

## INSTRUCTIONS

You are advised to read these instructions *very carefully*. They are essential for the correct performance of the test. The time given includes the time for reading the instructions and performing the test.

The test is made up of multiple choice questions of various kinds; for each question there are five possible answers, of which you must choose *one only* which you consider to be correct.

This booklet contains the questions. You must mark your answers on the *answer sheet* which was given to you with the booklet.

Mark your answers by blacking out (■) the corresponding box on the *answer sheet*. Warning: *you must not mark the answers on this booklet*, but on the *answer sheet* provided.

On the *answer sheet*, you must only black out (■) the boxes corresponding to your chosen answers; do not make any other marks on the sheet.

To make sure that you compile the *answer sheet* correctly, carefully read the instructions on the sheet itself.

Always check that the number of the question in the booklet corresponds to that where you insert your answer on the *answer sheet*.

Below is a series of examples of the type of questions you will find in the booklet, with explanations of how to reply.

Read these explanations carefully. The test proper starts on page 7.

## EXAMPLES

In the example below five words are given: four of these have some aspect in common. You have to identify which of the five words is the odd one out.

Study the example below:

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A. Which word is the odd one out?

1) Genoa

2) Turin

3) Vienna

4) Milan

5) Venice

---

The words at numbers 1, 2, 4 and 5 are all Italian cities, while number 3 is an Austrian city. Therefore number 3 is the odd one out. To give the correct answer you must **black out box no. 3** on the *answer sheet*.

The example below contains a phrase which expresses an analogy or a relation; the first and last words have been removed. You have to find the two missing words in such a way that the relation between the first two is the same as that between the other two.

The missing words must be selected from the eight words marked with the letters A, B, C, D, E, F, G and H.

Study the example below:

---

B. .... is to WATER as EAT is to .....

A. Drink

B. Thirst

C. Bread

D. Biscuit

E. Flour

F. Restaurant

G. Liquid

H. Mill

GB 1

AC 2

EF 3

DH 4

AF 5

---

For the relation between the first two words to be the same as that between the other two, the complete phrase should read: DRINK is to WATER as EAT is to BREAD. The two missing words are marked by the combination of letters in the second answer option (AC); therefore no. 2 is the correct answer. To give the correct answer you must **black out box no. 2** on the *answer sheet*.

Read the passage below carefully:

Franz Joseph was crowned Emperor of Austria following the Austrian crisis of 1848, on the abdication of his uncle Ferdinand I and the renunciation of his father, the Archduke Franz Karl.

Now study example C and, bearing the passage in mind, decide which of the statements is correct:

C. Franz Joseph was crowned Emperor of Austria following:

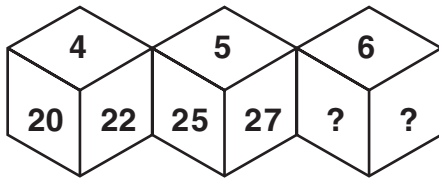
- |  |   |
|--|---|
| the death of the Archduke Franz Karl       | 1 |
| the renunciation of his uncle Ferdinand II | 2 |
| the abdication of his mother               | 3 |
| the Austrian crisis of 1848                | 4 |
| the death of his mother                    | 5 |

The correct answer is number 4. To give the correct answer you must **black out box no. 4** on the *answer sheet*.

The example below features a sequence of numbers in which two are missing: from the five options given you have to select the numbers to replace the question marks so as to complete the sequence correctly.

