes questions that evaluate your thinking, reasoning and analytical skills, and test your ability to separate relevant from irrelevant information, draw conclusions based on valid arguments and evidence and follow logical steps to solve problems.

CRITICAL REASONING SAMPLE QUESTIONS

INSTRUCTIONS: Read the questions below and choose ONE option that applies.

TRUE = Conclusion logically follows

FALSE= Conclusion does NOT logically follow

Question #1

The British National Library has the largest collection of publicly owned books in the United Kingdom. Therefore,

Conclusion i.: The British National Library is in the United Kingdom.

- a. TRUE b. FALSE

Conclusion ii.: There might be a larger collection of books in the United Kingdom

- a. TRUE b. FALSE

Conclusion iii.: There might be a larger collection of publicly owned books in the United Kingdom.

- a. TRUE b. FALSE

Question #2

Michael is a dentist and he treats an average of ten patients a day. He is the most popular dentist in the city of Greenfield, perhaps because he is the dentist who has been around the longest. Last week he had 10 cancellations and was unable to fill up the schedule completely, but he doesn't mind the extra spare time. Next year he will retire and leave the practice to his son, who currently works in another city.

Conclusion: Some days Michael receives less than ten patients.

- a. TRUE b. FALSE

Question #3

On weekends, Mr. Sanchez spends many hours working in his vegetable and flower gardens. Mrs. Sanchez spends her free time reading and listening to classical music. Both Mr. Sanchez and Mrs. Sanchez like to cook.

Which ONE of the following statements must be true according to the given information?

- Mr. Sanchez enjoys planting and growing vegetables.
- Mr. Sanchez does not like classical music.
- Mrs. Sanchez cooks the vegetables that Mr. Sanchez grows.
- Mrs. Sanchez enjoys reading nineteenth century novels.

Question #4

Every motorist pays the same amount for road taxes, regardless of how much they use the roads: someone who covers as little as 1,000 kilometers pays the same as someone who covers 20,000 kilometers. This is unfair. Road taxes should be ruled out altogether and the money should be raised by an increase in the tax on car fuel. Making this change would ensure that those who use the roads more would pay more. This would not only be a fairer system but could also bring in more money.

Which ONE of the following statements best illustrates the SAME main idea behind the above argument?

- a. People should receive free medical treatment only if they cannot afford to pay for it.
- b. People who travel to work every day by train should pay a lower fare than those who travel only occasionally.
- c. Telephone charges should be higher for business customers than for the rest of the customers because they are using the system only to make money.
- d. Television channels should be paid by subscription so that only those people who watch them should have to pay.

Question #5

Vegetarian food can be healthier than a traditional diet. Research has shown that vegetarians are less likely to suffer from heart disease and obesity (being overweight) than meat eaters. Concern has been expressed that vegetarians do not get enough protein in their diet, but it has been demonstrated that, by selecting foods carefully, vegetarians are able to meet their needs in this respect.

Which ONE of the following statements best expresses the MAIN conclusion of the above argument?

- a. A vegetarian diet can be better for health than a traditional diet.
- b. Adequate protein is available from a vegetarian diet.
- c. A traditional diet is very high in protein.
- d. A balanced diet is more important for health than any particular food.

LOGIC and PROBLEM-SOLVING SAMPLE QUESTIONS

For the problem-solving questions, you will need to perform some simple mathematical operations in everyday contexts, and you should be able to extract information from tables and graphs.

Question #1

Use the clues to find the missing values.

a $\frac{1}{4}$	a+c $\frac{7}{12}$	a+d
b	b+c $\frac{5}{6}$	b+d $1\frac{1}{6}$
	c	d