Study the example below:

D. Which numbers complete the sequence?



- |       |   |
|-------|---|
| 30-32 | 1 |
| 15-17 | 2 |
| 30-28 | 3 |
| 50-52 | 4 |
| 35-40 | 5 |

It's immediately clear that in the sequence of numbers at the top the rule is +1 (4 + 1 = 5 + 1 = 6) and that in the sequence of numbers below the difference between the pairs is an increase of two (20 + 2 = 22; 25 + 2 = 27). To identify the missing numbers, therefore, we know that they must have a difference of two, and that the second is greater than the first. If we now consider the rule connecting the two sequences, we see that the number at the lower left of each cube is the result of the multiplication of the number at the top of the cube by 5 (4 x 5 = 20; 5 x 5 = 25). The correct pair will therefore be the result of the multiplication of the number at the top of the third cube by 5 (6 x 5 = 30) and this number plus two (30 + 2 = 32). The correct answer is therefore number 1. To give the correct answer you must **black out box no. 1** on the *answer sheet*.

In the example below there are symbols and numbers; you have to find which number corresponds to a specific symbol.

Study the following data:

E. If:

$$\begin{aligned} \blacklozenge + \blacktriangledown &= \bullet \\ \bullet + \blacktriangledown &= * \\ \blacklozenge + \blacktriangledown + \blacktriangledown &= 13 \end{aligned}$$

then \* is equal to:

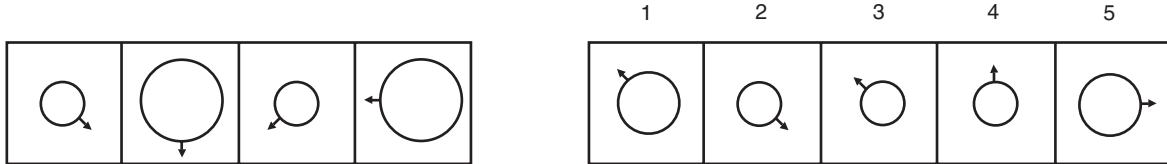
- |    |   |
|----|---|
| 9  | 1 |
| 13 | 2 |
| 15 | 3 |
| 7  | 4 |
| 8  | 5 |

\* is equal to 13, since if we transfer to the second row the components of the result of the first row, we get exactly the data given in the third row. The correct answer is therefore number 2. To give the correct answer you must **black out box no. 2** on the *answer sheet*.

The example below shows, on the left, a sequence of four figures. From the options given on the right you have to choose the fifth figure which continues the sequence.

Study the example below:

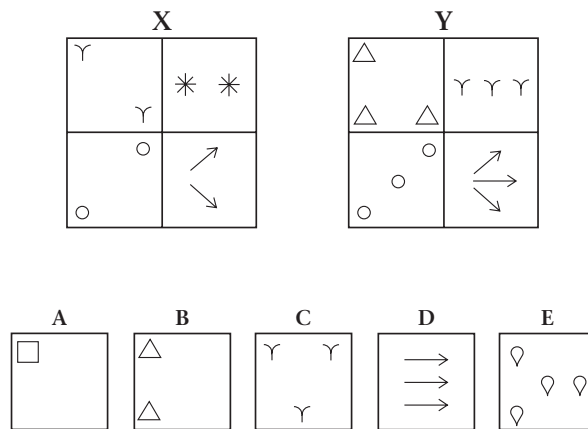
F. Which figure continues the sequence?



The reply option which continues the sequence is number 3, since the sequence features alternate small and large circles, and arrows which shift 90° clockwise each time. To give the correct answer you must **black out box no. 3** on the *answer sheet*.

Example G shows two sets of four figures marked by the letters X and Y and five figures marked A, B, C, D and E. The figures of set X all share a characteristic which is different from the characteristic shared by the figures of set Y. To answer the question, you have to understand what the difference is and identify to which set each of the five figures belongs, if any.

Study the example below:



G. On the basis of the above figures which of these statements is true?

- A belongs to set X 

1
---
- C belongs to set Y 

2
---
- A and B belong to the same set 

3
---
- B belongs to set Y 

4
---
- None of the above statements is true 

5
---

In this example, the difference between the two sets is the number of elements in each figure. Set X is made up of figures containing **two** elements, while the figures of set Y all contain **three** elements. Figures A and E therefore do not belong to either set since they have one element and four elements respectively; figure B belongs to set X because it has two elements; figures C and D belong to set Y because they have three elements each. The only true statement among the five options is number 2. To give the correct answer you must **black out box no. 2** on the *answer sheet*.

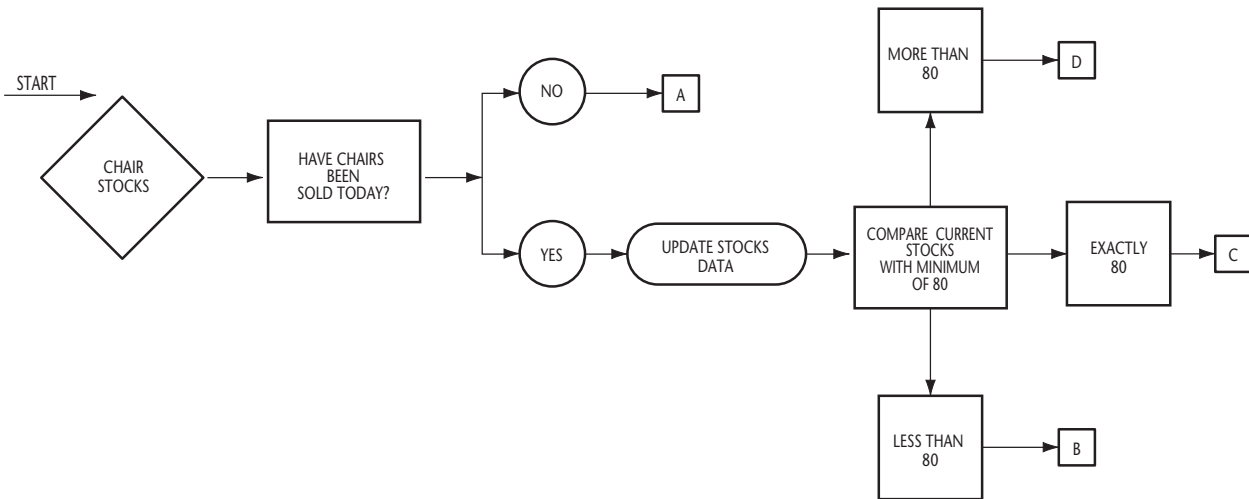
Read the problem below carefully, then observe the flow chart beneath.

**Problem**

A shopkeeper wants to have a sufficient number of chairs to always be in a position to satisfy customers' demands. He has fixed the minimum number of spare chairs at 80. If he has more than 80 chairs in the warehouse, he makes no order. When he has exactly 80 he sends a normal order to the supplier. When he has less than 80 chairs in the warehouse he sends an urgent order. At the end of each day, on the basis of sales made, the shopkeeper decides whether to order the chairs or not.

The question is: **what does the shopkeeper have to do in each of the lettered boxes in the figure below?**

Look carefully at the flow chart below. Follow the direction of the arrows beginning with START. The chart illustrates the necessary sequence for resolving the problem.



H. Which action corresponds to box "A":

- |                      |   |
|----------------------|---|
| no action required   | 1 |
| update stocks data   | 2 |
| send a normal order  | 3 |
| send an urgent order | 4 |
| buy 80 chairs        | 5 |

The action corresponding to box "A" is option number 1. Effectively, tracing the route from the start to box "A", we come to the question "Have chairs been sold today?" to which the answer is "No". If no chairs have been sold, the stocks have remained the same and so there is no need to order the chairs. To give the correct answer you must **black out box no. 1** on the *answer sheet*.

In example I you find five **Original** sequences on the left and five **Copies** on the right. You have to identify which copy or copies are **not** identical to the originals.