b = _____ c

= _____ d

= _____

a + d = _____

Question #2

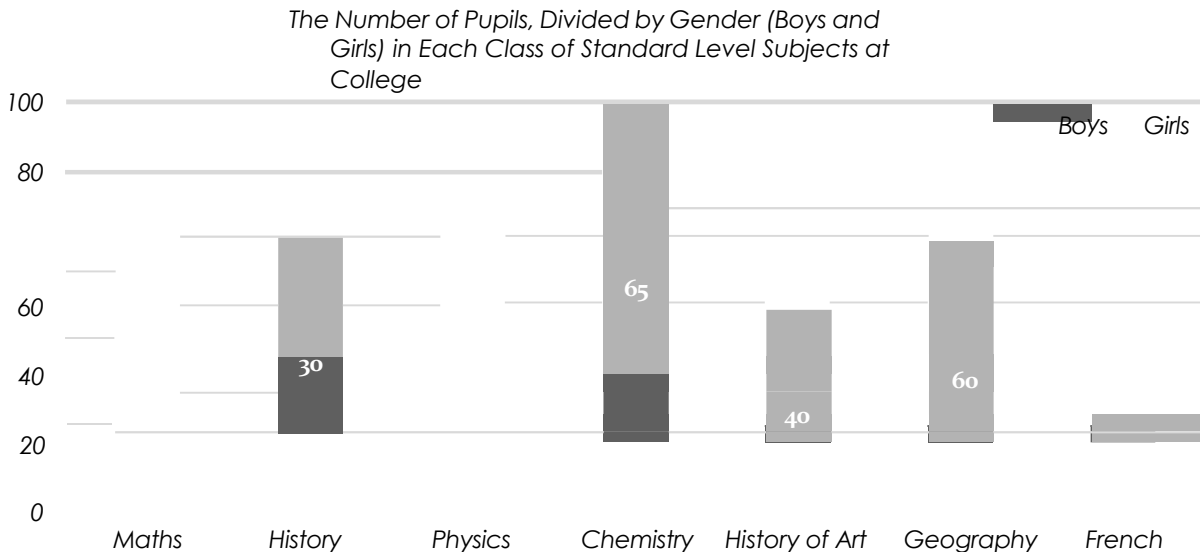
Look at this series: F2, _____, D8, C16, B32.

Which option should fill in the blank?

- a. A16 b. G4 c. E4 d. E

Question #3

The following graph shows the number of pupils, divided by gender (boys and girls), each class for Standard level subjects at a college.



- i. How many more boys study Chemistry than girls study Maths?
a. 23 b. 25 c. 30 d. 35
- ii. What percentage of History of Arts students are girls?
a. 50% b. 60% c. 70% d. 80%
- iii. Half of Economics students are boys, and there are 10 more girls studying Economics than French. What is the total number of Economics students?
a. 50 b. 70 c. 90 d. 110

Question #4

One hour after Maria started walking from X to Y, a distance of 45 kilometers (km), John started walking along the same road from Y to X. If Maria's walking rate were 3 km per hour and John's was 4 km per hour, how many kilometers had John walked when they met?

- a. 24 b. 23 c. 22 d. 21

Question #5



There are seven (7) buckets containing one or more apples. In total, in all the buckets, there are 140 apples. Suppose that in the row of buckets, each successive bucket contained two more apples than the previous one. The bucket with the largest number of apples in it would contain

- a. 23 apples b. 26 apples c. 27 apples d. 34 apples

Question #6

In the grid below, different LETTERS (Q, L, Z, K) represent different WHOLE NUMBERS LESS THAN 20 (<20). The numbers to the RIGHT and BELOW the grid are ROW and COLUMN TOTALS. For example, $Q + L + Z + Z = 46$.

Q	L	Z	Z	46
K	K	K	K	28
K	K	Q	Q	32
K 30	Z 38	L X	Q Y	40

i. The value of **Q** is:

- a. 7 b. 9 c. 11 d. 13

iv. The value of **X** is:

- a. 40 b. 42 c. 44 d. 46

v. The value of **Y** is:

- a. 36 b. 38 c. 40 d. 46

Question #7

The table below shows the consumer price inflation and unemployment rate for 5 countries:

<i>Consumer price inflation rate %</i>	<i>March</i>	<i>February</i>
United States	+0.4	+0.3
Japan	+0.2	+0.5
Germany	+0.1	+0.1
France	+0.3	0.0
UK	+0.2	+0.5
<i>Unemployment rate %</i>	<i>March</i>	<i>February</i>
United States	5.9	6.1
Japan	3.0	3.0
Germany	9.2	9.3
France	12.6	12.6
UK	9.1	9.2

A newspaper comparing March to February reported that: 'Unemployment has fallen but there has been a rise in the inflation rate'.

Which ONE country is the statement referring to?

- a. France b. United Kingdom c. Germany d. United States

Question #8

Logic Puzzle

Six athletes - Vince, Alicia, Doug, Shelly, Marcus, and Patricia - were testing their max bench press in a fitness test. Use the clues below to determine each athlete's power in the bench press.