Study the following sequences carefully:

I. Which copy or copies are not identical to the originals?

ORIGINAL		COPY
qzbafjnioacirceijyy	_____ A _____	qzbafjnioacirceijyy
cdefgiouuuimqsyankgi	_____ B _____	cdefgiouuuimqsyhknki
rtsqlaqueapuiuelusgo	_____ C _____	rtsqlaqueapsiuelusgo
ahmpzjyioankuuliesay	_____ D _____	ahmpzjyioankuuliesay
mcuvryalduhgyrofeozn	_____ E _____	mcuvryalduhgyrofeozn

EBC	1
A	2
EAC	3
CB	4
CDE	5

By looking carefully at the sequences we can see that the Copies which are not identical to the Originals are those of letter **B** (where about mid-sequence the ...mqsy**an**... of the Original becomes ...mqsy**hn**... in the Copy) and **C** (where in the Original we have ...**queapui**... and in the Copy ...**queapsi**...). The reply option featuring these two letters is number **4**, which is therefore the correct answer. To give the correct answer you must **black out box no. 4** on the *answer sheet*.

In the last example carefully read the question and choose what you consider to be the correct answer from the options provided.

Read the question carefully:

J. Where does the Gulf Stream originate?

- 1) In the Gulf of St. Lawrence
- 2) In the Gulf of California
- 3) In the Gulf of Mexico
- 4) In Hudson Bay
- 5) In the Indian Ocean

The correct answer is number **3**, that is the Gulf of Mexico. To give the correct answer you must **black out box no. 3** on the *answer sheet*. Questions on general culture of this kind may call on a knowledge of the English language or of mathematics, history, geography, science and current affairs.

In the booklet you will find questions similar to the examples illustrated above. Read each question carefully, and mark your answer on the *answer sheet*. If a question seems too difficult, pass on to the next, but try to answer questions of all types, preferably in the order in which they appear. Do not ask for further information, which cannot be provided.

**REMEMBER:**

- do not mark the answers on this booklet
- mark your answers on the *answer sheet* by blacking out (■) the box corresponding to the chosen answer
- any other marks made will invalidate the test
- reply to questions of all types.

Begin now and good luck!

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**TEST STARTS HERE**

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1. If the ratio between two numbers is  $\frac{3}{7}$  and the lesser of the two is 21, what is the other number?

- 1)  $21 \times 7$
- 2)  $(21 : 7) \times 3$
- 3)  $(21 : 3) \times 7$
- 4)  $21 \times 3$
- 5) The data are insufficient to give a precise answer

---

2. Which of the following equations is equivalent in  $\mathbf{R}$  to the equation  $\frac{x^2}{2} - x - \frac{3}{2} = 0$ ?

- 1)  $\frac{x^2 - 2x - 3}{x + 1} = 0$
- 2)  $10(x^2 - 2x - 3) = 0$
- 3)  $x\left(x - 3 + \frac{1}{x}\right) = 0$
- 4)  $\frac{1}{x}(x^2 - 2x - 3) = 0$
- 5)  $x^2 - x - 3 = 0$

---

3. What is the Gulf of Aden?

- 1) The portion of the Arabian sea that separates the Arabian peninsula from Somalia
- 2) The sea inlet separating the Arabian peninsula from Iran
- 3) The part of the Red Sea that separates the Arabian peninsula from that of Sinai
- 4) The inlet of the Red Sea separating Egypt from the Sinai peninsula
- 5) The sea inlet separating Oman from Iran

---

4. Which word is the odd one out?

- 1) Dolphin      2) Cod      3) Seal      4) Shark      5) Swordfish

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5. There are 10 grains of sand in  $1 \text{ mm}^3$ . If the beach is 50 m wide and 2 km long and has a depth of 100 cm, what is the order of magnitude of the number of grains of sand?

- 1)  $10^9$
  - 2)  $10^{13}$
  - 3)  $10^{15}$
  - 4)  $10^{18}$
  - 5)  $10^{21}$
-

6. Be quiet! She ...!

- 1) is thinking
- 2) think
- 3) thinks
- 4) have thought
- 5) is thought

7. The breakdown of the polynomial  $a^2 + ab$  into prime factors is:

- 1)  $a^2 \cdot (ab)$
- 2)  $a^2 (1 + b)$
- 3)  $a (a + b)$
- 4)  $ab (a + 1)$
- 5)  $a^3 + b$

8. What class do jellyfish and coral belong to?

- 1) Coelenterata
- 2) Mollusca
- 3) Ctenophora
- 4) Porifera
- 5) Gasteropoda

9. Which copy or copies are not identical to the originals?

ORIGINAL		COPY
âêùâìueàjèìoâêçìuçìà	_____ A _____	âêùâìueàjèìoâêçìuçìà
uëïââuââéjîleaéüêuia	_____ B _____	uëïèâuââéjîleaéüêuia
äïâêëaëêüââjêçïäïééà	_____ C _____	äïâêëaëêüââjêçïäïééà
êîèoaioèçâuââââujâââ	_____ D _____	êîèoaioèçâuââââujâââ
äëaèoujâìèâîéâéíééââ	_____ E _____	äëaèoujâìèâîéâéíééââ

- ABD 

1
---
- DA 

2
---
- EBD 

3
---
- DBC 

4
---
- AEC 

5
---

**Read the passage below, and use the information  
to answer questions no. 10 to 14.**

For Europe the period between 1850 and 1870 was a time of development and economic expansion. This was the period in which the free market was established, determining a considerable circulation of goods within the individual states and also between states. This led to the development of industrial capitalism, and we can even talk about a second industrial revolution, made possible above all by a radical renewal of technology. The decisive factors of this phase of expansion included: the population increase, the increase in the production and improved processing of metals, the transformation of industrial companies and the setting up of public limited companies (first regulated in England), the differentiation of banking institutes into commercial banks and investment banks, the transformation of transport (the age of the railways and of steam navigation were spoken of). Alongside these factors we could also mention the direct intervention of the government in manufacturing sectors and the discovery of new gold mines in California.

10. From the passage we can deduce that the social and economic transformations were determined:

- |  |   |
|--|---|
| <b>by the profound renewal of technology</b>         | 1 |
| <b>by the passage from monarchies to democracies</b> | 2 |
| <b>by new geographical discoveries</b>               | 3 |
| <b>by the end of the age of coal</b>                 | 4 |
| <b>none of the above statements is true</b>          | 5 |

11. From the passage it emerges that between 1850 and 1870:

- |   |   |
|---|---|
| <b>important new diamond deposits were discovered</b> | 1 |
| <b>racial segregation was abolished</b>               | 2 |
| <b>protectionism became established</b>               | 3 |
| <b>we could speak of the age of the railways</b>      | 4 |
| <b>none of the above statements is true</b>           | 5 |

12. The information contained in the passage enables us to assert without doubt that around the mid-nineteenth century:

- |  |   |
|--|---|
| <b>trade was hampered by customs barriers</b>                                    | 1 |
| <b>birth control contributed to determine important economic transformations</b> | 2 |
| <b>many Europeans went to seek gold in California</b>                            | 3 |
| <b>public companies were set up</b>  | 4 |
| <b>none of the above statements is true</b>                                      | 5 |

13. From what is written in the passage we can say that between 1850 and 1870:

- |   |   |
|---|---|
| <b>the population was stable</b>                  | 1 |
| <b>there was an increase in population</b>        | 2 |
| <b>in one year births were higher than deaths</b> | 3 |
| <b>there was a marked emigration</b>              | 4 |
| <b>none of the above statements is true</b>       | 5 |

14. From the passage it emerges that in Europe there were important innovations relating to:

- |  |   |
|--|---|
| <b>agricultural cultivation</b>            | 1 |
| <b>scholastic institutions</b>             | 2 |
| <b>banking systems</b>                     | 3 |
| <b>the production of electrical energy</b> | 4 |
| <b>population increase</b>                 | 5 |

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### Scoring keys

<b>question</b>	<b>answer</b>
1.	3
2.	2
3.	1
4.	3
5.	3
6.	1
7.	3
8.	1
9.	1
10.	1
11.	4
12.	5
13.	2
14.	3

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