Weight lifted: 810 N, 640 N, 710 N, 760 N, 690 N, 675 N

Distance arms extended: 0.8 m, 1.0 m, 0.7 m, 0.9 m, 1.1 m, 1.2 m

Time to extend arms fully: 0.35 s, 0.40 s, 0.50 s, 0.25 s, 0.27 s, 0.45 s

- Shelly did 710 J of work.
- Vince lifted more weight than Patricia.
- Shelly had 100 watts less power than Alicia.
- Patricia's arm extension was greater than both Alicia's and Doug's.
- Doug's arm extension was longer than Alicia's but less than Shelly's.
- Vince lifted more weight than Alicia but took 0.05 seconds longer to do so.
- Doug lifted less weight than Shelly but completed his lift 0.05 s faster than Shelly.
- Marcus took more time than Patricia to complete his lift.
- Doug did less work than both Patricia and Shelly.
- Vince's arm extension was 0.2 m greater than Patricia's, but less than Marcus'.
- Patricia lifted 50 N less than Doug and 35 N less than Marcus.
- Alicia lifted more weight than both Shelly and Marcus.
- Vince completed his lift 0.1 seconds faster than Shelly.
- Marcus did 100 J more work than Shelly even though he lifted 35 N less.

	weight (force)							distance							time					
Vince																				
Alicia																				
Doug																				
Shelly																				
Marcus																				
Patricia																				

Power:

Vince:

Shelly:

Alicia:

Marcus:

Doug:

Patricia:

ANSWER KEY

GENERAL KNOWLEDGE SAMPLE QUESTIONS

Question #1: **b (Homer)**

Question #2: **a (Alexander Fleming)**

Question #3: **b (1896)** Question

#4: **d (Kilogram)** Question #5: **b (Blue and Yellow)**

Question #6: **a (New York City, United States of America)**

Question #7: **d (All the above)**

CRITICAL THINKING SAMPLE QUESTIONS

Question #1: Conclusion i: **a (TRUE)**

Conclusion ii: **a (TRUE)**

Conclusion iii: **b (FALSE)** Question #2:

a (TRUE)

Question #3: **a (Mr. Sanchez enjoys planting and growing vegetables)**

Question #4: **d (Television channels should be paid by subscription so that only those people who watch them should have to pay.)**

Question #5: **a (A vegetarian diet can be better for health than a traditional diet)**

Explanation: This argument seems to be trying to persuade us that vegetarian food can be healthier than a traditional diet, so we should underline the first sentence. Then we need to see whether the rest of the passage gives us reason to believe this.

Two reasons are given:

1. Vegetarians are less likely to suffer from heart disease and obesity than meat eaters.
2. A vegetarian diet can contain sufficient protein.

We may not know whether these reasons are true, but if they were true, they would indicate that vegetarian food is healthier in one respect than a traditional diet which includes meat, and that a vegetarian diet does not necessarily have the disadvantage to health (providing insufficient protein) which we may have thought.

So, the first sentence of the passage seems to be offered as a conclusion.

A is the statement which best expresses this conclusion.

B is not the main conclusion, but it is one of the reasons for the main conclusion.

C is not the main conclusion, because it is not even stated in the passage. It is taken for granted that a traditional diet provides enough protein, but even this is not explicitly stated.

D is not the main conclusion, as it is not stated in the passage. No attempt is made to define a balanced diet. The passage simply makes a comparison between a traditional diet and a vegetarian di

Useful Tips for Preparing for These Types of Questions

An important first step is to **read the passage carefully and identify its main conclusion**. Remember that the conclusion can appear anywhere in an argument—it is not necessarily found at the end. The conclusion is the statement that the rest of the passage is intended to support.

To help identify the conclusion, ask yourself:

- “What is the main message that this passage is trying to persuade me to accept?”
- Once you think you have identified the conclusion, check whether the rest of the passage provides reasons or evidence that support it.
- Be aware that an argument may contain an **intermediate conclusion**. This is a statement that follows from some of the reasons given but also serves as a step in the reasoning towards the main conclusion.
- Focus on the **structure of the reasoning**, rather than on whether you personally agree with the statements or believe that the reasons are factually true.

A useful question to ask yourself is:

“If these reasons were true, would they give me a good reason to accept the conclusion I have identified?”

This approach will help you distinguish between the **reasons (premises)** provided in an argument and the **conclusion** those reasons are intended to support.

LOGIC AND PROBLEM SOLVING SAMPLE QUESTIONS

Question #1: $b = \frac{1}{2}$ $c = \frac{1}{3}$ $d = \frac{2}{3}$ $a + d = \frac{11}{12}$

Question #2: **c (E4)**

Question #3: i. = **b (25)** ii. = **d (80%)** iii. = **a (50)**

Question #4: **a (24)**

Question #5: **b (26 apples)**

Question #6: i. = **b (9)** ii. = **a (40)** iii. = **b (38)**

Question #7: **d (United States)**

Question #8: **Tip:** although there are many “right” ways to go about solving a critical thinking puzzle, the most common one is by using the process of elimination.

	force	distance	time	power
Vince	810 N	1.1 m	0.40 s	2227.5 watts
Alicia	760 N	0.7 m	0.35 s	1520 watts
Doug	690 N	0.8 m	0.45 s	1226.7 watts
Shelly	710 N	1.0 m	0.50 s	1420 watts
Marcus	675 N	1.2 m	0.27	3000 watts
Patricia	640 N	0.9 m	0.25 s	2304 watts

GENERAL TIPS HOW TO PREPARE FOR THE EXAM

Before You Begin

1. **Preview the exam before you start answering.**
Take a few moments to familiarize yourself with the questions and sections. This will help you understand what to expect and plan how to use your time effectively.
2. **Plan your time.**
Consider the number of questions or points allocated to each section and decide approximately how much time you should spend on each. Avoid spending too much time on a question that carries relatively few points.

Taking the Exam

1. **Read all instructions carefully.**
Make sure you understand what is required before answering each question or section.
2. **Start with questions you find easier.**
Answering these first can help you build confidence and momentum for the more challenging questions.
3. **Manage your time carefully.**
Avoid spending too much time on a single question at the expense of completing the rest of the exam.
4. **Identify key words in difficult questions.**
Pay particular attention to words or phrases that indicate the main idea or central point of the question.
5. **Rephrase difficult questions.**
If a question seems unclear, try expressing it in your own words. This may make it easier to understand, but take care not to change its original meaning.
6. **Answer every question.**
There is no penalty for incorrect answers, so make sure you attempt all questions.
7. **Use the full time available.**
If you finish early, review your answers carefully. For questions you are unsure about, try solving them again without looking at your original answer and then compare your results.

Multiple-Choice Questions

1. **Think of the answer before reviewing the options.**
Where possible, try to determine the answer independently before looking at the choices. This can help prevent plausible but incorrect options from influencing your reasoning.
2. **Read all options carefully.**
Do not select the first answer that appears correct without considering the remaining choices.
3. **Eliminate clearly incorrect answers.**
Use the process of elimination to narrow down your options before making your final selection.
4. **Work through the questions systematically.**
Answer the questions in order where possible. Mark any answers you are uncertain about and return to them after completing the remaining questions, if time permits.
5. **Do not spend too long on one question.**
If you are unsure, make your best choice and move on. You can return to the question later if you have sufficient time.

6. **Pay close attention to negative wording.**

Carefully reread questions containing words such as “**not**,” “**except**,” or “**least**.” Be particularly alert to double negatives, which can easily change the meaning of a statement.

7. **Look for qualifying words.**

Words such as “**all**,” “**most**,” “**some**,” “**none**,” “**always**,” “**usually**,” “**seldom**,” “**never**,” “**best**,” “**worst**,” “**smallest**,” and “**largest**” can significantly affect the meaning of a question. Consider each qualifier carefully before selecting your answer.

8. **Watch for modifying or limiting details.**

Names, dates, places, quantities, and other specific details can determine whether an otherwise plausible statement is accurate.

True or False Questions

1. **Evaluate the entire statement.**

A True or False question presents a statement that you must determine to be either true or false. For a statement to be marked **True**, the entire statement must be correct.

2. **Pay attention to key words.**

Small words and qualifiers can change the meaning of an otherwise correct statement and may determine whether it is true or false.

3. **Check every part of the statement.**

If any essential part of the statement is incorrect, the statement as a whole should be considered **False**.

4. **Change an answer only when you have a clear reason.**

When reviewing your responses, avoid changing an answer simply because you are uncertain. Make a change when you identify a specific reason why your original response was incorrect.

5. **Make an informed guess when necessary.**

If you do not know the answer, use the process of elimination and your critical-reasoning skills to make the best possible choice. Since incorrect answers are not penalized, be sure to answer every question.